

## What do teachers think of the reform curriculum?

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### **Introduction**

This paper addresses the question: 'To what extent has the implementation of the reform curriculum led to changes in teaching, learning and student assessment practices?' It reports a survey of elementary and primary teachers conducted in October/November 2004 as part of CRIP Impact Study 1 (Illawarra Technology Corporation, 2005) in 12 elementary/primary/community school sites in 8 provinces: Central, Enga, Madang, Milne Bay, NCD, New Ireland, Oro and Western Highlands Province.

### **Method**

The survey questionnaire addressed the receipt and use of the specifically targeted material and support that was provided by the Curriculum Reform Implementation Project (CRIP) as the 'reform curriculum.'<sup>1</sup> Part A requested the respondents to identify any items from the relevant set of materials that they had used in 2004, to indicate whether they had used any of the self-paced learning units, or attended any form of inservice related to these materials. Part B was to be completed only if any of the items had been used. Part B sought information on what changes, if any, had been made by the teacher after use of the materials, whether the teacher and the students liked the materials, and if so, why.

Three versions of Part A were developed, one for each of elementary, lower primary and upper primary teachers, in which the selection of documents was tailored to match the relevant levels. From each school site at least one teacher from each grade from EP to Grade 8 was included. This yielded a sample population of 113, 37 elementary teachers and 76 primary teachers.

### **Findings**

Table 1 in shows that there was a generally high usage of almost all the new materials by the 37 elementary teachers, and most or all had used the key documents

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<sup>1</sup> This includes all material specific to elementary education, and the following primary education materials that were distributed in two phases: September 2002: Lower Primary Units 1 – 3; and October 2003: Lower Primary Units 4 and 5, and Upper Primary Units 1 – 3.

(syllabuses, teachers guide, and Elementary Outcome Chart). Responses to question 3 of Part A revealed that almost all had received some form of inservice on the new materials, mostly in their school or district. This shows that widespread inservicing of

No	Publication Titles	Type	Total
1	National Curriculum Statement	Handbook	15
2	National Assessment and Reporting Policy	Handbook	15
3	Elementary Outcome Chart	Chart	25
4	Upper Primary Outcome Chart	Chart	6
5	CRIP News Letters / Circulars	N/ Letters Circulars	17
6	Elementary Inservice Unit 1	Handbook	37
7	Elementary Syllabus Pack (x3) Cultural Maths, Language, Culture and Community	Syllabus x 3	32
8	Elementary Teachers Guide	Teachers Guide	11
9	Gender Brochure	Brochure	12
10	Gender Resource Book	Resource Book	9
11	Elementary Implementation Support Booklet	Handbook	6
12	Collegial Curriculum Leadership Program Unit 1	Handbook	11
13	Gender Policy	Handbook	12
14	Transparency International Posters	Posters	25

elementary teachers had taken place since distribution of the materials.

***Table 1 Frequency Distribution of Usage by Elementary Teachers of New Elementary Curriculum Materials as at October/November 2004***

Table 2 overleaf shows that the item most frequently used by the 33 lower primary teachers was the HIV/AIDS Posters (58 percent). The next most frequently used items were the National Curriculum Statement, National Assessment and Reporting Policy, Upper Primary Outcome Chart and Lower Primary In-service Units 4 & 5 (c. 42 percent). The remaining items were little used.

Table 3 overleaf shows that the items used most frequently by the 43 upper primary teachers (about 90%) were the syllabuses and teachers guides. About 65 percent had used the National Curriculum Statement, National Assessment and Reporting Policy, Upper Primary Inservice Units 1 & 2, 54 percent the Upper Primary Outcome Chart, and 47 percent the Upper Primary Mathematics Resource Book and the HIV/AIDS posters. About two thirds of lower primary teachers and about 86 percent of upper primary teachers had been inserviced, mainly either by a teacher from their school, or their school Inservice Coordinator.

