



STANDARD 2.1.

GUIDELINES FOR DEVELOPING AND REVIEWING TEVET CURRICULUM IN ZAMBIA

Technical Education, Vocational and Entrepreneurship Training Authority

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FOREWORD

Technical Education, Vocational and Entrepreneurship Training (TEVET) is a pivotal enabler to empowering people with relevant skills and competencies that make them more employable and better prepared for the world of work. Its orientation towards the acquisition of practical competencies and entrepreneurial skills enhances people's effective contribution to socio-economic development. The government has therefore placed a high premium on TEVET as a catalyst for job and wealth creation and tackling youth unemployment. To improve the quality of the country's skilled workforce, the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) has embarked on curriculum development and implementation reforms that introduce new ways of skills development. The reforms are in response to industry skills needs and national development goals. These curriculum development guidelines are thus providing a blueprint for reviewing and developing new curricula in line with industry needs and the national development vision.

With the rapid industry landscape and technology, TEVET's adaptability and relevance are very critical. TEVET plays a pivotal role in inspiring citizens to be innovative, entrepreneurial, and technologically proficient in job and wealth creation. Revising the curriculum guidelines to meet changes in the TEVET sector is important. These revised guidelines reflect a comprehensive and forward-looking approach to curriculum development and review to bridge gaps between the TEVET sector and industry.

The implementation of the revised TEVET curriculum guidelines calls for training institutions, students, industry and cooperating partners to embrace the spirit of innovation and collaboration. We need to work together to enhance quality standards of Technical Education, Vocational and Entrepreneurship Training in Zambia. The curriculum guidelines are designed to foster creativity, critical thinking and practical skills development to empower TEVET graduates to excel in a competitive global landscape.

The revised Guidelines for TEVET curriculum development and review will guide curriculum developers to adopt standards of excellence and assist training institutions to develop and/or review their curriculum in line with quality standard procedures that build a vibrant and robust TEVET system for productivity and efficiency in job and wealth creation.

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Director General

Technical Education, Vocational and Entrepreneurship Training Authority

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ACRONYMS

CBO	Community Based Organisations
CDRT	Curriculum Development and Review Team
CR	Curriculum Review
DACUM	Developing a Curriculum
SCID	Systematic Curriculum Instructional Development
NSSE	National Survey of Trainee Engagement
NGO	Non-Governmental Organisation
NOS	National Occupational Standards
OSCTSSC	Occupational Standards Curriculum and Training Systems Sub Committee
ISME	Industrial Subject Matter Expert
RA	Research Assistant
SME	Subject Matter Expert
TEVET	Technical Education, Vocational and Entrepreneurship Training
TEVETA	Technical Education, Vocational and Entrepreneurship Training Authority
TNA	Training Needs Analysis
TVET	Technical Vocational and Educational Training
TVTC	Technical and Vocational Teachers' College
ZAQA	Zambia Qualifications Authority
ZCAS	Zambia Centre for Accountancy Studies
ZNOS	Zambia National Occupational Standards
ZQF	Zambia Qualifications Framework

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**GUIDELINES FOR DEVELOPING AND REVIEWING
TEVET CURRICULUM IN ZAMBIA**

SECTION 1: INTRODUCTION AND BACKGROUND

1.1 Introduction and background

Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) is a statutory body established under the Technical Education, Vocational and Entrepreneurship Training (TEVET) Act No. 13 of 1998, read together with the Technical Education, Vocational and Entrepreneurship Training (Amendment) Act No. 11 of 2005. The Authority's general function is to regulate, coordinate and monitor Technical Education, Vocational and Entrepreneurship Training (TEVET). Part of its regulatory functions is to coordinate the development and review of national curricula in consultation with industry, employers, employees and other stakeholders. These curriculum guidelines were revised to support the regulatory function of TEVETA.

Curriculum development and review process in TEVET is a consultative process that is coordinated by TEVETA as prescribed in the TEVET Act. Since inception, the Authority through its mandate has been developing TEVET curricula at different levels of qualification from short courses to Diploma. To effectively manage the curriculum development and review processes, the Authority developed guidelines in 2005 to facilitate the development and review processes. With the passage of time, the guidelines were not meeting the needs of the current operations. The review of guidelines will provide standardisation of curriculum documents and procedures for their development and review.

1.2 Scope of the Guidelines

This document sets out guidelines for the development, review, approval, implementation, and evaluation of curriculum. The document will be used by TEVETA, and all TEVET stakeholders who intend to develop or review curriculum. These guidelines shall apply to the development and review of all curricula leading to qualifications that are awarded by TEVETA under the *Trades and Occupation Sub-framework* of the Zambia Qualification Framework (ZQF).

1.3 Objectives of the Guidelines

The objectives of these guidelines are to:

1. Establish a logical set of principles and processes aimed at facilitating the TEVET curriculum design.
2. Provide guidance and basis for developing TEVET curricula.
3. Standardise the structure and format of TEVET curriculum.
4. Develop a curriculum that is responsive to the labour market.
5. Standardise the implementation and evaluation of TEVET Curriculum.

SECTION 2: CURRICULUM DEVELOPMENT PROCEDURES

2.1 Approved approaches of TEVET curriculum development in Zambia

Among the various models that exist, TEVETA follows an outcome-based curriculum approach that employs the Developing a Curriculum (DACUM) and the Systematic Curriculum Instructional Development (SCID) models. This is because DACUM and SCID are complementary approaches that play important roles in curriculum development process.

While DACUM focuses on industry relevance and job task analysis by involving practicing industry experts who are competent in their respective occupations, SCID provides a broader structured framework for curriculum design. Additionally, SCID focuses on learning outcomes, instructional strategies and assessment methods in curriculum development. This approach is an efficient and effective method for creating outcomes-based curricula and instructional materials that are responsive to labour market demands (*Figure 1*).

2.2 Stages of the TEVET curriculum development process

2.2.1 Labour Market Assessment Survey

This initial stage is very important as it provides valuable information about the skills and competencies sought by employers. The labour market assessment survey includes training needs assessment, which is a process to identify the gaps between the actual and the desired competences (knowledge, skills, abilities and attitudes) in a job. The identified competence gaps are then translated into training needs to up-skill or re-skill the desired professionals. Additionally, the training needs assessment seek to assess the capacity of the proposed training provider in terms of availability of training space, equipment and tools as well as capacity and adequacy of trainers.

To conduct the labour market assessment survey, there is need to formulate an evaluation tool to be administered to the industry as well as the training providers. The outcome of the training needs analysis, which are a priority list of identified roles/responsibilities and tasks, forms the basis upon which the preceding activity namely job profiling will be developed.

2.2.2 Job Profile Development

A job profile refers to a detailed description of a specific job or occupation. It provides comprehensive information about responsibilities, duties and tasks as well as the skills, knowledge, and abilities necessary for successful job performance. The Job Profile guides curriculum developers in designing appropriate learning experiences that address the specific requirements. It is important that the formulation of the job profile should be done with reference

to the Zambia National Occupational Standards (NOS) to align the roles and responsibilities of the jobholders to national standards.

Job Functional Analysis

The role of Job functional analysis is to collect accurate information from the industry on a specific job and the requirements to perform it for the purpose of making decisions on the selection of instructional strategies, curriculum content, and evaluation procedures.

