Module 4.1 The National Curriculum

Lecturer Support Material
Acknowledgements

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## Unit Outline

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## Icons

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The National Curriculum

Lecturer Support Material

This guide provides additional ideas for teaching and assessing Module 4.1, The National Curriculum.

Please take note of the following:

- It is important to read the module first, to decide what materials you will use, and what tasks and activities you will set for the students. It is also important to see how this module fits within the complete unit.
- It will be necessary to develop a course overview and determine topics to be presented which will take account of the time allocation given to this module.
- The material is written as a resource for the teaching of this module.
- Do not expect students to work through the total module alone. There is too much material and they will need assistance in determining the tasks required.
- The activities: Many of the activities have a number of questions to discuss and tasks to do. They are included to provide some ideas and stimulus, not necessarily to complete every part of each activity.
- The activities provide a focus for learning, and some may be suitable for developing into assessment tasks, but the activities are not written to be used as the assessment program. Ideas for assessment tasks are provided in the Unit Guide.
- Suggested time allocations are provided to give some idea of how this module fits in with the others in this unit. Lecturers have the flexibility to select material and use it in a way that will fit within the lecture program.
- The Lecturer Support Material is the same as the Student Support Material, with additional notes included in the text boxes containing ideas for further exploration of topics.

Rationale

This module is one of three in a two-credit point unit. In a twelve-week semester, twenty-four lecture hours are available for teaching the three modules. The actual break-up of topics and time allocation is flexible, and to be decided upon by the individual lecturer.

The remaining modules, which comprise this unit, are:

Module 4.2 Timetabling

Module 4.3 Programming

Module 4.1 The National Curriculum introduces the concepts of curriculum development, and its relationship to the aims and philosophies of education currently held by its writers. Knowledge of how curriculum is formulated, constructed and implemented will assist teachers in their tasks as curriculum decision makers in their schools.
Familiarity with the structure and content of syllabus documents will allow teachers to plan effective programs of teaching and learning using the curriculum documents as frameworks for course development.

**Objectives**

By the end of this module students will be able to:

- Define curriculum and be aware of the variety of definitions, which are currently found in the literature.
- Explore the relationship between the stated aims of education for Papua New Guinea, and the curriculum presented.
- Describe and explain a curriculum model.
- Describe a process for curriculum development.
- Demonstrate familiarity with the current syllabus documents produced for Papua New Guinea primary schools.
- Demonstrate knowledge of subject areas within the curriculum and content described within these areas.
- Be familiar with the concept of the bilingual curriculum and multigrade approaches as outlined in the syllabus documents.

**How to use this material**

This module is written as a series of topics, identified in the table of contents, and by their large subheadings. Each topic includes some readings and activities to complete.

It is the lecturer’s responsibility to develop a course overview, according to the credit point loading and available time within the semester for each module. As this will vary between colleges, lecturers will need to select topics which are most relevant to the needs of their students.

Major topics include:

- What is Curriculum?
- The National Curriculum
- Subjects in the Lower Primary curriculum
- Subjects in the Upper Primary curriculum
- Evaluation of the curriculum

**Assessment**

Assessment tasks should be developed at unit level, recognising the development of knowledge, skills and attitudes across the three modules that make up this unit. The number of assessment tasks will be determined by the credit point loading given to the unit.
References
The student support materials contain all the readings necessary to complete the module. The readings have been adapted from the following texts:


Madang Teachers College; Professional Development Strand (2000) *Curriculum Studies Booklet*


SYLLABUS DOCUMENTS


National Department of Education, Papua New Guinea (1998) *Lower Primary Community Living Syllabus Grade 3 -5*


National Department of Education, Papua New Guinea (1998) *Lower Primary Physical Education Syllabus Grade 3 –5*

What is Curriculum?

4.1 Activity 1

Before you read the next section, write your own definition of curriculum. What do you think the word ‘curriculum’ means? Share your views with your group or your partner.

Definitions of Curriculum


Each of these definitions should be discussed and explained to the students. Their attention should be drawn to the differences in meaning and focus. Some of the earlier definitions focus on curriculum as a product i.e., a subject, knowledge or a syllabus. Later definitions define curriculum as a process, i.e. experiences.

Below are a number of definitions of curriculum that have been used by different people at different times through the last 60 years. Read them carefully, and think about how they differ from one another. These definitions are taken from Lovat & Smith (1995) pp.9-10.

1. “Curriculum should consist of permanent studies – grammar, reading, rhetoric, logic, mathematics and the greatest books of the western world” (1936)
2. “The curriculum should consist entirely of knowledge from the disciplines.” (1962)
3. “The curriculum is a sequence of potential experiences that is set up in the school for the purpose of disciplining children and young people in group ways of thinking and acting” (1957)
4. “The curriculum is all the experiences a learner has under the guidance of the school” (1970)
5. “The curriculum is the syllabus, a course of study or subjects.” (1971)
6. “Curriculum is the planned learning experiences of students for which the school is responsible” (1988)

Now let us look at some of the features of these definitions.
The first thing to notice is that each definition of curriculum is set at a particular time and within a particular political and economic context.

