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اسلامی جمہوریہ پاکستان
Islāmī Jumhūrī-ye Pākistān



Manual No. 3: **Curriculum Development**

National Vocational Qualifications Framework

NVQF

To deliver a skilled and qualified workforce in Pakistan

Version 1

September 2015

National Vocational and Technical Training Commission (NAVTTTC)

Manual
On
**Curriculum Development for NVQF
Qualifications**

Version 1

September 2015

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Abbreviations used

AT	Apprenticeship Training
BTEs	Boards of Technical Education
CB	Competency-Based
CBT	Competency-Based Training
CBET	Competency-Based Education and Training
CCIs	Chambers of Commerce and Industries
CQ	Certification of Qualification
CS	Competency Standard
CU_s	Competency Units
DACUM	Developing A Curriculum
EQF	European Qualification Framework
IAGs	Industry Advisory Groups
IBCC	Inter Board Committee of Chairmen
ISCED	International Standard Classification of Education
LDs	Level Descriptors
M&E	Monitoring and Evaluation
NAVTC	National Vocational & Technical Training Commission
NCRC	National Curriculum Review Committee
NOSS	National Occupational Skill Standards
NSS	National Skill Strategy
NSIS	National Skill Information System
NTB	National Training Bureau
NVC	National Vocational Certificate
PNQF	Pakistan National Qualification Framework
PNVQF	Pakistan National Vocational Qualification Framework
PVTC	Punjab Vocational Training Council
QCC	Qualification Curriculum Committee
QR	Qualification Register
QSC	Qualification Standard Committee
QSSC	Qualification Standard Sub-Committee
RCC	Recognition of Current Competencies
RPL	Recognition of Prior Learning
SAARC	South Asian Association for Regional Cooperation
SDA	Skill Development Analysis
SDCs	Skill Development Councils

1 Introduction

In a Competency-Based Training (CBT), curriculum provides overall course guidelines in relation to teaching and learning and act as the key instrument in supporting standardized formal, non-formal and informal training. Curriculum development thus aims at providing a bridge between standardization of competency standards and actual delivery of the training program. The major components of a curriculum document include descriptions of learning modules and outcomes, sequence of and duration of learning, learning context and the equipment and consumables required. The national qualification formulation steps include skill demand or Labor market analysis, DACUM process, competency standards development and finally packaging the qualification with necessary detail such as assigning NVQF level, allocating credit hour, requirements for progress and achievement, equivalence and pathways and other requirements. The process for curriculum development is initiated by transforming competency standards and competency units into Learning Modules, Learning Units (LUs) and Learning Outcomes (LOs), prescribing tools, equipment and machinery required and supportive notes on assessment context, conditions and resources required. The process flow (figure below) shows the place of curriculum in the national qualification development process as described in the NVQF document.

