

---

Published in 2003 by the Department of Education, Papua New Guinea  
©Copyright 2003 Department of Education, Papua New Guinea

Written and compiled by

Margaret Maru – PNG Inservice Adviser, CRIP  
Shantha E Jacob – Long Term Inservice Adviser, CRIP  
Stuart Taylor – Inservice Support Adviser, CRIP

Supported by Elementary Reform Curriculum Implementation Support Team  
with representatives from

Curriculum Development Division (CDD)  
Curriculum Reform Implementation Project (CRIP)  
Planning, Facilitation and Monitoring Group (PFMG)  
Inspections and Guidance Division (I&GD)  
Papua New Guinea Education Institute (PNGEI)  
Primary Teachers' Colleges (PTCs)  
Teacher Education and Staff Development Division (TE&SD)

Special thanks for their contribution to

The staff, Elementary Unit, PNGEI  
Provincial Elementary Inspections Coordinators  
Senior Primary School Inspectors  
Primary School Inspectors  
Secondary School Inspectors  
Provincial Education Advisers

ISBN 9980-930-47-0

National Library Service of Papua New Guinea

Printing:

Layout and design: Kelamon Maven

The Inservice Units have been developed with the support of AusAID under the  
Curriculum Reform Implementation Project.

For further information about the units contact the Teacher Education  
and Staff Development Division.

---

---

## Secretary's Message

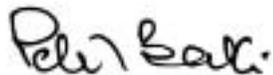
The Papua New Guinea Department of Education *Inservice Management Plan 2001 – 2005* sets out the policies and practices for inservice to support the implementation of curriculum reform in basic education. The development of a culturally relevant curriculum and the provision of quality inservice for all elementary and primary teachers are fundamental components in the reform of basic education.

The provision of accessible, relevant and sustainable inservice training is critical for the effective implementation of the reform curriculum in Papua New Guinea schools. In particular, appropriately trained and skilled teachers, head teachers and support staff are the key.

These self-paced inservice units are being provided to assist teachers implement the new Elementary outcomes-based reform curriculum materials. They are quality materials designed to help each of you continue your professional learning at times to suit you and with the support of colleagues in your school and district. Significantly the units may provide a means for all teachers to gain further qualifications through Papua New Guinea Education Institute at a later date.

The units have been developed with the support of AusAID under the Curriculum Reform Implementation Project (CRIP).

I commend the units to you and invite you to take up the challenge provided by the availability of these units to continue your own learning so that we can be sure that our children receive the best possible education.



PETER M BAKI  
Secretary for Education

---

# Table of Contents

	<b>Page/s</b>
Unit introduction	<b>1- 8</b>
Context	
Prerequisites	
Learning tips	
The learning model	
Resources	
Some definitions	
Ways this unit can assist you	
About this unit	
The context	
The sections	
Unit learning outcomes	
Self Assessment	
References	
Final steps.....	<b>9</b>
Section 1 – Outcomes-based Education	<b>10 - 17</b>
Section 2 – <i>Culture and Community,</i> <i>Elementary Syllabus 2003</i>	<b>18 - 27</b>
Section 3 – <i>Cultural Mathematics,</i> <i>Elementary Syllabus 2003</i>	<b>28 - 32</b>
Section 4 – <i>Language,</i> <i>Elementary Syllabus 2003</i>	<b>33 - 39</b>
Unit summary	<b>40 - 42</b>

---

# Unit introduction

Welcome to Unit 2: *Understanding the New Elementary Curriculum*

In this unit you study the three new syllabuses that make up the Elementary Reform Curriculum for Papua New Guinea. They are part of a new set of syllabuses for students from Elementary Prep through to Grade 8, all being developed as part of the education reform in this country. Each syllabus is outcomes-based, and this idea is studied in this unit.

The Elementary Curriculum is to be used in schools from the start of 2004.

## Context

Three inservice units has been developed to help Elementary teachers to effectively implement Elementary reform curriculum.

The Elementary syllabuses contain learning outcomes for Elementary Prep, Elementary 1 and Elementary 2. These outcomes specify what it is that students know, understand and are able to do as a result of their learning.

These inservice units use an outcomes approach to help you become familiar with and to understand and experience learning based on specified outcomes.

The inservice units are similar to the *Self Instructional Units* (SIUs) with which you are familiar.

## Prerequisites

There are no prerequisites for this unit. However, when you have completed working through the Unit keep it. You may use it as evidence for *Recognition of Prior Learning* (RPL) if the DoE moves to upgrade Elementary teacher qualifications.

## Learning tips

The Study Guide provides you with a guide to the unit you are studying. Each section includes Learning, Doing, Sharing and Reflecting activities for you to work through. These are all designed to help you achieve the learning outcomes of the unit. The Study Guide is also your *workbook* and *learning journal*.

You are already familiar with a self paced mode of learning. Here are some additional tips you may find helpful.

### Plan

Make a study schedule and try to stick to it. Set specific days and times each week for study and keep them free from other activities.

In the sections where you are expected to work with others and share ideas, make note of appointments, your meeting place, time and so on, and plan for them.

### Manage your time

Set aside a reasonable amount of time each week for your study program.

### Be organised

Work in productive ways and work through the unit systematically. Most people need quiet and order to study effectively, so try to find a suitable place to do your work.

### Ask for help if you need it

This is the most vital part of studying at a distance. No matter what the difficulty is, seek help straight away. Colleagues and Elementary trainers can help you in many ways.

## The learning model

By working through the activities in this unit, using the learning model of Learn, Do, Share and Reflect, you will gain an understanding of the reform and develop your knowledge and skills in implementing it. The four parts of the learning model form an integral part of the learning journey.

### Icons

An **icon** is a symbol used to prompt you to take a particular action in your learning journey. In this unit you will find the following icons that represent this learning model.



#### Learn (Lainim)

- Find out more about
- Use information to create knowledge



#### Share (Tok Tok wantaim)

- Talk to others about what you have learned
- Discuss with a colleague or group acting as a critical friend(s).  
Learning in cooperation increases ability to learn.

Discussing and exploring what has been learned with colleagues helps in reconstructing knowledge through seeing, hearing, doing, talking, refining and reflecting.



#### Do (Wokim)

- Do tasks
- Practise skills
- Apply new knowledge



#### Reflect (Tingim bek)

- Think critically about what you have learnt, done and shared
- Think about changes to your practice
- Think about changes to your beliefs and attitudes.

Reflection helps to make meaning from what is being done, develop shared meaning and challenge ways of thinking and doing things. Some reflective questions might be-What does this mean for my practice in my current position?What are the implications for the group? What are the implications for the school or my classroom?

