

Inservice Units to Support the Implementation of the
Primary Reform Curriculum

Unit 1:
Philosophy of Curriculum Reform

**Module 4: Dimensions of change - what
are the implications?**

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Name: File N°:.....

Date commenced: Date completed:.....

I have sighted this study guide as evidence of completion of agreed tasks by

.....(insert name)

Assessor: Date:

Module 4: Dimensions of change – what are the implications?

Module introduction

Welcome to *Module 4: Dimensions of change - what are the implications?*

In this module, the focus is an exploration of the implications of reform for you in your present teaching, supervisory or advisory role.

We recommend that you complete Modules 1, 2 and 3 before this module, so that you are in a position to understand and appreciate the dimensions of change for primary education and explore their implications for your practice.

You need access to the *National Assessment and Reporting Policy, 2003*, to undertake this module.

If you are seeking academic credit, make sure you have completed the *self-assessment* in the *Accreditation and Certification* section before you start this module. As you work through this module, keep a running record of sections, parts and pages of the module where you can identify evidence for particular unit outcomes. You may wish to record such information in your *Learning Contract*, found towards the end of the study guide.

Module learning outcomes

When you have completed this module, you, the learner, can (are able to)

1. relate the PNG Education Reform process to your own work situation
2. identify the depth and breadth of changes, if any, you need to make to your current practices
3. develop and share an action plan to apply your learning to your work situation.

Section 1 - Your role



You may be a teacher, an officer with advisory, administrative and supervisory responsibilities such as a senior teacher, a head teacher, an inspector or a provincial education officer, an inservice coordinator or a reform coordinator. Some of you undertaking this course may have other roles and responsibilities.

If you are a *classroom teacher*, you are a very important person as the implementer of the reform curriculum. In order for you to become an effective implementer, you should critically review your current practices and identify those practices that are compatible with the reform and those which are not. For example, if you are a student-centred teacher who has set up a safe and student friendly classroom, then this fits in well with the new approach. On the other hand, if your only way of assessing your students is by paper and pen tests, then this does not fit in well with the advice in the reform syllabuses. The new syllabuses for primary years provide outcomes, the end points of schooling, for each of the grades 3, 4, 5, 6, 7 and 8 and not objectives as in the past.

The *National Assessment and Reporting Policy 2003* identifies, on page 8, your particular assessment and reporting responsibilities as a classroom teacher.



Read page 8.



Reflect on the implications of your assessment and reporting responsibilities for the way you plan, program, teach and assess your students, report their achievement and the way you evaluate your programs.

- In particular, reflect on the following responsibilities, and record your thoughts.

Teachers have a responsibility to:

- discuss with students the assessment, recording and reporting procedures that meet the learning needs of individuals and groups of students
- develop students' knowledge, skills and understanding of effective assessment and reporting methods
- maintain and share relevant records of student progress whilst maintaining confidentiality, where appropriate.

If you are a *senior teacher or assessment coordinator*, you have a responsibility to assist the head teacher in implementing reform. Depending on your level of responsibility, this may require you to provide curriculum, pedagogical and administrative leadership to teachers and advice and support to the head teacher.

The *National Assessment and Reporting Policy, 2003*, identifies, on page 8, your particular assessment and reporting responsibilities. You need to make yourself familiar with the outcomes approach to education so that you can implement it effectively in your teaching and assist others to do so.



Read page 8.



Reflect on the implications of your assessment and reporting responsibilities for the way you plan, program, teach and assess your students, report their achievement and the way you evaluate your programs.

- In particular, reflect on the following responsibilities. Record your thoughts.

School assessment coordinators have a responsibility to:

- facilitate the development and implementation of the school's assessment and reporting policy and programs
- works with other teachers to contribute to a coordinated whole school approach to assessment and reporting
- lead in identifying and developing good assessment and reporting practice.

If you are a *head teacher*, you are responsible for the implementation of the reform curriculum in your school. This may require you to provide curriculum leadership and support and advice to teachers with the implementation process, have a plan and timeline for implementation of reform, and work with secondary schools to make the transition as smooth as possible.

The *National Assessment and Reporting Policy, 2003*, identifies, on page 8, your particular assessment and reporting responsibilities as a head teacher. Your understanding of an outcomes-based curriculum is critical for effective implementation of the new syllabuses and new policies of DoE, in your school.



Read page 8.



Reflect on the implications each of your assessment and reporting responsibilities for the way you plan, program, teach and assess your students, report their achievement and the way you evaluate your programs.

- Record your thoughts here.

If you are *an inspector*, you have an advisory role as well as a curriculum monitoring and assessment roles in the primary school sector. This means that you are expected to have a working knowledge of all the subject syllabuses, teacher guides and other teacher resources, outcomes-based education, multi-grade teaching, bilingual education, the links between elementary, lower primary, upper primary and lower secondary sectors, the transition from elementary to primary, and primary to secondary, and the rationale and contents of the reform agenda.

The *National Assessment and Reporting Policy 2003* identifies, on page 9, your particular assessment and reporting responsibilities as an inspector. This also means that you need to critically view your current practices as an inspector in the light of the changes in curriculum, pedagogy, assessment, and so on to be effected in schools by teachers and their supervisors.



Read page 9.



Reflect on the implications of each of your assessment and reporting responsibilities for the way you carry out your inspectorial duties.

- Record your thoughts here.

If you are a *district education office or provincial education officer*, you have district- or province-wide responsibilities for different aspects of the reform curriculum including an outcomes orientation to the curriculum.

The *National Assessment and Reporting Policy, 2003*, identifies, on page 9, your particular assessment and reporting responsibilities. You work with all of the groups mentioned above and others and interact and intersect with them in different ways.



Read page 9.



Reflect on the implications of each of your assessment and reporting responsibilities for the way you carry out your district or provincial duties.

- Record your thoughts here.

The first step in all of the above situations is to critically view your current practices and identify those practices that are compatible with reform and those which are not. This is not about abandoning good practices but is about acknowledging them and building upon them.



Using your understanding of the rationale for the reform, and the major dimensions of change which are reflected in the *Primary Education Handbook (2000)*, the *National Curriculum Statement (2002)*, the *National Assessment and Reporting Policy, 2003*, and the information regarding OBE, list six of your practices in your present capacity in the table below.

If possible, work with another person at your level of operation.

For example, if you are a teacher, make a list of your current practices working with a colleague. You should consider how you program, teach, assess, review your program, what resources you use, and so on.

