Module 13

CURRICULUM THEORY, DESIGN AND ASSESSMENT
General Education Modules
for Upper Primary and Junior Secondary School Teachers
of Science, Technology and Mathematics by Distance
in the Southern African Development Community (SADC)

Developed by
The Southern African Development Community

Ministries of Education in:
- Botswana
- Malawi
- Mozambique
- Namibia
- South Africa
- Tanzania
- Zambia
- Zimbabwe

In partnership with The Commonwealth of Learning

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This module is one of a series prepared under the auspices of the Southern African Development Community (SADC) and The Commonwealth of Learning as part of the Science, Technology and Mathematics Programme (STAMP 2000+). These General Education modules enable teachers to enhance their professional skills through distance and open learning. Many individuals and groups have been involved in writing and producing these modules. We trust that they will benefit not only the teachers who use them, but also, ultimately, their students and the communities and nations in which they live.

The eighteen General Education modules are as follows:

Module 1:  *Multigrade Teaching: Introduction to Multigrade Teaching*

Module 2:  *Multigrade Teaching: Classroom Organisation and Management*

Module 3:  *The Reading Process*

Module 4:  *Developing Reading Skills*

Module 5:  *Special Educational Needs: An Introduction to Teaching Traumatised Children*

Module 6:  *Special Educational Needs: A Practical Guide to Teaching Traumatised Children*

Module 7:  *Education Management Development: Part A*

Module 8:  *Education Management Development: Part B*

Module 9:  *Child Development*

Module 10:  *Concepts of Learning*

Module 11:  *An Introduction to Concepts in Language and Communication*

Module 12:  *Language and Communication: Language in Use*

Module 13:  *Curriculum Theory, Design and Assessment*

Module 14:  *Curriculum Practice*

Module 15:  *A Theoretical Framework on Innovations in Education*

Module 16:  *Effects of Social Changes on Education*

Module 17:  *Comparative Education: Introduction to Key Concepts in Comparative Education*

Module 18:  *Comparative Education: Themes and Trends in Comparative Education in SADC Countries*
A MESSAGE FROM THE COMMONWEALTH OF LEARNING

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- Hands-on Management Services (British Columbia, Canada): Junior Secondary Technology

Dato' Professor Gajaraj Dhanarajan
President and Chief Executive Officer
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Module 13

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This is one of a series of modules in the General Education courses developed by Ministries of Education in the SADC region in cooperation with the Commonwealth of Learning.

Curriculum design, development and assessment are central to teaching and learning in the classroom. In a number of African countries, teachers may have either a professional teaching qualification or only an academic qualification. However, it is important for all teachers to be knowledgeable about the theory, design and assessment of curriculum. This module provides teachers with information about the basic elements, factors and institutions involved in the design and assessment of school curricula.

Module 13 focuses on the definition of curriculum and factors that influence curriculum design, development and evaluation.

CONTENTS

Learning Tips .................................................................5

Unit 1: The Concept of Curriculum ........................................7
  Definition of Curriculum
  Curriculum Perspectives
  Elements of Curriculum

Unit 2: Types of Curricula .................................................17
  Definition of Types of Curricula
  Relationships between Types of Curricula

Unit 3: Factors That Influence Curriculum Design ....................22
  How Political Factors Influence Curriculum Design
  How Social Factors Influence Curriculum Design
  How Economic Factors Influence Curriculum Design
  How Technological Factors Influence Curriculum Design
  How Environmental Factors Influence Curriculum Design
  The Influence of Child Psychology

Unit 4: Models of Curriculum Design ....................................29
  The Objectives Model
  The Process Model
  Tyler’s Model
  Wheeler’s Model
  Kerr’s Model
Unit 5: Designer of the Curriculum .................................................. 39
   Patterns of Curriculum Designing
   Composition and Structure of Curriculum Designing in Zimbabwe
   Advantages and Disadvantages of Centralised Curriculum Design
   Decentralised Pattern of Curriculum Design

Unit 6: Curriculum Implementation .............................................. 50
   Definition of Curriculum Implementation
   Factors That Influence Curriculum Implementation

Unit 7: Curriculum Evaluation ..................................................... 56
   Definitions of Curriculum Evaluation
   Curriculum Evaluation Approaches
   Functions of Curriculum Evaluation
   Focuses of Evaluation
   Forms of Evaluation
   Evaluation Methods and Tools

Unit 8: Curriculum Change and Innovation ............................. 64
   Defining Curriculum Change and Innovation
   The Context of Curriculum Change and Innovation
   Strategies and Models for Curriculum Change and Innovation
   Planning and Executing Change

Module Test ............................................................................... 73

References ................................................................................. 74
LEARNING TIPS

You will find the following tips helpful as you study this module.

- **Set aside some time each day to work on this module.** If possible, study at the same time and in the same place so you are comfortable with your study surroundings. Learning at a distance requires discipline and motivation.

- **Go through the module unit by unit.**

- **Note any words you do not understand.** Look them up in a dictionary or other reference source or discuss them with your colleagues.

- **Underline or highlight important passages.** Make summary notes in the margins of long passages. Writing will help you to remember the material. You may also choose to make diagrams that illustrate how different ideas are related or list the steps in a procedure or technique.

- As you work through this module, **keep in mind your learners and their educational needs** as well as your instructional goals and your subject matter. How will you apply what you are learning?

- Read the assignment instructions carefully. Then, **do all the self-assessment activities** before proceeding to the Suggested Answers section.

- **As you undertake each activity, relate it to the practice of teaching** and analyse how it will help you to enhance the teaching-learning situation. Always ask yourself how you could use this material.

- **Apply some of the suggested techniques to your teaching.** All suggestions may not be appropriate for your situation, but how will you know unless you try them? Keep a record of what techniques work and an explanation of why some techniques appeared to fail. What does not work now may work later with different students.

- It may be difficult, but try to **meet occasionally with other teachers** to discuss the content and application of suggestions provided in this module.

- If you experience difficulty in understanding some aspect of the module, do not despair! You are meant to be challenged. **Do not give up!** Just remember that your goal is to be the best teacher that you can be. Think of what you would tell a student who was experiencing difficulty in your classroom. Then, apply the same advice to yourself.
Throughout each module, you will find the following icons or graphic symbols that alert you to a change in activity within the module. Only the icons that are required are used in each module.

**Text or Reading Material**: provides information about the topics that are covered in a module. The subject matter for each SADC module is organised into units.

**Introductory Activity**: requires you to focus on the content that will be discussed in a unit.

**Self-Assessment**: enables you to check your understanding of what you have read and, in some cases, to apply the information presented in the unit to new situations.

**Practice Activity**: encourages you to review and apply what you have learned before taking a unit test.

**Reflection**: asks you to relate what you have learned to your work as a teacher or education officer in your community.

**Summary**: highlights or provides an overview of the most important points covered in a unit.

**Unit Test**: concludes each unit.

**Suggested Answers**: allow you to evaluate your learning by providing sample answers to assessments, activities and the unit test.
UNIT 1: The Concept of Curriculum

Introduction
As a teacher, you need to know what curriculum means in order to:

- Relate education to the socio-economic, technological, political and environmental demands of your society.
- Relate content or the body of knowledge to your local setting.
- Apply the most effective and relevant teaching and learning methodologies.
- Evaluate teaching and learning processes in your education system.

Content
This unit will cover the following topics:

- definition of curriculum,
- curriculum perspectives, and
- elements of curriculum.

Objectives
After completing this unit, you should be able to:

1. Define curriculum.
2. Explain curriculum perspectives.
3. Discuss elements of curriculum.

Definition of Curriculum
From your experience, define the term ‘curriculum’.

Now, compare your definition with the following given by scholars in the subject area.

A curriculum is a “plan or program of all experiences which the learner encounters under the direction of a school” (Tanner and Tanner, 1995: 158). According to Gatawa (1990: 8), it is “the totality of the experiences of children for which schools are responsible”. All this is in agreement with Sergiovanni and Starrat (1983), who argue that curriculum is “that which a student is supposed to encounter, study, practice and master... what the student learns”. For others such as Beach and Reinhatz (1989: 97), a curriculum outlines a “prescribed series of courses to take”.

Module 13, Unit 1: The Concept of Curriculum 7
From the definitions above, it is possible to state that a curriculum has the following characteristics:

- It comprises the experiences of children for which the school is responsible.
- It has content.
- It is planned.
- It is a series of courses to be taken by students.

In addition, a curriculum considers the learners and their interaction with each other, the teacher and the materials. The output and outcomes of a curriculum are evaluated.

Bringing all these points together, the curriculum is viewed as a composite whole including the learner, the teacher, teaching and learning methodologies, anticipated and unanticipated experiences, outputs and outcomes possible within a learning institution.

**Self-Assessment 1**

The head of a village school decided to change the school timetable. The new timetable is shown below. Study it and answer the questions that follow it.

(See the school timetable on the following page.)
### School Timetable

<table>
<thead>
<tr>
<th>Day of Week</th>
<th>Morning</th>
<th>Afternoon</th>
<th>Observations Made on Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MONDAY</td>
<td>Maths</td>
<td>English</td>
<td>Local English</td>
</tr>
<tr>
<td>TUESDAY</td>
<td>English</td>
<td>Reading</td>
<td>Art</td>
</tr>
<tr>
<td>WEDNESDAY</td>
<td>Practical Subject</td>
<td>Practical Subject</td>
<td>Practical Subject</td>
</tr>
<tr>
<td>THURSDAY</td>
<td>Maths</td>
<td>English</td>
<td>Reading</td>
</tr>
<tr>
<td>FRIDAY</td>
<td>English</td>
<td>Maths</td>
<td>Music</td>
</tr>
</tbody>
</table>

1. Why do you think there was poor attendance on Wednesday?
2. Why do you think there was good attendance on Thursday?

3. If parents started withdrawing their children, saying that there was little learning going on in this school, what do you think is their interpretation of curriculum?

Possible answers are found at the end of the unit.

**Curriculum Perspectives**

Curriculum perspectives are theories of knowledge which are an important source of curriculum decisions. Zewii (1984), cited in Gatawa (1990: 21), states that what goes into the curriculum depends heavily on these perspectives. There are a number of curriculum perspectives that you should be familiar with. In this section, we will explore the following four:

- rationalist
- empiricist
- pragmatist
- existentialist.