For each historical period, there is an underlying social and political philosophy which impacts on education and curriculum.

When we look at the Education Reform a little bit later in this module, think about how the ‘new reform curriculum’ has been developed because of the philosophy of the government at the time, and the economic and social context of Papua New Guinea today.

**What definition do I use?**

As you have read, there are many different definitions of curriculum. The definition given by Print (1998) is a well-accepted one that we will use when discussing curriculum.

“Curriculum is defined as all the learning opportunities offered to learners by the educational institution and the experiences learners encounter when the curriculum is implemented. This includes those activities ... that are…represented in a written document and the process whereby teachers make decisions to implement those activities” (Print, 1998, Curriculum Development and Design, p 9)

Some textbooks discuss the written documents, the activities contained within them as curriculum product, and the way teachers decide how to teach, the curriculum process.

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**4.1 Activity 2**

Discuss this statement with your group or a partner. Explain the difference between “learning opportunities” and ‘experiences’.

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**The hidden curriculum**

A question to consider: "If the curriculum includes all the learning experiences that students encounter when they are taught, does this include experiences students have in class which may not be intended or planned by the teacher?"

Teachers and educators have known for a long time that students at school learn things like attitudes, beliefs and values that are not part of the planned curriculum. This kind of learning is hidden; it is sometimes not easy to see. The hidden curriculum is mainly learned as students follow rules, classroom procedures and school ways of doing things.

Consider these examples:
A primary school teacher chooses children to carry out classroom duties. She chooses girls to sweep the classroom and dispose of the rubbish and boys to lead children in early morning singing and reciting of tables.

What message is the teacher passing on to girls and boys?

A high school principal wants to form a student council to help run the school. Students elect representatives without interference from teachers. When the council meets, the students elect a president without interference from Principal. The Principal accepts advice from the student council and does her best to implement it.

What message is the high school principal passing on to students?

These messages are sometimes referred to as a 'hidden' curriculum. The hidden curriculum may be positive or negative, and students and teachers may or may not be fully aware of it.

The hidden curriculum, therefore, involves learning attitudes, beliefs, values, ways of saying and doing things that are often expressed as school and classroom rules, procedures and regulations. This 'hidden learning' often becomes the day-to-day knowledge of the school, knowledge which is taken for granted and hardly ever questioned. Knowing there is both a planned and a hidden curriculum leads us to another important aspect of "curriculum".

The inclusive curriculum

Another question to consider: "What are the negative effects of the hidden curriculum and how can they be overcome?"

In recent times, educators have been concerned that all children do not receive equal opportunities to learn. Some children are disadvantaged because they come from different cultural, linguistic or socio-economic backgrounds and do not share common experiences with other students or teachers which makes it difficult for them to learn. Girls are sometimes disadvantaged because their skills, knowledge and experiences may not be highly valued in society and are not included at school. Children with physical, emotional and intellectual disabilities may also find that a school curriculum does not provide appropriate opportunities for them to learn.

To overcome these problems and make schooling more equitable, many teachers and educators are interested in developing 'inclusive' curriculum which use a wide variety of teaching and learning strategies to provide rewarding learning experiences for all students. An important part of the 'inclusive' curriculum is its aim to accept all the differences children bring to the classroom, regardless of where the children are from, what language they speak, how they look, whether they are boys or girls, able or disabled.

Accepting children's differences is important in building their self-confidence and self-esteem as learners and participants in society. The following extract from a disabled girl's journal illustrates how important it is for children to be valued and included so that they have positive and enabling experiences.
"To begin with, there is the simple fact of appearance. Girls who have a disability are not so 'girl-like' as those in our imagination, in books, in love songs, in our language. This has an effect on a girl's self esteem, and on her expectations. Further, it has an effect on her experience, and on the expectations of those around her. As a child at school I never (saw) myself being experienced as a girlfriend, wife, mother. Sure, I had fantasies myself, much the same as any girl does-but the possibility of their realisation was never there in the eyes, the words, the assumptions of teachers (or other adults) around me. I felt others experiencing me as a neutral sort of being. When I was young I did not think in terms of sexual neutrality or identity. I just learnt what I was through how I experienced myself being experienced. This is how children come to know 'in their bones' who or what they are. What you know 'in your bones' will (influence) what you are free to create 'in your head'. This is the same for boys as well, of course."

