

The development and perceptions of the reformed Upper Primary curriculum: CRIP Impact Study 4.

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Abstract

This paper reports the preliminary findings of the CRIP Impact Study 4, a longitudinal study which seeks the perceptions of key stakeholders (curriculum developers, teachers, head teachers, college lecturers and inspectors) about the development, trialing and implementation of the reform upper primary curriculum. Results to date suggests that while generally stakeholders value the principles and philosophy underpinning of the reform curriculum, teachers in particular are concerned about a range of issues associated with the actual implementation of the syllabuses.

Introduction

The Curriculum Reform Implementation Project (CRIP) Impact Study 4 is a Longitudinal Study of the Development and Implementation of the Upper Primary Reform Curriculum (Badenoch, Kaleva, Maha & Maha, 2003; Badenoch et al, 2004). It is designed to ascertain the quality and effectiveness of the development and implementation of the new grade 6-8 upper primary syllabuses, the quality and impact of teacher support materials and implementation of the new grade 6-8 curriculum; the quality of teacher support materials and the effectiveness and outcomes of teacher inservice to support the implementation of the new syllabuses.

The study was planned to be conducted in three main stages:

1. Evaluation of Development processes (including trialing)
2. Perceptions of CDD officers, teachers, inspectors and Headteachers about quality, relevance, and effectiveness of curriculum materials.
3. Implementation and inservice aspects of the upper primary curriculum.

The paper reports the findings of the first two stages which have been completed. The last phase of the study is currently being undertaken.

Key Issues investigated

The key evaluation issues investigated were:

1. The quality, relevance and effectiveness of the processes implemented by Curriculum Development Division (CDD) and Curriculum Reform Implementation Project (CRIP) to develop upper primary syllabuses and related support materials, including processes for consultation and trialling of syllabuses
2. The perceptions of teachers, primary teachers' college lecturers, and primary school inspectors about the relevance and quality of the syllabuses
3. The perceptions of teachers and head teachers about the relevance, quality and effectiveness of teacher guides and the Implementation Support Package.
4. The processes used by the head teachers to implement the new syllabuses
5. The impact of the syllabuses on teacher attitudes and practice
6. The relevance, quality and effectiveness of the teacher inservice materials and the process used to implement the inservice training.

Issues four to six are the subject of the last stage of the study.

Definition of terms

Quality – is the value or worth placed on the processes used in curriculum development, the product of the process and the value or worth placed on the following aspects of the syllabuses teacher guides and other support materials: layout of document (physical appearance), language level (suitability and readability), clarity of terms used (defined, clear, can be understood).

Effectiveness – refers to whether the curriculum development process, syllabuses, TG and ISP served their intended purposes.

Relevance – refers to the appropriateness and usefulness of the CD processes, the appropriateness of the syllabuses in meeting needs of PNG, or the usefulness of Teacher Guide and Other materials to implementing the syllabuses.

Methodology

Research design

This is a longitudinal study focusing on the development and implementation of the Upper Primary syllabuses under the reform. Both quantitative and qualitative methods were employed in the data collection

Participants

Stage 1. CDD and Trial provinces

Table of participants: Stage 1.

Respondents by Category and Province

Province	Category		
	Trial Teachers	CDD/CRIP	Total
NCD	0	13	13
EHP	3		3
ENB	8		8
Milne Bay	8		8
Madang	11		11
Total	30	13	43

Stage 2.

Table of participants: Stage 2

Respondents by Category and Province

Province	Category			Total
	College Lecturer	Teacher / Headteachers	Inspector	
NCD	7	8	6	21 (17.9 %)
EHP	0	10	1	11 (9.4 %)
ENB	5	20	0	25 (21.4 %)
West Sepik	0	11	5	16 (13.7 %)
Western	0	7	2	9 (7.7%)
Milne Bay	0	12	2	14 (12.0 %)
Madang	3	9	5	17 (14.5 %)
WHP	4	0	0	4 (3.4 %)
Total	19 (16.2 %)	77 (68.8 %)	21 (17.9 %)	117 (100.0%)

Sample provinces selected to represent provinces were from the four regions of the country – Southern, Highlands, Northern and Islands. Data was collected from, Eastern Highlands, East New Britain, Milne Bay, Madang, NCD, Western Province

and West Sepik (disadvantaged provinces).. Two teachers colleges from Madang and Western Highlands were also included.