If you are an inspector, make a list of your practices working with another inspector. You should consider how you carry out your advisory, monitoring and supervisory responsibilities.

- Assess the extent to which each practice is compatible with reform curriculum. Then identify those practices that in your view are possibly compatible with the reform curriculum, by placing a tick in the right hand column.

List of practices	Compatible?
1.	
2.	
3.	
4.	
5.	
6.	



Discuss with a colleague up to three (3) critical changes you will need to make to become more consistent with the expectations of the reform curriculum.

- Enter the changes you are planning to make in the following table.

I need to change	
From	To
1.	
2.	
3.	

Hint: Be honest and realistic in responding to this task so that you can become effective in your work situation. Your response will very much be a personal response.



Reflect on how you will acquire the knowledge and skills to make the changes you plan to make.

For example, if you have been programming by objectives and now wish to program using outcomes how would you learn to do it? You may ask a friend to show you how to do it, or you may do a unit on programming, or do both.

For each change you wish to make list up to five (5) steps you intend to make. If you are seeking academic credit, you may wish to negotiate some or all of your plans with the assessor, carry them out and then present them as evidence for achievement of particular unit outcomes.

Changes I plan to make	My plan of action ...
1.	1.
	2.
	3.
	4.
	5.
2.	1.
	2.
	3.
	4.
	5.
3.	1.
	2.
	3.
	4.
	5.

Hint: Be honest and realistic in responding to this task so that you can become effective in your work situation. Think of the resources you have available at your disposal. Your response here will very much be a personal response.

Section 2 - What would you do?

Four scenarios are provided in the next few pages.

If you are a teacher, go to Scenario 1.

If you are a senior teacher or coordinator, go to Scenario 2.

If you are a head teacher, go to Scenario 3.

If you are an inspector or an education officer, go to Scenario 4.

Read the selected scenario carefully and then follow the instructions.

You need to respond to only one scenario.



Scenario 1

A new teacher has arrived at your school.

This teacher is not very familiar with the reform curriculum. Your head teacher has asked you to induct the new teacher about the reform - the rationale for the reform, the main features of the structural and curriculum reform and a brief overview of the National Curriculum Statement (2002) and the National Assessment and Reporting Policy 2003, and outcomes-based education.

- Draw up a plan, including a timeline (in terms of weeks or months), for inducting the new teacher, showing the steps you would take, and the processes (ie, the strategies and activities) and the sequence (ie, the order of activities) you would use. In doing this reflect on your own experiences in trying to understand and apply reform. Think about what worked for you and what did not.
- Look through the *National Curriculum Statement (2002)* and the *National Assessment and Reporting Policy 2003*, with a colleague. Think about ways of introducing the two documents to the teacher.
- Take notes on any significant information that you need to consider in completing this task. You may wish to record your notes as a mind map or concept map.
- Use pages 31-32 of this module to draw up the plan.

Hint: Make sure your plan provides all the details asked for above.



Share the plan with a group of teachers/colleagues.

- Discuss your plan and modify it, if required, so that it becomes the 'blueprint' (model) for inducting teachers new to reform curriculum.

Hint: Let colleagues critique it, but make sure that they have the background information which is guiding your plan. Make adjustments, if appropriate, on basis of the comments made.



Reflect on what you have learned through the above activity.

- Was the process useful? If yes, why? If not, why not? Write your thoughts down.

Hint: Make a list of the major concepts and skills you have acquired or further developed. Be honest about your response. You are not doing this course to please others. You are doing it for your own benefit.



Scenario 2

You are a senior teacher or a coordinator at your school.

Your head teacher has asked you to coordinate the reform activities of your school. This is to include an introduction to the National Curriculum Statement (2002), the National Assessment and Reporting Policy 2003, and outcomes-based education. You are also being asked to provide a plan of how you intend to coordinate the activities to your head teacher. This means that you will have to take stock of how far the school has progressed in implementing the reform curriculum, translate the requirements of the reform into practical strategies and plan to implement the reform systematically.

- Draw up a plan, including a timeline (in terms of months or years), for coordinating reform in your school, showing the steps you would take, and the processes (ie, the strategies and activities) and the sequence (ie, the order of activities) you would use. In doing this reflect on your own experiences in trying to understand and apply reform. Think about what worked in your school and what did not.
- Look through the *National Curriculum Statement (2002)* and the *National Assessment and Reporting Policy 2003*, with a colleague. Think about ways of introducing the two documents to the teacher.
- Take notes on any significant information that you need to consider in completing this task. You may wish to record your notes as a mind map or concept map.
- Use pages 31-32 of this module to draw up the plan.

Hint: Make sure your plan provides all the details asked for above.



Share the plan with a group of teachers/colleagues.

- Discuss your plan and modify it, if required, so that it becomes a 'blueprint' (model) for coordinating reform implementation in a school.

Hint: Let colleagues critique it, but make sure that they have the background information which is guiding your plan. Make adjustments, if appropriate, on basis of the comments made.



Reflect on what you have learned through the above activity.

- Was the process useful? If yes, why? If not, why not? Write your thoughts down.

Hint: Make a list of the major concepts and skills you have acquired or further developed. Be honest about your response. You are not doing this course to please others, you are doing it for your own benefit.



Scenario 3

You are the head teacher of a primary school.

Your inspector has asked you to organise a cluster schools' meeting and make a presentation about the rationale for reform, the main features of the reform and how your school is introducing or continuing to progress with the reform. In your presentation you are to include issues to do with reform and some constructive strategies that have worked for your school, and an introduction to the National Curriculum Statement (2002), the National Assessment and Reporting Policy 2003 and outcomes-based education.

Here is some information to help you..



The following extract is taken from *Inservice Management Plan, 2001 - 2005*, Papua New Guinea Department of Education, page 11.

- Read it with a colleague.

Under current policy each primary school is required to develop an inservice plan. This plan should include strategies to support the implementation of curriculum reform. This may require the nomination of a teacher to take responsibility for the management of curriculum reform inservice issues in the school. The teacher could have a coordination and communication role.

The quality of the leadership of primary school head teachers is critical to the success of curriculum reform inservice in their schools. They need to support and supervise their staff as they implement the reform curriculum and provide leadership in the provision of reform curriculum inservice training for their staff. They also need to participate in the inservice training that will be provided for them under this Plan and ensure that the school has an inservice plan that enables all teachers to participate in relevant reform curriculum inservice activities.