It is important to consider each perspective as it relates to the following:

- the learner
- the teacher
- methodology
- curriculum.

The table that follows summarises the perspectives as they relate to the learner, teacher, method and curriculum.

<table>
<thead>
<tr>
<th>Perspectives</th>
<th>Learner</th>
<th>Teacher</th>
<th>Method</th>
<th>Curriculum</th>
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</thead>
<tbody>
<tr>
<td>Rationalist</td>
<td>Recipient of information</td>
<td>Source of ideas, facts and information</td>
<td>Drilling, Lecturing</td>
<td>Subject matter of symbol and idea</td>
</tr>
<tr>
<td>Empiricist</td>
<td>Recipient of information</td>
<td>Demonstrator of process</td>
<td>Lecturing, Teacher-centred</td>
<td>Subject matter of the physical world</td>
</tr>
<tr>
<td>Pragmatist</td>
<td>Experiences knowledge</td>
<td>Researcher, project director</td>
<td>Inquiry, Participatory Problem-solving</td>
<td>Problem solving, Hypothetical Subject to change, Projects</td>
</tr>
<tr>
<td>Existentialist</td>
<td>Ultimate chooser, search for personal identity</td>
<td>Facilitator of choices</td>
<td>Inquiry, Discovery</td>
<td>Subject matter of choices, Not rigid</td>
</tr>
</tbody>
</table>


It is important for you to understand the essence of each perspective.
Rationalists say:
- True knowledge is achieved by the mind.
- Knowledge is a series of revelations.

Empiricists think:
- True knowledge is derived from evidence.
- Authentic knowledge comes through the senses.

Pragmatists believe that:
- Knowledge is hypothetical and changing constantly.
- Knowledge is experienced.
- Knowledge cannot be imposed on the learner.
- Knowledge is a personal activity.
- Knowledge is socially constructed.

Existentialists or phenomenologists conclude that:
- Knowledge is personal and subjective.
- Knowledge is one’s own unique perception of one’s world.
- Education should be less formal.
- Curricula should be diverse, not common for all.

Before you read the next section, check on how much you remember.

Self-Assessment 2
1. In one or two sentences, define the term ‘curriculum’.
2. Give brief definitions of the following views in curriculum decision-making.
   a. Rationalist
   b. Empiricist
   c. Pragmatist
   d. Existentialist.

Possible answers to these questions are provided at the end of this unit.

Elements of Curriculum
The curriculum has four elements that are in constant interaction:
- purpose (goals and objectives)
- content or subject matter
- methods or learning experiences
• evaluation.

The diagram that follows shows the interaction among these elements.

**Elements of the Curriculum**

![Diagram of elements of the curriculum]

CONTEXT (Social/Political/Technological/Environmental/Economic


It is the interaction of these elements in the social, political, economic, technological and environmental context that constitutes a curriculum. Now let us look at each element in turn.

**Purpose**
The purpose of a curriculum:

• is based on the social aspirations of society,
• outlines the goals and aims of the programme, and
• is expressed as goals and objectives.

There are three categories of goals and objectives:

• cognitive, referring to intellectual tasks,
• psychomotor, referring to muscular skills, and
• affective, referring to feeling and emotions.

You should note that the curriculum reflects the relevance of whatever the society deems to be important.
Content or Subject Matter
The content of the curriculum:

- is divided into bodies of knowledge, for example, mathematics, English and science;
- outlines the desired attitudes and values;
- includes cherished skills;
- is determined by prevailing theories of knowledge; and
- caters to ideological, vocational and technical considerations.

You should note that the curriculum content must be applicable to the solution of the problems affecting the society which uses it.

Methods
The methods outlined in a curriculum:

- deal with teaching and learning experiences, and
- involve organisational strategies.

Flexible teaching methods facilitate learning.

Evaluation
Evaluation is used to:

- select appropriate content based on the aims and objectives of the curriculum;
- select appropriate methods to address the content and purpose;
- check the effectiveness of methods and learning experiences used;
- check on the suitability and the appropriateness of the curriculum in answering social needs;
- give feedback to the planners, learners, teachers, industry and society; and
- provide a rationale for making changes.

You should note that in conducting evaluations, judgements must be made regarding:

- inputs,
- means,
- content,
- outputs, and
- outcomes of the whole learning process.
Practice Activity

1. Which curriculum perspective holds that:
   a. knowledge is personal and subjective?
   b. knowledge is based on evidence?
   c. teachers are sources of ideas and information?
   d. learners must experience knowledge?

2. The four elements that make up a curriculum are surrounded by a context that affects different aspects of the elements. Name the components of the context in which a curriculum is designed and implemented.

3. Consider the subjects offered by your school. Which ones would appeal to those who have a pragmatic or existential view of the world?

Possible answers to these questions are provided at the end of this unit.

Summary

In this unit, you studied what a curriculum is and reviewed some of the educational views on which a curriculum is based. The four elements of the curriculum were also presented. As a teacher, you need to understand the different perspectives that drive the design of the curriculum. In the next unit, you will build on the concepts covered in Unit 1 by studying different types of curricula.

Reflection

1. Consider the education system in your country. On which curriculum perspective would you say your system is based?

2. Who decides on the content, methods, purpose and evaluation of your country’s curriculum?

Unit Test

1. Draw a diagram that illustrates the connections between elements that are included in a curriculum.

2. Which groups of people may benefit from feedback generated by curriculum evaluation? Explain how any three groups benefit from the evaluation.

Possible answers to these questions are provided at the end of this unit.
Suggested Answers

Self-Assessment 1

Below are possible answers to the three questions.

1. Wednesday had no academic subjects. Learners or their parents did not consider practical subjects as meaningful learning.

2. Thursday had academic subjects which learners or their parents considered important. Therefore, attendance was good.

3. The parents understood curriculum to be a course of core academic subjects. Therefore, practical subjects and sports were not essential.

Self-Assessment 2

1. A curriculum is a composite whole including learner, teacher, teaching and learning methodologies, anticipated and unanticipated experiences and outcomes possible within a learning institution. You may have included other items in your answer.

2. Brief definitions of the four views are presented below.

Rationalists believe that true knowledge is achieved by the mind and knowledge is a series of revelations.

Empiricists believe that true knowledge is derived from evidence and authentic knowledge comes from the senses.

Pragmatists believe that knowledge changes constantly, is experienced, cannot be imposed on learners, is a personal activity and is socially constructed.

Existentialists believe that knowledge is personal and subjective and depends on one’s own unique perception of the world. Education should be less formal, and the curriculum should be diverse.

Practice Activity

1. a. Existentialist
   b. Empiricist
   c. Rationalist
   d. Pragmatist

2. The context includes economic, environmental, political, social and technological factors.

3. Subjects that would appeal to the pragmatist or existentialist are those that allow a child to have some choices and provide hands-on experience. Therefore, all practical subjects such as agriculture, woodwork, metal work, cookery, gardening, physical education, art, music
and building studies would allow the child some freedom to
discover, participate and solve problems. Subjects like
science and mathematics could be added to this list,
provided that they are taught using discovery methods that
enable children to learn through exploration and
experimentation.

**Unit Test**

1. Compare your diagram to the one provided in the unit. Note
that there are four elements that are all interconnected.
There is a two-way connection between methods and
evaluation and between content and evaluation. Also note
that there are five components that make up the context.

2. Your answer could have identified some of the following
benefits of curriculum evaluation:

- **Planners** - improved institution
  - identification of relevant resources for
    content and curriculum
  - determination of the appropriateness of the
    curriculum
  - identification of needs
  - improvement of learners and teachers
  - provision of feedback to society regarding the
    level to which goals and aims were achieved

- **Employers** - preparation of workers with relevant skills
  for the work force
  - trainable workers who know how to learn
  - knowledgeable workers

- **Learners** - improved performance, knowledge and skills
  - relevant content
  - access to appropriate learning experiences
  - increased opportunities

- **Teachers** - improved performance, knowledge and skills
  - better understanding of learner
  - increased confidence
  - improved material resources
  - improved working conditions
  - improved teaching content

You may have identified additional benefits.
UNIT 2: Types of Curricula

Introduction
As a practising teacher, you should be able to:

- identify the type of curriculum used in your school,
- relate the performance of schools with the curriculum they use, and
- determine the curriculum suitable for the students you teach.

Objectives
After completing this unit, you should be able to:
1. List types of curricula.
2. Differentiate between the types of curricula.
3. Relate the types of curricula to your own work situations.

Content
This unit will cover the following topics:

- definition of types of curricula
- relationships between types of curricula
- core and extra-curricular learning activities.

Definition of Types of Curricula

Formal Curriculum
According to Urevbu (1985: 3), formal curriculum refers to:

what is laid down as the syllabus or that which is to be learnt by students. It is the officially selected body of knowledge which government, through the Ministry of Education or any body offering education, wants students to learn.

The University of Zimbabwe Distance Education Module EA3AD 303 (1995) refers to formal curriculum as all the work that teachers plan and use with students. This curriculum meets specified objectives of educating identified groups of learners or students in their varying settings. In other words, formal curriculum is the selected written programmes or courses students go through.
**Informal Curriculum**
Urevbu (1985: 3) refers to informal curriculum as the curriculum in use. Teachers or instructors may not adhere to the presented formal curriculum but can include other aspects of knowledge derived from other sources. This additional material is called the ‘informal curriculum’.

**Actual Curriculum**
This refers to both written and unwritten syllabuses from which students encounter learning experiences (Tanner and Tanner 1975). Learning experiences can be selected from other sources rather than the prescribed, official and formal syllabuses. The actual curriculum is the total sum of what students learn and teachers teach from both formal and informal curricula.

### Self-Assessment 1
Which type of assessment covers:
1. knowledge from sources outside the official curriculum?
2. the contents of the official syllabuses?
3. content from both the official and unofficial syllabuses?

