

Departemen Pendidikan dan Kebudayaan

The British Council

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Curriculum Development Centre
Curriculum Capacity Project
Department for International Development

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Indonesia: Curriculum Capacity Project Sixth Quarterly Report April – June 1999 CCP/QR99 - 06

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VO. KLASIFIKASI

GL. TERIMA

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Country

Project

Duration

Report No.

Reporting Period

Report completed

File Reference

Participating institution

BC Manager

Past Progress Reports

Next PPR due

INDONESIA

CURRICULUM CAPACITY PROJECT

October 1997 to September 2000

CCP/QR99-06

April 1 to June 30, 1999

July 1999

CCP\reports\quarterly\QR-06

Leeds University

Mr. Geoff Evans, Field Manager

CCP/QR98-01 - CCP/QR98-05

end September, 1999

Recommendations and Action to be Taken

- 1. Weekly meetings with the Head of Balitbang must continue to keep him well informed of CCP activities and their relationship with other activities within Puskur.
- 2. The LTA needs to finalize participants for second training group to Leeds University with Kapus and Kabid, and inform all concerned parties.
- 3. The LTA needs to formalize, in writing, the position of CCP in relation to Puskur activities and budget allocations with the PM. Copies are to be distributed to the Head of Puskur, Head of Balitbang, and the BC Field Manager.
- 4. The possible cooperation with Dikmenum regarding Puskur's curriculum evaluation strategy needs to be finalized and formalized.
- 5. The evaluation of curriculum documents for selected subjects at primary school level by CCP short-term consultants needs to be extended by relevant Puskur staff for other education levels.
- 6. The follow-up work by the LTA to the whole school evaluation study needs discussing with colleagues and finalizing with Bp Boediono.
- 7. The timing of CCP short-term consultants, and other CCP activities, needs to be discussed and agreed well in advance so that lack of counterpart staff for short-term consultants, or trainees for workshops, does not become an issue. Invitations for CCP activities then need to come from the Head of Centre as an indication of formal agreement and commitment to the activity.
- 8. The BC and DfID both need to be formally informed of the decision, yet to be reached by the Head of Puskur, regarding the PM for CCP; either the previous PM continues or the new one replaces him.

A. Contribution of Technical Assistance Activities to Project Component Outputs

Project outputs

Component 1 Improved system for curriculum evaluation planned and implemented

by Puskur

Component 2 Improved strategy for curriculum planning and management adopted

by Puskur

Component 3 Strengthened professional and library resources within Puskur

Aims for Second Year

. Review and implement curriculum evaluation strategy in cooperation with provincial colleagues

- . Analyze curriculum evaluation findings and feedback into curriculum revisions
- . Compare Indonesian curriculum with that from other countries for selected core subjects at basic education level, including whole school for primary level
- . Develop and implement strategy for evaluation of cawu tests in relation to 1994 curriculum
- . Extend and clarify knowledge of child development and apply knowledge to 1994 curriculum
- . Extend and clarify knowledge of alternative testing types, apply to 1994 curriculum
- . Extend knowledge of ideal textbooks and develop guidelines for teachers and textbook developers, to increase match with curriculum
- . Broaden knowledge of curriculum implementation in classroom, and influence of MGMP training on those activities
- . Develop further latent research skills
- . Increase knowledge and skills in data analysis particularly related to qualitative research
- . Extend knowledge of alternative models available for curriculum planning and development
- . Improve presentation and discussion skills
- . Improve writing skills
- . Improve Puskur Resource Centre
- . Improve coordination between Puskur, Balitbang Centres, MOEC Directorates and selected Kanwils

Progress in Sixth Quarter

Aims:

- . Evaluation of primary B. Indonesia curriculum by LTA
- . Evaluation of whole school curriculum for primary school by ISTC
- . Evaluation of primary school mathematics curriculum by ISTC
- . Finalization and negotiation of the curriculum evaluation strategy
- . Agree scheduling for ISTC inputs with Leeds University coordinator
- . Dissemination seminars on curriculum evaluation by 1998 Leeds trainees
- . Continue improvement in presentation and discussion skills
- . Improve oral and written skills in English

- . Continue communication and coordination with Puskur, Balitbang Centres and MOEC Directorates.
- . Continue contributions to Puskur Resource Centre.