Head teachers will also need to work with each other, and with inspectors and Elementary school staff to implement cluster-based inservice programs that will be funded and promoted under this Plan.



Think about what this means for your role and the progress you have made with implementation of the reform.



Go to the *National Curriculum Statement (2002)*. Look through the document with a colleague.

- Take notes on any significant information that you need to consider in completing this task. You may wish to record your notes as a mind map or concept map.

Pages 7-11 of the *National Assessment and Reporting Policy 2003* describes the 'roles and responsibilities of the various individuals and groups of people responsible for school education. You may have multiple roles in this context.



Select the appropriate sections and read them with a colleague.

- Take notes on any significant information that you need to consider in completing this task.

The three policy documents you have used make explicit some of the reform expectations of the Department of Education.



Draw up a plan for your presentation including the processes (ie, strategies and activities), sequence (ie, the order of activities) and resources you would use.

- In doing this reflect on your own experiences in trying to understand and introduce/ maintain reform in your school. Think about what worked for you and your school and what did not.
- Use pages 31-32 to draw up the plan.

Hint: Make sure your plan provides all the details asked for above.



Share the plan with a group of teachers/colleagues.

- Discuss your plan and modify it, if required, so that it becomes a 'blueprint' (model) for presenting information about reform curriculum.

Hint: Let colleagues critique it, but make sure that they have the background information that is guiding your plan. Make adjustments, if appropriate, on basis of the comments made.



Reflect on what you have learned through the above activity.

- Was the process useful? If yes, why? If not, why not? Write your thoughts down.

Hint: Make a list of the major concepts and skills you have acquired or further developed. Be honest about your response. You are not doing this course to please others. It is for your own benefit.



Scenario 4

You are a primary school inspector or an education officer (eg. district education officer, provincial reform coordinator, curriculum coordinator, inservice coordinator).

You are about to attend a meeting of inspectors at the provincial level. You have been asked to present a short paper on how the implementation of reform curriculum is progressing in your district or province. In your presentation you are expected to include issues to do with reform for your district or province and some constructive strategies that have worked for you and particular primary schools in your district or province. You are also to include an introduction to the National Curriculum Statement (2002), the National Assessment and Reporting Policy 2003 and outcomes-based education.

**Here is some information to help you.**

This information is taken from *Inservice Management Plan, 2001-2005*, Papua New Guinea Department of Education. The extract below may be found on page 10 of this document.

- Read the extract carefully with a colleague.

Senior primary school inspectors and primary school inspectors have a key role in supporting the implementation of this Plan. They will need to:

- *support and encourage school staff to undertake training*
- *assess the extent to which head teachers are meeting the obligations under the Plan*
- *identify head teachers and teachers who can act as trainers*
- *assist in the selection of appropriate teachers to participate in inservice*
- *participate in training to build their knowledge*
- *assist provinces to develop and implement provincial inservice plans*
- *act as trainers for particular initiatives*
- *monitor the implementation of inservice activities and evaluate their outcomes.*

On pages 10 and 11, provincial responsibilities are outlined.

**Go to the *National Curriculum Statement (2002)*. Look through the document with a colleague.**

- Take notes on any significant information that you need to consider in completing this task. You may wish to record your notes as a mind map or concept map.

**Pages 7-11 of the *National Assessment and Reporting Policy, 2003*, describes the ‘roles and responsibilities’ of the various individuals and groups of people responsible for school education.**

You may have multiple roles in this context.



Select the appropriate sections and read them with a colleague.

- Take notes on any significant information that you need to consider in completing this task. You can present your notes in a way that make sense to you.



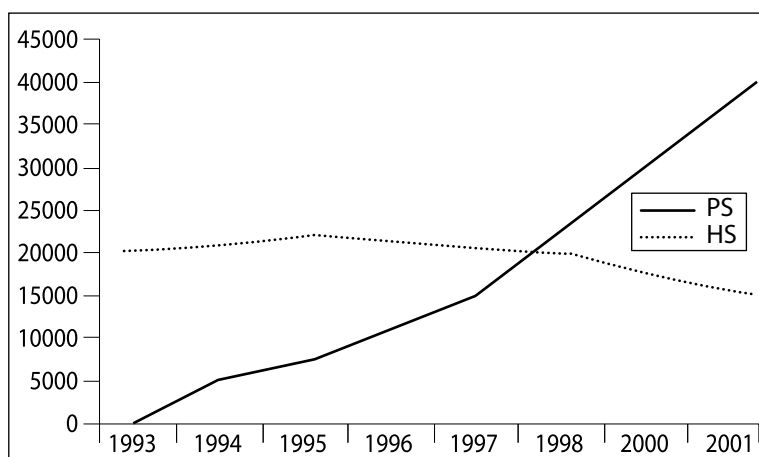
Here is some additional information to broaden your thinking. This information is extracted from *The State of Education in Papua New Guinea* (March, 2002) and its update of March 2003, produced by Facilitating and Monitoring Unit and published by the Department of Education.

Read the information provided with a colleague.

PRIMARY EDUCATION

Access

Enrolments in grade 7 at the primary schools has been rising at about 5000 per year, which is slightly less than the original targets in the National Education Plan. The enrolments in the high schools have been dropping accordingly. This is illustrated in the chart below.



The Grade 6 to 7 transition rate has also been rising although the rate of increase has been slowing down. The following tables and charts show the transition rates by province for the most recent cohort available and the increase over the years.