4.1 Activity 3

Discuss the above statements about curriculum with your group or a partner. Explain

- the difference between 'learning opportunities' and 'experiences',
- what you understand by the terms 'hidden curriculum' and 'inclusive curriculum'

Curriculum Models

Curriculum writers use different approaches to designing curriculum. To represent their steps, they may use a model. There are many types of models that represent different approaches to curriculum. A model is a convenient way of showing essential curriculum elements and their interrelationships.

- **Rational models** follow a logical, sequential approach. In these models, the statement of objectives is very important, and the other curriculum elements follow in a fixed order

- **Cyclical models** are logical and sequential in approach, however they see the curriculum process as a continuous activity that is constantly updating itself

- **Dynamic models** begin with any curriculum element, progress in any sequence of elements and tend to relate more directly to perceived learner needs.

- **Models which are a combination of these.**

Some models combine elements of cyclic and dynamic models.

More detailed information about curriculum models can be found in the reference list, or visit your library.
One way of representing the curriculum development process is shown in the diagram below. To understand the process, Print (1993) argues that we need to understand what happened before the development of the curriculum (presage) how we are to devise a curriculum document or materials (development) and finally how the document or materials may be applied or modified in practice (application)


You will see that in Print’s model, there are three main stages; Organization, Development and Application. We will use these stages to look at the curriculum developed for Papua New Guinea by the Education Department in 1999. We will consider how this curriculum development relates to Print’s three phases
Summary
A curriculum consists of:

- Planned and unplanned learning experiences
- offered within an educational program
- represented as a document
- includes experiences resulting from interaction between teachers, learners, resources and the learning environment as the plans are implemented.
- can be represented by a number of different models

Curriculum change: Papua New Guinea educational reforms

Papua New Guinea has begun a far reaching and complete reform of its education system. This reform has two components: structural reform and curriculum reform. The aim is to put in place a better and more relevant system to suit the needs of Papua New Guinea in the 21st century.

Structural reforms

The reform processes has seen some major changes occur in the way in which schools are structured. Under the old structure, for example, some children attended non-formal Tok Ples Pri Skul before moving to a Community School. Under the new structure, children now attend Elementary School for three years before moving to a primary school. Community schools are renamed Primary schools as they adopt curriculum to teach Grades 3 – 8. High schools are being renamed Secondary schools as they adopt curriculum to teach Grades 9 –12.

4.1 Activity 4

Review the diagram of the structural reforms and note down the differences between the old structure and the new structure. Consider why you think these changes have occurred. Be prepared to discuss your ideas with the class.
Curriculum reform

The new structural reforms introduced to education have required the development of a new curriculum. The new curriculum reflects the move towards vernacular education and the increased access to education.

Print’s model provides a way of analysing the curriculum reform which has taken place in Papua New Guinea and resulted in the development of a new national curriculum. The model has three main phases: **organization**, **development** and **application**. We will examine each phase and see how it relates to the development of the national curriculum.
Phase 1: Organisation

Phase 1 in Print’s model covers those activities and forces which influence curriculum developers in their decision-making tasks. It is shaped by people’s ideas about what has happened before and what ought to happen in the future.

Who are the influential people? What are their backgrounds and prior experiences? What forces shape their thinking?
**Phase 2: Curriculum development**

In Print’s diagram, you will see that the second phase requires the writers of the curriculum to develop the curriculum document(s), materials or project.

![Diagram of curriculum development cycle](image)

To achieve this phase, the developers follow the cyclical procedure in the model, that is, they follow the sequence of curriculum elements that begin with the situational analysis and continue with aims, goals and objectives, content, learning activities and evaluation. When the cycle is complete, they will trial, review and make changes.

**Phase 3: Application**

The third phase of the model includes

- The implementation of the curriculum
- Monitoring and feedback from the curriculum
- The provision of feedback data to the group who developed the curriculum

In the early stages of implementation, it is likely that changes will be made. Curriculum materials are often released in draft form, tried in the classrooms and changes made as a result of the trialling.

Whilst the implementation of the curriculum is a short-term activity, the monitoring and feedback aspects of the third phase are likely to take several years.
In the early stages of implementation, it is likely that changes will be made. Curriculum materials are often released in draft form, tried in the classrooms and changes made as a result of the trialling.

While the implementation of the curriculum is a short-term activity, the monitoring and feedback aspects of the third phase are likely to take several years.

**The National reform Curriculum**

**Situational analysis**

In Print’s diagram, Phase 1 of the model, the ‘Organisation’ phase, involves developing an understanding of what is currently happening (curriculum presage). One of the first things that lead on from the curriculum presage is a situational analysis.