CURRICULUM MANAGEMENT PLAN: April 1999 - March 2000

	•.	AM J	1999	OND	<u>2000</u> J F M
_	Currientum englishing	A IVI J	JAS	OND	J F IVI
A.	Curriculum evaluation 1. Decentalized strategy for evaluation finalize strategy revise instruments				
	train curriculum network staff implement strategy analyse, report, disseminate findings using findings in curriculum revisions				
	Strategy for strengthening curriculum implementation Independant evaluation of documents & classroom implementation SD - IPA, language, maths, IPS, whole school SLTP - language, maths, IPS				
	. Textbooks/aids, tests, & Insett influence on curric implementation relationship/ match with K94 & ed. level				
	Pilot schools Tryout of curriculum revisions			18 X X	
В.	Curriculum Planning & Development 1. Alternative Models 2. Child Development 3. Model Textbooks 4. Alternative Cawu Tests				
C.	Training 1. Overseas Training 2. English language course				
D.	Meetings 1. Steering Committee 2. TCT 3. Bi-weekly with BC manager	e in		·	
	Other Activties Formative Project Evaluation				
2.	Monthly Seminar Programme				
3.	Materials purchase for Resource Centre			MANA	
4.	Annual Curriculum Management Plan				F.
5.	Study Tours				

PURPOSE

and systems for: Improved strategies

- a. curriculum planningb. curriculum management c. curriculum evaluation
- being implemented

- Strengthened professional & library resources in Puskur
- Ö Curriculum management planning adopted by Puskur
- Evaluation evidence fed into curriculum renewal process

INDICATORS

- a. Cyclic curriculum planning adopted
- Curriculum evaluation evidence utilized
- Improved coordination between of the MOEC Puskur, Balitbang & Directorates

- Evaluation of whole-school primary curriculum by ISTC
- Independant evaluation of primary maths curriculum by ISTC
- B. Indoneisa curriculum by LTA Independant evaluation of primary
- Ω Evaluation evidence used for shortterm curriculum revisions
- Curriculum evaluation strategy
- <u>.</u> Names and dates for consultants finalized discussed and finalized
- Ö Negotiation, scheduling and financial planning of CCP activities with Puskur
- Extension of ISTCs evaluation findings
- Dissemination seminars by 1998 trainees
- Contacts sustained
- Puskur Resource Centre

Process:

The chart above shows the relationship between the various activities of the project for the sixth quarter and intended outcomes and verifiable indicators. The project implementation schedule for the three years of CCP is included as annex A.

1. Meetings

- 1.1 The LTA and the new project manager for Puskur and CCP, Ms Ella, (see below for fuller details) held several planning meetings with Bp. Boediono regarding CCP activities. In particular, extension of the work carried out by a CCP ISTC who evaluated the whole school curriculum for primary school was discussed.
- Informal discussions were held between the LTA and the PM for the World Bank SLTP projects on the feasibility of establishing further cooperation between Puskur and that project. The first joint mini project between the two is a pilot study of general science newly introduced into several SLTP schools in East Jawa. This was noted in the previous quarterly report. This second possible area of cooperation explored using *guru inti* or lead teachers from their "teachers working groups" (MGMP) programme as one of the means for implementing Puskur's curriculum evaluation strategy in the provinces. These lead teachers already visit members of their MGMP group to observe them working in the classroom and are in an ideal position to collect further data on behalf of Puskur. A brief paper outlining the details of the cooperation was prepared by the LTA and discussed. The final decision to proceed with this cooperative activity was deferred pending further discussions.
- Planning meetings were held with kabid and those senior staff with special responsibility for the several activities (or sub-projects) within Puskur's development budget which are directly related to CCP's planned activities for this year. These meetings were wide ranging and include negotiations regarding the relationship between the CCP and individual sub-projects, staff allocation, budgeting, field activities, and detailed scheduling for various activities.
- The new PM for Puskur, Ms Ella, was introduced to the BC Field Manager by the old PM and the LTA. The major discussion topic was the position of these two persons in relation to CCP. It was agreed that the two PMs would discuss the situation with Head of Puskur and formally inform BC and DfID of his decision.