Table 3: Grade 6 to 7 transition by province, 2000 to 2001

	Male	Female	Total
Western	68.0%	75.4%	71.5%
Gulf	64.5%	67.4%	65.8%
National Capital	104.7%	99.5%	102.1%
Central	76.4%	77.1%	76.7%
Milne Bay	77.1%	73.5%	75.3%
Oro	65.8%	72.4%	68.9%
Southern Highlands	79.1%	92.4%	84.2%
Eastern Highlands	63.3%	56.8%	60.7%
Simbu	62.0%	54.4%	59.1%
Western Highlands	70.3%	69.8%	70.1%
Enga	80.7%	74.4%	78.2%
Morobe	64.8%	60.9%	63.0%
Madang	65.5%	60.8%	63.5%
Saundaun	71.2%	57.7%	65.2%
East Sepik	64.5%	59.0%	61.9%
Manus	82.2%	77.5%	79.9%
New Ireland	81.7%	85.0%	83.3%
East New Britain	85.2%	71.8%	83.3%
West New Britain	90.7%	86.0%	88.6%
North Solomons	69.5%	72.4%	70.9%
Kiunga Lake Murray	83.2%	76.9%	80.4%
Papua New Guinea	73.5%	71.8%	72.7%

Table 4: Grade 6 to 7 transition rates by gender and year, 1987 to 2000 cohorts

Cohort	Male	Female	Total
1987 to 1988	40.1	34.2	37.5
1988 to 1989	38.4	31.4	35.5
1989 to 1990	36.8	29.9	33.8
1990 to 1991	37.3	33.3	35.3
1991 to 1992	41.9	35.9	39.3
1992 to 1993	43.1	38.8	41.3
1993 to 1994	49.2	44.1	46.9
1994 to 1995	50.5	45.7	48.4
1995 to 1996	52.1	47.7	50.2
1996 to 1997	58.4	54.6	56.7
1997 to 1998	69.4	65.8	67.8
1998 to 1999	70.2	68.8	69.6
1999 to 2000	73.7	70.8	72.4
2000 to 2001	73.5	71.8	72.7

Figure 3: Grade 6 to 7 transition by year and gender, 1988 to 2001

	Male	Female	Total
Western	68.0%	75.4%	71.5%
Gulf	64.5%	67.4%	65.8%
National Capital	104.7%	99.5%	102.1%
Central	76.4%	77.1%	76.7%
Milne Bay	77.1%	73.5%	75.3%
Oro	65.8%	72.4%	68.9%
Southern Highlands	79.1%	92.4%	84.2%
Eastern Highlands	63.3%	56.8%	60.7%
Simbu	62.0%	54.4%	59.1%
Western Highlands	70.3%	69.8%	70.1%
Enga	80.7%	74.4%	78.2%
Morobe	64.8%	60.9%	63.0%
Madang	65.5%	60.8%	63.5%
Sandaun	71.2%	57.7%	65.2%
East Sepik	64.5%	59.0%	61.9%
Manus	82.2%	77.5%	79.9%
New Ireland	81.7%	85.0%	83.3%
East New Britain	85.2%	85.5%	85.4%
West New Britain	90.7%	68.0%	88.6%
North Solomons	69.5%	72.4%	70.9%
Kiunga / Lake Murray	73.5%	71.8%	72.7%
Papua New Guinea	73.5%	71.8%	72.7%

Teacher training

Pre-service

There are seven Primary Teachers Colleges that continue to offer primary teacher training preparing teachers for grade 3 to 8. Following the successful trialling of a two year trimester program at Madang Teachers College in 2001, all other colleges have decided to follow suit and the teacher training is now carried out over two years, with each year divided into three semesters. The acceptance of the change by both staff and students has been encouraging.

Given the fact that most of the students entering the program have successfully completed grade 12 or equivalent, the switch in duration did not have serious implications on standard. The colleges were able to successfully trim the curriculum focussing on the essentials to accommodate the program in two years.

The change from a three year (six semester) program to a two year (six trimester) program has reduced the unit cost of producing a primary teacher by 33%. This also means less burden for the parents as now they have to support the students and pay the college fee for two years instead of three. Additionally the change has resulted in increasing the enrolment capacity of the colleges by 50%. The additional bed space is of crucial significance for pre-service teachers training as well as the regionalisation of DEPI program.

The table below shows a breakdown of the 2002 Primary Teachers College enrolments.

Table 5: Primary Teachers College enrolment by gender – 2002

	Year 1	Year 2	Year 3	Total
Total enrolment	1154	734	445*	2333
% age female	42%	42%	44%	42%

* No year three at Madang Teachers College

The percentage of females remains well below that of males. This could be due to Grade 12 being the entry requirement. There is still a problem regarding female participation at the upper secondary level.

East New Britain and Southern Highlands have the highest number of students enrolled for teacher training. Provinces with the least number of students enrolled in teacher training are Oro, Gulf Western.

There were 164 staff in the Primary Teachers College, which allows a staff student ration of 1:14, while the approved ratio remains 1:12. Close to 80% of the staff are male. With increasing enrolment of female students, the Department intends to actively canvass for female applicants for teaching positions in teachers colleges. 7% of the staff come under the category of volunteer and overseas contract officers.

With assistance from the AusAid sponsored Primary and Secondary Teacher Education Project (PASTEP), the curriculum at the teachers colleges has been refined and upgraded. The colleges have received substantial quantities of teaching aids and materials under the resource procurement activity of the project. Two Learning Centres funded under the Virtual Colombo Plan have been established at Balob and Madang Teachers Colleges.

In-service

Qualification upgrading of primary school teachers is an ongoing task. It is estimated that close to 10,000 teachers in the field are without diploma level qualifications which is currently the entry requirement to primary teaching. The Diploma in Education, Primary (Inservice), commonly known as DEP(I) program has in the past been offered through PNG Education Institute. As of 2002 the program is regionalized to promote access and cost effectiveness.

As a result of regionalisation, batches of DEP(I) students were enrolled at Madange and Holy Trinity Teachers Colleges. Because of space limitation the group that was supposed to be enrolled at Kabaleo Teachers College were accommodated at Kokopo Business College. PNGEI staff continued to teach the program at Holy Trinity and Kokopo, while the Madang students were taught by the staff at the Madang Teachers College.

The response from the students enrolled at the regional institutions have been quite positive. The arrangement has helped boost the female enrolments in the programs. Judging by the experience so far, regionalisation of the in-service programs is the way forward as it offers greater access to field teachers to upgrade their competence and qualification.

Similar to the pre-service training curriculum, the Department is embarking on establishing National Curriculum Guidelines for the Inservice DEPI program. This will allow each of the participating institutions to develop their own curriculum based on the national guidelines and criteria.

The normal DEP(I) program offered at PNGEI does not include the research component, which is part of the curriculum requirement for graduation. Students are expected to design the research and carry it out in the field the following year, as part of an internship program under guidance from PNGEI staff. This had the disadvantage of delaying the completion of the program by at least a year.

The DEP(I) students at Madang were allowed to undertake the research projects during their on-campus program. This approach has worked very well and could be a model to follow, as this saves both time and cost. The regionalisation of the program will reduce the cost of the program and make it more teacher-friendly in terms of the cost, as the program is run on a user pay mode.