## Resources

### Some Definitions

Colleagues or other teachers and elementary trainers can help you. They can be a learning partner, a critical friend, a mentor, or a facilitator.

**A learning partner** is a colleague with whom you have agreed to study. You work with your learning partner to clarify ideas, brainstorm ideas and discuss plans and processes and support each other in your learning journey. This does not mean that you provide responses to the tasks and activities jointly with your learning partner. Your responses should be based on your own experiences, needs and context of work.

**A critical friend** is a colleague you trust and with whom you can work well. Critical friends give feedback, ask thought provoking questions, help you look at issues from different perspectives and help support change your practice.

**A mentor** is a person who is interested in helping you in your job, and is willing to be a friend, guide, counsellor and/or sounding board (that is, listens and responds to your ideas, issues, etc.). A mentor may or may not be a colleague or Elementary trainer.

**A facilitator** assists with your learning and provides input into the learning process.

## Ways this unit can assist you

This unit can help you in a number of ways. For example

1. for your own professional development.
2. for establishing a learning community of teachers in your school or across a cluster of schools.

If DoE moves to upgrade Elementary teacher qualifications, you may be able to claim recognition of prior learning (RPL). If this interests you, keep a copy of the completed unit.

## About this Unit

### The Context

As you are aware, basic education is being reformed throughout the PNG education system. This process commenced some years ago. You might also be aware that some provinces and schools have already done a great deal of work in this regard while some others have a long way to go.

This unit is one of a set of three developed to assist Elementary teachers to understand and implement the reform in their work situation.

The inservice units in the set are:

- Unit 1: Education Reform in Papua New Guinea
- Unit 2: Understanding the New Elementary curriculum
- Unit 3: How to Use the Teachers Guide

You can study one or more units and you can study them in any order.

## The Sections

This unit: *Understanding the New Elementary Curriculum* is divided into four sections.

### Section 1: Outcomes-Based Education

In this section, you explore the concept of outcomes-based education and how it is the same and different from other approaches. Key terms such as learning outcomes, indicators, demonstration of learning, and evidence are explained and explored.

### Section 2: Culture and Community, Elementary Syllabus 2003

In this section you look at the Culture and Community Syllabus. Each section is studied in the order it appears in the document and some of the important ideas in each section are explored. Activities are included which help you understand and apply key concepts.

### Section 3: Cultural Mathematics, Elementary Syllabus 2003

This section helps you understand the Cultural Mathematics Syllabus. You go carefully through each section of the syllabus and special aspects are highlighted. The importance of the local community and involvement of the local community in program development are emphasized.

### Section 4: Language, Elementary Syllabus 2003

In this section you look at the Elementary Language Syllabus. You will see what is the same and what is different in the three syllabus documents. Language is a subject on its own. It is also integral to all other learning. This unit brings together specific learning about the language syllabus, but considers it in a more integrated way than do the activities in the previous two sections.

## Unit Learning Outcomes

Learning outcomes are statements about the knowledge, understandings, and skills you achieve and are able to demonstrate when you complete this unit.

These statements are learner-centred and written in terms that enable them to be demonstrated, assessed or measured.

On successful completion of this unit, you can (are able to):

1. describe the idea of outcomes-based education and how it is different to previous ways of developing curricula in Papua New Guinea
2. explain to others in your school and community the concepts of outcomes, indicators and the demonstration of learning
3. describe and discuss the format and structure of the three Elementary syllabuses
4. discuss Elementary curriculum as an integrated concept rather than as three separate subjects
5. explain to other teachers how to use the Elementary syllabuses as the beginning point for planning and programming
6. make a clear presentation to a group about important aspects of the Elementary syllabuses in Papua New Guinea.

## Self assessment of progress

This is the start of your learning journey.

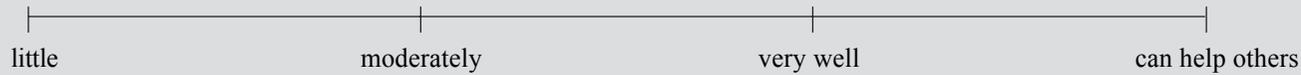
Here are 10 statements for you to answer. Each statement is followed by a line with four markers on it.

In assessing yourself at the start of this unit, place yourself on each line on the basis of what you know now.

For example, consider Statement 1: I understand what the term outcomes-based education means. If you know a great deal about the term, then you should mark a tick close to ‘very well’, the 3<sup>rd</sup> marker. If you know only a little bit about it, then your tick should be placed close to ‘little’, ie, the 1<sup>st</sup> marker. If you feel you have given a lot of thought to understanding the term and are in a position to help others, then you should place the tick close to the 4<sup>th</sup> marker.

Now complete the task on the following page.

1. I understand what the term outcomes-based education means



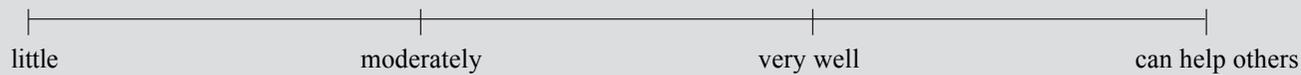
2. I am clear about the difference between outcomes and objectives



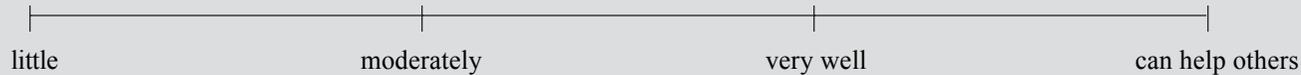
3. I am familiar with the structure and contents of the Elementary syllabuses



4. I can list the things that are common to all Elementary syllabuses



5. I understand how important the local community is in the development of education programs in the Elementary school



6. I can explain the curriculum principles that are important to the design of Elementary syllabuses in PNG



7. I can explain the terms *outcomes*, *indicators*, and *evidence of learning*



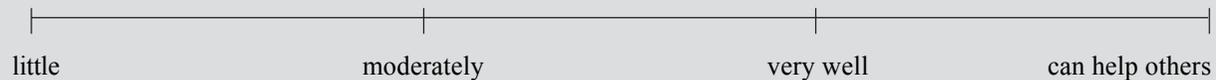
8. I can use the Elementary syllabuses as the basis for my planning and programming



9. I am able to introduce the three Elementary syllabuses to other teachers



10. I know how to integrate the three Elementary syllabuses.



When you finish the unit, do the *Self assessment* again to see your progress as a result of doing all the learning activities.

## References

*National Assessment and Reporting Policy*, Department of Education, 2003, Papua New Guinea

*National Curriculum Statement*, Department of Education, 2002, Papua New Guinea.