Role of job functional analysis in curriculum development

- a. *Procedure for Job functional analysis*- The procedure of job functional analysis is carried out through interviews of a job performer, the immediate supervisor and head of department / section / unit. The interview collects information related to what is done before, during and after the job.
 - b. *Parties involved in Job functional analysis*- The parties involved in Job functional analysis include the following:
 - i. The interviewer - curriculum developer
 - ii. The Job performer
 - iii. The immediate supervisor of the job performer
 - iv. Head of department/ section/ unit.
- N: B. For the job functional analysis instrument refer to appendix 1.

Job profiling

The outcomes of job function analysis are used for job profiling by a team of experts.

- a. *Selection of Industry Based Subject Matter Experts (ISMEs)*: The facilitator identifies and invites individuals who possess the necessary expertise and knowledge related to the job with relevant experience. These ISMEs may be job incumbents, supervisors, trainers, or industry experts. The minimum of 8 to 12 industry based subject matter experts will be required. Of the required numbers 75% should be those from the industry and 25% from training providers.
- b. *The Job Profiling Workshop*: The selected ISMEs participate in the workshop, which is a structured and facilitated session to discuss the specifications of the particular Job as guided by the facilitators. During the workshop, the facilitator explains the purpose and process and sets the objectives for the job profiling exercise. Prior to the convening of the workshop, it is important that the results or the report from the needs assessment is shared with the platform members.

The focus of the workshop is on the following

- i. *Task Identification:* The ISME group collaboratively identifies and defines the key Roles/Responsibilities and tasks performed in the job. This involves the breaking down of the job into discrete day-to-day tasks that represent the core functions and responsibilities of the roles.
- ii. *Competency Identification:* The ISMEs will identify the knowledge, skills, abilities and appropriate attitudes (competencies) required to perform the respective tasks effectively and efficiently. The ISMEs defines the specific competencies associated with each task and determine the criticality and importance of each competency with Reference to the ZAQA NOS in competency identification.
- iii. *Documentation:* This involves the recording of the agreed upon deliberations of the workshop on a Job Profile template provided by TEVETA. The template is attached as **Appendix 2**.

The outcome of the workshop will be a draft job profile, which will later provide the basis for curriculum and syllabus development.

2.2.3 Syllabus Development

A syllabus outlines the purpose, qualification level, entry requirement, qualification and experience of trainers, selection and sequence of contents to be covered, mode of delivery, materials to be used, learning tasks and activities, expected learning outcomes, and assessment/evaluation schemes of a specific module or unit of study.

A syllabus development exercise shall be done by a constituted team of experts from training providers and the industry distributed as 75% and 25% respectively.

Since the subject matter experts plays a pivotal role in determining the quality of the curriculum content, the selection criteria shall be based on the following: technical competences, work experience in the relevant field of minimum three years if the expert possesses the same level of qualification of the program being developed.

The syllabus formulation shall take the following into consideration:

2.2.3.1 Develop Learning Outcomes

Formulate clear and measurable learning outcomes for each task or competency. The current blooms taxonomy should be referred to, for effective formulation of the learning outcomes.

2.2.3.2 Design Instructional Strategies

The appropriate instructional strategies and methods to teach the identified tasks and competencies shall be determined. This involves selecting appropriate instructional materials, designing hands-on activities, and incorporating real-world scenarios.

2.2.3.3 Develop Assessment Methods

The assessment methods and tools to measure learners' mastery of the tasks and competencies shall be determined. This includes written exams, practical demonstrations, performance evaluations, or simulations.

2.2.3.4. Organise and Sequence

The curriculum content shall be organised in a logical sequence to ensure that learners can progressively build their knowledge and skills. This involves dividing the curriculum into modules, units and defining prerequisites.

2.2.4 Job Profile and Syllabus Validation

This shall be conducted with stakeholders, subject matter experts, professional bodies, sector advisory committees, instructors or trainers and curriculum developers. The draft curriculum document shall be presented and discussed in detail, allowing participants to provide feedback, suggest modifications, and offer their perspectives. The goal is to gather consensus on the curriculum content, structure, and alignment with the intended outcomes.

This validation team shall be composed of a combination of 50% of members who initially participated in the development and the other 50% who are new. Additionally, 70% of the team members shall be from industry while 30% shall consists of representatives from training providers and TEVETA.

2.2.5 Curriculum Approval

The validated curriculum shall be presented by the lead person (who should be a subject matter specialist) to the internal management for endorsement to pave way for the development of other curriculum implementation supporting materials, which include trainers', learners' and assessment guides.

The final approval of the curriculum is dependent on the submission of the endorsed curriculum together with the Job Profile, Syllabus, list of equipment and tools, trainers guide and assessment guide to the TEVETA Occupational Standards Curriculum and Training Systems Sub Committee (OSCTSSC). The approved curricula shall be piloted accordingly.

2.2.6 Development of Qualification Descriptors

After the curriculum has been approved by the TEVETA Technical Committee on Occupational Standards, Curriculum & Training Systems (with Industry), the Authority through the Director General, registers the Qualification under the Zambia Qualifications Authority (ZQA) as it is a requirement that all qualifications from Diploma to Level 3 Certificate developed in the TEVET sector are registered on the Zambian Qualifications Framework. Currently the Level II Trade Certificate and Level III Trade Certificate and Skills Award have not been provided for on the ten (10) levels

of qualifications. This is meant to standardise all qualifications and ensure that they are internationally comparable. The process is guided by the Policy and Criteria on Registration and Accreditation of Qualifications issued by ZAQA.

Prior to the implementation of the approved curriculum and registered with ZAQA, qualification descriptors shall be developed, and these include but not limited to trainers' manuals, trainees' learning materials and assessment guides which shall be done by subject experts led by the content development expert in cooperation with industry. These learning materials are divided into trainers' manuals and reference materials for the learners. These materials shall be used for training in vocational training institutions as well as work-based training in industry.

The stages in the development of teaching and learning materials includes scoping and sequencing, development, review, validation, evaluation and endorsement.

The developed learning materials by the training providers shall be submitted to TEVETA for evaluation. The development of these materials shall be with reference to the TEVETA approved guidelines. (For more details refer to appendix 5).

2.2.7 Curriculum Implementation

Curriculum implementation, which is the process of putting a designed curriculum into practice within an educational setting, shall be done by registered and accredited training providers, by delivering the instructional content, conducting assessments, and providing feedback to learners. This stage involves classroom instruction, trainer training, and monitoring the curriculum's effectiveness. It shall involve various stages to ensure that the intended educational goals and objectives are effectively delivered to trainees.

2.2.7.1 The stages of curriculum implementation include the following:

- a. Communicating with training providers on the newly revised and developed curricula.
- b. Sensitising and orienting training providers on the new curriculum
- c. TEVETA authorisation of training providers to offer the approved curriculum.
- d. Capacity building of training providers where necessary
- e. Piloting of the curriculum to provide for necessary adjustments and feedback.

2.3 Terminal Curriculum Evaluation

Evaluation which is an ongoing process throughout the curriculum cycle to determine the effectiveness of the curriculum through feedback, assessment results, and industry input, shall be carried out to make necessary revisions of the curriculum as needed. This shall involve both the internal and external evaluation process, including terminal evaluation that will include tracer studies. It shall also encompass the following assessments: **formative, placement, diagnostic and summative.**

Figure 1 below shows the summary of the Stages of the TEVET curriculum development process.