Together with the normal DEPI program, PNGEI ran a parallel Certificate Program in Special Education for teachers in primary schools and Special Education Resource Centers. It is anticipated that the program will be upgraded to diploma level in the near future.

Negotiations are underway with the University of Goroka for accreditation of the DEPI program. A Memorandum of Agreement has been signed for this purpose by University of Goroka and the PNG Education Institute.

Curriculum

At the lower primary level the syllabi have been reviewed and it is hoped that revised editions will be ready for the Board of Studies by May, 2004, with distribution scheduled for early in 2005.

Teachers' guides for this syllabi will be developed in 2004 and these, with an Implementation Support Package, will be sent to schools in 2005.

Progress has been rather more rapid at the upper primary level and the syllabi are due to be distributed in April, 2003. There is, again, an Implementation Support Package to accompany the syllabi that will be distributed at the same time.

The distribution of materials continues to be an enormous problem. Late in 2001 and in 2002 CRIP funded a review of curriculum materials storage and distribution systems and practices throughout the country. The report provided a detailed analysis

of the effectiveness, or otherwise, of the distribution systems in the country. A national workshop was held in late 2002 to review the findings and to use this as the basis for a new national distribution and storage policy to be adopted nationally. This will provide the basis for major curriculum materials distribution in 2003 and 2004.

Standards

The Australian Council for Educational Research (ACER) has completed a study of the feasibility of implementing curriculum standards monitoring test in PNG. The report recommended the development of a test which assesses standards in mathematics and literacy at grades 2, 5 and 8. The test would sample the performance of students in each of the four regions and would be conducted every two or three years. The objective would be to monitor standards over a period of at least ten years. The Department has accepted the program to be funded through CRIP. It is hoped that it will provide more information than simply data concerning education standards. This will be carried out in 2003, subject to the availability of funds.

CRIP is also funding a series of impact studies to evaluate key elements of the education reform process. The first of these studies is a five year longitudinal study of the impact of the reform on students, schools and communities. The study, which is led by the University of Wollongong, involves teams of researchers visiting fourteen school sites around the country to gather information. The research teams will be looking at the impact that the reform curriculum has had on learning outcomes at both the elementary and primary levels as well as the impact of vernacular education on literacy and numeracy in the primary schools. The researchers are required to provide six-monthly reports to an Impact Study Steering Committee.

A second impact study has been conducted to assess the effectiveness of workshops run to train teachers in strategies for bridging to English for children in grades 3 to 5. The National Research Institute carried out this study and found that although the training benefited teachers the workshops were not necessarily the best way in which to provide the training. There were problems of distance to travel for the workshops with related cost concerns. It was considered that there it was important to have in school supervisors to assist teachers in implementing the new curriculum. CRIP will be using these findings to develop the new lower primary in-service program.

The standards at grade 8 still cause concern for many and it is important that the Department, through the Measurement Services Unit, continues to monitor these. It has been reported in the past that the high schools have achieved better results in the Certificate of Basic Education (COBE) grade 8 examinations than the primary schools. A difference would be expected because the students attending high schools have been selected, whilst all those in primary schools have proceeded directly from grade 6 to grade 7.

The most recent results available are for the years 2000 and 2001. The results show that the high schools still perform better at grade 8 in numeracy and general skills but that the difference in literacy skills is minimal. It is important to note that only ten provinces returned data in 2000. Nothing should be read into the fact that the mean literacy mark has dropped between 2000 and 2001. The table and charts below illustrate these figures.

Table 6: COBE mean marks for 2000 and 2001 by type of school and subject

	Year 2000		Year 2001	
	Literacy	Numeracy	Literacy	Numeracy
Primary	30.1	22.8	28.2	22.8
Secondary	30.1	25.2	28.7	25.0
PNG	30.1	23.5	28.3	23.3

Figure 4: 2000 COBE results by subject and type of school

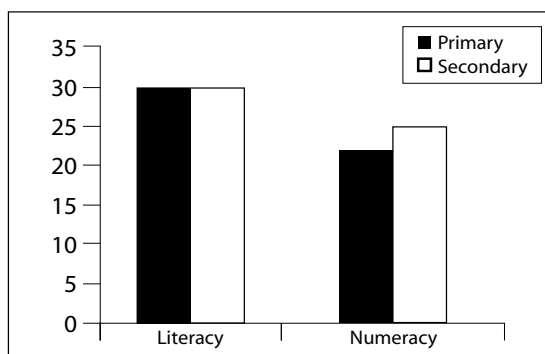
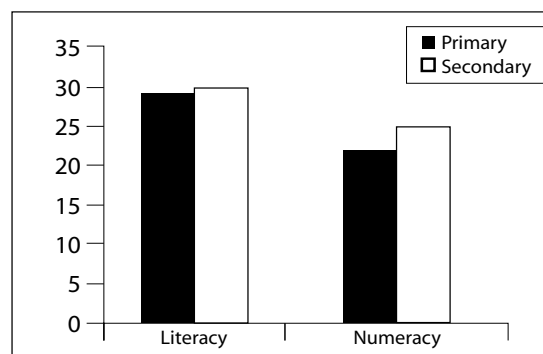


Figure 5: 2001 COBE results by subject and type of school



Of possible greater concern for the system should be the huge variation that there is between provinces. The table and the two charts below show, for literacy and numeracy skills, the mean marks for the provinces for which information is available for analysis.

Table 7: COBE mean marks by province, subject and type of school, 2001

	Literacy Skills		Numeracy Skills	
	Primary	Secondary	Primary	Secondary
Western	21.5	30.8	14.7	19.1
Gulf	24.3	23.3	16.4	17.0
Central				
Milne Bay	27.5	33.8	20.1	27.1
Oro	25.6	29.6	19.0	23.7
SHP	28.6	21.9	28.6	22.1
EHP	30.3	27.7	26.9	24.9
Simbu	29.4	27.7	28.0	23.6
WHP	29.9	30.1	29.0	29.1
WSP				
ESP	26.8	31.5	19.7	24.9
Madang	27.1	28.3	21.6	26.4
Morobe	28.3	30.4	22.8	26.5
WNB	25.3	26.0	20.3	24.2
ENBP	28.7	32.3	21.8	26.6
NIP	27.5	27.1	20.2	20.7
NSP	25.2	25.6	18.6	19.9
Manus	30.1	27.8	25.4	23.1
NCD	33.7	25.6		
Enga	27.1	24.7	27.3	24.8
KLM	23.2	34.4	17.2	27.9