In each province, an urban, a semi-urban and a rural school were selected to be sampled. Accessibility and school characteristics as representative of each of the category of urban, semi-urban and rural influenced the selection of schools. Information was collected from 27 schools although more schools were visited but because some schools had not received the curriculum materials, the survey could not be carried out.

The participants in the study included teachers, head teachers, college lecturers and primary school inspectors.

Instruments

The instruments used in the data collection consisted of questionnaires eliciting information on areas of demography, participant rating of statements about the quality, effectiveness and relevance of the curriculum development process and their perceptions of various upper primary curriculum materials. The participants also responded to open-ended interview questions. In the first and second stages of the study, four schedules were used.

Data Collection Procedures

Stage 1

In stage 1, questionnaires and interviews (both formal and informal for individuals and groups) were used to gather information from CDD & CRIP officers and from teachers in trial provinces (Eastern Highlands, East New Britain, Madang, Milne Bay and NCD). Supporting documents from CDD and CRIP were also reviewed.

Stage 2

Several methods were used to collect data.

- Written surveys
- Group interviews

- Individual interviews
- Informal discussion/interviews

The researchers visited the selected schools to administer the questionnaires. In some schools, the curriculum materials had been received but the teachers either did not have access to them or did not have time to familiarize themselves sufficiently with the documents in order to complete the questionnaire, while some schools had not received the materials. When faced with such situations, researchers used one of three options depending on local circumstance: select a replacement school, conduct an informal oral interview with the staff, explain the evaluation process to teachers and leave the survey forms for them to complete and mail to the researchers.

Group discussions were held before the respondents were asked to fill in the questionnaires. In the Western province, some questionnaires were mailed to the inspectors who were located in other districts.

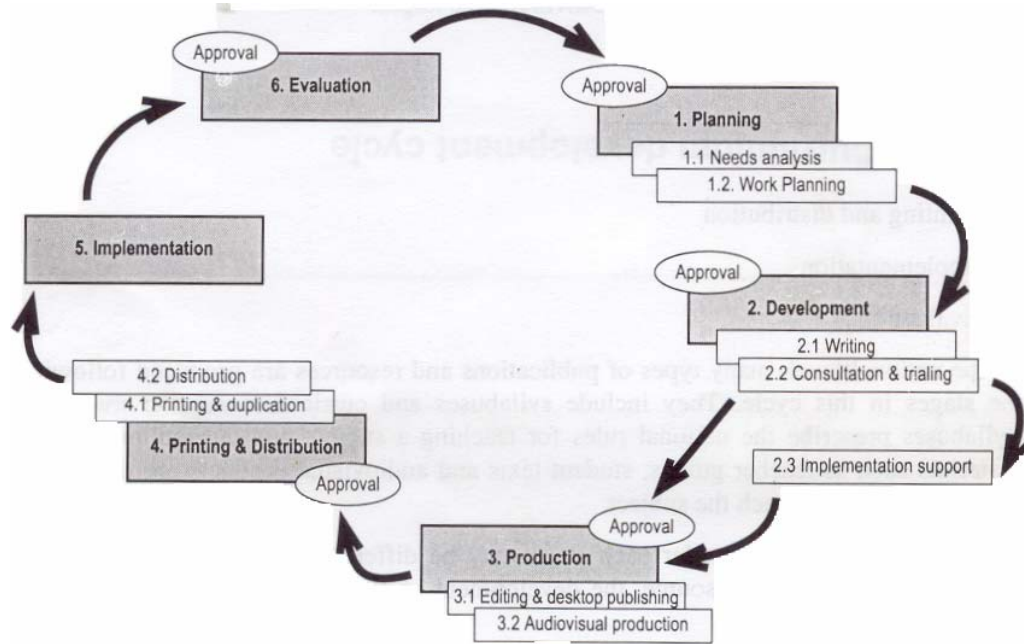
Data Analysis

The Statistical Package for the Social Sciences (SPSS) was used to analyze the quantitative data, mostly frequency responses to individual items in the schedules that were used. This analysis generated information for the selected variables of the study. Interview data and responses to open ended questions were manually analyzed and commonly occurring responses classified into themes.