# Final Steps...

Check the following

	Yes	No
I have read the introduction		
I have found the resource materials		
I have done the initial self assessment		

Now you are ready to get into the sections.

The unit is written in a ‘self learning mode’ like the *Self Instructional Units*. This means you are guided each and every step of the way. Follow the instructions and you will be able to complete the unit.

Answers are not provided for the tasks you complete. Instead ‘hints’ are provided for you to think about. This is a different to the SIUs you are familiar with.

Space is provided for writing your responses and reflections – this means that your study guide is also your *workbook* and your *learning journal*.

At the end of each section you will find some blank pages. These are extra space for your notes.

In the *unit summary*, the *unit learning outcomes* are repeated. Use this as a checklist of your progress/learning through the unit.

**Gut lak long stadi bilong yu!**

## Section 1. Outcomes - based Education



Papua New Guinea has adopted an outcomes-based approach for the reform curriculum. By the year 2005, all teachers in Elementary, Primary and Community schools will be using outcomes-based syllabuses. So will Grade 7-8 teachers in Secondary schools. This approach to syllabus design is happening in many parts of the world. The content supports what is important for girls and boys in this country.

What is an outcomes-based curriculum? Once again, a good starting point is to read the *National Curriculum Statement* (2002). This exact question is asked in Section 2.3. The answer is included below.

*An 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.*

*In the Papua New Guinean 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 outcomes. Teachers will use the outcomes and indicators to write learning objectives when planning a program and lessons. These objectives will identify the learning steps to be completed in order to achieve the learning outcomes.*

In this answer, there are terms that may be new to you. It is easier to understand them with one of the new Elementary syllabuses opened. In the next sections of this unit we will look more carefully at the three new syllabuses, but a quick look will help you understand the part quoted above.

Open the *Culture and Community Syllabus* to page 13. We will look at the words “strand” and “substrand” later on in the next section.

Next to P.1.1 is written “*Identify resources we use from the environment*”. This is a learning outcome, usually just called an outcome, for students in the Elementary Prep grade. To use the words of the answer from the *National Curriculum Statement*, it identifies one thing the students will demonstrate.

Another way of thinking about this is to put the words “Student can.....” in front of the outcome.

Written again, P.1.1 will now say “Students can identify resources we use from the environment”.



**Copy the three outcomes on page 13 of the *Culture and Community Syllabus* (P.1.1, 1.1.1 and 2.1.1) with the words “the student can” in front of them.**

<b>P.1.1 The student can</b>
<b>1.1.1 The student can</b>
<b>2.1.1 The student can</b>

*Hint: This wording makes it even clearer that outcomes are the result of learning.*



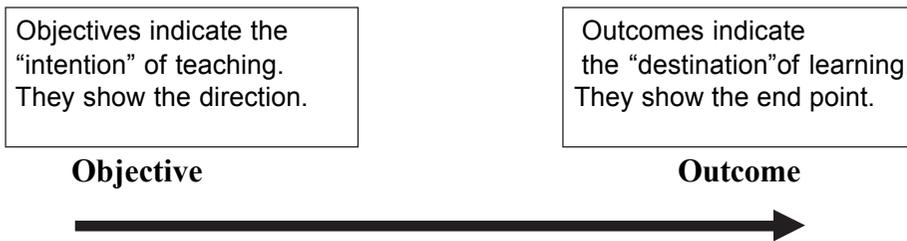
Many older syllabuses were written in “objectives”. An objective shows an intention. If P.1.1 was written as an objective it would say something like this:

“Students should be able to identify resources we use from the environment”

Can you see the difference?

An **OUTCOME** indicates the “destination” of learning whilst an **OBJECTIVE** indicates the “intention” of teaching.

Along a line it may look like this.



Objectives are still something very useful in the whole teaching and learning process. You will need to write lesson and program objectives to make sure that your students can achieve the outcome(s).

It may look like this.

**Outcome P.1.1** Identify resources we use from the environment

**Objectives** (some)

1. Students should be able to name foods grown in gardens around their village.
2. Students should know that soil, water and sunlight are necessary to grow food in gardens.
3. Students should know that trees in the forest give us wood for fires and homes, shade on hot days and shelter for birds and animals.



**Now ask yourself “If I provided my students such learning experiences, can they achieve this outcome? Are these activities similar to some of the ‘indicators’ for this outcome?”**

*Hint: Lesson objectives should relate to the achievement of outcomes.*



Write some objectives for the learning experiences that will help students in the Elementary Prep class achieve this outcome. Three objectives have been copied here for you from the previous table.

**Outcome P.1.1** Identify resources we use from the environment.

**Objectives**

1. Students should be able to name foods grown in gardens around their village.
2. Students should know that soil, water and sunlight are necessary to grow food in gardens.
3. Students should know that trees in the forest give us wood for fires and homes, shade on hot days and shelter for birds and animals.
- 4.
- 5.
- 6.
- 7.
- 8.

*Hint: These objectives will probably be fairly specific to a lesson or activity.*



Now meet with another teacher and together plan some teaching objectives to link with the outcome 2.1.1. Use the same process as before.

**Outcome 2.1.1** Use, re-use and care for things in the environment.

**Objectives**

- 1.
- 2.
- 3.
- 4.

*Hint: Your experience as a teacher will make this easy. It is the sort of things teachers have always done. They break things down to manageable parts.*



The term ‘**indicator**’ was used in the answer to the question “What is an outcomes-based curriculum?”. This is a very important term to understand.

The *National Curriculum Statement* explains the term ‘indicator’. Look at this sentence again.

*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 outcomes.*

For examples of this, go back to page 13 of the *Culture and Community Syllabus*. Look at the list of points under the Outcome P.1.1. These are indicators. Notice they start with the sentence:

*Students will be achieving this outcome when they, for example...*

These indicators help teachers as they explain what students can do to achieve the outcome. They are not the only indicators. Teachers will think of lots more.

Think about a situation outside school for a moment. Imagine someone with a business outcome **I operate a successful PMV business**. Here are some indicators that may show that this is achieved (or not achieved).