2. Curriculum Evaluation and OTJ Training

CCP has been recruiting several short-term consultant to independently evaluate core subjects of the basic education curriculum, so that Puskur avoids criticism that it is evaluating its own curriculum and thus presenting a biased view. The first evaluation, last month, was of the primary science curriculum. Recommendations from the consultant report appear as annex B. The second was an evaluation of the whole school curriculum for primary school, and the third, by the same consultant, was of primary school mathematics. The whole-school consultancy report is available from the CCP Office and her recommendations appear as annex C; the maths one is undergoing revisions by the consultant, and her recommendations will appear in the next quarterly report (CCP/QR99-07).

The consultant for these two studies worked previously as (a) a head teacher and class teacher in her home country, and (b) as a on-service teacher trainer in Indonesian primary schools for a primary education project based in the Directorate of Primary Education. For both studies, she worked closely with small groups of Puskur staff attempting to extend their knowledge and skills through on-the-job training. Together, they also visited several primary schools in and outside Jakarta to elicit the opinions of teachers and heads regarding selected curriculum issues under discussion in the country at the moment.

At the same time as the maths consultant joined the project, Puskur staff were very busy making changes to the 1994 curriculum in time for the new academic year in July. The maths team contains only three staff who must cover all three education levels. The necessity to complete these changes in time meant the team was not able to give their full attention to her work. However, the consultant was not able to share her evaluation methods fully with the group and so extend their skills and knowledge. Timing of CCP short-term consultants, and other CCP activities, needs to be advertised well in advance so that clashes can be avoided or catered for much better than with this consultancy.

The LTA completed evaluation of the primary school B. Indonesia curriculum based on her substantial experience of early grade language development during a previous primary education project and her visits to classrooms during the last quarter of 1998, with CCP, accompanying colleagues during their school case study field work. Recommendations for revisions to the 1994 curriculum were also based on her experience and knowledge of teaching a second language to children. The suggested revisions were discussed with the Puskur staff member responsible for primary school B. Indonesia curriculum and several suggestions were adopted into the curriculum revisions for implementation in the coming school year, beginning July.

The three subject-specific consultancy reports need to be extended by small teams of Puskur staff to cover other education levels in the same subjects. Some similar comparisons of content between the 1994 Indonesian curriculum and several from overseas have already been made by Puskur staff. However, they are not at the same level of detail as these consultants' ones and do not show as clearly just how overloaded the Indonesian curriculum is compared with those from other countries.

- Work carried out by these CCP ISTCs was discussed in some detail with Bp. Boediono who requested that parts of it be extended to include the other two education levels, namely that work related to the whole school primary curriculum. This short evaluation report, by the LTA, will be published as a booklet at a later date, after discussions with colleagues and finalization with Bp. Boediono.
- 2.4 The curriculum evaluation strategy was discussed with various groups of Puskur staff and finalized. The possibility of cooperation in this task with the SLTP project in Dikmenum was discussed but the final decision to go ahead formally was deferred to a later date. Implementation of the strategy by the Curriculum Network staff in the provinces was agreed with the senior staff responsible for that sub-project in Puskur.

3. Curriculum Revisions

- 3.1 In reply to many criticisms of the curriculum in the media, Puskur staff, working together with teachers, made short-term revisions to the 1994 curriculum for all subjects at all education levels. These included cutting or making elective some of the content in the curriculum and producing a short document for teachers stating these changes. These were circulated to teachers for the new academic year. Some of the inputs to these changes came from the evaluation work of CCP ISTCs and other curriculum evaluation studies conducted by Puskur staff including some carried out under CCP in 1998.
- 3.2 Puskur held a workshop where the content of the 1994 curriculum was mapped by grade into scope and sequence charts. This was a first planned activity in the programme for more medium-term revisions to the 1994 curriculum. The LTA was asked to join the team which comprised each Puskur staff with particular responsibility for a subject at one of three education levels. Puskur staff were assisted by a number of experienced teachers for each subject and education level. The LTA advised several of the groups.

