Chapter 6

Programme design and development
Let’s Recap
Chapter 1: Managing training & development in organisations
Chapter 2: The education, training & development environment in South Africa
Chapter 3: The administration of training & development in the enterprise
Chapter 4: Learning theories and principles
Chapter 5: Determining training & development needs
Chapter 6: Programme design and development
Chapter 7: Preparing & presenting training
Chapter 8: Learner assessment & programme evaluation
Chapter 9: Management development
Chapter 10: Contemporary issues in Human resource development
Learning outcomes

• explain the main elements of curriculum design in outcomes-based education and training
• formulate a purpose statement and learning outcomes for a course or programme in accordance with SAQA requirements
• classify learning outcomes in terms of a taxonomy for teaching, learning, and assessment
• select appropriate content for a programme within own specialist field based on the variables and criteria specified in this chapter
Learning outcomes (cont.)

• sequence content on the basis of the given guidelines and approaches
• discuss the requirements of training programme planning
• describe the factors that influence course development
• explain the principles and steps involved in the development of a competency-based training programme.
Phases

Phase 1: Analyse the training & development needs
Phase 2: Design and develop the programme and course
Phase 3: Preparing and presenting training & development
Phase 4: Assessing learning and evaluating training & development
Outcomes Based Design

What is an outcome-based design?
Outcomes Based Design

What are the specific requirements are for an OBE?
Outcomes-based curriculum design

• A curriculum is the plan for the process of teaching and learning.
• It follows the training needs assessment phase.
• In outcomes-based education and training, the curriculum should adhere to requirements that fulfil the requirements of the National Qualifications Framework.
Outcomes Based Design

“The curriculum process therefore starts with the intended outcomes and these outcomes are then used as the point of departure for the rest of the learning programme.”
Purpose statement

- The purpose of a course or programme is a concise statement of why the course or programme exists and what learners will have to achieve to satisfy the requirements of the programme.
- It is normally derived from the unit standard or the description of a particular job or task or training need determined in the training needs assessment process.
Formulating learning outcomes

- An outcome is the end product of a learning process and includes:
  - Social and personal skills
  - Learning how to learn
  - Concepts
  - Knowledge
  - Understanding
  - Attitudes
  - Values
Requirements of learning outcomes

Verb + Noun or object + Modifier or Qualifier = Outcome
Requirements of learning outcomes (cont.)

• **The verb:** indicates the type of activity and the nature of the outcome.

• **The noun/object:** indicates what is going to be achieved, clearly indicating the issue addressed.

• **The modifier/qualifier:** indicates the scope, dimensions and methodology involved.
Answers to the class activity

1. **Verb:** Demonstrate  
   **Noun:** Use and care of specified carpentry tools  
   **Modifier:** In accordance with prescribed criteria

2. **Verb:** Compile  
   **Noun:** Draft outline of a workplace skills plan  
   **Modifier:** For a small business of 50 employees according to the requirements of the relevant SETA.
Types of outcomes

1. **Critical Cross-field Outcomes**
   - Overarching (macro) outcomes
   - Intended results of education
   - Linked to national goals

2. **Specific Outcomes**
   - Express results of narrowly defined aspects of learning
   - Required for particular course or programme
The cognitive area

- Knowledge
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation
The affective area

Level 1: Learner receives a stimulus
Level 2: Learner reacts to stimulus and enjoys it
Level 3: Learner attaches value to the activity
Level 4: Learner organises values into a system
The psychomotor area

- Deals with physical skills
- Psychomotor objectives entail the manipulation of objects
- Concerned with activities that require neuro-muscular coordination
- Mainly used at career-oriented industrial training centres, i.e. centres where artisans are trained
Taxonomies of learning

• Bloom’s Taxonomy
  ✓ Enables trainers to decide what level of skills they would like their learners to attain
  ✓ Divided into three areas: cognitive, affective and psychomotor

• Anderson-Krathwohl’s taxonomy
  ✓ Known as a taxonomy for teaching, learning, and assessing
  ✓ Revised version of Bloom’s taxonomy
Taxonomies of learning

Explain Andersen-Krathwohl’s taxonomy
Anderson-Krathwohl’s Taxonomy

• What important things should learners learn?
• How can instruction be planned and delivered so that high levels of learning are achieved by learners?
• What assessment instruments and procedures will provide accurate information about how well learners are learning?
• How can trainers ensure that outcomes, instruction, and assessment are aligned with one another?
From Bloom’s to Anderson-Krathwohl’s
Content

• Content refers to the underlying knowledge, skills attitudes, and values that are required for learners to master the learning outcomes.

• Factors to consider:
  ✓ Subject-matter characteristics
  ✓ The learner
  ✓ The trainer or facilitator
Content (cont.)

Sources of content: job data and documents

Types of content:

• Essential – what the learner must know
• Helpful – what the learner should know
• Peripheral – what is nice for the learner to know
• Unrelated – No relevance to learning
Team Activity

• In your small group discuss and present the topics assigned to you:
  ✓ Benefits of sequencing
  ✓ Approaches of sequencing
  ✓ Guidelines for sequencing
  ✓ Level of sequencing
  ✓ The advance organiser
Sequencing content

Approaches to sequencing content:

• Chronological
• Whole-to-part
• Part-to-whole
• Known-to-unknown
• Unknown-to-known
• Step-by-step
• General-to-specific
• Specific-to-general
• Concrete-to-abstract.
Group Activity

As a group informally discuss:

• what a programme plan is
• what it should include
• what designing a training programme entails
Training programme planning

A training programme should contain the following information:

- Who the programme was designed for?
- Prerequisites
- Learning outcomes
- Timing and sequencing of the content
- Final outcome of the programme
Training programme planning (cont.)

• Who will carry out the training?
• Learning content
• Training location
• Administrative arrangements
• How the programme will be conducted
• Assessment methods
• Pre-and post-course requirements
Training programme planning (cont.)

Final outline should clarify:

- What is to be covered
- Who is to facilitate and who is the target population
- When (timing and sequence)
- How (methods and other resources required).

- Also consider internal organisation (staff, facilities, etc.) and information to learners (preparation and sending of joining instructions).
Factors that affect course development

What are the various factors that can affect the design of a training programme?
Behavioural characteristics that affect course development

- Learning curves
- Plateau
- Difficulty of subjects
- Saturation point and fatigue
- Learning sequence
- Imparting course content
- Reception
- Listening
- Assimilation
- Results of training.
Competency-based training

• Aim is to provide students (employees) with the skills and knowledge they require for the successful completion of their daily (or future) tasks.

• Focus on outputs rather than on inputs.
Characteristics of competency-based training

• Individualised training system
• Course layout for a specific type of job is introduced beforehand
• Evaluation/assessment takes place on a continuous basis and feedback to learner
• Requires a great deal of time and research
• It is a systematic approach to training
  ✓ directed at individual performance
  ✓ evaluated according to specific criteria.
Steps in developing a competency-based training programme

1. Describe specific professional group being investigated.
2. Identify prerequisites for training programme.
3. Identify and verify tasks
4. Analyse tasks in terms of job content and draw a distinction between knowledge and skills
5. Formulate terminal objectives based on identified tasks
6. Arrange objectives in the correct learning sequence
Steps in developing a competency-based training programme (cont.)

7. Formulate performance tests to ensure that learner performance is evaluated
8. Prepare written tests to assess learners’ ability to master concepts and terms
9. Design a guide that will assist in mastering the content
10. Test and revise the provisional learning guide
11. Implement, evaluate, and manage the training programme
QUESTIONS