<b>Outcome:</b> Operate a successful PMV business.
<p><b>Indicators:</b></p> <p>The owner will be achieving this outcome when they, for example</p> <ul style="list-style-type: none"> <li>• attract enough customers to make the routes worthwhile</li> <li>• have a business that is making an adequate profit</li> <li>• have road worthy vehicles</li> <li>• have drivers who obey road and licence laws</li> </ul>

**Using this as a model, write indicators that will provide evidence for the following.**

<b>Outcome:</b> This bank has satisfied customers.
<p><b>Indicators:</b></p> <p>The bank will be achieving this outcome when they, for example:</p> <ul style="list-style-type: none"> <li>* </li> <li>* </li> <li>* </li> <li>* </li> <li>* </li> <li>* </li> </ul>

*Hint: As bank cutomers, we all have ideas on what will make us satisfied.*



Look at the six indicators under the Learning Outcome 2.1.1 of the *Culture and Community Syllabus*. Write another four that you can think of.

**Outcome:** 2.1.1 Use, re-use and care for things in the environment.

**Additional Indicators:**

Students will be achieving this outcome when they, for example

\*

\*

\*

\*

\*

*Hint: Look carefully at all the words in the outcome, then think of the context in which you are teaching and the age/experience of your students.*



There is one other word that is important to understand in the answer to the question “What is an outcomes-based curriculum?”. *Students will need to demonstrate in order to achieve the learning outcome.* The word “demonstrate” simply means show evidence. If we want a driver’s licence in Papua New Guinea, we have to show that we have the skills necessary to drive a car well and be safe on the road. If we show this well, we will be given a driver’s licence. If our demonstration in the test is not good enough we will not be given a licence at the time.

If I want to apply for a visitor’s visa to visit Australia, I will have to demonstrate to the Australian authorities that I am a law abiding citizen in Papua New Guinea, I have no crime record in Australia, and that I have a return ticket to this country. They will require this evidence. Either I or the Australian officials will collect this evidence before the visa is granted.

In a similar way, students need to show that they have achieved the learning outcomes. Part of a teacher’s job is to develop an assessment task or tasks so that the children can show their evidence. Depending on the age of the child and the outcome being assessed, the demonstration could be by means of a display, a picture, a talk, a collection, a small drama, or a song. Many ideas are given in the syllabuses and the teachers guide. The demonstration may involve several forms, or just one.



Think again about learning outcome P.1.1 from the *Culture and Community Syllabus*. Remember the student is probably aged six and in the first year of his/her schooling.

Write down 3 ways each student could individually show to you, their teacher, that they can “identify resources we use from the environment”.

**Outcome P.1.1 Identify resources we use from the environment.**

Students could demonstrate the achievement of this outcome by:-

- \*
- \*
- \*
- \*
- \*

*Hint: Once again, imagine you are doing this with the children in front of you. Ask yourself, how my students could do this.*



A good way of showing that you understand outcomes-based curriculum, is to tell others what you know. Prepare a presentation for other teachers in your school which answers the question “What is an outcomes-based curriculum”.

Write your notes here for this presentation and present it to a group. Have at least one person comment on how clearly they now understand the idea of outcomes-based curriculum.

**Presentation Notes**

**Comments from a colleague.**

*Hint: Your response here will depend on the quality of your presentation and the understanding of your colleague.*



**Section Summary.**

Make a list of the key ideas you have learned in this section. You may do this using a mind map or another structure of your choice.

*Write your notes here.*

**Additional space for your notes**

**Additional space for your notes**

**Additional space for your notes**

## Section 2. *Culture and Community, Elementary Syllabus 2003*

In this section we work through the culture and community syllabus. In the next two sections we look at the other two Elementary syllabuses. You will see many similarities.

The syllabus opens with the *Secretary's Message*.



Read the *Secretary's Message* and answer these questions.

1. Who is responsible for developing the elementary curriculum?

*Hint: It is not just the job of teachers.*

2. What is the function of this syllabus?

*Hint: Students in PNG will hopefully stay in school at least until Grade 8*

3. What is the link between this syllabus and the lower primary grades?

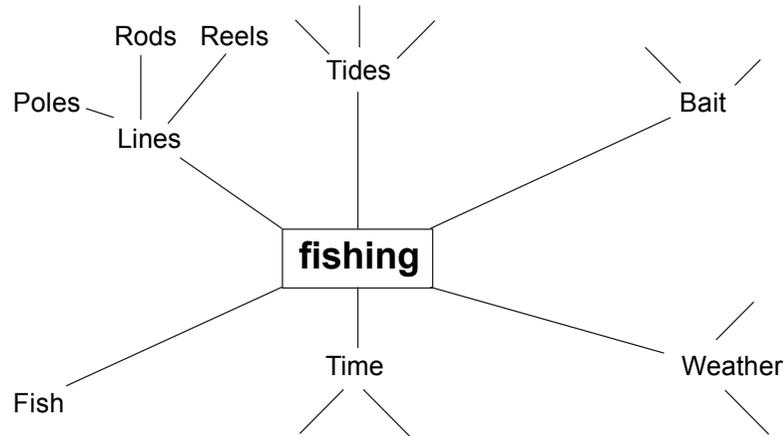
*Hint: Elementary students will move onto the lower primary grades*



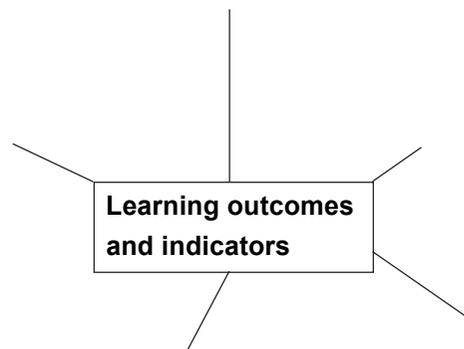
Over the page (page 1) is the *Introduction*. The first four paragraphs give another explanation of what is important about outcomes-based education. You will notice the use of the words, outcomes, indicators and demonstration again.



Use a mind map to explain the fourth paragraph. Here is an example of a mind map, although the subject in the example has nothing to do with outcomes-based curriculum.



Use this space to summarise the contents of the fourth paragraph. Add boxes and lines as needed.



Hint: There is no correct answer to this task, but it should explain the importance of ideas.

What does a “community based curriculum” mean? What should it provide for young people and adults of the future?

Hint: An important question is relevance.



On page 2 is the *Rationale*. The key sentence in this part is highlighted in bold.

*It (the Culture and Community syllabus) means “teaching in an integrated, community-centred way in a language that the students speak.”*

When this is understood and applied, we are really implementing one of the main beliefs behind the reforms in Papua New Guinea. This is why it is included in the rationale.

The next section on pages 3-6 is the *Curriculum Principles*. It includes some comments on Teaching and Learning. The *Philosophy of Education for Papua New Guinea* was mentioned in Unit 1 as an important report that led to the education reforms. It is again mentioned here under the heading *Integral Human Development*. You need to understand this principle as it is important in all that has been done in the reform.



Read the last section on page 3 and think about what it means.