4. Miscellaneous Activities

- 4.1 Dates and TORs for the formative project evaluation were discussed with the BC Field Manager and prospective consultant.
- 4.2 Dates and names for Leeds University consultant inputs to the project were finalized with our project coordinator.
- 4.3 The departure date for the second group of Puskur trainees to Leeds University was backward planned from the date of this institution's new academic year. English language provision for the group was also finalized with the manager of the BC ELC. However, the participants for this training are still being selected by Puskur management.
- 4.4 The in-house English language classes re-started. Two groups were organized at different levels of language ability. The advanced language group discussed the curriculum evaluation strategy in some detail before an open seminar was organized for fuller discussion. The intermediate language group focussed on the many mother tongue languages spoken through out Indonesia in relation to B. Indonesia in order to sensitize Puskur staff to the major language issue of B. Indonesia as the language of school instruction.
- 4.5 The seminar programme re-commenced with weekly presentations being made by each of the nine trainees from the first overseas course on curriculum evaluation. These were well attended, and lively discussions of the issues raised took place.
- 4.6 Puskur Resource Centre continued to strengthened with the addition of further materials. Increasing numbers of staff are using the facility, especially those presently studying for their Masters degree.

Changes in previously planned project activities:

1. The revision of instruments for the curriculum evaluation strategy was delayed because of other demands on the time of Puskur colleagues, as noted elsewhere.

- 2. More negotiations and detailed planning were required than usual because counterpart funding for CCP activities does not appear as a separate budget line in this year's development budget for Puskur. This is elaborated on in the next section. This took more time than normal because of the very changed circumstances. The outcome has been very positive however.
- 3. The selection of pilot schools was deferred to the next reporting quarter due to changed financial circumstances for CCP activities and the Centre. These are discussed more fully in the following section.

Impact of external factors:

- 1. One most notable change in the circumstances of the Puskur office was the change of project manager. Ms Ella, Ph.D. officially replaced Mr. Faisal in April. The change, although not the person, was foreseen. It is government practice for the PM to have only a five year assignment. The other two new members of team are the project secretary and treasurer. All new incumbents are having to learn their tasks on-the-job as none of them has been in the post before.
- 2. A major implication of this change is the position of Mr. Faisal Madani, named as the main counterpart to CCP in the MOU between the two governments. If he continues as CCP PM, then there is an extra link in the management chain, as we still have to refer to the new PM for all financial decisions. Both PMs agreed with the LTA and the BC Field Manager to discuss and settle this matter with the Head of Puskur.
- 3. A second notable change from the arrangements of last financial year was in the allocation of counterpart funding for CCP activities within the budget lines of Puskur's development budget (DIP). Previously, CCP was mentioned by name. This time Mr Faisal incorporated CCP activities into those of the Centre. This resulted in much negotiation between the LTA and the persons responsible for the different sub-projects within Puskur regarding activities, staffing, funding and scheduling. The result is better integration of CCP with Puskur and a higher profile for the activities of the project. Further negotiations will probably ensue as the year progresses and the work develops.
- 4. The funding for all Puskur sub-projects has been reduced so that staff welfare can be better catered for in terms of a daily cooked lunch. All Puskur activities are affected by this move which has meant some trimming of planned activities and more careful planning to make optimum use of the resources available.
- 5. As noted above, it was not possible for the maths short-term consultant to work fully with her Puskur counterparts because of the pressure on them to complete changes to the 1994 curriculum. Thus, some of the benefits of her secondary short-term consultancy were inevitably lost. The essential recommendation is noted above that Puskur needs reminding well in advance of upcoming CCP activities which require Puskur counterparts to avoid this unfortunate event recurring.

Recommendations

- 1. Weekly meetings with the Head of Balitbang must continue to keep him well informed of CCP activities and their relationship with other activities within Puskur.
- 2. The LTA needs to finalize participants for second training group to Leeds University with Kapus and Kabid, and inform all concerned parties.
- 3. The LTA needs to formalize, in writing, the position of CCP in relation to Puskur activities and budget allocations with the PM. Copies are to be distributed to the Head of Puskur, Head of Balitbang, and the BC Field Manager.
- 4. The possible cooperation with Dikmenum regarding Puskur's curriculum evaluation strategy needs to be finalized and formalized.
- 5. The evaluation of curriculum documents for selected subjects at primary school level by CCP short-term consultants needs to be extended by relevant Puskur staff for other education levels.
- 6. The follow-up work by the LTA to the whole school evaluation study needs discussing with colleagues and finalizing with Bp Boediono.
- 7. The timing of CCP short-term consultants, and other CCP activities, needs to be discussed and agreed well in advance so that lack of counterpart staff for short-term consultants, or trainees for workshops, does not become an issue. Invitations for CCP activities then need to come from the Head of Centre as an indication of formal agreement and commitment to the activity.
- 8. The BC and DfID both need to be formally informed of the decision, yet to be reached by the Head of Puskur, regarding the PM for CCP; either the previous PM continues or the new one replaces him.