**Table 2 Frequency Distribution of Usage by Lower Primary Teachers of New Primary Curriculum Materials as at October/November 2004**

No	Publication Titles	Type	P3	P4	P5	Total
1	National Curriculum Statement	Handbook	6	4	4	14
2	National Assessment and Reporting Policy	Handbook	7	4	3	14
3	Elementary Outcome Chart	Chart	4	0	2	6
4	Upper Primary Outcome Chart	Chart	5	4	3	12
5	CRIP N/Letter / Circulars	N/Letters /Circulars	4	0	2	6
9	Gender Brochure	Brochure	4	0	3	7
10	Gender Resource Book	Resource Book	2	0	2	4
12	Collegial Curriculum Leadership Program Unit 1	Handbook	1	1	1	3
13	Gender Policy	Handbook	3	1	2	6
14	Transparency International Posters	Posters	4	0	1	5
15	HIV /AIDS Posters	Posters	9	5	5	19
16	NDOE Communication Package	Handbooks	2	0	1	3
	Education Act 1983 x 2					
	Teaching Service Act 1988 x 2					
	State of Education In PNG (March 2003) x 1					
	Enhancing Their Future x 2 (Blue / Yellow)					
18	Lower Primary In-service Units 4 & 5	Handbook	4	7	3	14

**Table 3 Frequency Distribution of Usage by Upper Primary Teachers of New Upper Primary Curriculum Materials as at October/November 2004**

No	Publication Titles	Type	P6	P7	P8	Total
1	National Curriculum Statement	Handbook	9	8	11	28
2	National Assessment and Reporting Policy	Handbook	7	11	10	28
3	Elementary Outcome Chart	Chart	1	3	6	10
4	Upper Primary Outcome Chart	Chart	8	7	8	23
5	CRIP N/Letter / Circulars	N/Letters /Circulars	1	7	6	14
6	Upper Primary Syllabus Pack (x7). Language, Mathematics, Science, Social Science, Making A Living, Personal Development, Arts.	Syllabus x 7	11	16	12	39
7	Upper Primary Teachers Guides Pack (x7). Language, Mathematics, Science, Social Science, Making A Living, Personal Development, Arts.	Teachers Guides x 7	11	15	12	38
8	Upper Primary Mathematics Resource Book	Resource Book	5	8	7	20
9	Gender Brochure	Brochure	1	4	7	12
10	Gender Resource Book	Resource Book	2	3	7	12
11	Upper Primary Implementation Support Booklet	Handbook	3	5	6	14
12	Collegial Curriculum Leadership Program Unit 1	Handbook	2	3	6	11
13	Gender Policy	Handbook	2	3	7	12
14	Transparency International Posters	Posters	5	4	8	17
15	HIV /AIDS Posters	Posters	5	6	9	20

No	Publication Titles	Type	P6	P7	P8	Total
16	NDOE Communication Package	Handbooks	3	6	7	16
	Education Act 1983 x 2					
	Teaching Service Act 1988 x 2					
	State of Education In PNG (March 2003) x 1					
	Enhancing Their Future x 2 (Blue / Yellow)					
17	Upper Primary In-service Units 1 & 2	Handbook	7	11	8	26

**Teacher perceptions of the impact of the new curriculum materials**

Table 4 shows that elementary teachers, with few exceptions, had changed the way they teach, liked to use the new materials, and thought their students liked and would learn better from the new materials.

***Table 4 Summary of Elementary Teacher Perceptions of the Impact of the New Elementary Curriculum Materials as at October/November 2004***

Question No.	Question	No. of Yes Answers	No. of No Answers	No. of Don't Know Answers	Total
4	After you used the material that you ticked in Question 1, did you change the way that you teach?	27	5	0	32
6	Do you like to teach using the new materials that you ticked in Question 1?	25	6	1	32
7	Do you think your students like the new materials that you ticked in Question 1?	31	0	1	32
8	Do you think your students will learn better from the new materials that you ticked in Question 1?	30	0	2	32

Table 5 overleaf shows that two thirds of the lower primary teachers had changed the way they teach, and that the overwhelming majority liked to use the new materials and thought their students would learn better from them. There was less widespread certainty whether students liked the new materials.