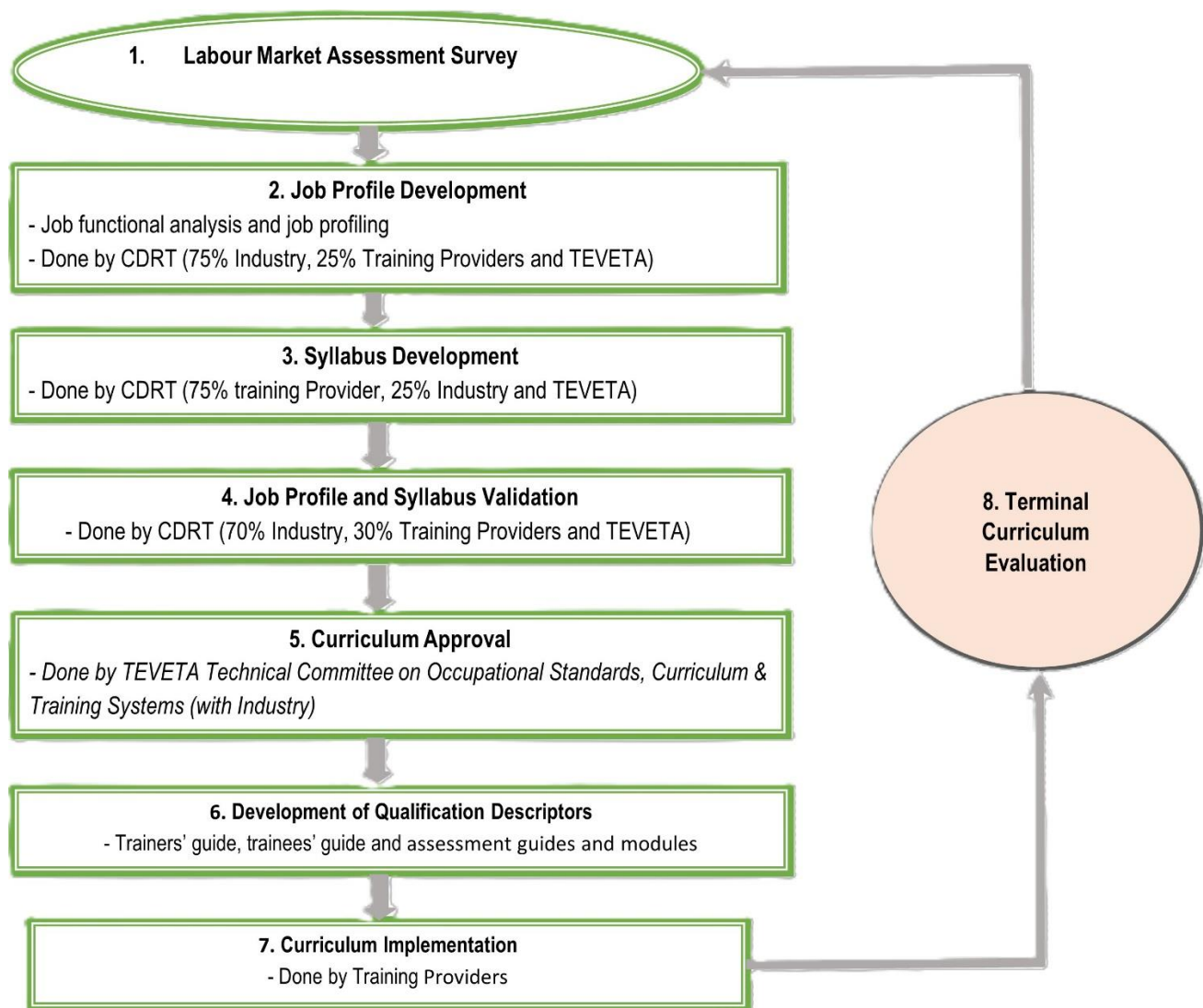


Figure 1: Curriculum development procedure

SECTION 3: CURRICULUM REVIEW PROCEEDURES

3.1 Purpose of Curriculum Review

The purpose of curriculum review is to critically examine and adjust a training programme to optimize the curriculum content to ensure responsiveness to the current trends of the labor market (*Figure 2*).

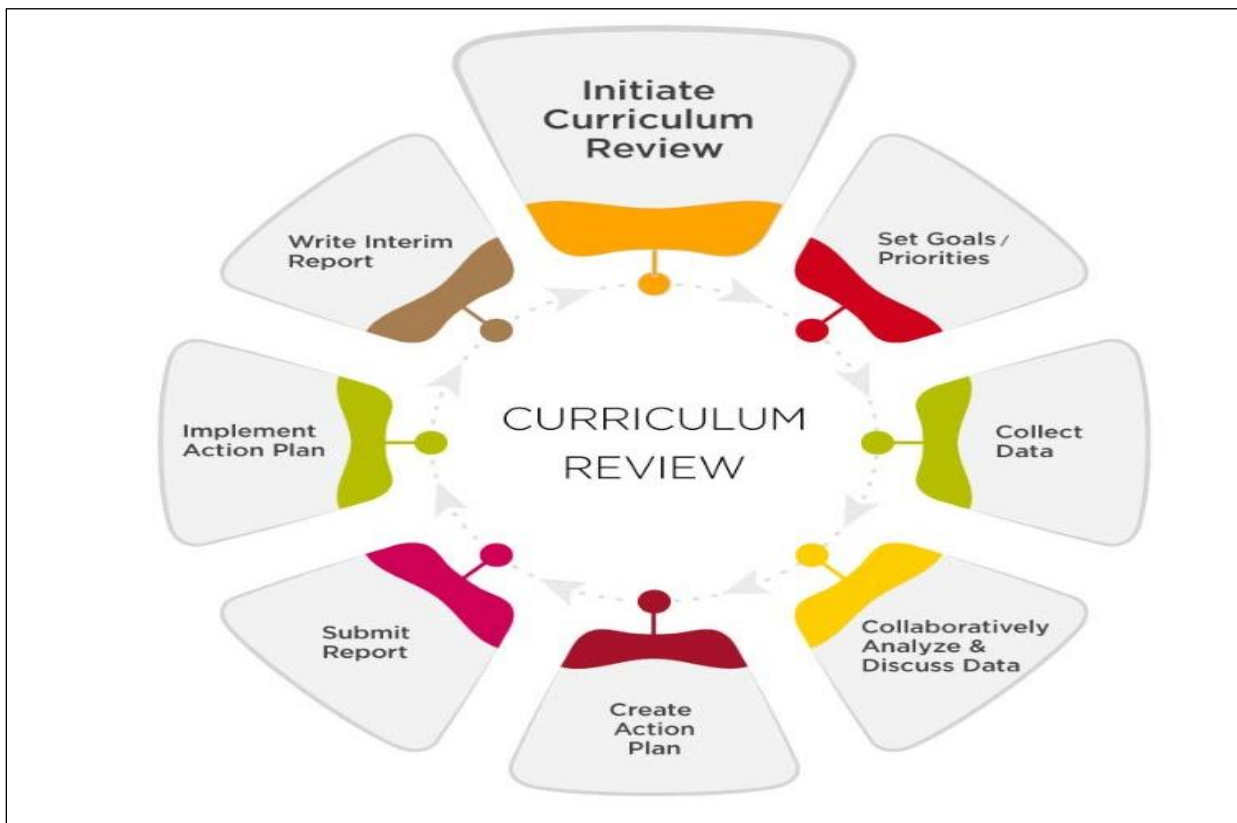


Figure 2: Curriculum review procedures

3.2 Guiding principles of curriculum review

The curriculum review process shall be guided by the principles that the process will be industry-led/expert-led, evidence based, focus on improving trainee competencies, encompass a program level perspective, and an on-going effort to continuously improve the program.