Future plans for Seventh Quarter

- . Selection and revision of curriculum evaluation instruments for the curriculum evaluation strategy
- . Finalization and formalization of provincial colleagues for curriculum evaluation strategy
- . Implementation of curriculum evaluation strategy in selected provinces
- . Extension and development of the evaluation work of the subject specific short-term consultants to other education levels
- . Finalization of extension study of the CCP ISTCs evaluation work
- . Selection and briefing of schools participating in the pilot school scheme
- . First formative project evaluation by external consultant
- . English language training for second group to depart to Leeds University in September 1999
- . Pre-departure briefing for this group by BC staff
- . Continue seminar programme
- . Continue in-house English language programme
- . Sustain contacts with other centres and with the Directorates
- . Continue to stock the Resource Centre within Puskur.



Planned activities:

1. Meetings

- A formal quarterly meeting will be held with the Head of Balitbang and the Field Manger of the BC to discuss progress and future plans. This will be in addition to the weekly meetings concentrating on reporting the status of CCP activities so that he remains well informed and project activities continue to be aligned to the needs of Balitbang and the MOEC.
- 1.2 All other established meetings within Puskur will continue, such as those with Kapus and Kabid, as will liaison meetings with the SSEP project and other projects in Dikmenum.

2. <u>Curriculum Evaluation</u>

- 2.1 The participation of provincial colleagues in the curriculum evaluation strategy will be finalized and formalized.
- 2.2 The instruments to be used will be selected, revised and piloted in Jakarta before the strategy is implemented in selected provinces.
- 2.3 Finalization of extension study of the CCP ISTCs evaluation work
- 2.4 Selection and briefing of schools participating in the pilot school scheme, for the try out and evaluation of curriculum revisions
- 2.5 Extension of the work of the subject specific short-term consultants by teams of Puskur staff to other education levels, for future use in curriculum revisions.

2.6 The LTA will again work closely with staff to consider how to use evaluation findings to make sound and well-grounded curriculum revisions in the core subjects which can be implemented by teachers.

Contacts and Coordination Outside Puskur

- 3.1 All contacts with interested parties in the MOEC will be sustained.
- 3.2 The beginnings of a close working relationship will be developed with participating schools in the pilot school scheme.

4. Miscellaneous Activities

- 4.1 The first formative project evaluation consultancy will be conducted.
- 4.2 The monthly seminar programme will continue. Not all of the trainees from the first Leeds University group have had the opportunity to present yet. Other seminars will be open ones to discuss the findings of staff and consultants' research/ evaluation findings
- 4.3 The names for the second group of trainees to Leeds University will be finalized with the Head of Puskur. They will attend English classes and a pre-departure session before departure to the UK in September.
- 4.4 In-house English language training will continue at the two different proficiency levels. Again, education and curriculum topics will form the basis of classes.
- 4.5 The identification and purchasing of books and other materials, including curriculum, textbooks and other teaching materials from Indonesia and other countries, will continue.

В.

Contribution of outputs towards realization of project purpose

Project purpose specified in logical framework

Component

Improved strategies and systems for curriculum planning, management and evaluation being implemented.

Progress towards realization of specified purpose

The approach of CCP in the first financial year of the project was to use selective training workshops and on-the-job training to enhance curriculum research and evaluation skills of Puskur staff. The activities undertaken through these training methods have exposed many Puskur staff to the difficulties faced by teachers in implementing their curriculum in the classroom. Staff are continually demonstrating a increased sensitivity to those difficulties, particularly as a result of the qualitative case study work of some staff members in the provinces. This work raised awareness of many of the broader issues related to curriculum which quantitative studies can so often miss. Colleagues' requests that particular areas be investigated further or that certain activities be included in the second year's activities of the project clearly demonstrate their heightened knowledge of and desire to remedy the situation in the classroom.