**Hidden Curriculum**
Urevbu (1985: 3) describes the hidden curriculum as the non-academic but educationally significant component of schooling. Tanner and Tanner (1995) prefer to call it the ‘collateral curriculum’. They argue that the word ‘hidden’ implies deliberately concealing some learning experiences from students. Since this is not written or officially recognised, its influence on learning can manifest itself in students’ attitudes and behaviour, both during and after completing their studies. What is acquired or learned from hidden curriculum is usually remembered longer than information learned at school. Tanner and Tanner (1975) recommend that positive learning from the hidden curriculum should be acknowledged and treated as an integral part of the planned and guided learning experiences. As already implied, the hidden or collateral curriculum is often responsible for the values students may exhibit later in life.

**Relationships between Types of Curricula**
The relationship between the different types of curricula is shown in the diagram below.
Circle 1 represents the presented, formal learning experiences as per the objectives of the curriculum or syllabus.

Circle 2 represents the learning experiences students acquire – values that cannot be categorised in the formal or informal curriculum.

Circle 3 represents what students actually learn from both the formal and hidden curricula.

Core Curriculum
You may have also come across the term ‘core curriculum’ in your readings. This is not an independent type of curriculum. It refers to the area of study, courses or subjects that students must understand in order to be recognised as educated in the area. In other words, ‘core’ refers to the ‘heart’ of experiences every learner must go through. The learner has no option but to study the prescribed course or subjects.

Extra-Mural Curriculum
You have probably heard and said a lot about this type of curriculum. It refers to those learning activities or experiences students are exposed to by their teachers but which are not stipulated in the formal or official curriculum. Teachers deliberately plan and teach these experiences and sometimes even assess their outcomes. Coaching and training in various aspects of school sports are some of the extra-curricular learning experiences available to students. As you know, these experiences are not stipulated in the formal curriculum.
Self-Assessment 2
Think of the formal curriculum offered at your school and list its characteristics.

Possible answers to this activity are provided at the end of this unit.

Practice Activity
A donor wants to assist your school in promoting learning in areas not stipulated in your formal curriculum. What might you want students to learn from the hidden curriculum?

Possible answers to this activity are provided at the end of this unit.

Summary
This unit has described a number of types of curricula. It has also discussed characteristics of each type as viewed by some educational authorities and explained their interrelationships. Your effort in answering questions given in the unit has no doubt assisted you in understanding the concepts better. You should now have the confidence to read more about the concept of curriculum in the next unit.

Reflection
Please reflect on what you have learned in this unit and see whether you can:

- differentiate the types of curricula,
- identify the core curriculum at your school, and
- explain to colleagues the characteristics of each type of curriculum.

Unit Test
1. What can students learn from the hidden curriculum?
2. Which learning experiences can you classify under the extra-mural curriculum in your school?

Possible answers to this question are provided at the end of this unit.
Suggested Answers

Self-Assessment 1
1. informal curriculum
2. formal curriculum
3. actual curriculum

Self-Assessment 2
Some characteristics of the formal curriculum are listed below.
- specified course of study
- designed for an identified group of students
- to be studied within a given time frame
- based on Ministry of Education syllabuses.

Practice Activity
Some of the values and behaviours you might want students to learn from the hidden curriculum are:
- punctuality,
- the way to dress,
- loyalty,
- honesty, and
- cleanliness.

Unit Test
1. Some learning experiences students acquire from the hidden curriculum include the following:

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patience</td>
<td>Impatience</td>
</tr>
<tr>
<td>Respect</td>
<td>Disrespect</td>
</tr>
<tr>
<td>Diligence</td>
<td>Peer influence (however, this may also be a positive influence)</td>
</tr>
<tr>
<td>Reliability</td>
<td></td>
</tr>
</tbody>
</table>

2. Extra-mural activities at your school could include the following:
- cultural activities, such as music, drama or dance classes or performances
- sports teams
- clubs for students with special interests
- visits to the school from story tellers or community leaders.
UNIT 3: Factors That Influence Curriculum Design

Introduction
If you are aware of the factors that influence curriculum design, you will be able to understand how the content you are teaching and the learning experiences to which the children are exposed have been selected. You may also develop some insight into the methods you can use to deliver this content. Therefore, this unit will help you to understand the various factors that influence curriculum design.

Objectives
After completing this unit, you should be able to explain how the following influence curriculum design:

- political factors
- social factors
- economic factors
- technological factors
- environmental factors
- child psychology.

Content
This unit will cover the following topics:

- influence of politics on curriculum
- influence of society on curriculum
- influence of economy on curriculum
- influence of technology on curriculum
- influence of environment on curriculum
- influence of child psychology on curriculum.

How Political Factors Influence Curriculum Design
From your experience as a student and teacher, you may have noticed how politics influence education. This is why education is regarded as a political activity. National ideology and philosophy have a tremendous influence on the education system because:

- Politics determine and define the goals, content, learning experiences and evaluation strategies in education.
Curricular materials and their interpretation are usually heavily influenced by political considerations.

Political considerations may play a part in the hiring of personnel.

Funding of education is greatly influenced by politics.

Entry into educational institutions and the examination systems are heavily influenced by politics.

The list above is not exhaustive, but it helps you to appreciate how politics influence curriculum design.

Self-Assessment 1

Why is education viewed as a political activity? Give at least four reasons.

The possible answers to this question are provided at the end of this unit.

How Social Factors Influence Curriculum Design

When you examine the curriculum being offered in your country, one question you may need to deal with is the extent to which social factors or social considerations influenced the design of the curriculum.

Society has its own expectations about the aims and objectives that should be considered when designing the curriculum. It also has a perception of what the product of the school system should look like. It is therefore necessary for curriculum designers to take into account these societal considerations. If this does not happen, the curriculum becomes irrelevant.

As you know, a number of religions co-exist in countries in the SADC region. Your own community may include Christians, Muslims, Hindus and adherents of other religions. Their views must be considered when designing a curriculum. In Zimbabwe, for example, subjects such as sex education and political economy have proved difficult to include in the curriculum because of the resistance from some religious groups. These groups feel that including these subjects in the curriculum will undermine their belief systems. The same groups of people would not tolerate a curriculum that does not include religious and moral education.

The design of curricular materials and their presentation should accommodate the culture of the society that the curriculum is seeking to serve. You should, however, be sensitive to the fact that the curriculum can be used to perpetuate inequities. You may have a curriculum that is gender biased against female children because it includes...
instructional materials that portray negative attitudes towards women and girls.

It is therefore possible for culture to have both positive and negative influences on the curriculum.

Pause for a moment and consider the number of groupings in the society in which you live. These can be professional associations, cultural groups and religious organisations. The list is endless. These groups can bring their views to bear on curriculum design. This is so because any curriculum of value must result from the broad consultation of a wide range of stakeholders.

**Self-Assessment 2**

Social factors are very critical in designing a curriculum. Identify at least two social factors that should be considered when designing a curriculum.

Possible answers to this activity are provided at the end of this unit.

**How Economic Factors Influence Curriculum Design**

One of the reasons why education is financed by governments is to improve the country’s economy. Therefore, the national curriculum should concern itself with the requirements of the economy.

Perhaps you are wondering how the economy of the country affects the curriculum.

The children you teach will need to be employed. The skills needed by industry should be translated into the content and learning experiences of these children. The skills, knowledge base and attitudes required by industry should be developed in the classroom.

You might have noticed some advertisements for vacant posts in your local media. Employers have basic requirements. Educational institutions find themselves working to meet these basic requirements academically and professionally. As you are reading this unit, you might be thinking of acquiring a higher academic or professional qualification. This would enhance your upward social mobility. The market forces dictate what should be included in the national curriculum. It also subtly determines the quantity of learners at different levels.

As a teacher, you require classroom supplies such as:

- textbooks,
- charts,
equipment, and
• chemicals for science experiments.

These materials are products of industry. Without these materials, learning is compromised. It is therefore crucial that serious consideration be given to economic demands when designing the curriculum.

**How Technological Factors Influence Curriculum Design**

The computer is the latest technological innovation that will have a significant impact on education and society. If you are not computer literate, you may feel that you are not up-to-date.

In your area, you may have noticed that a number of schools have introduced computing as one of the subjects. The intention is to equip the learners with the requisite computer skills and knowledge. In addition to computers, other forms of electronic media are being used in teaching. These have provided a variety of learning experiences and have facilitated individualised learning. Curriculum designers cannot afford to ignore technology and its influence on the curriculum.

**How Environmental Factors Influence Curriculum Design**

Over time, people have become insensitive to their surroundings and natural resources. This has affected the sky, the land and the sea. The end result is that humanity is being adversely affected by these in-considerations.

Industrial wastes have polluted the world. For example, the ozone layer in the atmosphere, which protects us from harmful radiation from the sun, is being depleted. People want this redressed. It is through education that remediation can be effected. Consideration for the environment must of necessity influence curriculum design to ensure the survival of future generations.

**The Influence of Child Psychology**

Apart from the factors detailed above, curriculum design is also influenced by child psychology. Theories of learning and child development have to be considered when designing the content of the curriculum and how it is delivered. Learning can be maximised by ensuring that activities and experiences are introduced at the most ‘teachable’ moment.
Self-Assessment 3

If the local economy required more miners, how would this influence the curriculum?

Possible answers to this question are provided at the end of this unit.

Summary

In designing a suitable and relevant curriculum, curriculum planners should always consider political, social, economic, technological and environmental factors and theories in the field of child psychology. In the next unit, you will be introduced to different models of curriculum design.

Reflection

Do you think that the syllabuses and textbooks used in your schools adequately reflect your national ideology and the demands of your society?

Unit Test

Name four of the factors that influence curriculum design. Explain how any two of the factors influence the curriculum.

Possible answers to this test are provided at the end of this unit.
Suggested Answers

Self-Assessment 1

Education is viewed as a political activity because politics:

- determine and define the goals, content, learning experiences and evaluation strategies;
- influence the selection and interpretation of curricular materials;
- influence funding of education;
- influence entry into educational institutions and the examination systems; and
- play a part in the hiring of personnel.

Self-Assessment 2

In designing the curriculum, the following social factors should be considered:

- religion,
- culture, and
- the view of various groupings in society, including professional associations.

Self-Assessment 3

If the local economy required more miners, then the curriculum might be adjusted to include information and skills related to mining. However, it is also likely that no adjustments would be made to the formal curriculum set by the Ministry of Education because this government body may not feel that mining is a priority for the country as a whole.