- In your own words write a paragraph that you could give to someone to explain what *Integral Human Development* means.

*Hint: Perhaps you might give this to some one.*



On page 4 under the heading ‘The Right to Healthy Living’ is some disturbing news about life in Papua New Guinea. Compared to world standards, the health standard of people here is of concern.

Read the section on the top of page 4.



Suggest some ways that you and your school can take a role in improving the health outlook for families in your community. Note your suggestions under the three headings given.

In the classroom
Within the teaching program
Around the school

*Hint: There is much schools can do.*



The rest of the sections on pages 4-6 are related to the concept of teaching and learning. These ideas are important across the three Elementary syllabuses.



**Read pages 4-6.**

**What does this section say about the community curriculum?**

*Hint: Your answer will come from reading every sub-heading.*



The *Culture and Community Syllabus* has six aims. They are found on page 7.

Read the *Aims* on page 7.



From reading the *Aims* we should be able to paint a picture of the type of student we want to graduate from our elementary schools.

**Write a description of a student who successfully completes E2.**

An Elementary School Graduate

*Hint: Read back over each of the six aims and make sure your description reflects them all.*



You are now getting to the part of the syllabus that most influences your teaching. It is to do with content.

The curriculum writers organise content the same way in all syllabuses across the Elementary grades and through to Grade 8 in the Upper Primary. It is important to understand the terms **strands** and **sub-strands**. These are known as content organisers.

**Read pages 8-9 on *Content Overview*.**



From your reading, write a definition of:

1. A strand is.....
  
2. A sub-strand is.....

*Hint: The prefix 'sub' means under. A sub-strand therefore comes under a strand.*



In this table describe *Culture and Community Syllabus* using the framework of strands and sub-strands.

Strands	Sub-strands
Eg, Me and My Environment	Eg, Using and Caring for Resources

*Hint: This is a simple find and copy task.*



Now use this summary to talk with other teachers and give them an overview of the syllabus. (Read all that is written on pages 8-9 because you will need this information to make the talk clear).

After your talk, ask someone to write down what they understand of how the *Culture and Community Syllabus* is organised. They could write it in this box.

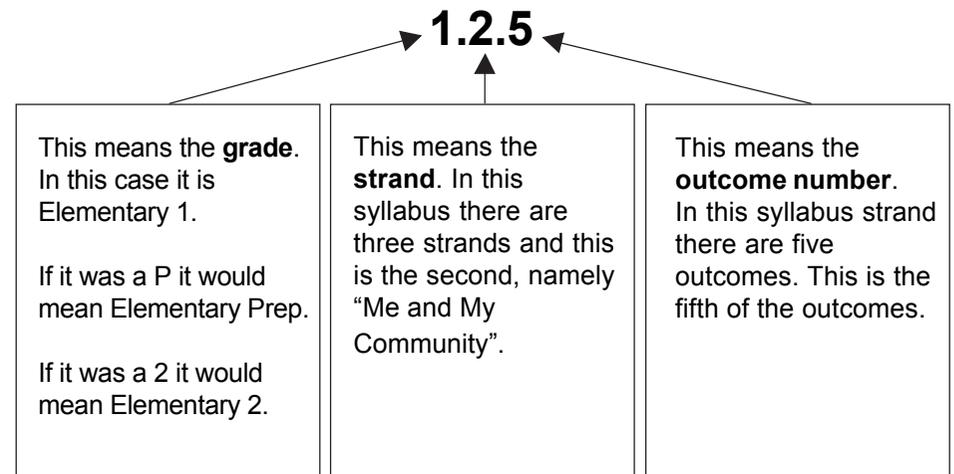
*Hint: The response will depend on the understanding of the colleague you talk to.*



On page 10 of the syllabus is the copy of the strands and sub-strands for this syllabus. It has been put in a table form. The activity you did a little while ago should have turned out like this. This page includes columns for the Elementary grades.



**What do you notice as you look across the three columns Elementary Prep, Elementary 1 and Elementary 2?**



*Hint: Look across the rows and down the columns.*



On pages 11 and 12 are all the learning outcomes for this syllabus across the three Elementary grades. Across the top you see the grade. Down the left hand side you see the three strands. Then under each grade column you will find the outcomes. They are all numbered.

The numbering system is important to learn. Outcomes are often referred to by the syllabus and the number, eg, Culture and Community 1.2.5.

The key to the numbering system (code) is at the top of page 11 but this is how you read Outcome 1.2.5.



**Answer the following questions.**

- 1. What are the three choices for the first part of the outcome numbering system?**

*Hint: Look back at the top of page 11 of the syllabus.*

**2. Explain what each part of the code 2.1.3. means?**



Pages 13-24 are a re-statement of all the learning outcomes with indicators. You had a good look at page 13 earlier in this unit.

You should notice that each outcome is extended across the three Elementary grades. The work undertaken in Elementary Prep is built upon in Elementary 1 and further in Elementary 2. Many Elementary schools have multigrade classes, and this logical development across the grades make planning easier for multigrade teachers.

Take the following as an example.

*Hint: Each part means something different.*

**3. What is the relationship between the numbers and the sub-strands?**

<b>P.2.3</b> Identify familiar places used by the people of the community.	<b>1.2.3</b> Identify and care for places that provide services in the community.	<b>2.2.3</b> Demonstrate where important places are found in their community.
The key word here is to identify. That may be as simple as naming it when they see it. The indicators add more information.	There are two key words here. Students now have to identify and care. This makes it a bit more complex.	The key word here is demonstrate. This is a bit harder for students to do than just identify or identify and care.

*Hint: You may need to look again at page 10 to answer this.*



Find and read outcomes P.2.5, 1.2.5 and 2.2.5.

In the table below, using the previous table as an example, show how skills, knowledge and understandings are built up over the Elementary grades for these outcomes.

P.2.5	1.2.5	2.2.5

*Hint: Look carefully at the action words in each outcome.*



On pages 25-27 of the *Culture and Community Syllabus* is the chapter on *Assessment and Reporting*. You should notice that the *National Assessment and Reporting Policy* is mentioned right up the top. Read the whole section. All the things you should do and the reasons why are made very clear.



Below is the section on *Assessment in Elementary* copied from page 25 of the syllabus. The paragraphs have been separated. Underline or use a highlighter pen to show the important words, phrases or sentences which contain the key message of the paragraph. The first one has been done for you as an example.