Summary of Findings / Results

Curriculum Development processes (including trialing) used by CDD

Cycle of Curriculum development process used in development of Upper primary curriculum.



(Source: DoE, 2001. Curriculum Development Handbook, p. 30)

Key features of approaches used in CD.

The following key features and approaches were used by CDD & CRIP to develop the upper primary curriculum materials.

1. **Consultative processes.** Consultation was a process encouraged by the Curriculum Development Handbook (DoE, 2001: CDH., p.34) and was evident both between different stakeholder groups and between different organizational levels. For instance, there was consultation between CDD and CRIP, between CDD and teachers through the writing workshops, and between CDD, CRIP and the various sections of DoE.
2. **Capacity building and sustainability.** Capacity building and sustainability were evident in the curriculum development process through guidelines, mentoring and collaborative experience to improve the writing skills of CD officers and skills to plan and conduct writing workshops. There was documentary evidence of writing workshops where the officers were required to plan for details such as content, timeframe, systematic procedures, cost and finance.
3. **Workshops for curriculum development.** Documentary evidence was sighted for a range of workshops for curriculum development, capacity building, outcome-based learning, issues and development of key curriculum documents such as

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Curriculum Management Plan (DoE, 2001. CMP), Curriculum Development Handbook (DoE, 2001, CDH) and Curriculum Writers Handbook (DoE, 2001, CWH.) The workshops became an integral part of the process of developing any curriculum materials.

4. **Evaluation of workshops.** Evaluation of workshops was a necessary component of any CDD & CRIP organized workshops. Documentary evidence of workshop evaluations was sighted.

5. **Workshops as consultation mediums:** Workshops were also used as the medium through which to consult and get feedback from teachers and those writing the syllabuses.

6. **Trialing.** Trialing of the new syllabuses was conducted for a controlled period in selected schools and provinces. Several provinces were selected for different subjects.

7. **Work plans.** There was documentary evidence of work plans being used by key CDD officers to plan CD activities. These work plans were guided by principles espoused in CDH (2001: p.32).

8. **Shift in CDD practice:** The emphasis on consultation in the curriculum reform process resulted in a shift in CDD practice. Where previously, members of the Subject Advisory Committee or a subject working group wrote the curriculum materials, the practice adopted by CDD and CRIP in this project was to consult as many teachers as possible at writing work shops, trial sites and at different levels of education (e.g. national and provincial level, inspectors, primary teachers colleges).

9. **Subject Committee Groups.** Despite not being mentioned in the CMP or CDH, subject committee groups such as Social Science Committee Group evolved because of a perceived need. This indicates a responsive approach to the curriculum development processes by CRIP and CDD.

10. **Quality control mechanisms.** There were checks or mechanisms in place for quality control in the CD processes (CWH, 2001: p. 58, 59). The publication of handbooks such as CMP, CDH and CWH acted as a quality control factor because the handbooks provided detailed guidelines at all stages of curriculum development. The use of checklists (for example, as in CDH) at various stages of CD ensured that procedures were systematically carried out. Consultation was also used as a quality control mechanism.

11. Trialing Processes

- The participants rated *selection of trial schools* and *selection of participants* high to average.
- The ratings of *participation in trial* and *feedback from trial schools* ranged from high to low.
- Time given for each task was consistently rated average to low by the participants (confirmed by interview data). Comments indicate that trial times need to be of adequate length, appropriately timed within the school year, well monitored and detailed feedback obtained if it were to serve a worthwhile purpose.
- The rating of consultation between *CDD and provincial education authorities* varied from very high to very low as did consultation *between CDD and Trial schools, and with inspectors*. This was an obvious area of concern.
- Involvement in trials resulted in building capacity of schools to implement new curriculum. Two factors which supported the trialing process in schools were: (i) an informed headteacher who was organized and supported his/her staff and encouraged the sharing of information, (ii) having more than one trial teacher in any one school. This allowed discussion of interpretations, strategies, resources and problems. School clusters or local network meetings of trial teachers from several schools were found to be very useful.
- The trialing process served two purposes. Provision of constructive feedback for the syllabus developers, and vehicle for contextual in-service training which can then disseminate from the trial teacher(s) to other schools and teachers. The lack of joint monitoring of the trials by CDD, Inspectors and provincial authorities has meant that neither of these benefits has been optimized or did not occur at all