Unit Test

Any four of the following factors could be considered in your answer.
<table>
<thead>
<tr>
<th><strong>Factor</strong></th>
<th><strong>Explanation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Political factors</td>
<td>- see answer to Self-Assessment 1</td>
</tr>
<tr>
<td></td>
<td>- influence materials and their interpretation</td>
</tr>
<tr>
<td></td>
<td>- influence the hiring of personnel</td>
</tr>
<tr>
<td>Social factors</td>
<td>- influence the selection and interpretation of resources</td>
</tr>
<tr>
<td></td>
<td>- influence the hiring of personnel</td>
</tr>
<tr>
<td>Economic factors</td>
<td>- influence goals, content and learning experience</td>
</tr>
<tr>
<td></td>
<td>- influence material production</td>
</tr>
<tr>
<td></td>
<td>- influence standard of academic attainment</td>
</tr>
<tr>
<td>Technological factors</td>
<td>- same as economic factors</td>
</tr>
<tr>
<td>Environmental factors</td>
<td>- influence goals, content and learning experiences</td>
</tr>
<tr>
<td></td>
<td>- influence material production</td>
</tr>
<tr>
<td>Theories of child psychology</td>
<td>- influence curriculum content and delivery methods</td>
</tr>
<tr>
<td></td>
<td>- influence scheduling and timetabling</td>
</tr>
</tbody>
</table>
UNIT 4: Models of Curriculum Design

Introduction
Curriculum design is a complex but systematic process. This unit describes a variety of models of curriculum design in order to make this complex activity understandable and manageable. It is important for you as a teacher to understand how the curriculum you are using in your school was designed.

Objectives
After completing this unit, you should be able to:
1. Discuss various models of curriculum design.
2. Compare curriculum design models.
3. Explain steps in curriculum design in relation to models of curriculum.

Content
This unit covers the following models of curriculum design:
- the objectives model,
- the process model,
- Tyler’s model,
- Wheeler’s model, and
- Kerr’s model.

The Objectives Model
The objectives model of curriculum design contains content that is based on specific objectives. These objectives should specify expected learning outcomes in terms of specific measurable behaviours.

This model comprises four main steps:
- agreeing on broad aims which are analysed into objectives,
- constructing a curriculum to achieve these objectives,
- refining the curriculum in practice by testing its capacity to achieve its objectives, and
- communicating the curriculum to the teachers through the conceptual framework of the objectives. (Gatawa, 1990: 30)
Objectives Model


You will note that in this model:

- Evaluation is done at each stage of the curriculum design.
- Content, materials and methodology are derived from the objectives.

The Process Model

Unlike the objectives model, this model does not consider objectives to be important. Using this model presupposes that:

- Content has its own value. Therefore, it should not be selected on the basis of the achievement of objectives.
- Content involves procedures, concepts and criteria that can be used to appraise the curriculum.
- Translating content into objectives may result in knowledge being distorted.
- Learning activities have their own value and can be measured in terms of their own standard. For this reason, learning activities can stand on their own. (Gatawa, 1990: 31)
Curriculum Idea (goals)

Evaluation

Outcomes

Content Methodology


It is important to note that in the process model:

- Content and methodology are derived from the goals. Each of them has outcomes that can be evaluated.
- The evaluation results from the outcome are fed into the goals, which will later influence the content and methodologies. Unlike the objectives model, there is no direct evaluation of the content and methodologies.

Self-Assessment 1

What is the difference between the objectives model and the process model of curriculum design?

Possible answers to this activity are provided at the end of this unit.

The process and objectives models of curriculum design are not the only models. The remaining part of the unit will cover models developed by Tyler, Wheeler and Kerr.

Tyler's Model

Tyler's model for curriculum designing is based on the following questions:

- What educational purposes should the school seek to attain?
• What educational experiences can be provided that are likely to attain these purposes?
• How can these educational experiences be effectively organised?
• How can we determine whether these purposes are being attained?

**Tyler’s Model**

```
Objectives
     ↓
Selection of learning experiences
     ↓
Organisation of learning experiences
     ↓
Evaluation
```


The model is linear in nature, starting from objectives and ending with evaluation. In this model, evaluation is terminal. It is important to note that:

• Objectives form the basis for the selection and organisation of learning experiences.
• Objectives form the basis for assessing the curriculum.
• Objectives are derived from the learner, contemporary life and subject specialist.

To Tyler, evaluation is a process by which one matches the initial expectation with the outcomes.

**Wheeler’s Model**

Wheeler’s model for curriculum design is an improvement upon Tyler’s model. Instead of a linear model, Wheeler developed a cyclical model. Evaluation in Wheeler’s model is not terminal. Findings from the evaluation are fed back into the objectives and the goals, which influence other stages.
Wheeler’s Model

1. Aims, goals and objectives

2. Selection of learning experiences

3. Selection of content

4. Organisation and integration of experiences

5. Evaluation


Wheeler contends that:

- Aims should be discussed as behaviours referring to the end product of learning which yields the ultimate goals. One can think of these ultimate goals as outcomes.

- Aims are formulated from the general to the specific in curriculum planning. This results in the formulation of objectives at both an enabling and a terminal level.

- Content is distinguished from the learning experiences which determine that content.

**Self-Assessment 2**

Define a terminal objective and an enabling objective.

Possible answers to this activity are provided at the end of this unit.

**Kerr’s Model**

Most of the features in Kerr’s model resemble those in Wheeler’s and Tyler’s models. However, Kerr divided the domains into four areas (Urevbu, 1985: 23):
• objectives,
• knowledge,
• evaluation, and
• school learning experiences.

A simplified version of Kerr’s model of curriculum design is shown below.

What you should note about the model is that:
• the four domains are interrelated directly or indirectly, and
• objectives are derived from school learning experiences and knowledge.

In Kerr’s model, objectives are divided into three groups:
• affective
• cognitive
• psychomotor.

The model further indicates that knowledge should be (Urevbu, 1985):
• organised,
• integrated,
• sequenced, and
• reinforced.

Evaluation in Kerr’s model is the collection of information for use in making decisions about the curriculum.

School learning experiences are influenced by societal opportunities, the school community, pupil and teacher
relationships, individual differences, teaching methods, content and the maturity of the learners. These experiences are evaluated through tests, interviews, assessments and other reasonable methods.

In his model, Kerr asserts that everything influences everything else and that it is possible to start an analysis at any point (Urevbu, 1985: 22).

**Self-Assessment 3**

In Kerr’s model, what do you think are the important points raised about objectives?

Possible answers to this question are provided at the end of this unit.

There are many curriculum design models. The models discussed in this unit are meant to give you an idea of how they are used to develop a curriculum.

In designing a curriculum, you need to:

- Establish or obtain general goals of education.
- Reduce the general goals to specific instructional objectives, including objectives that cover different domains and levels.
- Assess prior student knowledge and/or abilities.
- Break learning into small, sequential steps.
- Identify teacher behaviour.
- Identify student behaviour.
- Write a description of the lesson.
- Evaluate to see if the intended outcomes have been achieved.

If you complete these eight stages, you would have conducted what is generally referred to as the task analysis process.

**Summary**

The curriculum design models discussed show that curriculum designing is conducted stage by stage. Some of the models discussed consider the process to be more important than the objectives. Other models take objectives to be the most important feature of curriculum design. Generally, all models stress the importance of considering a variety of factors that influence curriculum.

Now that you have read about the types of curriculum design, factors that influence curriculum design and models used to
design the curriculum, the next unit discusses the personnel and departments involved in the curriculum design process.

Reflection
As a practising teacher, on which model or models of curriculum design do you think your national school curriculum was based? How does the model affect what you actually teach in class?

Unit Test
List the stages in the task analysis process that you need to follow when designing a curriculum.

Possible answers to this test are provided at the end of this unit.
Suggested Answers

Self-Assessment 1
The differences between the objectives and process models are outlined below.

- The objectives model derives content and methodology from objectives, whereas the process model derives content and methodology from curriculum aim.
- The evaluation results in the objectives model improve and influence all stages, including the curriculum idea, objectives, content, material and methodology. In the process model, the evaluation is conducted on the outcomes and influences curriculum goals.

Self-Assessment 2
Below are possible definitions for terminal and enabling objectives.

Terminal objective: Statement of what the learner should be able to achieve at the conclusion of a unit of instruction.

Enabling objective: The sub-objectives of a terminal objective which will make it possible for a learner to arrive at the terminal behaviour.

Self-Assessment 3
In Kerr's model, objectives:

- are based on learning experiences and knowledge, societal needs and the requirements of the disciplines;
- are divided into cognitive, psychomotor and effective domains; and
- give the standard on which evaluation is based.

Unit Test
Your answer may take the form below.

The eight stages which one has to go through in a task analysis process are:

- Establish or obtain general goals of education.
- Reduce the general goals to specific instructional objectives, including objectives for different domains and levels.
• Assess prior student knowledge and/or abilities.
• Break learning into small, sequential steps.
• Identify teacher behaviour.
• Identify student behaviour.
• Write a description of the lesson to be delivered.
• Evaluate to determine if the intended outcomes have been achieved.
UNIT 5: Designer of the Curriculum

Introduction
You should be aware that the process of curriculum designing and development differs from country to country. In Zimbabwe, for example, the curriculum is centrally developed. In some developed countries such as Britain, the United States of America and Australia, local authorities or individual states develop the curriculum. The manner in which the curriculum is designed determines who designs the curriculum in that country. This unit will make you aware of those involved in the design of the curriculum.

Objectives
After completing this unit, you should be able to:
1. Identify the pattern of curriculum design used in your country.
2. Explain the difference between centralised curriculum design and decentralised curriculum design.
3. Describe the composition and functions of the curriculum development unit(s) in your country.

Content
This unit will cover the following topics:
- patterns of curriculum designing
- composition and functions of curriculum development unit(s).

Patterns of Curriculum Designing
Two patterns of curriculum designing will be the subject of this unit:
- centralised curriculum designing
- decentralised curriculum designing.

A brief account of each of the patterns appears below.