**Table 5 Summary of Lower Primary Teacher Perceptions of the Impact of the New Primary Curriculum Materials as at October/November 2004**

<b>Question No.</b>	<b>Question</b>	<b>No. of Yes Answers</b>	<b>No. of No Answers</b>	<b>No. of Don't Know Answers</b>	<b>Total</b>
4	After you used the material that you ticked in Question 1, did you change the way that you teach?	14	3	3	20
6	Do you like to teach using the new materials that you ticked in Question 1?	17	1	2	20
7	Do you think your students like the new materials that you ticked in Question 1?	12	1	7	20
8	Do you think your students will learn better from the new materials that you ticked in Question 1?	17	1	2	20

Table 6 shows that two thirds of the upper primary teachers had changed the way they teach, and a substantial majority liked to use the new materials and thought their students would learn better from them. There was less widespread certainty whether students liked the new materials.

**Table 6 Summary of Upper Primary Teacher Perceptions of the Impact of the New Primary Curriculum Materials as at October/November 2004**

<b>Question No.</b>	<b>Question</b>	<b>No. of Yes Answers</b>	<b>No. of No Answers</b>	<b>No. of Don't Know Answers</b>	<b>Total</b>
4	After you used the material that you ticked in Question 1, did you change the way that you teach?	21	8	4	33
6	Do you like to teach using the new materials that you ticked in Question 1?	26	4	3	33
7	Do you think your students like the new materials that you ticked in Question 1?	17	1	15	33
8	Do you think your students will learn better from the new materials that you ticked in Question 1?	24	2	7	33

Tables 4, 5 and 6 reflect a broadly similar pattern at elementary, lower and upper primary level, in which most teachers had changed their teaching after use of the new materials, and were generally positive about the benefits of the new materials. The only clear difference between the levels is that an even higher proportion of the elementary teachers had changed their teaching, compared to the primary teachers. Questions 5, 6, 7 and 8 elicited open comment and explanations about the Yes/No/Don't Know answers to questions 4, 6, 7 and 8. These are discussed below.

#### **Ways in which elementary teachers changed their teaching**

Most commonly elementary teachers identified changes in programming and lesson planning. A number commented that outcomes based teaching had made it easy to teach and assess the children's work. Two commented on the introduction of more activities for the children, one on adopting a more child-centred approach, and one that the new curriculum gave her time and flexibility to write programmes and units of work which could be developed to suit local conditions and individual students' needs. Two commented on a reduced necessity to produce Big Books. Three commented on the use of themes, and one that her teaching was now more integrated and orderly.

#### **Ways in which lower primary teachers changed their teaching**

The most common change reported by lower primary teachers was that they had adopted a more child-centred approach, with more time given to the child to complete tasks. One commented that because the subjects are integrated, there was no need to stop the children and move on to another subject or topic. Several referred to the local relevance of what was now being taught. Three commented that they had adopted an outcomes based, thematic approach. Two showed a greater awareness of gender issues in the classroom, and two referred specifically to the use of the HIV/AIDS posters in their teaching.

#### **Ways in which upper primary teachers changed their teaching**

Some upper primary teachers reported that they had changed their programming to outcomes-based. More, however, commented on having adopted a more child-centred approach. This was reflected in changes to assessment methods – moving away from a lot of testing, to assessment on day-to-day activities, and according to students' individual learning abilities. Two reported that they made sure that they treated skills and attitude equally with knowledge. Other child-centred approaches

mentioned were seating children in groups, allowing them to work at their own pace, more activities conducted outside the classroom (eg. Excursions, surveys), the teacher doing less talking, and greater communication by students.

### **Did the elementary teachers like to use the new materials?**

Examples of reasons why elementary teachers liked to use the new materials are:

- “The new materials that have been introduced are exactly the same things that we’ve been taught to teach. We are very happy with the new materials because this is what we’ve waited for to use in our teaching. They ... really fit well with our way of teaching.”
- “It makes the teaching process flow smoothly and links all the subjects to flow orderly. Helps the teacher to prepare for the next lesson’s materials.”
- “The new materials are more culturally relevant.”
- “When I use the new materials, the children understand better than before.”
- “It helps me to monitor students’ learning and to plan for future teaching programs. It also helps me to assess and report on students’ achievements in relation to their learning outcomes.”
- “I like the materials because they give me flexibility to write the units of work and programs to suit local conditions and individual students’ needs.”
- “It is easy for me to pick out activities without looking for them in any other books.”