3.2.1 Collaboration among Industry and Training Providers

1. Sector-specific labour market assessment surveys
2. Contributions from and collaboration among training providers and the industry
3. Consider how trainees can be involved.

3.2.2 Evidence-based

1. Several data sources are used to inform discussions about the curriculum
2. Data sources may include a industry feedback on performance of graduates, standard report on previous reviews, examination results reports, surveys reports, trainee feedback, instructor feedback, and an environmental scan

3.2.3 Focus on Trainee Learning

1. Discussions shall be framed to focus on enhancing the trainee learning experience and employability upon graduating.

3.2.4 Programme-level Perspective

1. Curriculum review examines the training programme as a whole (Programme-level outcomes, course outcomes, lesson outcomes, content, learning experiences, assessment procedures)
2. Considers the learning experience of trainees throughout the program

3.2.5 Continuous Improvement

1. An action plan shall guide the implementation of changes over time
2. Interim reports and updates shall be generated based on industry feedback on the performance of the graduates at various qualification levels.

3.3 Curriculum Review Cycle

The curriculum review which is an iterative process shall involve the following components as depicted in *Figure 2* (Source: University of Calgary, 2019).

3.4 Suggested Project Timeline (Source: University of Calgary, 2019)

INITIATE CURRICULUM REVIEW	5 days
Review lead develops a rolling schedule.	
Review Lead, delegates CR responsibilities and makes appropriate workload adjustments to reflect CR leadership responsibilities	
GOAL SETTING	5 days
Review Lead, and Review Team examine and reflect on recommendations from previous reviews and draft guiding questions to guide the CR process; Also formulates a curriculum review plan.	
Review Lead and Review Team meet to discuss goals, processes, and timelines	
Review Lead (or delegate) creates a CR plan, consulting with institutional management	
Review Lead (or delegate) consults with the appropriate Subject Librarian to review library resources available to the program	
Program Lead & Review Lead initiates CR by outlining CR as a collaborative process involving all academic staff teaching in the program (i.e. the Review Team), clearly emphasizing the importance of each member's role in the curriculum mapping and review process. Review Team participates in developing CR guiding questions.	
DATA COLLECTION	20 days
Review Lead shares CR information with Review Team	
Review Lead organizes orientation to curriculum mapping process for Review Team (this may include contacting an Educational Development Consultant)	
Curriculum mapping is completed by Review Team	
The Review Lead (or delegate) coordinates the collection of feedback and input from staff, alumni, and current trainees within the program that addresses appropriate guiding questions	
DATA ANALYSIS & DISCUSSION	10 days
The Review Lead collaborative analysis of data generated through curriculum mapping, trainee feedback, and any additional data sources. Key findings and action plan priorities identified	
CREATE ACTION PLAN	10 days
The Review Team drafts an action plan and coordinates opportunities for feedback. Action Plan is approved by Review Team	
CREATE AND SUBMIT CURRICULUM REVIEW REPORT	10 days
The Curriculum Review Report is drafted. Consultation on the report is facilitated with academic staff throughout the department/faculty	
Review of Draft Curriculum Review Report by Review Team	
Submission of Curriculum Review Report to TEVETA for discussion and approval for final sign off	
Submission of Curriculum Review Report for review and discussion.	
Submission of the Executive Summary and the Action Plan from CR Report to	
IMPLEMENT ACTION PLAN	Throughout the CR cycle

WRITE INTERIM REPORT	At midpoint of CR cycle
Interim Progress report on implementation of action plan submitted	
Review Lead and Program Lead at give an update on CR action plan.	

3.5 Grounds for a Curriculum Review

The following shall be the grounds upon which the curriculum review process can be initiated.

1. As per review cycle which is prescribed in the given curriculum document.
2. Due to emerging issues such as changes and policy direction, technological advancements, irrelevance of the curriculum content and learning experiences among others

3.6 The Curriculum Review Cycle

1. Skills Award Short Courses and Trade Certificate	-	2 years
2. Level 3 Certificate Programmes	-	2 years
3. Level 4 Certificate Programmes	-	3 years
4. Level 5 Certificate Programmes	-	4 Years
5. Diploma Programmes	-	5 Years

SECTION 4: STAKEHOLDERS ENGAGEMENT IN CURRICULUM DEVELOPMENT AND REVIEW

4.1 Composition of Stakeholders

For the TEVET curriculum to be responsive to the needs of the labour market, relevant stakeholders shall be involved in the curriculum development and review process. Stakeholders shall comprise **industry and professional bodies** who should be identified based on their relevance to the curriculum under development/review.

4.2 Stakeholder Identification and Mapping Criteria

The key stakeholders to a curriculum development/review shall be identified through stakeholder mapping and analysis which seeks to understand the interests, needs and expectations of the industries/institutions who are likely to be affected or influenced by the curriculum to be developed or reviewed. The identified stakeholders shall be mapped using a stakeholder influence and interest matrix which is a tool used for selecting the stakeholders to engage in curriculum development/review based on their level of influence against their level of interest. Stakeholders are classified as (see Figure 3)

- High influence and high interest
- High influence and low interest
- High interest and low influence
- Low interest and Low Influence



Figure 3: Stakeholders matrix template

4.3 Composition of Curriculum Development and Review Teams

Upon identifying and mapping stakeholders, subject matter experts shall be identified, and a Curriculum Development and Review Team (CDRT) shall be formed. The CDRTs should have representation from:

- Responsible Ministry
- Industry
- Regulators
- Professional Bodies or Associations
- Sector Advisory Groups
- Training Providers
- Other (INGO, NGO's, CBOs etc.)
- Possibility of a consumer to be involved.

4.4 Responsibilities of CDRT

4.4.1 Curriculum Development/ Review Lead

- Shall be an academic staff member.
- Shall oversee and facilitates the review process along with the Curriculum Review Committee
- Shall coordinate communication and resources to support colleagues in providing information to the process.
- Shall communicate regularly with the Unit Lead regarding progress of the review.
- Shall tracks the progress of the review.
- Shall delegate responsibilities as appropriate.
- Shall coordinate the writing of the Curriculum Review Report.

4.4.2 Curriculum Development/ Review Team

- Shall include all full-time faculty teaching in the program as well as experts drawn from the industry.
- Sessional instructors shall be invited but shall not be required to participate.
- Shall help to develop and approve the guiding questions.
- Shall provide feedback on program-level learning outcomes.
- Shall map the curriculum for courses they teach.
- Shall be invited to participate in data analysis and generating the action plan.
- Shall approve the CR Action plan through the appropriate form (i.e., department or council meetings)

Curriculum Review Committee

- Shall work with the Review Lead to coordinate and implement the review process.
- Shall draft the guiding questions.
- Shall coordinate the curriculum mapping activities.
- Shall coordinate the processes to ensure all Review Team members have opportunities to engage and provide feedback.