Perceptions about quality, relevance, and effectiveness of the syllabuses by teachers, college lecturers and inspectors

Quality of	<ul style="list-style-type: none"> • The quality of all subjects were generally rated ‘high’ to ‘very
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<p>Syllabuses</p>	<p>high' by all categories of participants.</p> <ul style="list-style-type: none"> • The quality of the Personal Development syllabus was rated higher ('very high') than any other subjects, whereas the quality of Arts received the lowest number of 'very high' ratings. • The quality of all subjects were generally rated 'high' to 'very high' by all categories of participants. • The quality of the Personal Development syllabus was rated higher ('very high') than any other subjects, whereas the quality of Arts received the lowest number of 'very high' ratings.
<p>Relevance of Syllabuses</p>	<ul style="list-style-type: none"> • All categories of participants rated relevance of all of the subjects 'high' to 'very high'. • The inspectors consistently rated the syllabuses as 'high' or 'very high'. • None of the teachers rated the relevance of various subjects as very high. • The Social Science syllabus received the most 'very high' ratings while the Arts syllabus received the lowest number of 'very high' ratings. • Interview data agrees with the quantitative data that there was overwhelming agreement among teachers, college lecturers and inspectors that the new syllabuses provided a stronger national identity and are much more relevant to PNG culturally. A small minority pointed out that cultural diversity of the nation may prove difficult to cover in the syllabus implementation.
<p>Additional comments about syllabuses</p>	<ul style="list-style-type: none"> • Overall, the inspectors, teachers and lecturers have no doubt about the quality and relevance of the syllabuses to the nation. However, they commented that there is a need to provide more support materials and samples to help teachers implement the syllabuses. • Inspectors suggested the need to provide in-service training to teachers to increase their confidence levels with the syllabuses. • Lecturers also thought that aggressive awareness campaigns would assist teachers to effectively implement the curriculum. • That despite these concerns, the data indicates that the respondents who were more familiar with the new syllabus materials were considerably more positive in their attitudes

	<p>than those who were less familiar with the detail of the documents.</p> <ul style="list-style-type: none">• Syllabus Structure. The new syllabuses were seen to be well laid out, colorful and easy to read. The linkages between the grades, strands and sub strands were clearly indicated. The participants liked the fact that the content was community based and the inclusion of outcomes and indicators made it easier for teachers to plan activities. There were some negative comments about the syllabuses not being clearly thought out.• Outcomes Based Syllabus. There is wide spread support for the outcomes based syllabuses. The participants believed that it would help teachers determine the knowledge, skills and attitudes that could be programmed. One common criticism was that the outcomes stated may be too broad and teachers may have difficulty breaking them down into specific knowledge and skills.• Teaching and Learning. Most interviewees liked the teaching and learning methods focus on integrated human development. They singled out integrated teaching and thematic approaches as useful approaches that could provide linkages and relationships across subjects. The researchers noted that some teachers may not be sure of how integrated teaching can be achieved.• Assessment Policy. The new assessment policy was seen as an improvement as it would no longer depend on written tests alone. The multi-faceted approach would lead to development of the whole child. However the participants noted that in-service training needs to be provided to improve understanding and implementation of the policy.• Issues. Although the participants were very positive about the new syllabuses, they recognized that teachers' workload would increase as a result.• They argued that an outcomes based approach would require teachers to provide a wide variety of activities for which there was little support.• They also pointed out that the assessment policy will require a lot of paper work.• In addition, an integrated teaching approach will also increase teachers' work load.• The protective measures used by a number of head teachers made access to the materials difficult for teaching staff. This partially contributed to teachers' lack of familiarity with the syllabuses.• Resources. Lack of resources is noted in a later part of this summary. The teachers needed time to identify and acquire resources. One problem identified was that local experts
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	<p>wanted to be paid for their services.</p> <ul style="list-style-type: none"> • Pre-service Teacher Education. The college lecturers pointed out that in order to equip the teacher trainees with the knowledge and skill required for implementation of the new curriculum, there was a need to provide a sufficient number of copies of the syllabuses and the support materials to each college.
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Teacher Guides - perceptions by teachers and Head teachers