<p>Assessment in Elementary schooling is the continuous process of finding out what the students have learnt. When the students are assessed the teacher can decide <u>what must be taught next</u>. Assessment includes observing and recording students' learning during classroom activities. It is a process of: .....(you can read the rest of this paragraph on page 25 of the syllabus)</p>
<p>All the assessment and recording must link back to the learning outcomes. Teachers must decide when students have achieved each outcome.</p>
<p>All Elementary teachers need to gather information about students' learning and develop classroom programs based on this information. The quality of the classroom program and therefore the learning of students depend on the quality of the assessment.</p>
<p>Continuous assessment for young students is essential. Their knowledge and skills are continually changing as they learn more. It is important for teachers to be aware of what the students know, can do and understand. When this information is known about the students in the class, programming can be made more relevant and meaningful and should match the students' needs.</p>

*Hint: It would be useful to ask a colleague to look over what you've done here.*



The next section of this chapter is on *Reporting*. As the teacher you use assessment to manage the process of teaching and learning. You have to know what the students know or have learnt and what to do next in your teaching.

But you also have to be able to report on how the students are going. The students themselves, their parents, other teachers and perhaps members of the community need to know how students are progressing.



**On page 26 five methods of recording assessment information are mentioned. Think about which of these you already use and which of these you rarely, if ever, use. Record these reflections in this box.**

Recording method	Often use	Use sometimes	Rarely use
* journal, diary or anecdotal notes			
* portfolios			
* progressive records			
* checklists			
* work samples with comments written by the teacher			

Perhaps you are not familiar with one or more of these methods. If that is the case, ask one of your colleagues, the Elementary trainer or even a teacher in the Primary school to explain to you what is meant by the method. Ask them for an example if they have one.

If you have one of these conversations, write down the information you find below.

*Hint: Even if you feel you know about all the methods, it may be useful to test this knowledge out against someone else's ideas.*

The last section is the *References*. This is a list of books and reports that have been used in developing the syllabus.



**Section Summary. Make a list of the key ideas you have learned in this section. You may do this using a mind map or another structure of your choice.**

*Write your notes on the next page.*

**Additional space for your notes**

**Additional space for your notes**

## Section 3. Cultural Mathematics, Elementary Syllabus 2003



The chapter headings of this syllabus are the same as for Culture and Community. This section of the Inservice Unit will move on a little quicker because you now know more about many of the things in these new syllabuses.

On page ii, before the *Secretary's Message* is a section called *Acknowledgements*. You will see that this syllabus (as are all other syllabuses) was written following wide consultation and advice.

The *Secretary's Message* is on page iv. Paragraph four is the key paragraph of the message. It is unique to this syllabus.



**Read paragraph four that begins with the words *This Cultural Mathematics Syllabus ...***

**List the four key features of this syllabus as described in this paragraph.**

### Key features

- 1.
- 2.
- 3.
- 4.

*Hint: All you need to know to answer this question is included in paragraph 4.*



The *Introduction* is on page 1. Read it all. The first four paragraphs are the same as in *Culture and Community Syllabus*. Look now at the fifth paragraph. It starts with the words *In Cultural Mathematics...*

**Think about the five bullet points in this paragraph and also think about the *Culture and Community Syllabus*. Decide what is the same and what is different about the two syllabuses from what you read in this paragraph. Write this in the box.**

What is the same?	What is different?

*Hint: You should write something in each side of the box.*



The *Rationale* is on page 2. It is brief but important. It says how important it is to link what is being learnt to the child's current environment.

On pages 3-5 are the *Curriculum Principles*. There is a paragraph on *Catering for Diversity*. This reminds us that all children are different and will have different interests, ideas, beliefs, backgrounds, preferred learning styles and skills. There are differences we need to be aware of between different groups within the class. This paragraph talks about boys and girls



**Think about what the paragraph is saying about boys and girls. What does it mean for teaching *Cultural Mathematics* in your school. Write your thoughts here.**

*Hint: Research shows that boys, by nature, often demand more of the teacher's time than girls.*



**The *Teaching and Learning* paragraph includes some ideas that are useful for teachers when planning what they are to teach.**

**Write down the three simple steps for programming that are listed in the *Teaching and Learning* paragraph.**

**Step 1**

**Step 2**

**Step 3**

*Hint: Do this task using what you read here rather than from your own experience.*



The syllabus *Aims* are on page 6. There are 6 of them. There is an important term/word in each of the aims.

*Students develop:*

- *a sound foundation for further mathematical learning;*
- *confidence in applying mathematical skills;*
- *curiosity leading to the understanding of concepts;*
- *determination to persist with difficult problems; and*
- *an appreciation of the cultural diversity in numeracy.*



**Use your own words to describe each term/word**

- **sound foundation**...eg a solid base.....
- **confidence**.....
- **curiosity**.....
- **determination**.....
- **appreciation**.....

*Hint: Use an English dictionary or words from your own language.*

The next section is the *Content Overview*. Just like the *Culture and Community Syllabus* the content is organised in strands and sub-strands. Page 7 explains/describes strands and substrands. Page 8 shows this in a table.



Read the description of the each strand. Remember that this syllabus is called *Cultural Mathematics*. What is cultural mathematics?

*Hint: If this syllabus was written for an overseas community, say Japanese, it would be quite different.*

The Learning Outcomes for Cultural Mathematics are listed on page 9-10. Pages 11-21 show indicators for each outcome.



With the information shown on pages 9-21 and from the same section in the *Culture and Community Syllabus*, make a presentation to another teacher, or perhaps your whole staff, on what is the essence of this syllabus. Make sure you use and explain the terms:

- Learning outcomes**
- Strands**
- Sub-strands**
- Outcome numbers**
- Indicators**
- Demonstration by evidence**

Use this box to prepare your talk.

*Hint: This will be a sizeable presentation. Take some time to do it well. You may need more space than provided in this box. Go to page 39 if you need additional space*



The section on *Assessment and Reporting* is on pages 22-24. Much of this is the same as for Culture and Community. This shows that both teaching and assessment can be integrated across the subjects.

Near the bottom of page 23 there are some ideas about a schedule or plan for talking to parents. Think carefully what is suggested and compare it with what happens in your school now.

Write brief notes within this table. You could use two different colours to record the suggestions in the syllabus and what actually happens in your school.

Term	Elementary Prep	Elementary 1	Elementary 2
1. Syllabus My school			
2. Syllabus My school			
3. Syllabus My school			
4. Syllabus My school			

*Hint: Your response will provide a 'compare and contrast' picture.*



Comment on the suggested schedule and the schedule in your school. You might like to think about what is manageable for teachers, what is best for parents and what would suit your proposed teaching program.

- Teachers
- Parents
- Teaching Program

*Hint: This response will help you evaluate the notes you made in the above table.*



**Section Summary.** Make a list of the key ideas you have learned in this section. You may do this using a mind map or another structure of your choice.