4.4.3 Trainees

Trainees shall be involved in curriculum review because they have direct experiences within the program under review, their feedback is essential to the CR process.

Trainees can also be involved in curriculum review in other ways.

- Trainee representatives shall be included on the review team.
- RA shall be hired to do work such as implementing surveys and focus groups.
- Where applicable a trainee council or committee shall be used to get feedback from them at the strategic points of the process and input into the action plan

4.4.4 Curriculum Development Consultants

- Shall provide consultative expertise when needed.
- Shall support the process with resources and templates.
- Shall provide consultation and facilitative leadership for working sessions based on availability.
- Shall provide guidance and expertise on the use of Curriculum Links programme.

SECTION 5: CURRICULUM DEVELOPMENT AND REVIEW PRIORITISATION

5.1 Urgent and Important

Since the significance and relevance of training programmes varies depending on the number of individuals affected as well as the prevailing conditions existing in the environment where it will be administered, the curriculum development process shall be prioritised based on the set conditions below.

These are programmes that need immediate attention. Failure to review these programmes immediately would have a detrimental effect.

5.2 Important and Not Urgent

These contain most programmes under consideration which should be planned for so that they do not suddenly become urgent and important. Continuous monitoring and evaluation is of great importance to these programmes.

5.3 Urgent and Not Important

These programmes do not require the specific skills of curriculum development specialists and can be delegated.

5.4 Not Urgent and Not Important

These programmes will not contribute to the goals of the Government through TEVETA and waste time.

Note that decisions with regards to which programmes should be developed first can be based on the figure below as described above.

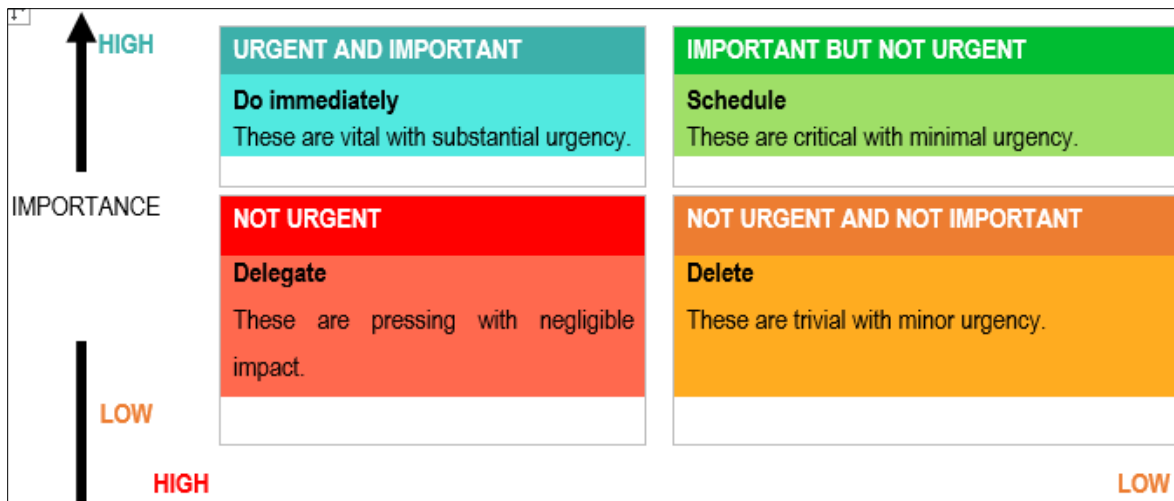


Figure 4: Eisenhower Prioritisation Matrix

5.5 Things to Consider

5.5.1 List All the programmes

Break up workload into Specific qualifications, including those that need to be done in the immediate future and those that you need to address in the coming months and years.

5.5.2 Distinguish between Urgency and Importance

A time frame does not in itself mean that the programme should be reviewed. Prioritise the programmes that have a greater impact on industry. The impact of the curriculum is measured during curriculum evaluation, using various tools. Programmes in the important but not urgent quadrant often have the greatest impact because, the schedule allows you to have sufficient time to consider all the aspects required to achieve the goals of the programme.

5.5.3 Identify Timewasters

Time-wasting programmes take time away from urgent and important programmes. These may appear to add to quantitative achievement but are not impactful at all. The question to assess the suitability of programme is based on its importance to the achievement of organisational goals. If not important, it can be put under the delete quadrant. This is done on the basis that getting a lot done does not mean productivity.

GLOSSARY OF TERMS

- **Assessment guide:-** a document that outlines the assessment strategies, methods, and criteria used to evaluate participants' learning and performance.
- **Curriculum approval:-** refers to the formal process by which educational institutions, regulatory bodies, or accrediting agencies review and authorize educational curricula before they are implemented.
- **Curriculum Development Team:-**a group of people representing industry, curriculum developers and trainers or trainers experienced in the field/industry organised to develop a curriculum. The team may work as a group or assign each member a part to accomplish at their own phase and time until the curriculum is completed.
- **Curriculum development:** refers to the process of creating, designing, and organising educational curricula that outline what will be taught and learned in an educational setting.
- **Curriculum Endorsement:-**an act of official approval and certification of the validated curriculum for implementation as per the recommendation of CVC.
- **Curriculum evaluation:** refers to the systematic process of assessing and analyzing an educational curriculum's effectiveness, relevance, and overall quality. It involves gathering data, analyzing information, and making informed judgments about the curriculum's strengths, weaknesses, and impact on teaching and learning.
- **Curriculum facilitator:** A trained curriculum developer who have completed Technical Instruction and Pedagogy training and undergone training on Competency Based Curriculum development. He/she should be a certified in DACUM facilitator.
- **Curriculum Framework:** is a structured and comprehensive outline that provides guidance for the development of educational curricula.
- **Curriculum implementation:** refers to the process of putting an approved educational curriculum into action within an educational institution or setting.
- **Curriculum review:** refers to the process of assessing and evaluating an existing educational curriculum to determine its effectiveness, relevance, and alignment with educational goals and objectives.
- **Curriculum Validation:** It is a process of reviewing and verifying the developed curriculum by the Curriculum Validation Committee to authenticate that the curriculum is officially acceptable as per the validation criteria and recommend it for endorsement.
- **Curriculum:** to a planned and organized set of courses, subjects, and learning experiences that are designed to achieve specific educational goals and learning outcomes.
- **DACUM:** An acronym for Designing A Curriculum (DACUM). It is a job analysis tool and a method for identifying duties, task, knowledge and skills required to perform the particular job. In this process occupational experts in a particular trade or technology come to a workshop led by a trained facilitator.
- **Design and Development:** It is an activity to carry out design using appropriate tools and method to define and describe all important aspects of the project so that all that remains is the formal documentation step of construction to develop a product.
- **Eisenhower prioritization matrix:** The Eisenhower Matrix, also known as the Eisenhower Decision Matrix or Urgent-Important Matrix, is a time management tool that helps individuals prioritise tasks based on their urgency and importance.