Four elementary teachers did not like the new materials because programming requires lots of thinking and writing. One commented on having sleepless nights, and another that the inservice was insufficient.

### **Did the lower primary teachers like to use the new materials?**

Some reasons why lower Primary teachers liked using the new materials were:

- “Because the teaching and learning of concepts promotes the philosophy of ‘known and unknown,’ building on what the students know and teaching concepts using similar contents for better understanding.”
- “Because it really will help a teacher to see the achievement of the outcomes taught. Also the child’s individual needs will be met accordingly. The children’s different learning abilities will be treated accordingly.”

- “Because the learning outcome is to be achieved - this is a broad change. That means that programming is done according to the changes in technology and with the seasons of the year.”
- “Children learn better using appropriate planning towards the lesson outcome.”
- “Because it’s easy and simple to understand and follow .... And it gives an opportunity to teachers to explore and discover the core requirements of the new curriculum especially with ‘preparation’ before actual teaching.”

One teacher commented that she had been using the reformed syllabuses for lower primary (1st Edition) and liked using them because it made her teach to the point which is directed by the objective. Another teacher commented, with specific reference to the HIV/AIDS Posters, that

- “HIV/AIDS is a major issue that is currently affecting the people’s lives. So I need to use more relevant materials for proper awareness. The disease never cares for anybody, it kills everybody so kids need to be given good schooling.”

Another commented re the Lower Primary Draft Syllabus that

- “... in the absence of teachers’ handbooks, teachers’ guides, pupils’ text books, pupils’ activity books and pupils’ readers I can’t teach the pupils effectively.”

### **Did the upper primary teachers like to use the new materials?**

Some comments from upper primary teachers on why they liked using the new materials were:

- “First it was like ‘blind leading the blind’ because no-one really understood the new material. For myself, I had a hard time doing programmes. I did not understand one bit. The miracle happened during our Term 3 holidays inservice which lasted for one week. After this inservice I am confident to teach my students well. I like the new material now because I am now clear on programming, assessing and reporting. I’ll teach very well in 2005.”
- “It makes me want to find many different ways of presenting lessons. There are several ways I could use for assessing students. The content has to be linked with outcomes that are related. It had made me (a teacher) work harder for planning a child-centred lesson.”

- “It gives me the opportunity to teach and cater to the needs of the students to support themselves and be useful members of the society.”
- “These new materials have made me improve my teaching because (1) I was able to research and understand the content well before teaching; (2) variety of teaching and learning activities where I can choose from to apply in everyday lesson.”
- “The input of these new materials are extraordinarily relevant at this time. It heightens job satisfaction to the level of competitiveness. Benefit in this enhanced reform curriculum is greatly helpful, providing incentive for the teacher and student creating a safe and orderly learning environment – well and truly in favour.”
- “The content of the materials are student-based and it prepares them for life or self-reliance. Though I haven’t used the book, just by studying it I feel that PNG must use these new curriculum books.”
- “... it helps guide us to teach and it also allows us to do a lot of research for teaching which enables us to learn as well.”
- “... it is more child-centred and there are different approaches and strategies which I can use when teaching. The different approaches made the students more motivated to learn.”

On the negative side, upper primary teachers commented that:

- “I do not have enough time to make notes and set the right kind of activities for the children’s grade level each day; I do not have the basic equipment or materials to give to children to carry out the activities. I also find it very hard to explain some topics as ideas do not flow easily. That is because the topics in the books are too broad and I do not know where really to start.”
- “It [the new curriculum] is too general and doesn’t clarify clearly the exact lessons to teach, differentiating between Grade six, seven and eight. It is sometimes confusing and ... lessons taught could be a repetition and not to the Grade level (too easy or too hard).”
- “...I will spend a lot of time doing research to acquire teaching points to present to the students the topics given. Also some of the topics are too broad and there

are no resource materials available to obtain teaching notes. In addition some of the terms used in the new materials are difficult.”