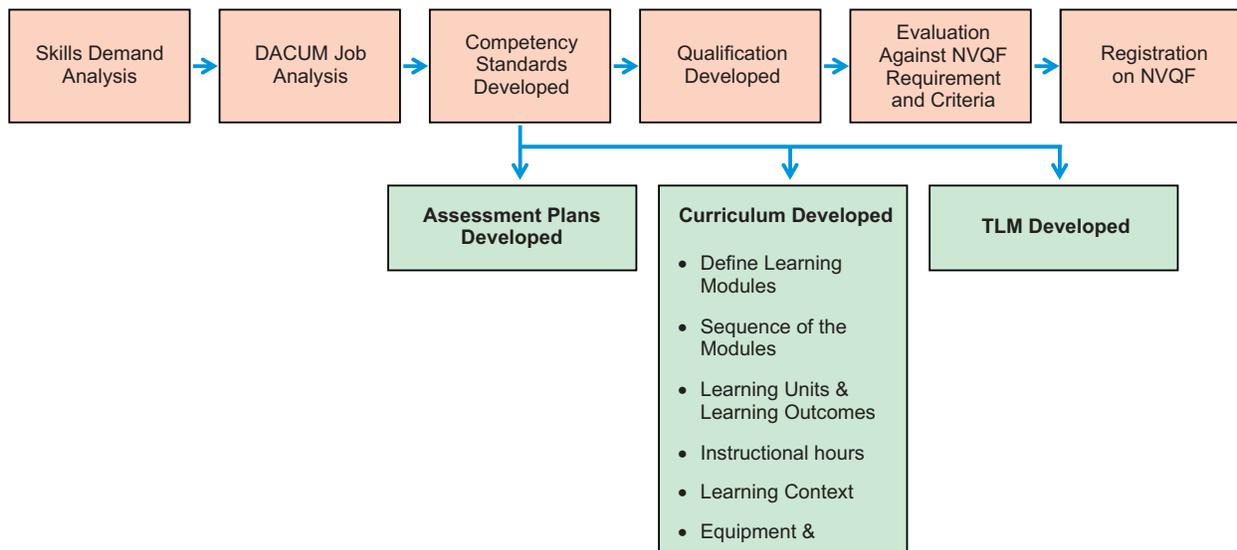


Figure 1: National Qualification Curriculum Development Process

The Qualification Curriculum Committee (QCC) has been assigned the task to develop curriculum for NVQF registered qualifications. The bodies/ groups that have been authorized by NAVTTC to develop NVQF qualifications may then initiate curriculum development processes as per procedure and guidelines described in this manual.

2 Curriculum in the Competency-based Training System

The Competency-Based Training (CBT) approach follows sequential steps wherein each step requires defined activity/process to be followed to produce the desired product. The figure below shows CBT steps, activities and products at the end of each activity.