Figure 6: Literacy Skills mean marks by province and type of school, 2001

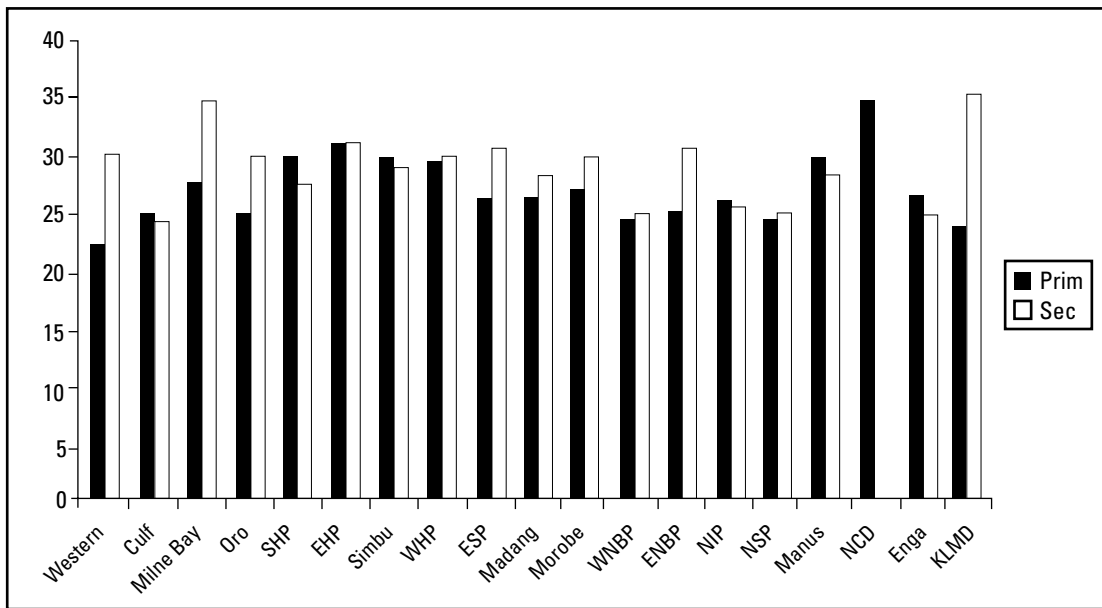
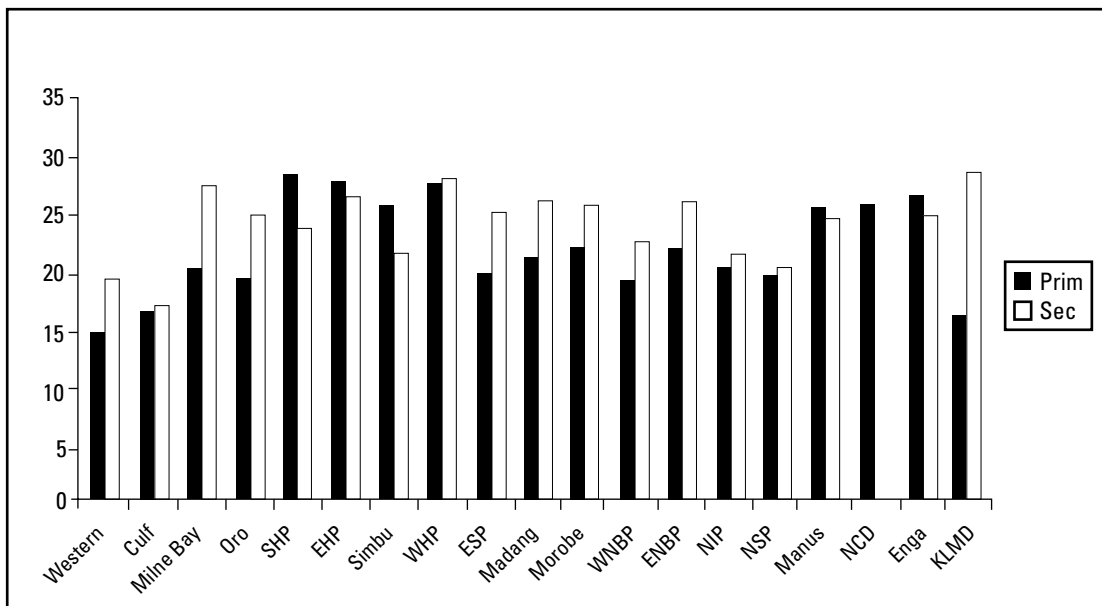


Figure 7; Numeracy Skills mean marks by province and type of school, 2001



The table and chart below show the mean literacy, numeracy and general skills marks by gender in 2001. The scores follow the pattern observed in previous years in that girls perform equally as well as, if not better than, boys on average in Literacy Skills but boys perform better than girls in Numeracy and General Skills. Again, there are large differences between the provinces.

Table 8: COBE mean marks by subject and gender, 2001

	Literacy	Numeracy	General Skills
Male	28.0	24.3	28.3
Female	28.7	21.9	26.9

The 2001 COBE examinations results have also been analysed by age. The results suggest that the younger children, those that enter school at a younger age, perform better than the older children. This is a similar conclusion to that reached in regards to the School Certificate Examination.

Figure 9: COBE Literacy mean marks by age, 2001

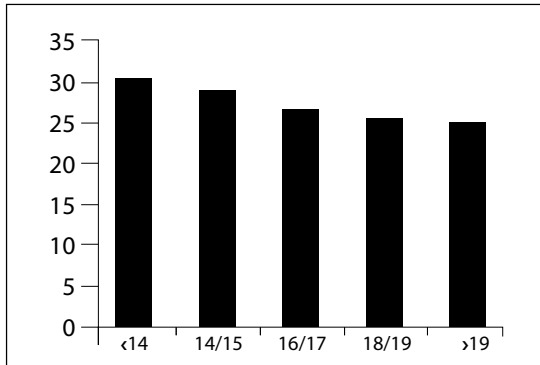
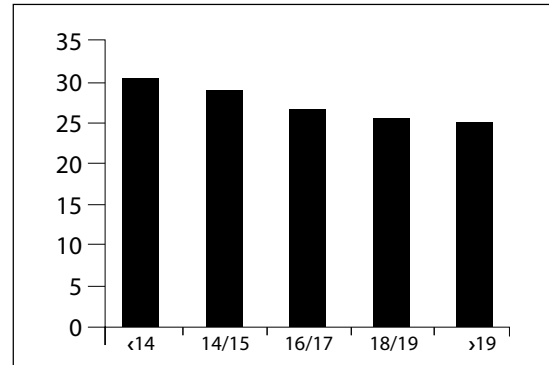