Generally, good progress has been made towards strengthening Puskur capability in the area of curriculum evaluation. This is one of their most important tasks within the curriculum cycle. It now remains to use those skills for developing the required instruments and implementing the evaluation strategy in a selection of provinces. Cooperation with selected kanwils and schools in various provinces will increase the profile of Puskur in the provinces. At the same time, it will greatly increase Puskur's skills to both evaluate curriculum and to negotiate with and supervise provincial colleagues. These will be especially valued skills in the future, with the government's move towards greater decentralization of responsibility and tasks away from Jakarta. This move to solicit assistance for the curriculum evaluation strategy from colleagues in the provinces could also contribute to the beginning of Puskur's thinking about its future role as an institution within the country and the direction they feel it should go in.

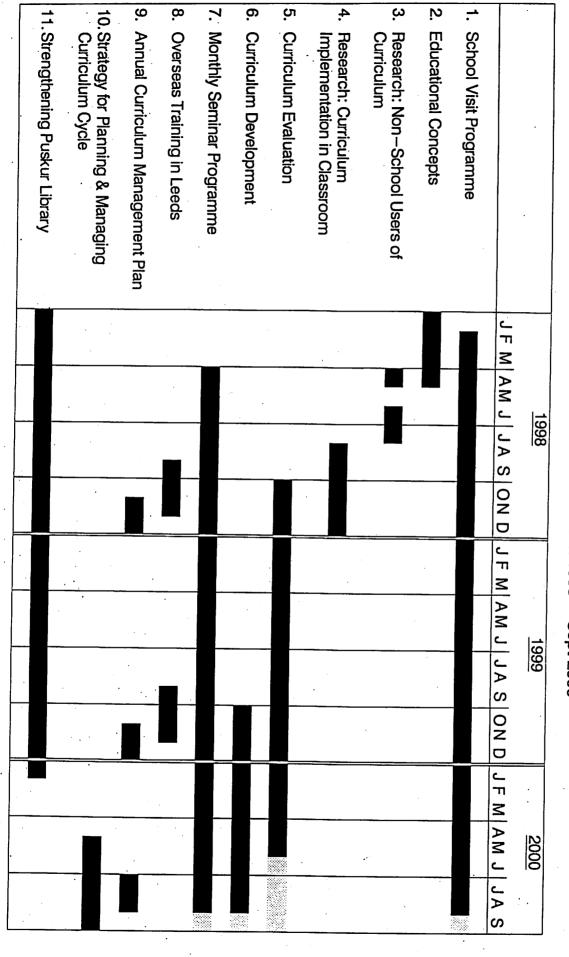
Planning and management of the curriculum within Puskur for the coming financial year's activities is becoming more coordinated. The impact of the new project manager and her ideas on management within the organization is being keenly felt. She is supported by the Head of Balitbang in her commitment to raising staff welfare. The new PM is involving the Kabid directly in Puskur's sub-projects by appointing them as coordinators for the various activities.

The profile of CCP has also been raised this year as the activities of Puskur and CCP are very closely integrated. This is as a result of there not being a separate budget line for counterpart funding for CCP activities. Instead, CCP money is embedded within several Puskur sub-projects. Overall, much closer contact has resulted with the management team of kabid, senior staff, PM and CCP LTA having to negotiate hard regarding allocation of staff and finances to the various tasks of the Centre.

Project Implementation Schedule Financial year 1999 - 2000

C.C.P. PROJECT

SUMMARY OF PROJECT ACTIVITIES Jan 1998 - Sept 2000



March 1999

Review of Primary School Science Curriculum

Ву

Lloyd Blazely

4.3 Recommendations

4.3.1 Curriculum Content

The content of the primary school science curriculum should be reduced by 30% to 50%.

Reasons

i) There are some concepts in the present curriculum which are too difficult for the stage of intellectual development of most primary school students. Here is a list of some topics suggested as unsuitable and hence eligible for elimination.