- **Formative assessment:** range of formal, non-formal and informal ongoing assessment procedures used to focus teaching and learning activities to improve trainee's attainment, or which are required for the purpose of the year mark. It is to increase the quality.
- **Foundational Competencies:** also known as core competencies or basic competencies, refer to the fundamental skills, abilities, and knowledge that individuals need to effectively engage in various aspects of life, work, and learning.
- **Industry:** In this document, the term industry is used generally to include all the sectors of the economy or the community such as manufacturing firms, service shops, business establishments, government agencies, and NGOs that employs the mid-level technical manpower that are trained by TVET institutions as well as colleges and universities and other training institutions.
- **Job Functional Analysis:** also known as job analysis, is a systematic process of examining and documenting the specific tasks, responsibilities, qualifications, skills, and requirements associated with a particular job position within an organisation.
- **Job Profile.** also known as a job description, is a detailed document that provides an overview of a specific job position within an organization. It outlines the key responsibilities, tasks, qualifications, skills, and other relevant information related to the job.
- **Job:** A set of task and duties carried out, or meant to be carried out, by one person for a particular employer, or in self-employment.
- **A labor market assessment** is a systematic process of analyzing and evaluating the current state of the labor market within a specific geographic area, industry, or sector.
- **Learner:** An inclusive term referring to anyone learning, including trainees at the TVET
- **Pilot testing:** involves running a trial or test version of a training program, course, or instructional material to a small group of participants before its full implementation.
- **Practical Competencies:** also known as practical skills or applied competencies, refer to the specific abilities and knowledge that individuals need to perform practical tasks, solve real-world problems, and effectively apply their learning in practical situations.
- **Programme Level Descriptors** are statements or guidelines used in education to describe the expected learning outcomes, competencies, and achievements of trainees at various stages of an academic program.
- **Recognition of Prior Learning:** also known as Prior Learning Assessment and Recognition (PLAR), is a process used in education and training to assess and give credit to individuals for the knowledge, skills, and competencies they have acquired through formal and informal learning experiences.
- **Reflexive competencies:** often referred to as self-reflective or metacognitive competencies, are skills that involve the ability to critically examine one's own thoughts, actions, and learning processes.
- **SCID:** Systematic Curriculum and Instructional Design refer to organized and structured approaches to developing educational materials, courses, and programs. These approaches ensure that the content is well-organized, coherent, and aligned with specific learning goals and objectives.
- **Stakeholder Engagement:** is a strategic process that recognizes the importance of involving those who have a stake in each endeavor.
- **Stakeholder matrix:** helps project managers and teams prioritize their engagement efforts. It guides decisions about how to communicate with different stakeholder groups, involve them in decision-making, address their concerns, and manage potential conflicts.

- **Summative assessment:** Assessment conducted at the end of session of learning, at the end of whole learning program, or at any point in the learning program to evaluate learning related to qualification or professional designation. It is to judge quality.
- **Task:** A discrete, assignable unit of work that has an identifiable beginning and end, containing three or more steps which when performed, leads to a product, service or decision. This is normally performed within a specified period.
- **Technical and Vocational Education and Training:** It is an education and training concerned with the acquisition of continuum of socially and economically necessary and desirable technical knowledge, skills and attitude required to orient and prepare people for work from low skill to high skill, involving an appropriately varied mixed of humane, scientific, and technological learning.
- **Trainer's guide:** it is a comprehensive document that provides detailed information and instructions to trainers or facilitators who are responsible for delivering training sessions or workshops.
- **Training Needs Analysis:** The identification of individual or organizational training needs through a systematic analysis of current skills against future performance requirements.

APPENDICES

Appendix 1: Template for Curriculum Review Plan

Guiding Question	Rationale	Data Sources	Collection Strategy (Who, when)	Analysis Strategy (Who, how)	Notes

Appendix 2: Curriculum Review Timeline Worksheet

	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1. Initiate CR												
2. – set up review lead and team												
3. Review previous action plan												
4. Create CR plan/timeline												
5. Communicate CR process to all academic staff												
6. Write guiding questions												
7. Choose data collection strategies												
8. Create a CR plan												
9. Revisit program-level learning outcomes												
10. Write/ revise course outcomes												
11. Orientation to curriculum mapping												
12. Do curriculum mapping												
13. Gather trainee/other data												
14. Literature review and/or environmental scan												
15. Collate/distribute data												
16. Data analysis												
17. Draft action plan												
18. Write the CR report												
19. Seek feedback from all academic staff												
20. Submit report to Unit												
21. Lead/Dean (inc. Grad Studies)												
22. Submit report to												
23. Submit Exec. Sum. and Action Plan to												

Appendix 3: Guiding Questions for Curriculum Review

This list can provide a starting point of questions to guide a curriculum review process:

General questions:

- What are the strengths of the programme?
- How are program-level learning outcomes (PLOs) addressed in specific courses of the programme? Are there any program-level learning outcomes that are not adequately addressed?
- Looking at the scope and sequence of the courses within the programme, are there any gaps and/or overlaps in learning outcomes? If so, where?

Accreditation:

- If your programme has an external accrediting body, you might add guiding questions to fulfill their requirements to allow you to complete both accreditation and the U of C's curriculum review process simultaneously.

Purpose of the program:

- How current is the programme? What is being emphasized? Are we preparing graduates for traditional and/or emerging roles?
- What careers do graduates of the programme go on to have?
- How can we make the programme more innovative?
- What is the right balance of discipline-specific courses and interdisciplinary courses to give trainees a solid grounding in the discipline yet enhance their learning of broader perspectives? What might a multidisciplinary approach look like?

Trainees:

- Who are our trainees?
- What do trainees want out of the programme? What are their career goals?
- Why is there so much drop-off in registration after the introductory course? Why do trainees decide not to continue in the discipline?
- What aspects of the programme structure are problematic for trainees, and how might we address them?
- Which of our courses are required by trainees in other faculties/ programs?
- To what extent are our courses meeting the needs of non-major trainees?

Trainee learning experiences:

- To what extent do teaching and learning activities across the programme scaffold trainee learning, building it from an introductory level to more complex concepts?
- What teaching and learning activities are currently being used? Is there sufficient diversity?
- What high-impact educational practices do we have in our program, and where are they located?
- How might we plan experiential learning opportunities for trainees? What would that look like? How would it be scaffolded and assessed?
- How are we connecting theory to practice? What improvements should be made in this area?

Trainee assessment:

- To what extent do trainee assessment strategies across the programme support and capture trainee learning?
- What trainee assessment strategies are used in the programme, and do we need greater diversity in these strategies?
- How do we incorporate formative feedback across the programme?
- Are our policies around (grading, deferrals, etc.) effective, or do we need to set/ examine specific policies?

Prerequisites:

- Do we have the right prerequisites courses?
- Are more prerequisite courses needed for trainees to be successful in upper-level courses? Less?
- Is a lack of prerequisite courses in certain upper-level courses problematic for trainees in terms of their success in certain upper-level courses? Do they have the necessary understanding in order to succeed in these courses?

Consistency across sections of a course:

- What approaches are different instructors taking in multiple sections of a course? How consistent are course outcomes, trainee learning experiences, and trainee assessments? Are there any issues, especially in courses that are prerequisites for other courses?
- How much flexibility should we give different instructors in multiple sections of a course to bring their own expertise and research interests to the learning experience?

Content coverage:

- Are trainees getting opportunities to acquire foundational knowledge in the field?
- Is there an appropriate balance between foundational knowledge/ content and other curricular concerns such as critical thinking and communication?
- To what extent does the program facilitate trainee learning of (writing skills, critical thinking, professionalism, innovation, research skills or other initiative or strategy being targeted)? How can this learning be enhanced?