A situational analysis is a study of how things are at the time. It is the collecting of data and information to create a picture of the current scene in order to assist in the next part of curriculum development. A more formal definition is

“the process of examining the context for which a curriculum is to be developed and the application of that analysis to curriculum planning”  
(Print, 1993, p110)

A situational analysis of the PNG situation found that:

- The old system led to alienation and failure between community life and school life.
- It isolated children from their culture and from community activities.
- It made children feel like failures who no longer valued village life, traditions and obligations.
- It started in a language children did not speak.
• It established unrealistic expectations in children, their families and the community.
• It had a curriculum which was no longer relevant to the needs of Papua New Guinea and its people.
• It did not prepare children to use resource development opportunities within their communities.
• It did not give all children the opportunity to go to school or encourage children to stay at school.
• Based on this information, a new structure and a new curriculum were developed to address the identified needs.

4.1 Activity 5

What do you think of the findings. Do you agree? If you were faced with these findings, what suggestions could you make to the curriculum developers?

Take one point and list some ideas that you would include in your new curriculum to address the needs of the students.

Based on this information, a new structure and a new curriculum were developed to address the identified needs.

Phase 2: curriculum development

Phase 2 of Print’s model, the ‘Development’ phase, requires the curriculum writer to take into consideration the information from Phase 1 and develop a new curriculum. This involves identifying the general goals and aims of the curriculum.

Goals of the Papua New Guinea curriculum

The goals outlined in the National Curriculum Statement describe what that curriculum is designed to achieve for Papua New Guinea. They come from important beliefs and values which are found in the Constitution, Government policies, reports and circulars.

The National Curriculum goals for Papua New Guinea will ensure students:

• Continue their growth towards meeting the national goals and directives called for in the National Constitution, the Philosophy of Education and other key National Department of Education documents.
• Value education as a continuing lifelong process
• Improve their standards of education at all levels and make it more meaningful to girls and boys
• Develop and understanding of Papua New Guinea’s many cultures and languages, which form the foundation on which the curriculum is based
• Understand how their societies work, their place in developing Papua New Guinea and Papua New Guinea’s place in the world
• Develop a sense of identity and pride in their cultures and learn the language of their own communities as well as learn English, which should be reinforced throughout their school experience
• Acquire knowledge, skills and attitudes important to their communities and participate and cooperate as part of a group in community activities
• Learn and develop respect for their people, cultures and communities
• Develop their intellectual, emotional, cultural, physical, creative, recreational and spiritual potentials to live a fulfilling and productive life in the communities in which they choose to live and serve
• Develop the knowledge, appreciation and respect for the natural environment, physical and human resources, and the need to develop these in ways that are sustainable for the benefit of all
• Develop healthy self-concepts and to be responsible for their actions and consider health and leisure to be an important part of life and become healthy citizens of Papua New Guinea
• Understand that parenthood is a lifelong responsibility and forms the foundation of family and community stability and solidarity
• Learn about the importance of hard work and behave the way their societies expect them
• Identify and respond to the value systems of their culture while being appreciative of and respectful of those different from their own
• Have effective communication skills and think creatively in a rational manner and develop better problem solving and decision making skills at appropriate levels
• Develop a positive sense of social awareness and respond critically to social issues
• Develop a spirit of enjoyment, appreciation, tolerance and valuing of the changes taking place in the development of their own culture and that of others in their areas, both rural and urban
• Develop their own moral, ethical values, and standards of personal conduct based on personal integrity, respect and consideration for others
• Appreciate their potential as well as their limitations and accept responsibility for themselves.

4.1 Activity 6

In groups, take two or three points and discuss with your group members. Do these goals reflect a change in beliefs since you were in primary school? Discuss the goals in relation to what is happening in the community now and how they may reflect issues in society that are of current importance. How will the curriculum address these goals? Share your comments with the group.
**Aims of the Papua New Guinea curriculum**

The aims of the curriculum identify the overall intentions and directions of the curriculum for elementary, primary and secondary levels of education.

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**4.1 Activity 7**

Read the following extract from the Education Department, PNG document *National Curriculum Statement for Papua New Guinea 2003*. With your group or partner, discuss the aim stated. What are the important points made in this statement?

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The National Curriculum for Papua New Guinea will help all students to become happy, healthy and useful members of society. The curriculum will help students to develop mentally, socially, emotionally, and spiritually so that they can live fulfilling lives. It will encourage them to think sensibly for themselves and to respect the thoughts of others. It will also encourage students to develop as individual members of a community. They will learn to communicate with other people through written and spoken language, through mathematics, and through other ways such as pictures, music and movement. They learn how to help develop and sustain Papua New Guinea’s natural environment and its physical and human resources, for the benefit of all.

The curriculum will prepare students who are more flexible for a changing world. It will prepare all students, not just a few. Papua New Guinea needs students who are effective communicators and numerate, and who are aware socially and spiritually. Our country also wants students to be wise guardians of its resources. It needs decision makers and critical thinkers with competent problem solving skills.