Quality of teacher Guides	<ul style="list-style-type: none"> • Overall, the quality of all Teacher Guides was rated 'high' to 'very high' by most teachers and headteachers. • For all Teacher Guides, the quality of the resources variable was rated 'average' to 'very low' by the majority of respondents.
Effectiveness of Teacher Guides	<ul style="list-style-type: none"> • No subject Teacher Guide was exclusively rated 'high' or 'very high' by the teachers and head teachers. • The effectiveness of all Teacher Guides was rated 'high' to 'very high' by the majority of respondents. • For all Teacher Guides, the effectiveness of resource was consistently rated 'average' to 'low'.
Relevance of Teacher Guides	<ul style="list-style-type: none"> • Ratings for Teacher Guide were from average to very high. • The relevance of the resources was rated 'average' to 'low' for all Teacher Guides.
Additional Comments	<ul style="list-style-type: none"> • Comments from teachers indicated that they were generally happy with the quality, effectiveness and relevance of the Teacher Guides. They provide teachers with all the information that they need to prepare their lessons and on how to go about implementing the new curriculum. • One recurring comment was that there are not enough support materials to support the implementation of the curriculum. • The need for in-service training of teachers was also highlighted.
Teacher Comments on Teacher Guides	<ul style="list-style-type: none"> • Most teachers said Teacher Guides were useful in that they stated clearly what is to be taught and how it could be done. • Teachers particularly praised the organizational structure of the Teacher Guides and practicality of ideas on assessment and teaching methods • Head teachers perceived the Teacher Guides to be empowering because they allow teachers to be independent, creative and innovative.

	<ul style="list-style-type: none"> • Some teachers said that while the Teacher Guides were useful, they needed to be accompanied by more resources to help plan and implement the provincial and national themes. • Comments in regard to the usefulness of the materials provided were polarized. Some respondents thought the materials were good while many said that more detail should be included.
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Head teacher perceptions about Implementation Support Package (ISP)

Quality of ISP	<ul style="list-style-type: none"> • The head teachers' perceptions of the quality of the ISP varied. Most of the variables were rated 'high' to 'very high' by a majority of the head teachers. • Two variables: explanations about who needs to be informed (60.0%) and Planning proforma (70.0%) were rated 'average' to 'low'.
Effectiveness of ISP	<ul style="list-style-type: none"> • Head teachers' perception of the effectiveness of ISP varied. For some variables: (General explanations; Language used; General instructions; Instructions about what was in the ISP; Instructions about what to do when receiving the ISP; Instructions about managing curriculum implementation and Instructions on school timetabling) the effectiveness of the ISP were rated 'high' to 'very high'. With the other variables, the rating was evenly distributed from low to very high. • Two variables: Description of outcome based curriculum (50.0%) and "Instructions on assert and resource management" (60.0%) were rated 'average' to 'low'.
Relevance of ISP	<ul style="list-style-type: none"> • The relevance of most of the variables were rated 'high' to 'very high'. • The variables Language used and Instruction about what to do when you received the Upper primary ISP were rated 'average' to 'low'. • The variable Instructions for school based in-service was rated 'high' to 'very high'.
Additional comments	<ul style="list-style-type: none"> • The late arrivals of the syllabuses and the support materials hampered head teachers and teachers' familiarity with them. • Those head teachers who said they were familiar with the new curriculum gave high praise for the ISP and Teacher Guides. • Head teachers thought one strength of the new curriculum was that it allowed the teachers to take responsibility for planning and teaching their classes. They saw this as

empowering the teachers.

Replication of study

The teacher and Headteacher perceptions of the syllabuses and teachers guides part of the study was replicated this year because when the research team visited schools last year, many of the schools had not received the materials and the teachers were not familiar enough with the curriculum materials to make comments. The findings were largely the same.