### **Did elementary students like the new materials?**

There was almost complete agreement amongst the elementary teachers that their students liked the new Elementary curriculum materials. The following are some examples of their reasons:

- “... the children can understand and do things by themselves better.”
- “... it makes their learning easy and also makes them want to learn more.
- “... it helps the students a lot in learning more activities inside and outside.”
- “... the new materials help the teachers to programme their lessons according to the learning pace of each student.”
- “... it develops many interesting activities for the children to do and it also helps them to understand better.”
- “... there are lots of materials to be used in their activities, such as sticks, stones, blocks, linking cubes etc.”
- “I think they ... like the new materials because when teaching I can see that every child already knows what I was/am trying to introduce to them. I also can see that they do participate in giving opinions, sharing ideas with partners, bringing the materials required during certain subject lessons and completing the given tasks without so much assistance from the teacher. Also achieving the outcome I wanted them to achieve. All these make me think the children like the new materials.”
- “... it allows the students to achieve the outcome of the curriculum. Because it is a community based curriculum it has knowledge, skills, attitudes and values which enables the student to develop an understanding of what their people do and how they work, live together in their community. Also it prepares the students for entry into lower primary.”

### **Did lower primary students like the new materials?**

A selection of comments from lower primary teachers is offered below:

- “The children are interested a lot because the lessons are very clear and very simple. So they enjoy the world. They also do lots of activities to find answers themselves, that’s where their interest is very high.”
- “... it encourages equal participation in the class and at the school as a whole.”
- “They really enjoy presenting their work to the class. They can really express themselves in front but there are times when there are no materials to work with, which discourages them.”
- “I see that they are interested because what is taken across to them is very easy and clear. They enjoy the rest of the work to complete the exercises by themselves, knowing that these skills learned will be useful within their culture and traditions in their own societies.”
- “They like the various ways of conducting assessment, other than just sitting for a test after each topic is taught or at the end of term’s work.”
- “The only teaching material that I used in one of my lessons with the students is the HIV/AIDS posters. My students love reading and seeing these posters and have learned a lot from them.”

About one third of the lower primary teachers indicated that they did not know whether their students like the new materials. The main reason was that the materials were not yet available.

#### **Did upper primary students like the new materials?**

Just over half of the upper primary teachers indicated that they believed their students liked the new materials. Among their reasons were the following selection:

- “Students have learnt a range of skills, knowledge and attitudes which they found more interesting, and with different strategies used students are very eager to discover and learn more. This shows that students like the new materials that are being used.”
- “This new reform curriculum gives children the opportunity to learn at their own pace. Everyone feels free to learn without fear.”
- “I asked them how they thought about these new curriculum materials once during the year and they said the materials looked interesting. Furthermore they felt that giving them outcomes and indicators made them see what was expected

of them on their part as students and that they were challenged to do their best in order to achieve outcomes.”

- “Students can do a lot of activities using one outcome. Students were able to produce their work from the activities. Students work according to their pace.”
- “They really love it because the new materials give them a lot of time for group discussions. The students enjoy doing activities together.”
- “It gives them the chance to discover and learn by themselves [rather] than being spoon-fed. They learn things which are relevant for them to use in the society when they leave school.”

Nearly half of the upper primary teachers did not know whether their students liked the new materials. The main reason was that the materials were not yet in use:

- “We have not started on the reform curriculum until next year 2005.”

One indicated that:

- “...sometimes children are happily doing the activities when they have the things they need at hand, but most times they change their faces when I continue to tell them to look for materials that they could not find easily to do the activities.”

Others commented:

- “...the teacher may be teaching beyond their Grade level and lessons could be difficult for them ... or lack interest due to the difficulty encountered.”
- “There are no pupils’ text books.”

### **Will elementary students learn better from the new materials?**

The vast majority of the elementary teachers believed that elementary students will learn better with the use of the new elementary curriculum materials. The main reasons given included the following selection:

- “... they relate concepts to the children's own culture which ... later will develop further to other or foreign concepts of lessons/things.”
- “...most of the things I teach they understand quickly and do things or activities better.”