### Aims of the Primary Curriculum

The aims of the Primary Curriculum are to:

- Help students develop basic knowledge, skills and attitudes that they need for effective communication, resource development, social development and spiritual development.
- Provide students with knowledge, skills, and attitudes that will enable them to continue to learn after Grade 8.
- Encourage students to regard learning as a lifelong education process.
- Maintain communication in vernaculars for students.
- Assist students transfer their study skills and knowledge learned in vernaculars to English.
- Help students to communicate effectively in both written and oral English in all subjects, and to participate in a wider national and international community in English.
- Help students express greater appreciation of their own cultures and languages by acquiring a set of basic life skills and practical applications that they can use in their daily lives no matter where they live.
- Encourage students to develop confidence and self esteem so that they will improve their standard of living and their families.
- Assist students to be responsible citizens who are able to gain the necessary qualities and skills, in order to live happily and productively in the communities in which they choose to live and serve.
• Help students to acquire greater skills and content in all subjects
• Enable students to understand and explain basic concepts about the world in which they live
• Ensure students become mathematically and scientifically literate in both the physical and social sciences in ways that are relevant to daily life
• Encourage teachers to use local resources that deal with important local and national issues
• Encourage teachers to be creative and improvise with materials that are around them.

Curriculum Principles

The National Curriculum Statement identifies a number of principles that identify, describe and focus on important concerns that must be addressed when developing the curriculum at all levels of schooling. These principles will influence what is written in the subject syllabuses and other support documents. They will also influence what teachers teach, how they teach, and how students learn and apply their learning throughout their lives.

The curriculum developers have identified a number of curriculum principles and organised them into three broad categories: Our Way of Life, Integral Human Development and Teaching and Learning. These principles are relevant to all subjects.

Teaching and learning in the primary school

The National Curriculum Statement includes the curriculum developers’ beliefs about teaching and learning. This statement reflects the philosophy and views on learning held by the writers.

In the past, the old curriculum was prescriptive, teacher centred and inflexible. Teachers followed a program that they could not change. The passing on of knowledge in the form of information to be learnt was the basis of the old curriculum.

The curriculum, which has been developed since the reform, has a very different view.

4.1 Activity 8

Read the following extract from the National Curriculum Statement. Discuss and comment on the following:

• What does this say about individuals and their learning styles?
• What does this say about ways of learning?
• What does this say about ways of thinking?

Contrast this to what you remember about the curriculum when you were at school. What are the main differences?
All readings should be guided and focus points provided by the lecturer.

Teaching and learning

Students learn in different ways. The National Curriculum will encourage teachers to use different ways of teaching to give all students a chance to learn. Students should work as individuals and in groups. Some students learn best through activities such as reading on their own, working in small groups, talking, observing, drawing pictures, and finding out information for themselves. Most students use a mix of these.

Students should be encouraged to think critically about what they are learning and to take responsibility for their learning. They should learn to teach each other and to learn from each other. They should know that learning has a serious purpose. They should enjoy using a wide range of resources and playing appropriate educational games. Students should also learn how to communicate well with others. They should also learn how to work things out for themselves, and on how to get the information they need. They need to learn to think in ways that make sense, using their experiences, their knowledge, their intelligence and their imagination.

As well as learning skills and knowledge, students should develop appropriate attitudes and an understanding of important issues. They should have pride in themselves, their own cultures and communities, as well as respect other people and their cultures and communities.

A number of important principles have been identified which must be addressed and supported in the curriculum, in the area of teaching and learning. The following is a summary, extracted from the National Curriculum Statement.

Inclusive Education

- National Curriculum is inclusive and designed to meet the needs of all students, irrespective of their abilities, gender, geographic locations, cultural and language backgrounds, or their socio-economic backgrounds.
- In order to be inclusive of all students, teachers need to cater for a range of individual needs. This can be achieved through using appropriate and carefully planned learning activities, a range of teaching methods and strategies, and thoughtful use of a teacher’s language of communication.
- To be inclusive, teachers need to ensure that all girls and boys have the opportunity to participate.
- Students need to feel they have something useful to offer to the community. Many students are shy and afraid of authority. They must be motivated to develop their skills fully and given opportunities to think for themselves.

Relevance

- A relevant national curriculum will prepare students for productive community living; integrate academic and practical education, and will provide ways to paid and unpaid employment.
- The National Curriculum will enable teachers to support students learning by encouraging teaching in real life contexts.
Student centered learning

- A student centered approach allows teachers to be more flexible in determining the most effective ways to help all students achieve these learning outcomes.

Language Development across the Curriculum

- Language development across the curriculum should be encouraged because all subject areas provide meaningful contexts for real purpose learning.
- The way language is used in Papua New Guinea’s schools is important. Students are encouraged to use their own languages both in and out of the classroom. This will result not only in stronger development of literacy in vernaculars and English languages, but also in stronger intellectual development.