*Write your notes on next page.*

**Additional space for your notes**

**Additional space for your notes**

## Section 4. *Language, Elementary Syllabus 2003*



A message from the Secretary is on page iv. Paragraphs 5 and 6 contain ideas that apply only to this syllabus. Read these two paragraphs.

On pages 1-2 is the syllabus *Introduction*. Much of this is the same as in the other two syllabuses. Paragraphs 5-11 apply only to the *Language Syllabus*.



Read the whole *Introduction*, but especially these paragraphs 5 and 6. Answer these questions.

1. Why do some people say the *Elementary Language Syllabus* is so important in the education reform in Papua New Guinea?

*Hint: There are structural and curriculum reforms that have been happening in PNG over the last 10 years.*

2. Why is the Elementary School approach to language and instruction possibly unique in all the world?

*Hint: This same characteristic brings with it the biggest challenge for PNG.*

3. What do you understand by the top paragraph on page 2?

*Hint: Look at pages 7-8 of this syllabus if you need some help.*

4. Explain in your own words the ideas about learning 'through' and 'about' language.

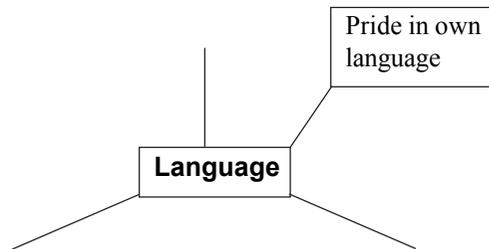
*Hint: You may need to think outside this Language Syllabus for your answer.*



The Rationale appears on page 3. When you read the rationale of a syllabus, you should get the main idea of why it is part of the curriculum. In this case it says why Language is important in the total curriculum, and especially why it is important in Elementary education. There is just so much that could possibly get included, and the body of knowledge in the world is changing rapidly. Curriculum writers have to make priorities about what to put into the school syllabus, and it has been decided that language studies must be included. This rationale explains why.



Create a mind-map to describe the rationale for the inclusion of Language in the Elementary curriculum.



*Hint: If you need help with a mind map, look back at page 19 of Section 2 of this unit.*



The term “*integration*” is used in the Introduction to this syllabus. Language is used in all aspects of life. Whether we are going fishing, shopping at the market, catching a PMV, applying for a job, living together as a family, language is used in some form. Language is what integrates life and makes many of its activities meaningful. Language has two roles in a school curriculum. Firstly language is developed as a separate syllabus. Secondly, an understanding of language and the use of language is essential, for work in any other syllabus. In this sense, it is perhaps the most important of the syllabuses.

It is also the subject syllabus which is most obvious to integrate with others. If we take fishing as a topic, it is obvious to introduce and discuss the language about fish, fishing and perhaps cooking of fish. To separate work in the syllabus of Culture and Community from Language is quite artificial.

Pages 6-8 of the Language Syllabus say more about the role of language in life and in the curriculum.



**Read pages 6-8, especially the sections on  
Teaching and Learning  
Flexibility  
Thematic teaching and integration  
Relevance**

**Prepare a presentation to give to a group of colleagues. Describe for them the fundamental importance of language studies in the Elementary school. Explain how much it can, and should be integrated with everything else happening in the school.**

**Make sure your talk includes -**

- **all that language involves, eg, speaking and listening, reading and writing,**
- **how important it is for all learning**
- **how important it is for problem solving**
- **how important it is for the continuation of traditions of PNG.**

**Include key points under each of the headings.**

**Use the box below to make your notes.**



There is a two paragraph discussion on the ‘whole language’ approach to teaching. This strategy is clearly very natural in thematic and integrated teaching. It is discussed on page 7 under the heading Thematic teaching and integration. It uses natural situations and natural links to language learning and is very student-centred in its teaching approach. Remember, the whole language approach:

- uses whole texts with real life language as the starting point for language study. From their theme work, students understand the meaning of the whole texts in real life
- uses learning activities that lead students to identify and study the parts that make up the whole texts
- is when students use learning activities to make up their own whole texts
- is when activities to develop grammar, vocabulary, punctuation, spelling and pronunciation focus on the whole language of the theme.

The second part of the discussion on page 7 advises teachers that they must add to the whole language approach by teaching language skills.

It lists some of the skills needed as:

- understanding rules
- vocabulary
- linking sounds and letters
- specific strategies to read and write different texts.

This is a blend of new thinking (whole language) and some older thinking that was perhaps around when we were students.



**Think about how you teach language and the policies and practices in your school.**

- **Do you use ‘whole language’?**
- **Do you teach skills?**
- **Do you know enough about the whole language approach?**
- **Where can you get help in language teaching if you need it?**
- **Do you know of, or use, other approaches to teaching language that are successful?**
- **Is language instruction an important part of the theme work you do?**
- **Does your teaching meet the school policy?**
- **Is the school policy the same as the syllabus policy?**

**Write down your thoughts. Don’t answer each question separately. Just write down some important things that come to mind.**

*Hint: Be honest. If you are satisfied with what you are doing, then say so. If you are confused or in need of help, then admit it and find a way of getting help.*



The *Aims* of the *Language Syllabus* are written on page 10. These aims describe a child who is learning language well and confidently. They show a child who is enjoying the wonder of knowing and using language successfully. It is a beautiful picture of a happy and well adjusted student.

But in many of our PNG communities, to be **literate in the language of the community** (top of page 10) may be different to this. Not all the languages in PNG are well documented and have a written form. Certainly they may not be as complete as English or Tok Pisin. It may not be possible to achieve all these aims, as wonderful as they are. Each community, in deciding the language of instruction for its Elementary school needs to think about these aims and perhaps make some adjustments. Not all languages in PNG have a written form. Therefore, the fourth aim, for example, may not be possible to achieve. Many local languages have very limited access to reading materials, other than what teachers create themselves. This too will have an impact on the achievement of these aims.



**Think carefully about the school where you teach and the aims that are written in this *Language Syllabus*. Remember it is important that teachers in PNG try their hardest to help students achieve them through their work in classroom.**

**Write a short note here about the capacity of your school to achieve these aims. If there are difficulties, suggest ways you will try to solve them. If there are things that will make the achievement of these aims impossible, describe them.**

*Hint: This should be a critical review of what is happening in your school.*



You should know the way that the content is organised and presented. It is in the same form as the two other Elementary syllabuses. The table on page 13 gives an overview of the strands and sub-strands of language. The pages before this describe what these terms mean.