Class 4

- a) water presses in all directions
- b) temperature and rock corrosion
- c) mass
- d) expansion and contraction of gases
- e) hot air has less pressure than cold air
- f) moving air has less pressure than still air
- g) land and sea breezes

Class 5

- h) frequency of sound
- i) formation of coal and petroleum
- j) dispersion of light
- k) work and power
- l) elasticity
- m) static electricity
- n) chemical energy
- o) radiation

Class 6

- p) series and parallel circuits
- q) functions of the liver
- r) electrical devices dependent on electro-magnetism
- s) size of the planets
- t) earth's axis
- u) eclipses
- ii) A heavy emphasis on content tends to take attention away from science skills
- iii) When content is excessive teachers tend to focus on memorization of terms and facts.

The primary school science curriculum should be constructed so that throughout the four years of the course students return several times to the same topics and concepts.

Reasons

The accumulation of information about a concept and the growth of understanding of a concept is a slow and gradual process. For example, students gradually develop an understanding of the concept of sound by first of all associating sound with vibration and with their ears. Perhaps next they will find, possible to their surprise, that sound can travel through solids and water as well as through air. They may even learn that some solids are not as good at carrying sound as others. By this time the stage is probably set for the realization that energy is necessary in order to produce sound. Finally they might even experiment with echoes though this would not be essential at primary school. Through all this their understanding of the nature of sound is slowly becoming more complex.

Such a progression should take place over 3 or 4 years and should not be restricted to one term in class 4 as is the case at present.

The primary school science curriculum should recognize that very few, if any, primary school students are capable of abstract thought and that they are almost completely dependent on concrete experience to build up understanding of concepts and ideas.

Reasons

All students go through stages of intellectual development. At primary school and, for most students, also at SLTP the students are gradually organizing their understanding of the physical world. The understanding grows in complexity as they increase the nature and breadth of their concrete experiences until finally at about age 15 they can deal with ideas in an abstract way. Thus such things as the representation of concepts and laws using mathematical symbolism is almost pointless before the end of SLTP. At primary school there are many semi-abstract ideas that students will begin to cope with but which cannot be used as a base from which to learn. Two examples are cross-sections and graphical representations. From about class 6 students can be introduced to these techniques but they cannot, in the first instance be used to present information.

Much greater emphasis should be given in the primary school science curriculum to the development of basic scientific skills than to the development of a store of information.

Reasons

It is much more important for students to know how to gather information through the processes of measuring, observing, recording and testing and how to process this information by classifying than it is to commit to memory isolated facts which they often do not understand and quickly forget.

For a detailed analysis of the implications of this recommendation refer to Appendix 8.

4.3.2 Curriculum Support Materials

Primary school science textbooks should gradually be replaced with teachers guides, student workbooks and 'special interest' booklets devoted to specific topics.

Reasons

- i) Science textbooks, no matter how well written, tend to have three problems:
 - a) They tend to focus on content and ignore process skills.
 - b) They tend to encourage teachers to lecture rather than to manage students learning.
 - c) They tend to give recipes for demonstrations rather than to create situations in which students can plan, implement, observe, record, and draw conclusions.
- ii) Teachers need reasons for teaching a topic, suggestions on how to go about this and ideas on how to check students learning.
- iii) Students need help in planning and carrying through experiments rather than recipes relating to demonstrations.

A list of basic equipment for teaching primary science should be prepared and distributed.

Reason

Such a list would help schools build up an appropriate set of equipment over a period of time.

4.3.3 Curriculum Development

All officers involved in the development of the primary school science curriculum should, in the first instance, undertake a detailed comparison of the current Indonesian curriculum with a primary school science curriculum from another country.

Reason

A very good way to form views about the content, structure and support materials for a curriculum is to look carefully at what others have done. In this instance there are quite a few other countries which could provide useful ideas for Indonesian educators working in the field. Some examples are the UK, Norway, Sweden, Scotland, Netherlands, Germany, Japan, Philippines, Singapore, India, various states of Australia, New Zealand etc.

In the first instance, attention should be given to upgrading the curriculum and support materials at primary class 3.

Reasons

- i) Starting at Grade 3 will encourage the bottoms-up approach that is so desperately needed.
- ii) By starting at class 3 it will be possible to establish an appropriate skills base from the beginning of the study of science.
- iii) The implementation of curriculum change needs to be staged and it will probably be easier within the system to bring about change at class 3 in the first place than at higher class levels.