Lifelong Learning

- School is an important part of a student’s education but learning continues throughout life. The initial experience that students have with the school curriculum is critical in encouraging them to continue learning throughout their lives.

Multigrade teaching

- Multigrade teaching refers to classes where there are students from more than one grade with one teacher. The National Curriculum needs to be implemented in diverse ways to meet the range of individual learning needs in these situations.
- The National Curriculum makes explicit the learning outcomes for each subject at each Grade and will help teachers to plan their teaching programs for multigrade classes.

Thematic teaching and integration

- The National Curriculum is organised into subjects at each level of schooling. It is, however, recognised, particularly at Elementary and Lower Primary that generalist teachers will implement the curriculum using thematic and integrated approaches.

4.1 Activity 9

How do these principles reflect the changing needs of education in Papua New Guinea? Discuss with your group and your lecturer.
Phase 3: application

The third phase of curriculum model includes

- Implementation of the curriculum
- Monitoring and feedback from the curriculum
- The provision of feedback data to the group who developed the curriculum.

In the early stages of implementation, it is likely that changes will be made. Curriculum materials are often released in draft form, tried in the classrooms and changes made as a result of the trialling.

While the implementation of the curriculum is a short-term activity, the monitoring and feedback aspects of the third phase are likely to take several years.

Outcomes based education in the reform curriculum.

Under the current curriculum reform, Papua New Guinea has adopted an outcomes based approach to describe curriculum.

What is an outcomes based curriculum?

An outcomes based curriculum identifies the knowledge, skills, attitudes and values that all students should achieve or demonstrate at a particular grade level in a particular subject. In the Papua New Guinea school education system, the outcomes based curriculum identifies what students will demonstrate as a consequence of following the national syllabuses developed for Elementary Prep to Grade 12. Each subject syllabus identifies a set of outcomes that students are expected to achieve at each grade. Each outcome is accompanied by a list of indicators that identify examples of the knowledge, skills, attitudes and values that students will need to demonstrate in order to achieve the learning outcome. Teachers will use outcomes and indicators to write learning objectives when planning a programme and lessons. These objectives will identify the learning steps to be completed in order to achieve the learning outcomes.

An outcomes based curriculum will:

- Give teachers, individually or collaboratively, the flexibility to devise programs and units of work that meet the differing needs of students at all levels of schooling in a broad range of settings in Papua New Guinea
- Include all aspects of Integral Human Development
- Help teachers assess and report students’ achievements in relation to the learning outcome statements
- Allow students’ achievement of the outcomes to be described in consistent ways
- Help teachers to monitor student learning
- Help teachers plan their future teaching programs.
An outcomes based curriculum is being introduced in Papua New Guinea for the first time. Teachers will be in-serviced in the new curriculum over the next three years, with the expectation that development, training and implementation will be complete by 2005.

More information about outcomes based education can be found in Module 6.1, *Pre-Instructional Skills*.

**Subjects in the primary curriculum**

The next stage in the curriculum development process is the subject specific syllabus documents which outline in more detail, what should be taught in Papua New Guinea schools.

The National Curriculum for Papua New Guinea has been reorganised into five learning areas: **Culture and Community**, **Language**, **Mathematics**, **Personal Development** and **Science**. All subjects from Elementary to Upper Secondary are assigned to one of these learning areas.

**The Lower Primary curriculum**

The Elementary and Lower Primary Curriculum currently in use will be reviewed and developed as an outcomes based curriculum during 2002-2004.

There are seven subjects in the Lower Primary curriculum, organised under five learning areas. Grades 3, 4 and 5 make up the Lower Primary classes.

<table>
<thead>
<tr>
<th>Learning Area</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Culture and Community</strong></td>
<td>Arts</td>
</tr>
<tr>
<td></td>
<td>Community Living</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>Vernacular</td>
</tr>
<tr>
<td></td>
<td>Language</td>
</tr>
<tr>
<td></td>
<td>English</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>Mathematics</td>
</tr>
<tr>
<td><strong>Personal Development</strong></td>
<td>Health</td>
</tr>
<tr>
<td></td>
<td>Physical Education</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>Environmental Studies</td>
</tr>
</tbody>
</table>
Provide opportunities for students to become familiar with the curriculum documents during this module. Students should understand the layout of the documents, the different sections and the content within sections. Provide group activities which will make students look closely at the content of the documents, for example, compare the assessment statements in a number of different subject documents.

**Language**

Language studies in Lower Primary teach students to speak, listen, read and write in English. It also bridges the vernacular skills students learned in Elementary Schooling and the English skills they will need at higher levels. After the first two years of Lower Primary, the students should be able to use English as their main language of instruction across the curriculum. While the students develop their English skills, they will continue to expand and enhance their vernacular skills.