Centralised Pattern of Curriculum Designing
In the introduction, you read that Zimbabwe has a centralised pattern of curriculum designing. This will now be explained.

A centralised curriculum designing pattern is one in which the content is decided upon by a central national office. The actual work in designing the curriculum may be completed by a...
contracted consulting company, a parastatal organisation or a division of the Ministry of Education.

Below are the characteristics of a centralised pattern of curriculum designing (Gatawa, 1990; Urevbu, 1985):

- The subject content is decided upon centrally. National syllabuses are produced with national goals and philosophies as well as suggested general learning objectives.
- Subject content evaluation instruments are developed centrally and decisions on when and how to administer these instruments rest with the Ministry of Education or the Examination Board that has been assigned the responsibility.
- Subjects to be offered by schools are determined centrally. Schools choose their subjects from a given list.
- All learners taking the same subject write the same examination and are assessed in the same skills. However, adjustments in testing are made for students who may have certain disabilities.
- Certification is centrally controlled. The certification indicates what has been learned by the student and how well the student has performed compared to others taking the same course.
- Generally, textbooks must be approved by the Ministry of Education before any school uses these books.
- Normally, there are curriculum development teams at different levels.
- An inspectorate or standards control division is put in place to monitor the learning and teaching activities.
- It takes a long time to write and approve the final curriculum document.

Self-Assessment 1

What do you understand by the phrase ‘centralised pattern of curriculum designing’?

Possible answers to this question are provided at the end of this unit.
Composition and Structure of Curriculum Designing in Zimbabwe

Do you know who is involved in designing curriculum?

To help you understand the composition and functions of the curriculum design teams, examples from the Zimbabwean system will be used.

Levels of Curriculum Designing in Zimbabwe

- **School Level.** The teachers note concerns about the subjects they are teaching in terms of content, methodology and materials in use. They also note problems faced by learners and at times local needs. These are taken to cluster meetings by a school representative.

Below is an explanation of the activities that occur at each level of the curriculum design process in Zimbabwe.
**Cluster Level.** This is a group of from three to five schools that are either close together geographically or offer similar subjects. A chairperson, normally a head of a school, is selected. He or she becomes the subject coordinator at this level. Representatives from schools meet and review common concerns, which are then forwarded to the district level.

**District Level.** The boundaries of each district are determined by the government. In Zimbabwe, a district is an area under a single local government administrator or local authority chairperson. Teacher representatives from each of the clusters under one district meet. The chairpersons at this level are District Education Officers or their representatives. Concerns are discussed and pressing and common issues are forwarded to the regional level or provincial level.

**Regional Level.** In some countries, the regional level may be referred to as the provincial level. The boundaries are politically determined. All concerns from districts are brought by a team of three from each district. Ideally, the deputy Regional Director chairs sessions at this level. However, the subject specialist officers are usually tasked to chair and compile the concerns for submission to the national level.

**National Level.** In Zimbabwe, there is a section in the Ministry of Education that coordinates curriculum development. This is referred to as the Curriculum Development Unit (CDU). In countries like Malawi and Tanzania, the function is performed by a parastatal.

Depending on the country, the following people could be on the national panel.

- Subject Education Officers from headquarters and provinces
- Subject teachers from each province
- One representative from the particular subject association
- Lecturers from teacher training colleges; one secondary and one primary teacher's college
- Representatives from local universities
- Representatives from local technical colleges
- Representatives from the Examining Board if it is not the Ministry of Education that is developing the standard examination
- Representatives from professional associations related to the subject under design or review
- Representatives from industry and commerce
- Researchers
• Representatives from ministry departments related to the subject under design or review.

The ideal panel should represent all sectors of society. It is the duty of the subject officers at the national centre to provide the secretariat and coordinate all activities. The panel finalises the content and the outcome expectations.

While what has been described is the ideal situation, there are problems faced in drafting the final document. In Zimbabwe, for example:

• very few people may attend sessions,
• regular panel meetings are not always held, and
• members may not be aware of their roles.

Consequently, the national curriculum development unit and subject Education Officers do most of the work.

According to Gatawa (1990) and Urevbu (1985), when parastatals are involved, a similar structure is used and similar problems arise.

**Examination Boards/Councils**

In the Zimbabwean structure, there is the Zimbabwe School Examination Council (ZIMSEC). It is responsible for examinations at primary, junior secondary and ‘O’ Level. (Currently, ‘A’ Level is being examined by the Cambridge Examinations Board.) These examination boards participate in designing the national curriculum and evaluate the courses offered by the nation.

**Advantages and Disadvantages of Centralised Curriculum Design**

Centralised curriculum designing has some advantages and disadvantages. As you read the lists below, add your own suggestions.

**Advantages of the Centralised Pattern of Curriculum Design**

Some of the advantages of a centralised pattern of curriculum design are listed below.

• It makes it easy to achieve national goals, since all schools use the same documents.
• Learners can transfer from one school to another without being disadvantaged.
• Entry requirements for universities and colleges can be centrally determined and parity can be ensured.
• Communication to schools regarding academic requirements is easy, since the Ministry of Education is directly involved.

• Learning materials can be mass-produced, making them less expensive for both producers and consumers.

• Institutions can be well staffed and richly serviced because they draw from a national pool of expertise and resources.

**Disadvantages of the Centralised Pattern of Curriculum Design**

Some of the disadvantages of centralising the development of the curriculum are listed below.

• The process takes a long time before the final document is produced.

• The design is insensitive to the needs of some groups within the country.

• There are coordination and communication problems when parastatals are involved in curriculum design.

• There is limited participation by various members of the community, resulting in little commitment during the implementation stage.

• It stifles creativity and initiative on the part of the teacher and other community members.

• Generally, the centralised pattern stresses content, mainly knowledge, at the expense of the development of attitudes and skills. There is a scramble for certificates, with little regard for the development and demonstration of productive skills.

**Self-Assessment 2**

Give the composition and the roles of members of the curriculum design group at the cluster level or similar levels in your country. In Zambia and Malawi, a cluster level is referred to as a zonal level.

Possible answers to this activity are provided at the end of this unit.

**Decentralised Pattern of Curriculum Design**

The decentralised pattern of curriculum design occurs when the local authorities or individual states draft their own curriculum. This type of designing is common in developed countries. However, some developing countries with large populations and states, such as Nigeria, use the decentralised pattern of curriculum design.
This pattern of curriculum designing has the following characteristics:

- Local communities initiate the changes to suit their local needs.
- Teachers work with the parents to determine the content. The learning experiences are based on what is available.
- Subjects in schools could be the same, but the content will vary from school to school, state to state, or district to district.
- Each school, state or district has its own syllabus that is produced locally.
- Generally, the textbooks may not have been centrally approved.
- Each school, state or district has its own form of evaluation.
- Very few people are involved in curriculum designing.

You can now look at some of the institutions that are involved in designing the curriculum.

State or District Based Curriculum Designing
In principle, these have the same structure as the centralised structure that was discussed earlier in this section. The only difference is that each district or state will have the final approval on content. However, each curriculum produced should meet the national goals. In general, the same types of people involved in the centralised pattern are also involved at the state or district level.

Local Authorities
Institutions and responsible authorities such as town boards and churches may be involved in curriculum development. Normally, they would depend on the teachers, heads of schools, subject specialists, industry representatives, researchers and consultants to draft the curriculum. Consultants and teachers usually outline the content and learning experiences. Assessment and evaluation are conducted by a board of the local authority’s choice. Continuous assessment is generally the norm in schools with a decentralised pattern of curriculum designing.

Like the centralised pattern, the decentralised pattern of curriculum designing has some advantages and disadvantages.

Advantages of the Decentralised Pattern
The following are some advantages of the decentralised pattern of curriculum designing, to which you can add more:
• The curriculum addresses local needs.
• The local community is directly involved and is committed to its implementation.
• The system encourages creativity and initiative on the part of the teacher.
• It takes less time to produce the curriculum than it would take when a centralised pattern is used.
• Students learn what is relevant to the local community.

**Disadvantages of the Decentralised Pattern**
The following are some of the disadvantages:

• There is no guarantee that national goals will be achieved.
• Learners cannot easily transfer from one school to another when their families move.
• There is generally a problem in developing or accessing teaching materials which, if available, are expensive to produce.
• There may not be adequate expertise in the local community to develop part of the curriculum.

**Self-Assessment 3**
List two advantages and two disadvantages of the decentralised pattern of curriculum designing.

Possible answers to this activity are provided at the end of this unit.

**Summary**
In this unit, you have studied the centralised and decentralised patterns of curriculum designing. Each pattern involves certain types or groups of people in curriculum designing. There are advantages and disadvantages with each of the curriculum designing patterns. Developing countries generally use centralised patterns of curriculum designing.

The next unit will cover curriculum implementation.

**Reflection**
Look at the manner in which your curriculum is designed and reflect on the degree of teacher involvement.
Unit Test

1. List four characteristics of a centralised pattern of curriculum designing.

2. Why would a local community prefer a decentralised pattern for curriculum development?

3. If you were on the entrance board of a college in a developed country and received an application from someone in a developing country, would it make any difference whether the applicant had successfully completed a curriculum designed by a central body or a local community? Explain your response.
Suggested Answers

Self-Assessment 1

Your answer could include some of the following points.

• A central body or group determines the actual content of the curriculum.
• All schools in the country select their subjects from a national list.
• Learners are examined centrally.

Self-Assessment 2

The cluster curriculum designing team may include:

• representatives of teachers from different schools, and
• a head of one of the schools who chairs the sessions.

The cluster curriculum designing team may perform the duties below.

• Collect concerns from different stations or schools.
• Prioritise the concerns.
• Submit common concerns to the district team.

Self-Assessment 3

In your answer, the following points might have been included.

Any two advantages from the list below:

• The curriculum addresses local needs.
• The local community is directly involved and is committed to its implementation.
• There are creativity and initiative at the local level.
• The learner learns about the immediate environment and skills that he or she can use in the community.