Core courses:

- Do we have the right core (required) courses in the programme?
- How are the content and theories in core courses built upon in subsequent courses? How are we scaffolding trainee learning throughout the programme?
- Is there adequate flexibility in the programme?

Program structure:

- Where are the bottlenecks in the programme and how do we resolve them?
- What courses have high percentages of failure rates and/or withdrawal?
- What courses are out of sequence or offered in the wrong term?
- Who is graduating from our programme, and who isn't? Why do trainees transfer out of the programme?

Intended and Perceived Curriculum:

- How effective are instructors at conveying course expectations to trainees? What is the difference between the intended curriculum and what trainees actually learn (the perceived curriculum)?

Academic integrity:

- How do trainees learn about academic integrity? Are we doing enough and the right things in this area?
- How do we help trainees who are struggling?

Areas of Emphasis:

- Do we concentrate on the learning experience in service courses that have trainees from all faculties (for example, first-year tutorials) or dedicate more resources to advanced courses that have more of our majors?

Faculty/ department and institutional priorities:

- How does our programme align with graduate attributes, at the faculty and/or institutional level?
- Does our programme align with strategic priorities?
- How are Indigenous perspectives being incorporated into the program in terms of Indigenous pedagogies and/or content?
- Are there any new or emerging priorities or initiatives that we should examine as part of our review; for example:
- How do we enhance mental health and wellness in our trainees and staff? What are our priorities regarding technology integration into teaching and learning? What are our priorities regarding the internationalization strategy?
- How is experiential learning enacted in the programme and what opportunities exist to further incorporate it?

Appendix 4: Guidance on Pilots and Selection

Pilot Purpose	When should you use this approach?
<u>Phase I Pilot - Materials Selection</u>: In this phase, the pilot is used to test multiple curriculum options to inform the Selection Team's decision about which materials to select.	There are multiple options of materials available for selection that potentially meet the selection criteria and the pilot will be used to tease out the strengths and weaknesses of the options. ▪ You want to create early buy-in amongst a wider range of stakeholders by engaging them in the pilot process. ▪ There is a longer time frame for the decision-making process that allows for a more thorough selection process.
<u>Phase II Pilot - Prepare for Effective Implementation</u>: In this phase, the decision of which materials to select has already been made, and the purpose of the pilot is to prepare for an effective roll-out by piloting the materials to inform the overall implementation plan and iron out any kinks before a large -scale roll-out.	▪ A decision about which materials to select has already been made. ▪ You are working within a large system and want to develop capacity in a wider range of stakeholders who can then support the large-scale roll-out. ▪ There have been implementation challenges in the past when rolling out a new set of materials, and you want to prepare for an effective implementation process. ▪ There is a longer time frame between when a decision is made and when roll-out can occur.

Appendix 5: Pilot Design Considerations

Key Design Question	Considerations	Potential Pitfalls
What is the scope of the pilot?	There are several ways to approach the scope of the pilot: □ <u>Unit Selection</u>: In this approach, only 1-2 units are selected from the materials and used for the pilot. This allows for a shorter-term pilot as most units span 4-6 weeks of instruction. In a Phase I pilot, this also allows the same group of trainers to pilot multiple sets of materials to compare them to one another. □ <u>Multiple Units or Full Year</u>: In this approach, multiple units and/or a full year of curriculum is piloted. This is best utilized for a Phase II pilot when you are using the pilot to learn and prepare for full implementation.	<u>Unit Selection</u> □ It is important to be strategic about which unit is selected for the pilot. You'll want to refer to EdReports or the curriculum evaluation conducted to select a unit that is representative of the curriculum and is of high quality. □ The unit should also be selected to fit into the current scope of sequence of instruction where possible, so trainers can see how trainees respond to new content from the curriculum and you're continuing to make sure trainees are learning the "right stuff" in the school year. <u>Multiple Units or Full Year</u> □ Multiple units can be an effective strategy for a Phase II pilot because it provides you with more opportunities
		to learn about effective implementation. ▪ A full year approach lengthens the overall selection and implementation process, making this a multi-year effort from selection to full implementation. This can be helpful as it helps to build a coalition of stakeholders invested in the process, but there is a risk of losing momentum in the process and it takes longer to address core instructional challenges.

Who will pilot the materials?	You'll want to consider: □ Scale: How many trainers do you want to participate in the pilot? How does this fit into your broader educator engagement strategy? □ Selection: How will you select trainers to participate? Will trainers opt-in to the pilot or will they be chosen? What are the expectations for participation? How will you leverage trainers/leaders who hold informal authority within your system and can help influence others?	Scale □ Not involving trainers or leaders with informal authority who have the ability to influence other trainers or leaders and build their buy-in, or not involving trainers/leaders who may be harder to invest. □ Phase I - You want to find the balance between more stakeholder voice in the process with being able to meaningfully learn from the pilot to inform your decision. □ Phase II - It can be challenging to limit the pilot when there is greater
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	▪ Individual trainers vs. teams: Do you want full teams to participate or just individual trainers? ▪ Grade level span: Do you want to span a few grade levels? Or All grade level?. Entire school: Is there one specific school that wants to pilot the materials for your system?	interest, but if you truly want to use the pilot to learn and prepare for an effective roll-out, it is important to keep the scale manageable, so you can closely study and monitor implementation to inform your broader roll-out. □ Oftentimes, schools choose to pursue new materials after identifying a gap in current materials. If you choose to pilot materials in certain schools or grades (versus system-wide), this means that some trainees will not receive access to potentially higher quality materials. Consider ways to support trainers and leaders in strengthening current materials while piloting to ensure equity as much as possible. Teams, Individuals, Grade Levels □ Having full teams or an entire school engage in a pilot enables you to study the impact on other structures or systems (i.e., PLCs, professional development, etc.). □ If the materials being considered have different structures in different grade
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		levels (i.e. K-2 materials are slightly different from 3-5, K-5 is different from 6-8, etc.), you want to be sure to pilot in each configuration.
What training or support will be provided to the trainers and/or leaders involved in the pilot?	While the pilot may be limited in scope, it is essential that trainers and leaders receive some training on the materials to prepare them for implementation. This should include: □ An overview of the design and architecture of the materials, including how units and lessons are structured and the scope of the year. □ The key instructional practices that may be employed within the curriculum. Additionally, providing training in the pilot can help illuminate future training needs should those materials be selected or if you are planning a broader roll-out. If you are piloting multiple sets of materials, trainers and leaders will need some brief training in each set of materials to ensure they implement the materials appropriately. This can also provide insight into the quality of training offered by different publishers, which can be a factor in your decision.	Many pilots tend to overlook the training needs trainers and leaders have when piloting new materials. □ Trainers can become frustrated without appropriate training because they are unsure of how to use the materials or are not using them effectively. This can lead to trainers having a poor experience with the materials and becoming disinvested in the options. □ Leaders may hear frustrations from their trainers and become disinvested in the materials and/or not know how to support trainers to work through the challenges that emerge. □ You may not get the outcomes you want from a pilot because perceptions of the materials are influenced by the training, or lack
		thereof, instead of by the materials themselves.