**Mathematics**

Students will further develop the basic mathematical skills that they learned in Elementary. The students learn about numbers, the basic operations, (such as adding and multiplying), length, distance, capacity, weight, volume, average, graphing, sets, comparatives and estimation, and being to understand probability. As much as possible, students should learn these things in the context of real problems that can be solved using mathematics.

**Environmental Studies**

Environmental studies is a new name for an integrated more relevant approach to a combination of subjects. The subject includes parts of science, community life and agriculture subjects, as well as new areas such as forestry, mining, marine resources and conservation.

**Health**

Students learn to act in ways that will improve their own health and the health of the community. They learn how hygiene, nutrition and disease are related while they actively try to make their school and community healthier places. By the end of Lower Primary, they also develop skills, knowledge and attitudes to prevent themselves and others from getting sick. They also learn to look after themselves and others when they are sick and to get extra help when needed.

**Physical Education**

Physical Education helps students to develop the physical and mental skills needed for fitness, leisure and healthy lifestyles. They develop their abilities to play games, make particular movements, run, throw, swim and kick and hit balls in particular directions. They learn that while it can be good to try to win competitions, it is also good to play together in a friendly manner and to play fairly.

**Community Living**

Community Living is a new subject introduced into the lower primary curriculum. It aims at helping students to play an active and useful part in the life of their communities. In the area of
Social Development, the students gain a better understanding of local communities, to enable them to act responsibly as a member of these communities. In the area of Personal Development, they learn more about themselves and their relationships, and use this knowledge to appreciate what is good about themselves and to form good social relationships.

**Arts and Craft**

Arts and Craft includes much of what was previously called Expressive Arts, as well as simple design and technology. Children produce a range of creative and practical objects and develop a range of performance skills. They learn to appreciate their own and other cultures in the form of music, drama, dance, art and craft. They also develop skills needed to design, plan, make and perform.

**The Upper Primary curriculum**

The Upper Primary Curriculum also contains seven subjects under the five curriculum learning areas. The information below has been summarised from the relevant Upper Primary syllabus documents.

<table>
<thead>
<tr>
<th>Learning Area</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Culture and Community</strong></td>
<td>Arts, Social Science, Making a Living</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>English, Vernacular Language</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>Mathematics</td>
</tr>
<tr>
<td><strong>Personal Development</strong></td>
<td>Personal Development including Health, PE, guidance and religious education.</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>Science</td>
</tr>
</tbody>
</table>

The Upper Primary curriculum prepares students for a lifetime of learning (whether the next stage in this process takes place in high school, another institution or the community) and for taking part in the life of the various communities they belong to. Some students will go on to Secondary education; others will leave school after Grade 8, but all students need to have the knowledge, skills and attitudes that will help them live a happy, healthy and useful life.

**Language**

Students will continue to expand and enhance their developing English skills.

The course has two goals; for students to actively take part in a wide range of community activities where English is the main means of communication and to be able to effectively use English throughout a lifelong process of learning and personal development whether in continuing education, employment or community involvement.
In Upper Primary, students will communicate, express their own feelings and ideas as well as identify information in real contexts and for real purposes. They will use a variety of language forms as they write and speak in increasingly complex and challenging situations. They will read and listen to a range of texts that people use in their daily life such as newspapers, novels, magazines and radio broadcasts.

English is the main language of instruction in Upper Primary Language Studies, however students are encouraged to continue to use and develop their vernacular skills where it is suitable.

Language is to be timetabled for 180 minutes per week in all Upper Primary schools.

**Mathematics**

Mathematics at Upper Primary level focuses on developing students’ numerical, analytical and investigative skills to solve real life problems likely to be encountered in their culture and community. It will also provide a sound foundation for future mathematical studies as well as the mathematical literacy necessary to do other studies. Mathematics is to be timetabled for 180 minutes per week in all Upper Primary schools.

**Making a Living**

This subject provides practical learning experiences linking head, heart and hands and provides opportunities for students to develop skills for a productive and a fulfilled life.

Making a Living integrates relevant practical skills and knowledge of Agriculture, Basic Technology and Commerce. Making a Living makes clear links with and highlights the relevance of other subjects: Maths, Science, Language, Social Science, Arts and Personal Development as well as applying relevant skills and processes from these subjects.

As this subject is based on the development of practical skills and knowledge, it requires adequate time for undertaking practical projects. Making a Living is to be timetabled for 360 minutes per week in all Upper Primary schools.

**Personal Development**

Personal Development draws together a number of previously separate subjects such as health and physical education and elements of community life, home economics, basic technology and elements of guidance into one comprehensive course.

The course provides opportunities for students to practice the necessary skills to make informed and responsible decisions about their well-being and the well-being of their society.

Personal Development is to be timetabled for 240 minutes per week in all Upper Primary schools.