Pages 14-15 list the language outcomes across all the strands and over the three grades. These are listed again on pages 16-27 with lists of indicators. Pages 28-29 contain some advice on assessment in language.

You should now be familiar enough with this format to see these content pages as a whole. When planning and programming, teachers will be thinking about the learning outcomes, learning activities, evidence of learning, assessment and reporting in an integrated way. You will get some more help with this if you complete Elementary Inservice Unit 3.



**Skim read pages 16-29.** (*Skim read means to read over the pages quickly looking for the main ideas. Don't get stuck on the details!*)

**Look closely at page 16 and complete these questions and activities.** Your responses may require you to consider things from across all the pages you've just read.

1. What does *production* mean in this syllabus?

*Hint: It has a very specific meaning in this syllabus that may be different to how the term is used in other contexts.*

2. Can you explain the significance of the number 2.1.1?

*Hint: You have done this sort of activity before when studying the Culture and Community Syllabus.*

3. What happens as you read across from P.1.1 to 1.1.1 and then to 2.1.1?

*Hint: The outcomes are set out on the page like this for very deliberate reasons.*

4. What is the function of the indicators listed under the Outcome P.1.1?

*Hint: It is the outcome that is the essential part of the syllabus and not the indicators.*

5. Is it enough that a student can *tell stories from their own culture* (the first indicator under P.1.1) for a teacher to be confident that Outcome P.1.1 is achieved?

*Hint: Think carefully about all the words and ideas contained in the outcome.*

6. Is it necessary for a student to be able to do everything listed in the indicators for a teacher to be confident that he or she has achieved the Outcome P.1.1?

*Hint: The teacher is looking for evidence that the student can do what is included in the outcome.*

7. How does the second last indicator under P.1.1 '*help to formulate class rules*' help teachers determine whether the outcome is achieved?

*Hint: Think about all the words in the outcome and what they mean together.*

**8. How would you collect evidence that a child can *express feelings, needs and wants, likes and dislikes?* ( an indicator under 1.1.1)**

*Hint: Think about the most natural way(s) you can collect evidence. You are usually with your students for four hours per day.*

**9. Describe a classroom activity you could organise to give an opportunity for students to achieve Outcome 2.1.1.**

*Hint: The outcomes and indicators are not your program. The long term and short term programs need to be developed by the teacher.*

**10. How appropriate are tests to decide whether outcomes P.1.1, 1.1.1 and 2.1.1 are achieved?**

*Hint: Comments about assessment strategies have been made in each of the Elementary syllabuses.*

**11. Suggest ways Outcome 1.1.1 could be integrated with work from the *Culture and Community Syllabus*.**

*Hint: It is recommended that teachers plan in themes.*

**12. Suggest a way that Language Outcome 2.1.1 could be integrated with Cultural Mathematics Outcome 2.5.1**

*Hint: Language is important in all areas of learning.*



**You have now come to the end of this unit and should be ready to understand and confidently use the Elementary syllabuses.**

**If you go back and complete the self assessment on pages 5 -7at the end of the *Unit Introduction* you should get some idea of how much you have learnt.**

**Do you have any concerns?**

**How are you going to solve them?**

*Hint: Your response will be an indicator of your learning.*



**Section Summary.** Make a list of the key ideas you have learned in this section. You may do this using a mind map or another structure of your choice.

**Write your notes here**

**Additional space for your notes**

# Unit Summary

Congratulations! You have completed this unit.

At this point, let us review your learning journey.

You commenced your learning by completing the *Self Assessment*.

The sections within this unit are:

Section 1: Outcomes-based Education

Section 2: *Culture and Community, Elementary Syllabus 2003*

Section 3: *Cultural Mathematics, Elementary Syllabus 2003*

Section 4: *Language, Elementary Syllabus 2003*

In completing this unit, you briefly explored the concept of ‘outcomes-based education’ that underpins the style of syllabuses that have been developed by Papua New Guinea as part of our curriculum reform initiatives. You then had a critical look at each of the three syllabuses and learned about their structure and contents. You should now be able to use them as a good basis for planning and programming.

The focus in the unit required you to learn, do, share and reflect.

At this point let us review your progress. One way of doing this is by assessing the extent to which you can now demonstrate each outcome.

The outcomes for the unit are copied here. For each outcome assess yourself – Yes, No or Not sure?

Can you:	
1. describe the idea of outcomes-based education and how it is different to previous ways of developing curricula in Papua New Guinea?	Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure <input type="checkbox"/>
2. explain to others in your school and community the concepts of outcomes, indicators and the demonstration of learning?	Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure <input type="checkbox"/>
3. describe and discuss the format and structures of the three Elementary syllabuses?	Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure <input type="checkbox"/>
4. discuss Elementary curriculum as an integrated concept rather than as three separate subjects?	Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure <input type="checkbox"/>
5. explain to other teachers how to use the Elementary syllabuses as the beginning point for planning and programming?	Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure <input type="checkbox"/>
6. make a clear presentation to a group about important aspects of the Elementary syllabuses in Papua New Guinea?	Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure <input type="checkbox"/>

If you have answered ‘Yes’ to all of them, then you have done very well. Think about the kinds of evidence which will support the achievement of each of the outcomes.

If you have said 'No' or 'Not sure' to some, then it may be worth your while to go over these parts of the unit again and have another go at the tasks, and /or reflect on your difficulties and seek help.

A second way of assessing your progress is by completing the *Self-assessment* in the *Unit Introduction* again. Use a different coloured pen to place a tick on each continuum to show what you know now. Compare your assessment of your own knowledge and skills before and after you completed this unit.

Where have you shown the most growth?

In which areas might you need to consolidate your learning or seek further help?

Are there other areas that have now become apparent as learning priorities for you?

**The Elementary Trainers have been trained to facilitate or assist you with this unit. He or she can make a judgement about whether you have achieved the outcomes of this unit. It will be useful to you if you keep in contact with them as you think about what you have learnt.**

---

Where to from here



## How can I build on what I have learnt?

If you want to learn more about the curriculum reform and what it means for teachers, think about these things.

- study one of the other Elementary Inservice Units
- try to help another teacher
- take on special school responsibilities
  - develop the school assessment schedule
  - become the community liaison officer
  - become the school inservice coordinator
  - team teach with a colleague
- look for opportunities beyond your school
  - supporting others in a nearby school
  - supporting others at the cluster or district level
- develop resources
  - for your own use
  - for the use of others in your school
  - for others beyond the school

**It is important for all teachers to have some professional development plans.**

**Remember you can improve your skills and understanding by learning, doing, sharing and reflecting.**

**What are you going to do?**