Any two disadvantages from the list below:

• There is no guarantee that the national goals will be achieved.
• Learners cannot transfer easily from one school to another.
• Teaching materials are expensive to produce because fewer materials are being produced at one time.
Unit Test

1. The answer to this question about the centralised pattern of curriculum designing could include the points below.
   - The syllabus content is decided upon centrally and is based upon the goals and philosophy of the nation.
   - The evaluation strategies and evaluation are determined centrally.
   - Normally, there are curriculum development teams at different levels.
   - Schools choose their subjects from a national list of subjects.
   - Textbooks are generally approved by the Ministry of Education before they are used.
   - All learners taking the same subject will write the same examination.
   - Evaluation instruments or tests are designed centrally by the Ministry of Education or the Examination Board assigned that responsibility.

2. People in a community would probably prefer that the curriculum be decided locally because they could be directly involved in developing and implementing the curriculum. They could design a curriculum that addresses local needs and prepares students for jobs in the local economy.

3. Whether a student completes a curriculum that is locally or nationally developed is not the main concern. What is important is that the student has the skills and competencies necessary for college entrance. However, it is difficult to assess from a distance whether the student has the necessary skills. Therefore, foreign colleges tend to rely on the results of standardised tests and any national standards that they can obtain.
UNIT 6: Curriculum Implementation

Introduction
As a classroom practitioner, it is important that you know what is involved in implementing the prescribed curriculum. The aim of this unit is therefore to take you through the processes and stages of curriculum implementation.

Objectives
After completing this unit, you should be able to:
1. Define curriculum implementation.
2. List factors that influence curriculum implementation.
3. Identify determinants of curriculum implementation.
4. Explain how to implement a curriculum.

Content:
This unit will cover the following topics:
- definition of curriculum implementation
- factors influencing curriculum implementation.

Definition of Curriculum Implementation
Curriculum implementation entails putting into practice the officially prescribed courses of study, syllabuses and subjects. The process involves helping the learner acquire knowledge or experience. It is important to note that curriculum implementation cannot take place without the learner. The learner is therefore the central figure in the curriculum implementation process. Implementation takes place as the learner acquires the planned or intended experiences, knowledge, skills, ideas and attitudes that are aimed at enabling the same learner to function effectively in a society (University of Zimbabwe, 1995: 8).

Viewed from this perspective, curriculum implementation also refers to the stage when the curriculum itself, as an educational programme, is put into effect.

Putting the curriculum into operation requires an implementing agent. Stenhouse (1979: 4) identifies the teacher as the agent in the curriculum implementation process. She argues that implementation is the manner in which the teacher selects and mixes the various aspects of knowledge contained in a curriculum document or syllabus. Implementation takes place when the teacher-constructed syllabus, the teacher's
personality, the teaching materials and the teaching environment interact with the learner (University of Zimbabwe, 1995: 9). Curriculum implementation therefore refers to how the planned or officially designed course of study is translated by the teacher into syllabuses, schemes of work and lessons to be delivered to students.

**Self-Assessment 1**

List what you consider to be the elements in curriculum implementation.

Possible answers to this activity are provided at the end of this unit.

**Factors That Influence Curriculum Implementation**

List what you consider to be the factors that influence curriculum implementation and see whether they are similar to the ones discussed below:

**The Teacher**

As Whitaker (1979) asserts in the University of Zimbabwe (1995: 26) module, the teachers view their role in curriculum implementation as an autonomous one. They select and decide what to teach from the prescribed syllabus or curriculum. Since implementation takes place through the interaction of the learner and the planned learning opportunities, the role and influence of the teacher in the process is indisputable (University of Zimbabwe, 1995: 28).

You could be thinking, “I understand that teachers are pivotal in the curriculum implementation process, but what is their role in the curriculum planning process?” If the teacher is to be able to translate curriculum intentions into reality, it is imperative that the teacher understand the curriculum document or syllabus well in order to implement it effectively (University of Zimbabwe, 1995: 8). If the curriculum is what teachers and students create together, as Wolfson (1997) states in *Curriculum Implementations* (University of Zimbabwe, 1995: 28), the teacher must play a more significant role in designing the curriculum. Teachers must be involved in curriculum planning and development so that they can implement and modify the curriculum for the benefit of their learners.

**The Learners**

Learners are also a critical element in curriculum implementation. While teachers are the arbiters of the classroom practice, the learners hold the key to what is actually transmitted and adopted from the official curriculum. The official curriculum can be quite different from the curriculum that is actually implemented. The learner factor influences teachers in their selection of learning experiences,
hence the need to consider the diverse characteristics of learners in curriculum implementation (University of Zimbabwe, 1995: 31). For example, home background and learner ability can determine what is actually achieved in the classroom.

**Resource Materials and Facilities**

From your experience, you are aware that no meaningful teaching and learning take place without adequate resource materials. This applies to curriculum implementation as well.

For the officially designed curriculum to be fully implemented as per plan, the government or Ministry of Education should supply schools with adequate resource materials such as textbooks, teaching aids and stationery in order to enable teachers and learners to play their role satisfactorily in the curriculum implementation process. In *Curriculum Implementation* (University of Zimbabwe, 1995: 2), it is suggested that the central government must also provide physical facilities such as classrooms, laboratories, workshops, libraries and sports fields in order to create an environment in which implementation can take place. The availability and quality of resource material and the availability of appropriate facilities have a great influence on curriculum implementation.

**Interest Groups**

Can you identify interest groups in your country that could influence the implementation of curricula?

A number of these groups exist in almost all Southern African Development Community (SADC) countries. These include parents, parents’ and teachers’ associations, School Development Associations (SDAs) and School Development Committees (SDCs) in Zimbabwe, religious organisations, local authorities, companies and private school proprietors. These groups can influence implementation in the following ways:

- Provide schools with financial resources to purchase required materials.
- Demand the inclusion of certain subjects in the curriculum.
- Influence learners to reject courses they consider detrimental to the interests of the group.

It is therefore important to involve these groups at the curriculum planning stage.

**The School Environment**

One other factor that influences curriculum implementation concerns the particular circumstances of each school (University of Zimbabwe, 1995).
Schools located in rich socio-economic environments and those that have adequate human and material resources can implement the curriculum to an extent that would be difficult or impossible for schools in poor economic environments.

**Culture and Ideology**
Cultural and ideological differences within a society or country can also influence curriculum implementation. Some communities may resist a domineering culture or government ideology and hence affect the implementation of the centrally planned curriculum.

**Instructional Supervision**
Curriculum implementation cannot be achieved unless it has been made possible through the supervisory function of the school head. The head does this through:

- deploying staff,
- allocating time to subjects taught at the school,
- providing teaching and learning materials, and
- creating an atmosphere conducive to effective teaching and learning.

As stated in *Curriculum Implementation* (University of Zimbabwe, 1995: 36), the head “monitors and guides curriculum implementation through ensuring that schemes of work, lesson plans and records of marks are prepared regularly”. The headteacher maintains a school tone and culture that create the climate of social responsibility. Effective curriculum implementation does not take place in a school where the head is incapable of executing supervisory functions.

**Assessment**
Assessment in the form of examinations influences curriculum implementation tremendously. Due to the great value given to public examination certificates by communities and schools, teachers have tended to concentrate on subjects that promote academic excellence and little else. This action by the teacher obviously can affect the achievement of the broad goals and objectives of the curriculum.

**Self-Assessment 2**
From what you have read so far, list what you can identify as determinants of curriculum implementation.

Possible answers to this activity are provided at the end of this unit.
Summary
This unit has outlined some of the factors that influence the implementation of a curriculum and discussed how each factor influences the implementation process. Do remember that in educational practice, these factors interact with each other and generate influences that cannot be attributed to one factor or another. You should view them as a whole.

Reflection
Pause and think of what you have learned in this unit. Do you feel that you can confidently and effectively implement your class curriculum?

Unit Test
1. In what way is the teacher an important factor in the implementation of a prescribed curriculum?
2. You have been asked to prepare a speech for the headteacher on what can be done to facilitate curriculum implementation. List the major points you would include in your speech.

Possible answers to this test are provided at the end of this unit.
Suggested Answers

Self-Assessment 1

The following can be considered as elements in implementation:

- course syllabus
- the teacher
- the teaching and learning materials and equipment
- the teaching and learning environment
- the learner.

Self-Assessment 2

The following can be considered as determinants of curriculum implementation:

- teachers
- learners
- interest groups
- availability of appropriate resource material, equipment and facilities.

Unit Test

1. The teacher is the one who:

   - translates the syllabus into learning activities,
   - interacts with learners and changes learners’ behaviour,
   - influences student attitudes, and
   - implements instructional supervision.

2. There are several possible answers to this question. The points below should be included in your answer along with your own additional suggestions.

   - Allocate adequate time to subjects taught at the schools.
   - Provide quality teaching and learning resources to teachers and students. There must be an adequate number of resources available to teachers and students.
   - Ensure that teachers’ schemes of work, lesson plans and records are prepared regularly.
   - Create an atmosphere that will nurture teaching and learning effectively.
UNIT 7: Curriculum Evaluation

Introduction
Now that you studied curriculum implementation in Unit 6, you are ready to review another important topic related to the curriculum. In this unit, you will be exposed to the concept of curriculum evaluation.

Objectives
After completing this unit, you should be able to:
1. Give a broad definition of curriculum evaluation.
2. Distinguish among various forms of evaluation.
3. Describe functions of curriculum evaluation.
4. Explain how to evaluate your class syllabus or school curriculum.

Content
This unit will cover the following topics:

- definition of curriculum evaluation
- curriculum evaluation approaches
- functions of curriculum evaluation
- forms of evaluation
- evaluation methods and tools.

Definitions of Curriculum Evaluation
According to Gatawa (1990: 50), the term curriculum evaluation has three major meanings:

- The process of describing and judging an educational programme or subject.
- The process of comparing a student’s performance with behaviourally stated objectives.
- The process of defining, obtaining and using relevant information for decision-making purposes.

What you need to understand about these definitions is that each does not exist in isolation from the others although each can be an activity on its own.

The first activity involves the collection of descriptive and judgemental information for the purpose of establishing whether an educational programme or project is doing what it
Module 13, Unit 7: Curriculum Evaluation

is expected to do. The evaluator pronounces judgement at the end of the exercise.

The second activity involves comparing the performance of one or more students with set standards. Such an evaluation determines the extent to which the objectives of a learning activity are being realised. This is the kind of evaluation teachers conduct on a daily basis.