**Science**

This subject aims to help the students develop the scientific skills that they need to gain new knowledge throughout life, both as a student and as a member of the community.

The content for the Upper Primary science curriculum is organised into four Strands and six Sub-Strands. The four Strands are: *Living Things, Science in the Home, Earth and Beyond* and *Working Scientifically*. The first three strands are content based. The fourth
provides students with the opportunity to engage in the processes of Science and should complement learning in the three strands.

Science is to be timetabled for 180 minutes per week in all Upper Primary schools.

**Social Science**

This subject will enable students to take an active role in protecting the environment, building society, celebrating their own culture and appreciating the culture of others. Students will develop important skills that enable them to gather information from a variety of sources, see patterns in this information, form opinions, make predictions and take action based on the information gathered. Students can use the skills of gathering, evaluating and acting on information to improve communities and their own lives.

Social Science is to be timetabled for 180 minutes a week in all Upper Primary schools.

**Arts**

The Arts are a vital component of Papua New Guinean cultures and society. In Upper Primary schools, our students reinforce cultural identity and pride while learning more about the cultures of other countries.

The syllabus is organised into four strands: Art, Drama and Dance, Music and Arts Project. Strands are taught in any order and can be integrated to teach related topics. Teachers and students choose the content and techniques in each Strand. Arts is to be timetabled for 180 minutes per week in all Upper Primary schools.

It is important to become very familiar with the structure and content of the subject syllabus guides. This will assist the process of planning programs for the classroom.

There are common elements found across the different subject syllabuses. These are:

- An introduction, rationale and philosophy
- A statement made on the assumptions that form the basis for the document. It is provided so the reader knows from which viewpoint the curriculum has been approached. It is saying “if we believe this, then we will do this”
- Goals, aims and objectives
- Curriculum principles, which identify and focus on important concerns that must be addressed when developing curriculum at the school level. (Upper Primary documents)
- Learning outcomes and indicators (Upper Primary documents) Content objectives (Lower Primary)
- A statement on assessment.
4.1 Activity 10

Your lecturer will provide each group with some examples of syllabus documents. Look through the document(s) and identify the areas listed above. Take two areas and summarise the information. Share your information with the group.

In your groups, create a diagram which shows the process of curriculum development.

Monitoring and Feedback (curriculum evaluation)

Going back to Print’s sequence of curriculum development, Phase three describes monitoring and feedback, and modification as a result of the curriculum implementation.

The Lower Primary Syllabus documents were released in draft form during 1998-99, and they were distributed and used by teachers in the schools. After trialling and revising these documents, they were edited and reprinted for distribution during 2000. These documents will be used until the introduction of the outcomes based Lower Primary syllabus in 2003.

The outcomes based Upper Primary syllabus documents have been approved and released. In servicing of these documents will take place through 2002 and 2003.

Evaluation is a very important part of curriculum design and implementation. It is hoped that by looking closely at how the curriculum has been successfully taught, and any problems encountered, changes can be made to improve the quality and relevance to the students.
Summing Up

We have represented the curriculum development process as a lineal one, i.e. it progresses through a sequence of steps to the final step of evaluation, but really it is a cyclical process, as shown in Print’s diagram. It doesn’t finish at the last step but returns to the beginning again, to commence another cycle. If curriculum is to reflect the changes in society and what is important in education, it must be constantly changing.

The reform curriculum has reviewed the changing needs of education in Papua New Guinea. The purpose of education is now to provide a relevant basic education Papua New Guinea’s young people, whilst providing opportunities for further education and training for those able to take advantage of

4.1 Activity 11

*Imagine that a group of overseas teachers are visiting you for five weeks. It is your responsibility to devise a course about your place (village, town or province). When the teachers return to their home countries, they will use the knowledge and experience they have gained to teach their students about your area of Papua New Guinea.*

*Discuss how you would devise a Culture and Community curriculum for the five-week visit of the teachers. Your curriculum might contain:*

- An introduction
- Rationale (the purpose of your curriculum)
- Aims (intention and directions of your curriculum for your students)
- Content overview / Objectives / Learning Outcomes
- Assessment
Glossary and Key Terms

Curriculum: All the learning opportunities offered to learners by the educational institutions and the experiences learners encounter when the curriculum is implemented.

Curriculum model: A way of showing essential curriculum elements and their interrelationships.

Situational Analysis: The process of examining the context for which a curriculum is to be developed and the application of that analysis to curriculum planning.

Aims: Identify the overall intentions and directions of the curriculum.

Goals: Describe what the curriculum is designed to achieve and are based on important beliefs and values.

Principles: Identify, describe and focus on important concerns that must be addressed when developing curriculum.

Outcomes based Curriculum: Identifies the knowledge, skills, attitudes and values that all students should achieve or demonstrate at a particular grade in a particular subject. An outcome must be measurable and be able to be demonstrated.