- “Children will do best when the learning outcomes are done in a natural way, and in the same way as they learn things in everyday life outside the classroom.”
- “...there are lots of interesting activities that they can do and learn in their class activities.”
- “... everything is easy and all the materials are there to help them learn more.”
- “I think the students will learn even better from the new materials because the content in all the materials links together. So it is easy for the teacher to assess the children, the children to assess themselves to achieve the learning outcomes.”

Only two did not know, one of whom indicated that it depended on each child's learning ability.

#### **Will lower primary students learn better from the new materials?**

The vast majority of lower Primary teachers expected their students to learn better from the new materials. Some of their comments are listed below:

- “I think that it will be of great help to my students because the teaching contents are more like day to day living environment. The learning content develops each child to be more creative and constructive in various skills, confident in doing/carrying out a particular task and exposed to freedom of expressions.”
- “They will learn better because the materials that have been provided have suited the types of life situation back in students’ communities and the country as a whole.”
- “We are teaching knowledge, skills, attitudes and values which gives a holistic learning and not [just] a part of it. After all the curriculum is trying to determine the students to fit into their societies after a basic education if they can’t succeed.”
- “These materials ... encourage them to make or do research, explore places, investigate, discuss and even write and present what they have learnt in real life situations. It also gives them confidence to speak in front of others.”

The few that did not agree or did not know referred to the current lack of availability of materials in lower primary.

### **Will upper primary students learn better from the new materials?**

The vast majority of upper primary teachers expected their students to learn better from the new materials. Some of their reasons are listed below:

- “...learning takes place easily because they learn from known to unknown, and also they teach themselves, find out things by themselves, and we their teachers only guide them through. They learn and discover new things by themselves.”
- “All the activities will be student centred, so I think they’ll learn better with the new materials.”
- “They will learn better because they are fully involved in learning both mentally and physically.”
- “The students will learn better because we don’t only teach in the classroom. They have excursions outdoors and this gives them the freedom to explore new ways of learning.”
- “Children will do more finding out themselves and the outcomes when linked will help children understand better.”
- “The focus in the new materials is collaborative educational improvement. The new materials are designed to work together by sharing ideas - Students make judgements by analysing and evaluation of information, providing greater learning experiences for themselves through this new approach...’

A significant number of teachers (8) did not know whether their students would learn better from the new materials. Several felt that it was too soon to predict, as they had only recently been inserviced and started to apply the new materials. One felt that there was a lack of resource books and pupils’ books.

Two teachers felt their students would not learn better. In one case this was because the teacher felt that the task of both lesson planning and looking for necessary equipment for teaching was too onerous for the teacher. The other commented that the provincial government’s actions were undermining the Education Reform: the Reform was about self-reliance, whereas the provincial government was giving free handouts.

## **Conclusions**

The responses to this survey show that by October/November 2004 almost all of the respondents – i.e. teachers from every grade in every sample site – had by this time received some form of inservice, mostly at their school by other teachers from their school. Most expressed enthusiasm for the new materials, and considered that their students would benefit from their use. This finding suggests that, although the reform curriculum is being implemented more slowly than originally envisaged, there is a considerable groundswell of enthusiasm for implementing it. There are clear signs that most primary (as well as elementary) teachers are optimistic that it will both help them improve their teaching, and ultimately improve the learning experience of their students. There was very little evidence that the new materials lacked credibility or that the teachers were unwilling to come to terms with the additional workload involved in programming and planning their lessons. Some teachers welcomed the new materials as a means to further develop themselves as well as their students. Although there remains a critical lack of resource materials, the survey provides evidence that some teachers feel empowered by the new curriculum to deal better with the shortage of resource materials.

## **Future research**

The survey will be repeated in October 2005 and the findings reported to the Steering Group in early 2006, for inclusion in the final report of CRIP Impact Study 1.

## **References**

Illawarra Technology Corporation Ltd, in association with Tanorama Ltd., 2005. Seventh Six Monthly Report of CRIP Impact Study 1, for the period 20.7.04 to 4.3.05.