N.B. Some notes about the upgrading process are provided in Appendix 6.

All people involved with the production of primary school science curriculum should either observe or teach at least one science lesson each week. They should also personally trial in the classroom any materials that they produce.

Reasons

Of course, curriculum officers and producers of support materials need a good understanding of their subject. However, of equal or perhaps even greater importance is the need for them to have a thorough and practical understanding of the nature of both the primary classroom and primary students. This only develops through real life experience, not from textbooks, though these may help to organize thinking about the issue.

May 1999

The Whole School Curriculum for Primary School: An Evaluation

Ву

Marlies van der Ouderaa

8. Recommendations

8.1 Curriculum documents

- 1. Puskur should consider what the function of the curriculum is and write the documents in accordance with the function.
 When the function is to prescribe the foundations, aims and minimum/maximum program, and technical organisation like the allocation of time documents 2 and 3 can be dropped. Book 1 should be improved, in order to provide clear guideline for teachers and educational publishers. In that case Pusbuk and other educational publishers should be held accountable for the conformity of their educational courseware with the curriculum and for the provision of learning books and methodological teacher guides, which encourage active learning.
 When, however, the curriculum also has to prescribe the course outlines and to provide methodological guidance for implementation, all three documents should be improved and completed.
- 2. It will be more practical if the three books become integrated into one document.

8.2 Teaching program and content

- The content of almost each subject should be reduced. There are concepts in the
 present curriculum, which are too difficult for the stage of intellectual development
 of most primary school children, for instance in Science. Besides there is an
 overload of knowledge to be memorised, especially in Social Studies.
- 2. The course outlines of the subjects should be brought into agreements with the development stages op SD children. Think of cognitive development stages in Maths, language and communication development in Bahasa Indonesia and understanding of time and space in History.
- 3. The program should put more emphasis on skill development, so those children can learn by themselves. E.g., better to teach them to use the dictionary than learn them all the words.
- 4. Subjects should be related to each other and the prescriptions in the curriculum should show the relationships. The same themes and subject matter (content) in different subjects should be synchronised in the programme. This has two features. First common themes and content could be presented in the 2 subjects during the same week to enforce each other. E.g.: water in IPA and Bahasa Indonesia, or co-operations in Bahasa Indonesia and IPS. Second, when content from subject A will be used in subject B, it should be taught first in subject A. E.g.: a math concept to be applied in IPA has to be taught in Math first; or writing a report in IPA has to be taught in Bahasa Indonesia first.

8.3 School time

1. The school time for grade I-II should be increased. The extra time should be used for playing-learning activities and the provision of differentiation: in the same time children are working on different tasks, according to the individual needs.

 It should be better that teacher' activities like collecting salary and meetings occur after school time. See also Assessment.

8.4 Allocation of time

Puskur should discuss seriously the balance of the different subjects. It has to do
with the vision what basic education ought to offer. The present allocation of time
gives the impression of overvaluation of exact sciences and religion/state ideology.
Doing that, the coherence of all subjects and the value, support of the other
subjects is underestimated.

8.5 Assessment

- More attention should be paid to the daily diagnostic/formative evaluation of children's work and activities, so improvements are seen and to the consequent adaptation of the education, including the provision of remedial and enrichment tasks.
- Too much attention now is paid to the summative tests, like THB and Ebtanas, maybe not in the prescription in the curriculum, but definitely in the field. The improper use of THB and Ebtanas, and the amount of used time for testing and preparation effects badly the quantity and quality of primary education.
 - 2.1 Puskur should better drop the prescription of THB. With a good functioning diagnostic/formative evaluation and registration there is no need for THB.
 - 2.2 Concerning Ebtanas, Puskur should think about the proposal of several parents: each SLTP should organise their own entrance-tests. Another proposal: instead of a cognitive test (as Ebtanas is) a capability-test can be prescribed.

8.6 Puskur staff

- The staff should work more together as a team, in order to be able to describe a balanced curriculum for basic education across subjects.
- 2. The staff should be extended with an expert on child psychology, who plays a binding role in the staff.