The third activity is concerned with the identification of deficiencies in an educational programme or syllabus for the purpose of effecting revision and improvement.

You are advised to note that curriculum evaluation exercises usually combine these three activities. Data is collected for passing judgement, to identify deficiencies in programmes and to analyse programs in order to determine alternatives or find appropriate interventions.

Self-Assessment 1

According to Gatawa, what are the three major meanings of curriculum evaluation?

Possible answers to this activity are provided at the end of this unit.

Curriculum Evaluation Approaches

Gatawa (1990: 60) has identified five curriculum evaluation approaches:

- bureaucratic evaluation
- autocratic evaluation
- democratic evaluation
- norm-referenced evaluation
- criterion-referenced evaluation.

Bureaucratic Evaluation

This evaluation is usually initiated by the government or the Ministry of Education. In your circumstances, the Ministry of Education could evaluate a course of study or subjects taught in schools to find out whether they need improvement or modifications. The results of the evaluation are used by the Ministry of Education or the government.

Autocratic Evaluation

This evaluation focuses on what is considered to be the educational needs of a curriculum. Governments or ministries usually ask independent evaluators such as consultants to
conduct this evaluation. The government or ministry is not obliged to accept the results of the evaluation.

**Democratic Evaluation**
This focuses on the experiences and reactions the curriculum initiators have had with the programmes or project being evaluated. In this approach, the evaluation does not lead to firm recommendations to be considered by the initiators or programme implementers.

**Norm-Referenced Evaluation**
This evaluates students’ performance relative to other students’ performance. The performance of current students or of previous students can be compared.

**Criterion-Referenced Evaluation**
Criterion referencing measures students’ actual performance and compares it with the objectives of instruction identified in the syllabus.

**Functions of Curriculum Evaluation**
Urevbu (1985: 64-70) has also identified some functions of curriculum evaluation:

- informing decision-makers on the state of affairs of certain curriculum programmes or syllabuses, and
- enabling teachers to evaluate themselves.

**Decision Making**
With respect to the first function, Partlett and Hamilton, in Urevbu (1985: 64), argue that the principal purpose of evaluation is to contribute to decision making. In our circumstances, curriculum evaluations are conducted in order to correct deficiencies, make improvements and establish new priorities. For meaningful decisions to be made, they must be supported by evidence from evaluation exercises.

**Self-Evaluation**
This puts you, the teacher, at the centre of the evaluation exercise. You are a curriculum developer indulging in research-based teaching. The advantage of self-evaluation is that it allows you to change the curriculum or instructional strategies if evaluations show that they could be more effective.

**Self-Assessment 2**
1. List the evaluation approaches as suggested by Gatawa (1990).
2. Which of the above evaluation approaches:
a. compares one group of students’ performance outcomes relative to the performance of other students?

b. compares the students’ performance to a pre-established standard?

Possible answers to this activity are provided at the end of this unit.

**Focuses of Evaluation**

Evaluation generally focuses on the whole curriculum or aspects of it such as objectives, content, methodology and outcomes.

**Curriculum Objectives**

These have to be evaluated because they are the foundation on which the curriculum programme or project is frequently based. In order to conduct evaluations on objectives, a number of questions must be asked.

- Are the objectives worthwhile?
- Can they be achieved?
- What are the expected outcomes?

Also, objectives have to be evaluated because curriculum content, methodologies and materials are designed to fit objectives. Teachers use curriculum objectives to guide classroom activities, hence the need for evaluation.

**Curriculum Content and Methodology**

The content must be evaluated in order to establish whether it is relevant to the needs and aspirations of the society. When evaluating curriculum content, the focus should be on the effect it has on learners. It is important to determine whether the methodology is consistent with the curriculum objectives (Gatawa, 1990: 56) and appropriate for the content.

**Curriculum Outcomes**

The evaluation of objectives, content and methodology are conducted simultaneously as the evaluation of outcomes. The purpose of this evaluation is to supply curriculum designers with information that can be used in improving the curriculum as a whole.

**Forms of Evaluation**

In the context of curriculum evaluation, there are formative and summative evaluations. Both can be conducted to provide information necessary for effective decision making.
**Formative Evaluation**
The term ‘formative evaluation’ was originally coined by Scriven (1973) to classify evaluation that gathered information for the purpose of improving instruction as the instruction was being given. The performance of the learner was the primary focus in Scriven’s version of formative evaluation. Information about the learner’s immediate retention of skills and knowledge, retention over time and attitudes were used to shape instruction as it proceeded. Formative evaluation was considered to be an integral part of instructional design and delivery.

In our curriculum context, formative evaluation can be considered to be the process that looks for evidence of success or failure of a curriculum programme, a syllabus or a subject taught during implementation.

Formative evaluation answers two questions:

- Is the instruction successful?
- If it is not successful, what can be done to avoid failure?

It ensures that all aspects of the programme or project are likely to produce success. It provides information that can be used to stop doubtful projects from being implemented. It is therefore a conceptual and physical exercise that is carried out before a programme comes to an end.

**Summative Evaluation**
This type of evaluation assesses whether or not the project or programme can perform as the originators and designers intended. It considers cost effectiveness in terms of money, time and personnel. It also assesses the training that teachers might need in order to implement a program successfully. It determines whether a new curriculum programme, syllabus or subject is better than the one it is intended to replace or other alternatives. It is usually conducted at the end of the programme cycle.

Formative and summative evaluations can take place wherever an evaluation exercise is conducted. They can be conducted on educational projects and programmes existing in the curriculum or on the teaching of individual subjects in the school systems.

**Evaluation Methods and Tools**
A variety of methods and tools can be used to conduct evaluations, including the following:

- observations
- interviews
- tests
The observation, interview and questionnaire techniques can be used when evaluating the entire curriculum as well as specific curriculum programmes or projects.

One technique that is usually used to evaluate the outcomes of curriculum programmes is subjecting students to structured tests. Students’ academic performance is usually evaluated by using this technique. Also, the content of a subject matter can be evaluated by testing students in its various content areas. Results from this type of evaluation are given to curriculum designers to enable them to review the subject areas affected and make necessary changes and improvements.

Practice Activity
You have been nominated by your school head to evaluate the content of the mathematics syllabus used at your school. List the major steps you will take to achieve this.

The possible points to be included in your answer are provided at the end of this unit.

Summary
This unit helped you to understand what is meant by curriculum evaluation. The unit defined curriculum evaluation and described some approaches to this activity. Bureaucratic, autocratic, democratic, norm-referenced and criterion-referenced evaluation have been cited as some of the approaches. The concepts of formative and summative evaluations were also explained briefly. Lastly, the methods or techniques that can be used to evaluate the curriculum or syllabus were explained briefly.

Reflection
Based on the information provided in this unit, could you evaluate subjects in your school? If not, determine what additional information you require and conduct your own research into evaluation.

Unit Test
List what you should do when conducting a summative evaluation on a curriculum project such as the teaching of a foreign language.

Possible answers to this test are provided at the end of this unit.
Suggested Answers

Self-Assessment 1
According to Gatawa, curriculum evaluation can be used to:

- describe and judge educational programmes,
- compare students’ performance with behaviourally stated objectives, and
- define and obtain relevant information for decision-making purposes.

Self-Assessment 2
1. The following are the approaches to evaluations discussed in this unit:
   - bureaucratic
   - autocratic
   - democratic
   - criterion-referenced
   - norm-referenced.
2. a. norm-referenced evaluation
   b. criterion-referenced evaluation

Practice Activity
Steps that could be taken to evaluate the mathematics syllabus are below.

- Obtain a copy of the national goals and curriculum objectives.
- Review the objectives of the mathematics syllabus.
- Identify the expected outcomes of the syllabus.
- Obtain the students’ test results in mathematics.
- Compare the intended outcomes with the actual outcomes.
- Ask other instructors who teach mathematics to review, discuss and make recommendations regarding the syllabus.

Unit Test
In conducting a summative evaluation, you should:

- Examine curriculum objectives for teaching the language.
- Review the syllabus content for the language taught.
• Study records of students’ performance to identify learning outcomes.

• Use appropriate methods or tools (for example, interviews and tests) to collect evidence on content and performance.

• Draft a final report that indicates the current status of teaching a foreign language and make recommendations that could be used to improve the teaching, if necessary.
UNIT 8: Curriculum Change and Innovation

Introduction

Unit 7 discussed evaluation and how it is applied to the curriculum in order to determine the extent to which the curriculum objectives are achieved or realised. This unit will examine how the curriculum can be changed and how it can be improved. These processes are referred to as ‘curriculum change’ and ‘curriculum innovation’.

Objectives

After completing this unit, you should be able to:

1. Define ‘curriculum change’ and ‘curriculum innovation’.
2. Identify the political and ideological influences on curriculum innovation.
3. Identify and discuss models that explain how changes take place.
4. Explain factors that influence the diffusion and dissemination of change and innovation in the curriculum.

Content

This unit will cover the following topics:

- definitions of curriculum change and innovation
- political and ideological influences on innovation
- models used in innovation
- factors influencing the diffusion and dissemination of change.

Defining Curriculum Change and Innovation

**Curriculum Change**

Hoyle (University of Zimbabwe, 1995: 58) defines change as embracing the concepts of innovation, development, renewal and improvement of a curriculum. Curriculum change is dictated by the changes in the economic, social and technological aspects of a society. Change has magnitude and direction and occurs within a definite time frame (University of Zimbabwe, 1995: 59).
Curriculum Innovation

Harris et al. (University of Zimbabwe, 1995: 60) describes innovation as “an intentional and deliberate process to bring out desired effects and change”. Curriculum innovation refers to ideas or practices that are new and different from those that exist in the formal prescribed curriculum.

Westerly (1969) and Richard (1965) (cited in University of Zimbabwe, 1995: 61), state that curriculum innovation is any improvement that is deliberate, measurable, durable and unlikely to occur frequently. It is the creation, selection, organisation and utilisation of human and material resources in ways that result in higher achievement of curriculum goals and objectives.