How will you evaluate the pilot to inform your process?	Setting clear evaluation criteria and/or having a plan for learning is an essential component of any pilot. In Phase I pilots, this includes: □ The criteria by which each set of materials will be evaluated in alignment with the overall selection criteria. □ The specific questions you aim to answer through the pilot about each set of materials; this could include questions about the training required, the instructional time required to implement, the impact on specific trainee populations (English Language Learners, trainees with IEPs, etc.). □ A way to synthesize the learning from the pilot to inform the decision-making process. This is the most important component of Phase II pilot planning. You want to ensure that you consider the following to maximize the impact of the pilot:	In Phase I pilots, the potential pitfalls are: □ Relying solely on the perceptions and opinions of the trainers who participated in the pilot without some objective criteria. □ Looking to trainee achievement data to inform the decision. Most pilots are too short to have a measurable impact on trainee data and it will provide a false positive or false negative of the impact the materials may have. In Phase II pilots, the potential pitfalls are: □ Not working through the challenges that emerge during the pilot and engaging in continuous improvement. There is a risk of viewing it as “just a pilot” and not investing the time and energy to work out challenges in Realtime to find a strong solution and leverage the pilot. □ Expecting measurable changes in trainee achievement data. The
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	▪ The specific questions you aim to answer through the pilot. You should work through Phase II of the Curriculum Support Guide in order to test roll-out for assessment, pacing and planning, coaching, and training. ▪ Clear roles/responsibilities and expectations for pilot implementation and for capturing and synthesizing learning. ▪ A plan to monitor progress for the pilot, including specific times to synthesize learning aligned to each of the questions determined.	impact of materials on trainee learning can take time and looking for measurable impact can lead to a false positive or false negative of the potential impact of the materials. Not having a clear approach to synthesize and capture learning on a regular basis, so you are not able to apply the lessons learned to the full roll-out of materials.
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Appendix 6: Job Profile Template

Preamble

[Type the preamble of the Job Profile here. A preamble is an introductory statement in a document that explains the document's purpose and underlying philosophy]

.....
.....

Part A:

Occupational/Job Title: [Type here]

.....

Central Statistical Office (CSO) Occupational Std. Code, if any: [Type here]

Target Curriculum and Qualification: [Type here]

.....
.....

Economic Sector(s) in which the Job is mainly practiced:

[Type the sectors, e.g. construction, sector]

.....
.....

Part B:

1.0 Job Purpose

[Type here the main reason for the job or why the job is performed]

.....
.....

2.0 Main Roles/Responsibilities for the Job Holder

(List the key/normal duties and tasks required of the job on a day-to-day basis. Begin with the most important and work down to those that of lesser importance)

2.1 Responsibility 1: [Type here]

2.1.1 [Type tasks or Activities]

.....
.....

3.0 Equipment, Tools and Materials

(List specific equipment, tools and consumable materials and tools that are typically used to perform each of the tasks/ duties. Tools and equipment can vary from using manual hand and power tools, computerised equipment, operating vehicles, and other specialised equipment).

3.1 Equipment

3.1.1 [type the list here]

.....

.....

3.2 Tools

3.2.1 [type the list here]

.....

.....

3.3 Materials

3.3.1 [type the list here]

.....

.....

4.0 Quality of Process and Product/Service (When is the job holder judged to have performed his/her job well? – What performance indicators are used?)

4.1 Quality of Process

4.1.1 [Type here performance indicators used to judge that job holder has performed his/her job well]

.....

.....

4.2 Quality of Product/Service

4.2.1 [Type here performance indicators used to judge that job holder's product or service is satisfactory]

.....

.....

5.0 Dilemmas/Challenges and complexities for the job holder

5.1 [Type the dilemmas/challenges and complexities the job holder faces in his/her work]

.....

.....

[Type the solutions to dilemmas/challenges and complexities the job holder faces in his/her work]

.....

.....

.....**Parties interacting with the job holder at workplace.**

5.2 Internal/within the organisation

5.2.1 [type the list here]

.....

.....**External/outside the organisation**

5.2.2 [type the list here]

.....

.....

- 6.0 Working Environment (Describe the working environment that this job could be performed in. E.g. weather conditions, noisy environment, outdoors, exposure to radiation)**
6.1 [type the list here]
.....
.....
- 7.0 Physical /Medical Requirements to perform the job.**
7.1 Physical Requirements (e.g., standing for long hours, climbing)
7.1.1 [type the list here]
.....
.....
- 7.2 Medical Requirements (e.g. non-asthmatic for underground mining job)**
7.2.1 [type the list here]
.....
.....
- 8.0 Required knowledge, skills and abilities the job holder needs to effectively do the job**
8.1 Knowledge
8.1.1 [type the list here]
.....
.....
- 8.2 Skills**
8.2.1 [type the list here]
.....
.....
- 8.3 Abilities**
8.3.1 [type the list here]
.....
- 9.0 Important Values/Attitudes a person needs to effectively do the job**
9.1 [type the list here]
.....
.....
- 10.0 Practicing Licence / Permits required of someone in this job**
.....
.....
- 11.0 Employment Patterns**
11.1 Salaried Employment Career Pathway
11.1.1 [type here]
.....
.....
- 11.2 Entrepreneur/Self-Employed Career Pathway**
11.2.1 [type here]
.....
.....
- 12.0 National Employment Outlook and related Policy/Investment Trends (job prospects at national level; government policies, political manifestos e.t.c that may enhance job prospects in the field)**

12.1 Salaried Employment Career Pathway

12.1.1 [type here]

.....

.....

12.2 Entrepreneur/Self-Employed Career Pathway

12.2.1 [type here]

.....

.....

APPROVED

Appendix 7: Syllabus Template

MODULE 189/1-02-A PRINCIPLES OF SOIL SCIENCE (As an example)	
MODULE PURPOSE: To equip the trainee with knowledge, skills and appropriate attitudes required to manage soils and crops effectively and efficiently.	
MODULE DURATION: 100 Hours	CREDITS: 10 Credits
MODULE LEARNING OUTCOMES: On completion of this module the trainee will be able to: 1. Explain common rocks and soil formation. 2. Carry out soil sampling and testing. 3. Explain soil properties and soil fertility. 4. Explain soil organic matter and soil organisms. 5. Apply principles of plant - soil – water relationship Assessment Methods: • Assignments • Practicals • Class exercises • Tests • Examination Learning Conditions: Trainee will have access to the following: • Books • Modules • Library • Internet Values: The trainee will possess the following values; • Patience • Tolerance • Endurance • Honesty • Integrity • Confidentiality • Team player	

UNIT A5.1 EXPLAINING COMMON ROCKS AND SOIL FORMATION (as an example) UNIT DURATION: 20 HOURS CREDITS: 2.0		
SPECIFIC LEARNING OUTCOMES	LEARNING ACTIVITIES	ASSESSMENT CRITERIA
5.1.1 Describe common rocks	Describing common rocks • Igneous rocks • Sedimentary rocks • Metamorphic rocks	Common rocks described correctly
5.1.2 Explain soil forming processes	Explaining soil forming processes • Addition • Losses • Transformation • Translocation	Soil forming processes explained correctly
5.1.3 Explain factors affecting soil formation	Explaining factors affecting soil formation • Parent material • Time • Climate • Weather • topography	Factors affecting soil formation explained correctly
5.1.3 Discuss soil profile	Discussing soil profile Horizons	Soil profile discussed correctly