Figure 10: COBE Numeracy mean marks by age, 2001



Inspections

The Inspections and Guidance Division has experienced enormous problems in recent years in financing the visits of inspectors to schools. The situation eased in 2000 and 2001 with significant sums of money being made available through the Government Assistance to Quality Education Program. However, in 2002 there was no funding made available and the bureaucratic processes of allocation of funds and problems created through non-acquittals of previous operational funds did not allow the Division to operate effectively. In addition, the centralisation of the major travel items and the completion of the World Bank project meant that the Division was again desperately short of funding. This did not however affect individual inspectors who carried out their work with changes in approaches and support from provinces and with their work with their own personal resources. Quality Initiatives in PNG Education funds were used to carry out inspection visits but not advisory visits.

The recommendations included in the Tololo Review of October, 1995 are being implemented to give a greater emphasis to school-based appraisal. This was trialled in four provinces in 2000 – NCD, Central, East New Britain and Western Highlands. It is now being extended to all provinces and a School Based Supervision and Management Reform Handbook, after further trialling, is being produced.

The ongoing training of inspectors at the primary level is an important issue and the Curriculum Reform Implementation Project continues to provide workshops to equip the Inspectors with information about the reform curriculum and teaching methods, as well as the change in focus towards skills development and outcomes-based curriculum. The Division also continues to co-sponsor inspectors who are willing to meet tuition fees and other related fees by maintaining them on full salary whilst they are at the University of Goroka.

Key statistics

Enrolment rates

The usual enrolment rate that is used has in the past been for grades 1 to 6. This is grade 1 to 6 enrolment as a percentage of the 7 to 12 year age group. The table below includes children enrolled in grades 1 and 2 in both the elementary and the primary sectors.

Table 9: Grade 1 to 6 enrolment rates by gender and province, 2001

	Male	Female	Total
Western	85%	85%	85%
Gulf	64%	58%	61%
National Capital	87%	89%	88%
Central	92%	92%	92%
Milne Bay	81%	89%	85%
Oro	73%	71%	72%
Southern Highlands	56%	47%	52%
Eastern Highlands	77%	69%	74%
Simbu	84%	71%	78%
Western Highlands	76%	71%	74%
Enga	66%	54%	60%
Morobe	72%	66%	69%
Madang	67%	62%	65%
Sandaun	73%	63%	68%
East Sepik	73%	67%	70%
Manus	89%	90%	89%
New Ireland	79%	79%	79%
East New Britain	92%	91%	91%
West New Britain	84%	81%	83%
North Solomons	96%	94%	95%
Kiunga / Lake Murray	88%	79%	84%
Total	75%	70%	73%

The overall rate is rather lower than might have been expected but this is not unexpected given the problems experienced with data collection in 2001 as explained in the introduction.

The grade 3 to 8 enrolment rates will become more relevant as the education reform progresses. The table below includes grade 7 and 8 students in both the primary schools and the high schools.

Table 10: Grade 3 to 8 enrolment rates by gender and province, 2001

	Male	Female	Total
Western	73.4%	72.0%	72.7%
Gulf	49.7%	44.2%	47.1%
National Capital	82.2%	83.3%	82.7%
Central	71.7%	67.8%	69.9%
Milne Bay	66.2%	74.4%	70.1%
Oro	56.3%	56.7%	56.5%
Southern Highlands	38.9%	30.6%	35.0%
Eastern Highlands	57.6%	47.9%	53.2%
Simbu	63.2%	48.2%	56.4%
Western Highlands	56.1%	50.5%	53.5%
Enga	52.3%	40.3%	46.8%
Morobe	55.8%	49.5%	52.9%
Madang	55.0%	49.5%	52.4%
Sandaun	51.3%	41.7%	46.8%
East Sepik	52.7%	47.3%	50.1%
Manus	72.9%	75.0%	73.9%
New Ireland	66.4%	70.0%	68.1%
East New Britain	77.9%	76.9%	77.4%
West New Britain	66.9%	61.7%	64.4%
North Solomons	84.6%	84.9%	84.8%
Kiunga / Lake Murray	79.8%	69.3%	74.8%
Total	59.1%	53.9%	56.7%

Retention rates

Retention rates continue to be poor with almost half the children who enrol in grade 1 dropping out before they have completed grade 6. The figures for the most recent cohort available are shown in the table below. The national figure is similar to that of previous years. The figures in this table include children who received their education at both the elementary and the community schools. It is, unfortunately, not possible to provide comparative retention figures for the two groups of children. Nevertheless, there is not as yet any evidence to suggest the improvement in retention that was hoped for as a result of the introduction of elementary education.

The highlands provinces again have the worst retention rates. Girls perform slightly less well than boys.

Table 11: Grade 1 to 6 retention, 1996 to 2001, by gender and province

	Male	Female	Total
Western	75.7%	76.2%	75.9%
Gulf	43.9%	41.4%	42.8%
National Capital	88.6%	89.8%	89.2%
Central	64.0%	59.6%	61.9%
Milne Bay	61.9%	67.4%	64.6%
Oro	57.0%	57.0%	57.0%
Southern Highlands	48.0%	36.2%	42.4%
Eastern Highlands	41.6%	31.5%	37.0%
Simbu	42.6%	28.2%	35.9%
Western Highlands	49.1%	44.7%	47.1%
Enga	38.9%	50.6%	42.7%
Morobe	55.9%	53.6%	54.9%
Madang	55.4%	57.5%	56.3%
Sandaun	56.4%	47.5%	52.4%
East Sepik	54.7%	52.7%	53.8%
Manus	70.4%	77.6%	73.7%
New Ireland	72.4%	70.3%	71.4%
East New Britain	73.2%	73.8%	73.5%
West New Britain	55.3%	64.0%	58.9%
North Solomons	107.9%	100.3%	104.1%
Kiunga / Lake Murray	73.6%	68.3%	71.1%
Total	55.8%	53.7%	54.8%

As the country moves closer to its principal objective in education - that of allowing every child an opportunity of completing nine years of basic education the grade 1 to 8 retention rate is going to become increasingly important. The table below shows the figures by province and gender for the latest available cohort. The national figure show that about 35% of children who started grade 1 in 1994 completed grade 8 in 2001. This figure is comparable with those of previous years.