Discussion /Critical comments

- Key features of the CD processes which included consultative process, capacity building, workshops were good practices which should be used in any futures CD projects.
- Time frames on development of curriculum development affected trialling and some aspects of syllabus development.
- In ninety percent of the schools visited, the Headteachers had not seen the ISP booklet for Head teachers. The team did not sight any copies.
- Generally, the participants highly rated the quality, relevance and effectiveness of the syllabuses and the teacher guides.
- However, the researchers noted problems with key aspects of the upper primary curriculum reform

Some problems

- Provision of resource text materials to accompany syllabuses. Teachers guides were generally helpful but teachers still wanted subject resource texts (eg. as in mathematics).
- For the teachers, the curriculum change was multifaceted – deal with change in not just one subject but 7 subjects, from specialist to generalist teaching, new terms, new approaches, new assessment practice, new philosophy.
- Teachers were not **reading**. Teachers had to read all syllabus documents and support materials (if they were generalists) and familiarise themselves with all subjects in order to teach and inform themselves – NCS, study guides, assessment policy, in-service materials (study guides). Assumption that teachers will **read**. They didn't have the time, they don't have the energy or initiative, they have not practised educating themselves by reading.
- Outcomes and indicators were too broad.
- Teachers were having difficulties in translation of outcomes into programming and planning.
- Differences in programming formats in teachers guides.
- Teachers did not understand some terminology
- Teachers were overloaded, they needed time to familiarise themselves with the syllabuses. Too many subjects to teach.
- Reformed curriculum assumes resources will be available in the community, teachers and students to research topics – school library or community, use of human resource within community. Schools were having difficulties in accessing resources in community.

- Not all schools had one copy of each syllabus for teachers.

Other issues

- Some schools were practicing generalist approach but others were practicing specialist (teaching two or three subjects).
- School based assessment policy. Some schools were working on school based assessment policy but others were still using what they before the implementation.
- Almost all schools visited had started using the new syllabuses this year. Some started last year. Most had school based inservice on various aspects of the reform.
- Many schools had questions about the exams and wondered exams were going to be based on old or new syllabus, in spite of MSU assurance that exam was general literacy and numeracy skills test and it did not matter what syllabus was in use.

Some positives

- The research team did come across one school where implementation of reform seem to work. Started last year (2004). Evidence of reform seen in classroom, maths cuboid built by students, outcomes and indicators written on blackboard for students to see, science charts in walls, seating arrangement, grade 8 exam results, 74% scored 80 and above, one student had scored 50/50 in maths.
- Factors that contributed to success: Active headteacher support, support from deputy, school based assessor who conducted school based inservice (and who was familiar and used with inservice units), evidence of inservice program and timetable, frequency of school based inservice, district level cluster. Even in this school the teachers said it would help with implementation if resource books for all subjects were produced.

Next phase of investigation

Stage three of the impact study will look at implementation of upper primary curriculum in schools.

Conclusion

Although the teachers acknowledge that there were a lot of problems in trying to implement the upper primary curriculum, they accept that the reform was here to stay and it was up to them to make it work.

The biggest need is for text resources to be provided for each subject area to assist teachers in implementing the reform curriculum.

Reference

Badenoch, R., Kaleva, W., Maha, A., & Maha, N. (2004). Papua New Guinea Curriculum Implementation Project Impact study 4. Report no. 3, 2004. Typset. Submitted to Sagric International by University of South Australia and UNIGOR Consultancy Ltd.

- Badenoch, R., Kaleva, W., Maha, A., & Maha, N. (2003). Papua New Guinea Curriculum Implementation Project Impact study 4. Report no. 2, 2003. Typset. Submitted to Sagric International by University of South Australia and UNIGOR Consultancy Ltd.
- Department of Education, (2001). Curriculum Development Handbook. Port Moresby. Papua New Guinea.
- Department of Education, (2001). Curriculum Writers Handbook. Port Moresby. Papua New Guinea.
- Department of Education, (2001). Curriculum Management Plan. Port Moresby. Papua New Guinea.
- Department of Education, (2001). Inservice Management Plan. Port Moresby. Papua New Guinea.
- Department of Education, (2003). National Curriculum Statement. Port Moresby. Papua New Guinea.