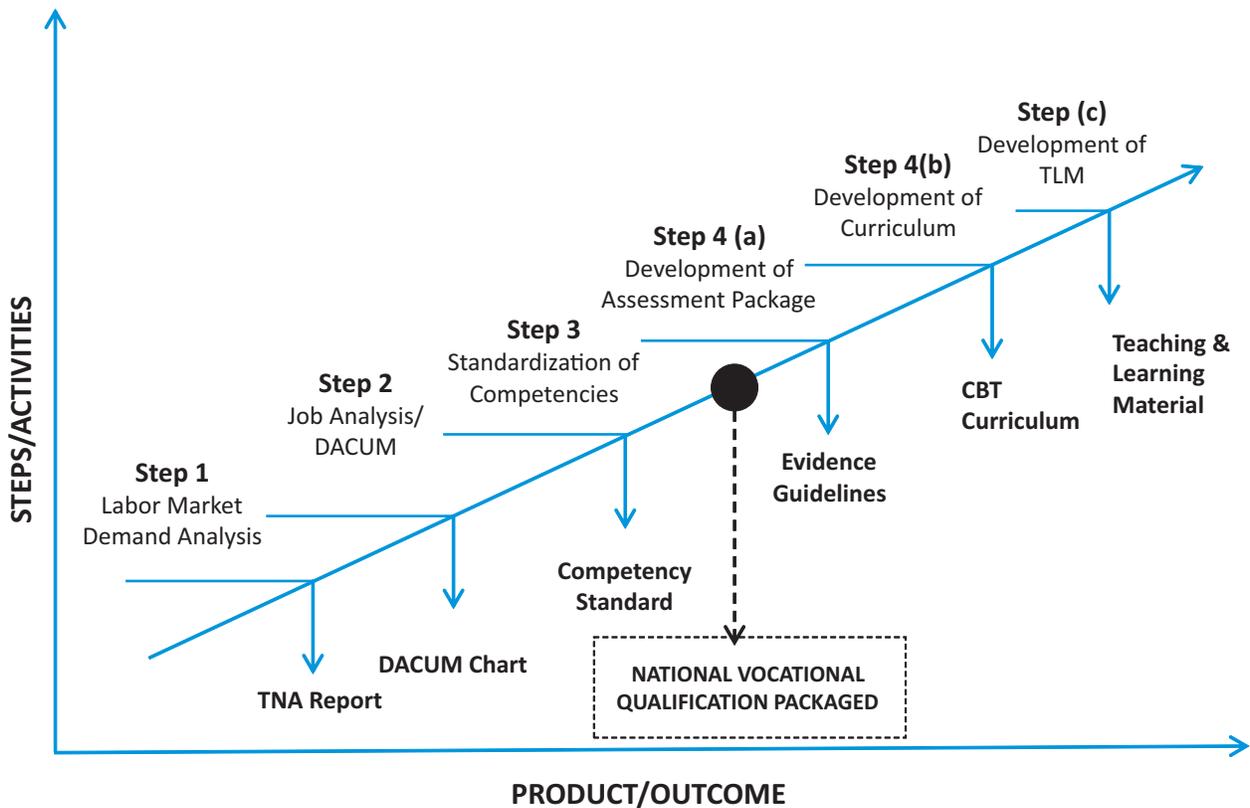


Figure 2: CBT Steps, Activities and Products

Steps 4 (a,b & c) may start simultaneously when the qualification is packaged. Curriculum development is step 4(b) in the process and is initiated when competency standards of a qualification are finalized, approved and notified by the NAVTTC. The steps prior to the development of curriculum are Labor Market Demand Analysis and DACUM Analysis, which have been described in the manual on “Development of NVQF Qualifications”.

The table below shows the comparison of traditional curriculum vs the competency-based curricula.

Traditional Curriculum	Competency-Based Curriculum
Input based	Output based
Teacher's centered	Learner's centered
Rigid in structure & time allocation	Flexible in structure and delivery time
Not based on industry standards	Based on industry standards
Norm referenced	Criterion referenced, Recognition of Prior Learning

3 Main Elements of a Competency-based Curriculum

Main elements of the competency-based curriculum are described below.

- a) **Introduction:** Title and level of the qualification, its demand and justification, overall purpose and objectives of the course, major competencies to be gained after completion, job opportunities, trainees entry level, trainers' qualifications, instructional strategies and estimated duration of the course are some of the elements described in the introduction part of the curriculum document.
- b) **Modules:** Modules in the curriculum are formed on the basis of each Competency Standard finalized during the qualification development. There is also a possibility that two or more similar competency standards can be merged together to form a module or vice versa. The modules are appropriately sequenced with description (pen picture) of each module along with suggested time frame of delivery during the training.
- c) **Learning Units:** Each module is divided and described into 'Learning Units', which form the chapters in the teaching and learning material. Learning Units are further described into learning outcomes and learning elements.
- d) **Learning Outcomes:** A learning outcome is action oriented verb that describes distinctively what learner should acquire and be able to do/ apply at workplace. The learning outcomes are derived from the "Performance Criteria" stated under each competency standard in the competency standard document. They describe the essential skills, knowledge & attitude required to attain the qualification and are measurable at the time of assessment. Learning outcomes are listed at the beginning of each chapter of student's guide with their explanation in the contents supported with activities and tasks.
- e) **Learning Elements:** The learning elements are derived from "Knowledge & Understanding" stated under each competency standard. The learning elements include required knowledge, skills and attitudes to demonstrate learning outcome. They help in description of the contents in the learner's guide with updated information and examples.
- f) **List of Tools, Equipment and Consumables:** Develop list of tools, equipment, consumables required during the training.

4 Competency-based Curriculum Development Processes

- a) The authorized body/ group whose qualification have been approved and registered by NAVTTC constitutes a Qualification Curriculum Committee (QCC) in consultations with NAVTTC and relevant stakeholders as per membership and TORs of the Qualification Curriculum Committee given at Appendix-1.
- b) NAVTTC upon receipt of composition of the QCC approves the committee and designate from among the committee members a Facilitator/ Convener who guides and leads the QCC in producing the final curriculum document. The proposed Facilitator/ Convener selection criteria and TORs are attached as Appendix-2.
- c) QCC under the leadership and guidance of the Facilitator/ Convener develops initial draft of the curriculum as per national template for curriculum document attached as Appendix-3.
- d) QCC seeks feedback on the initial draft curriculum from relevant stakeholders including Industry Advisory Groups (IAGs), Sector Skills Councils, and Training Providers.
- e) QCC finalizes the curriculum on the basis of feedback and handover the competency-based curriculum to agency/ group that got registered the qualification on NVQF for further necessary action regarding development of TLM (where required).
- f) In order to ensure the quality of the curriculum document developed, the agency/ group that initiated the curriculum development process, may also arrange a workshop with participation of relevant industry (in addition to the participation of selected QCC members) to scan the curriculum document on the following aspects:
 - i. Overall purpose and objectives of the course are clearly described.
 - ii. Sequencing, description of aims of each module are correct and time frame for each module has been specified appropriately.
 - iii. Entry level of trainees and trainer's qualifications are specified as per qualification & level requirements.
 - iv. Learning outcomes and learning elements are appropriately described and are observable and assessable.
 - v. Accurate and descriptive language has been used
 - vi. List of tools, equipment and consumables are appropriately given.
 - vii. Assessment guidelines are provided
- g) The finalized curriculum document is sent to NAVTTC for conducting national curriculum review committee (NCRC) for final review and endorsement.
- h) NAVTTC upon endorsement by NCRC, issues notification as a national curriculum and upload on the NAVTTC website for information and use for various purposes including delivery of training, assessment in TLM and reference material development etc.
- i) NAVTTC itself can initiate to develop the curriculum of NVQF qualification registered by it or may assign the development to appropriate agency/ individual, following the same procedure.