Perhaps you have come to realise that the difference between innovation and change lies in the fact that innovation is always planned while change may occur in response to external events. For any curriculum innovation to be meaningful and effective, it must be planned and organised. It is possible that other types of changes may occur when they are not planned.

Self-Assessment 1

What is the difference between change and innovation?

The answer to this activity is provided at the end of this unit.

The Context of Curriculum Change and Innovation

Change and innovation in the curriculum are necessitated by factors in a country’s political, social, economic, cultural and technological environments (University of Zimbabwe, 1995: 62). The education system changes in order to address these emerging needs and demands. Educational changes and innovations in most countries, including your own, are products of these factors.

Sources of Curriculum Change and Innovation

At the national level, curriculum change and innovation arise from deliberate policy decisions. In most Southern African countries, nothing happens within the education system until the central authority decides to adopt a new idea (University of Zimbabwe, 1995: 66.). This change is usually initiated through a circular or statutory instrument.

Another impetus for change and innovation is the desire of authorities at various levels to deliberately change established practices in order to address existing problems or identify new problems and ways of dealing with these problems. The introduction of new technology can also lead to curriculum change and innovation. For example, computers are being used in almost every endeavour of our society. The education system
and its curriculum must adapt to this new reality. It must not only use computers for administrative purposes, but also make the computer and related technological advancements part of the curriculum.

**Types of Change**
Change can be categorised into two types. Perhaps you are familiar with the types described below:

**Hardware Types.** These changes are introduced by additions to facilities such as new classrooms, equipment, books and play grounds.

**Software Types.** These affect the content and range of the curriculum itself. They may be related to the methods of delivery recommended by curriculum initiators, designers and developers.

**Forms of Change**
Change can occur in the following forms (University of Zimbabwe, 1985: 69):

**Substitution.** In this change, one element replaces another previously in use. Examples are new textbooks, new equipment or the replacement of teachers and administrators.

**Alteration.** This involves change in existing structures rather than a complete replacement of the whole curriculum, syllabus or course of study.

**Addition.** This is the introduction of a new component without changing old elements or patterns. New elements are added to the existing programme without seriously disturbing the main structure and content of the prescribed curriculum. These could be support inputs such as audio-visual aids, workshops and equipment.

**Restructuring.** This involves the rearrangement of the curriculum in order to implement desired changes. It may also involve the sharing of resources among a group of schools or institutions.

**Self-Assessment 2**
Identify and list at least three sources of curriculum change.

Possible answers to this activity are provided at the end of this unit.
Strategies and Models for Curriculum Change and Innovation

In order for change and innovation to succeed, the strategies for implementing the curriculum must be considered carefully. A strategy of innovation refers to the planned procedures and techniques employed in the quest for change. Harris et al. (1978), as cited in Curriculum Implementation (University of Zimbabwe, 1995), developed some models to explain how this takes place. Consider the ones outlined below and determine whether they are applicable to your situation.

**Strategies**

**Participative Problem-Solving.** This strategy focuses on the users, their needs and how they satisfy these needs. The system identifies and diagnoses its own needs, finds its own solution, tries out and evaluates the solution and implements the solution if it is satisfactory. The emphasis is on local initiative.

**Planned Linkage.** In this model, the intermediate agencies, such as schools, bring together the users of the innovation.

**Coercive Strategies.** These strategies operate on the basis of power and coercion by those in authority, using laws, directories, circulars and so forth. Ministries of Education usually use these strategies.

**Open Input Strategies.** These are open, flexible, pragmatic approaches that make use of external ideas and resources.

**Models**

Tanner and Tanner (1980: 262), as cited in Curriculum Implementation (University of Zimbabwe, 1995: 75), emphasise three principal models which illustrate how change takes place. These are outlined below.

**The Research, Development and Diffusion Model.** In this model, an innovation is conceived at the head or centre and then fed into the system. This views the processes of change as a rational sequence of phases in which an innovation is:

1. invented or discovered,
2. developed,
3. produced, and
4. disseminated to the user.

**Problem-Solving Model.** This model is built around the user of the innovation, who follows the steps below.

1. Determine the problem.
2. Search for an innovation.
3. Evaluate the trials.
4. Implement the innovation.

**Social Interaction Model.** In this model, change proceeds or diffuses through formal or informal contacts between interacting social groups. It is based on the following:

- awareness of innovation
- interest in the innovation
- trial
- adoption for permanent use.

The model stresses the importance of interpersonal networks of information, opinion, leadership and personal contact (University of Zimbabwe, 1995: 76).

**Planning and Executing Change**

You must note that for change to be implemented in the curriculum, a process has to take place. This process involves four major factors. According to Bishop (1986), cited in *Curriculum Implementation* (University of Zimbabwe, 1995: 80), these factors include:

- **The change agent.** In your situation, change agents include teachers, school heads, local authorities or the Ministry of Education. The agent initiates the innovation or curriculum change in general.

- **The innovation.** This involves executing the change itself; that is, putting it into use or operation.

- **The user system.** This relates to the person or group of people at which the innovation is directed.

- **Time.** Innovation is a social process, which takes place over a period of time.

Always remember that these factors interact with change and are changed by each other during the process of innovation. It is also important to note that the curriculum change agent is involved with the process, the planning and the strategies, and is frequently the user of the innovation.

**The Innovation Process**

Innovation and change generally follow several logical steps:

1. Identify a problem, dissatisfaction or need that requires attention.
2. Generate possible solutions to the identified problem or need.
3. Select a particular solution or innovation that has been identified as the most appropriate.

4. Conduct a trial.

5. Evaluate the proposed solution.

6. Review the evaluation.

7. If the innovation has solved the identified problem, implement it on a wide scale.

8. Adopt and institutionalise the innovation or search for another solution.

**Innovation Planning**

Effective planning for innovation cannot take place unless the following elements are considered in the process (University of Zimbabwe, 1995: 83):

- the personnel to be employed
- the specification of the actual task
- the strategy or procedure to be used to undertake the task
- the equipment needed
- the buildings and conducive environment
- the costs involved
- social contexts
- time involved
- sequencing of activities
- rationale for undertaking the innovation
- evaluation of the consequences or effects of the innovation.

**Conditions for Successful Implementation of Innovations**

What conditions are necessary for users to implement the curriculum change or innovation successfully? Potential users of an innovation are more likely to accept it if the conditions below are met (University of Zimbabwe, 1995: 104).

- The innovation must be relevant to them.
- It must be feasible in their particular organisational context.
- It must be compatible with the practices, values and characteristics of their system.
- It must be seen as posing little or no threat to the user group’s identity, integrity and territory. The innovation must be shown to be tolerable and non-threatening.
- The innovation must yield material or non-material benefits. Gains in social status or recognition could be some of the non-material benefits.
• It must be flexible and adaptable.

Self-Assessment 3
List the strategies for curriculum change and innovation.
Answers to this activity are provided at the end of this unit.

Practice Activity
Assume that your school will shortly introduce computer-assisted instruction. What would you identify as the agents of this innovation?

Suggested answers to this activity are provided at the end of this unit.

Summary
Curriculum change and innovation were the two inter-related concepts that were reviewed in this unit. In addition, we covered:
• sources of curriculum change and innovation,
• how to plan and execute change,
• the innovation process, and
• the conditions necessary for implementing change and innovations successfully.

Reflection
This unit presented numerous terms and definitions related to the implementation of changes and innovations. Rather than trying to remember all of them, focus on a particular change that you would like to implement and note the factors that you must take into account and the steps you must follow if your implementation is to be a success.

If you note changes that could benefit your students, make the effort to bring about the changes. Remember that many classroom changes start with you!

Unit Test
1. Innovations can be successful if they are planned effectively. What elements or resources are needed in order to ensure that the implementation is a success?

2. What are the basic steps involved in implementing any significant change?

Suggested answers to these questions are provided at the end of this unit.
Suggested Answers

Self-Assessment 1
The difference lies in the fact that innovation is always planned and organised, while change can be either planned or unplanned.

Self-Assessment 2
There are several possible answers to this question. However, your response may have identified the following sources of curriculum change:

- deliberate policy decisions, usually at the national level
- desire by authorities at various levels
- use of new technology such as computers
- community members or groups that demand that their local needs be met.

Self-Assessment 3
Strategies that could be used to implement curriculum change include:

- participative problem-solving strategy
- planned linkage strategy
- coercive strategy
- open input strategy.

Practice Activity
The agents of change could be:

- the school head
- the school community
- the teachers
- the school environment
- the students.

Unit Test
1. Some of the elements that are necessary for effective planning to occur are listed below.

- procedures or steps to be followed during implementation
- human resources to plan and implement the innovation
- material and equipment resources to support the plan
• money to cover expenditures
• local and high-level education support
• adequate time to implement the plan
• evaluation procedures that will help you determine whether your plan is proceeding as expected or if there are unexpected benefits of your innovation.

2. The basic steps involved in making any significant change are outlined below.

• Identify the problem or concern.
• Generate possible solutions.
• Select a particular solution.
• Try the solution.
• Evaluate the solution formatively and summatively.
• Review the outcomes of the trial.
• Implement the solution on a wide scale.
Module Test

1. Discuss any two of the following curriculum perspectives and indicate their effect upon the learner, teacher and methodology:
   - rationalist
   - empiricist
   - pragmatist
   - existentialist.

2. Explain the differences between the formal, informal, actual and core curricula.

3. Why is education viewed as a political, social and economic activity?

4. Describe three significant emerging issues and how each could be addressed in the curriculum. Your answer must include activities in the cognitive, psychomotor and affective domains.

5. Compare and contrast the objectives and process models that can be used to design a curriculum. What is one significant difference between these two models?

6. List the stages in the task analysis process that you need to follow when designing a curriculum.

7. What are the advantages of centralising curriculum design? Why might a local community view these advantages as disadvantages?

8. Which factors are influential in the implementation of a school curriculum?

9. Why should school curricula be evaluated?

10. What is involved in curriculum implementation?

11. a. What is the difference between curriculum change and curriculum innovation?

       b. Describe the factors that affect the successful implementation of an innovation.

       c. Why did a change or innovation that you tried to implement fail? What will you do differently the next time? (If you did not attempt a change or innovation, think of a change or innovation you would like to make and suggest why it might not be accepted at your school.)
References