Table 12: Grade 1 to 8 retention, 1994 to 2001, by gender and province

	Male	Female	Total
Western	60.4%	42.0%	51.5%
Gulf	32.5%	34.1%	33.2%
National Capital	81.4%	75.7%	78.6%
Central	43.8%	39.5%	41.8%
Milne Bay	41.1%	46.8%	43.8%
Oro	32.4%	39.7%	35.7%
Southern Highlands	44.9%	33.3%	39.6%
Eastern Highlands	23.4%	17.2%	20.6%
Simbu	30.7%	20.3%	26.0%
Western Highlands	25.0%	21.4%	23.3%
Enga	32.4%	22.6%	28.1%
Morobe	32.1%	28.4%	30.5%
Madang	35.7%	32.7%	34.4%
Sandaun	32.2%	19.8%	21.7%
East Sepik	33.1%	26.1%	29.8%
Manus	64.3%	62.7%	63.6%
New Ireland	49.0%	52.3%	50.5%
East New Britain	43.7%	47.3%	45.4%
West New Britain	41.4%	35.3%	38.5%
North Solomons	46.1%	52.5%	49.2%
Kiunga / Lake Murray	67.2%	60.9%	64.5%
Total	37.2%	33.4%	35.5%

Teacher-pupil ratios

Teacher-pupil ratios in the primary sector have been rising slightly in recent years reflecting the reported severe shortage of teachers in some areas. In addition, there are still a number of schools that have got grade 7 and 8 classes but have not yet shed their grade 1 and 2 classes.

Table 13: Primary school teacher pupil ratios by province, 2001

Western	31.5
Gulf	40.8
National Capital	34.5
Central	28.8
Milne Bay	34.6
Oro	37.2
Southern Highlands	43.3
Eastern Highlands	44.7
Simbu	31.2
Western Highlands	36.1
Enga	39.6
Morobe	40.7
Madang	37.4
Sandaun	32.4
East Sepik	42.6
Manus	23.6
New Ireland	24.7
East New Britain	29.7
West New Britain	28.6
North Solomons	30.5
Kiunga / Lake Murray	34.3
Papua New Guinea	35.5

Of greater concern than the overall teacher-pupil ratio is the ratios by grade. These are shown in the table below. The average grade 1 class has more than 50 children. This figure is slightly higher than the previous year and initial figures from 2002 suggest that it will rise further. The reasons for this still need to be explored but may be related to the fact that elementary schools have yet to be opened in some of the most remote parts of the country. It is these areas that have the greatest difficulty in attracting teachers.

The teacher-pupil ratio in the upper primary grades is only 21.8. This figure suggests that some provinces are still deploying too many teachers in these classes.

Table 14: Teacher pupil ratios by grade, 2001

Grade 1	51.2
Grade 2	45.3
Grade 3	40.0
Grade 4	36.9
Grade 5	34.3
Grade 6	31.0
Grade 7 / 8	21.8



Take down notes on the issues that are still relevant for your work.

Hint: The different provinces are at different stages of implementing reform. So your response will be particular to your work situation and particular to your province.

The above readings from the three policy documents make clear the important aspects of the reform. The reading from the *State of Education in Papua New Guinea* helps you to see the progress being made regarding the reform and the constraints that inhibit implementation and possible ways of moving forward.



Having read the information above, and having identified issues relevant for your work/province, draw up a plan for your presentation including the processes (ie, strategies and activities), sequence (ie, order of activities) and resources (ie, print, human and other kinds) you would use.

- In doing this reflect on your own experiences in trying to understand and introduce/maintain reform in your district.
- Think about what worked for you and your district and what did not.
- Think about new ways of approaching some of the issues you are facing.
- Use pages 31-32 to draw up the plan.

Hint: Make sure your plan provides all the details asked for above.



Share the plan with a group of teachers/colleagues.

- Discuss your plan on pages 31-32 and modify it, if required, so that it becomes a 'blueprint' (model) for presenting information about reform curriculum at your level of operation.

Hint: Let colleagues critique it, but make sure that they have the background information which is guiding your plan. Make adjustments, if appropriate, on basis of the comments made.



Reflect on what you have learned through the above activity.

- Was the process useful? If yes, why? If not, why not? Write your thoughts down.

Hint: Make a list of the major concepts and skills you have acquired or further developed. Be honest about your response. You are not doing this course to please others. It is for your own benefit.

The plan for one of Scenarios 1-4

A suggested template

Scenario:

Activity/ Strategy eg. a survey	Steps eg. design survey	Timing week 1, term 1 week 2, term 1, etc	Resources eg. print, human, etc.	Responsibility eg. yumi yet

Additional space for your plan

Module Summary

Congratulations! You have reached the end of this module and the end of the unit.

In this module you examined and explored your role(s) as outlined in the *Inservice Management Plan, 2001-2005*, the *National Curriculum Statement (2002)* and the *National Assessment and Reporting Policy 2003*. You selected one of four scenarios provided to draw up an appropriate action plan.

You should by now have developed certain knowledge, understandings, insights and skills as they relate to the reform agenda and how to apply them in the context of your work. All the work you have done and your reflections should help you to perform better in your work context.

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

The outcomes for the unit are copied here. For each of the outcomes how do you assess yourself - Yes, No or Not sure?

Can you:	Yes/No/ Not sure
1. relate the PNG Education Reform process to your own work situation?	
2. identify the depth and breadth of changes, if any, you need to make to your current practices?	
3. develop and share an action plan to apply your learning to your work situation?	

If you answered 'yes' to all of them, then you have done very well. Think about the kinds of evidence that will support your answer. If you have said 'no' or 'not sure' to any, then it may be worth your while to go over the appropriate sections of the module again and have another go at repeating the tasks.

Remember these *module outcomes* help you to achieve the outcomes of the unit. Refer back to the outcomes of the unit in the *Unit Introduction* and reflect on where you are in relation to those outcomes.

If seeking academic credit, you were advised to keep a running record of any evidence you may have for particular unit outcomes. If you have not been doing this, go back over the module and jot down in your *Learning Contract*, what you might consider to be evidence for the unit outcomes for which you have agreed to provide evidence.

Additional space for your notes