Appendix-1

Qualification Curriculum Committee

Role

To develop specified curricula, based on NVQF criteria, with support from a National Curriculum Development Expert and with inputs/feedback from Industrial Advisory Groups

Draft Terms of Reference

- Examine the qualification, competency-standards and level to identify requirements. Devise the curriculum that will support the achievement of the competency standards and the qualification. Define the credit value of the curriculum according to NVQF criteria and processes

Work Group

Facilitator/Curriculum Expert

Assist the group to understand and achieve their objectives without taking a particular position in the discussion

Membership of Qualification Curriculum Development Committee

The minimum representation required for QCC is as follow:

- 2 industry representatives
- 3-5 members mainly from public and private training providers, including experts from the relevant field

Appendix-2

The Curriculum Facilitator

The QCC Facilitator

- Assists QCC members to understand and achieve their objectives without taking a particular position in the discussion
- Conducts overall proceedings of the QCC
- Records minutes/ proceedings of the meeting
- Explains various elements of the curriculum document

Facilitator Selection

Essential criteria

- Relevant academic and/or professional qualification
- Relevant industrial/field exposure
- Curriculum development background
- Good IT skills
- Good decision-making skills and situational analysis

Recommended criteria

- Must possess higher level qualification than the Curricula undertaken
- Experience of curriculum development
- Strong writing skills (Faculty Members and Facilitator)
- Analytical skills
- Communication skills
- Senior management experience

Appendix-3

National Curriculum Document Template

1. Title Page
2. Table of Contents
3. Introduction
 - a. Definition of the training program (Name of the course)
 - b. Purpose of the training program
 - c. Overall objectives of training program
 - d. Competencies gained after completion of course
 - e. Job opportunities available immediately and in the future
 - f. Trainee entry level
 - g. Minimum qualification of trainer
 - h. Medium of instruction i.e. language of instruction
 - i. Duration of the course (Total time, Theory & Practical time)
 - j. Sequence of the modules
4. Summary Template – Overview of the Curriculum

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
Module 1	LU1: LU2: LU3:			
Module 2	LU1: LU2: LU3			
Module 3	LU1: LU2: LU3			

5. Curriculum Contents (Teaching and Learning Guide)

Module: Title: _____

Objective of the Module: _____

Duration:	Total hours		Theory:		Practical	
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Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
1. LU1					
2. LU2					
3. LU3					

6. Assessment Template

Module 1 (name):

Learning Units	Theory Days/hours	Workplace Days/hours	Recommended form of assessment	Recommended Methodology	Scheduled dates

Module 2 (name):

7. Supportive Notes

- Assessment context
- Critical aspects
- Assessment conditions
- Resources required for assessment

8. List of Tools, Machinery & Equipment

Name of Trade		
Duration		
Sr. No.	Name of Item/ Equipment / Tools	Quantity
1.		
2.		
3.		
4.		
5.		

9. List of Consumable Supplies

Name of Trade		
Duration		
Sr. No.	Name of Consumable Supplies	Quantity
1.		
2.		
3.		
4.		
5.		

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