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MID-PROJECT EXTERNAL EVALUATION FOR SWAZILAND PRIMARY CURRICULUM DEVELOPMENT PROJECT

Project No. 645-0009

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by
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2

TABLE OF CONTENT

		P
I.	EXECUTIVE SUMMARY	1
II.	MAJOR PROJECT FINDINGS AND RECOMMENDATIONS	5
III.	BACKGROUND OF PROJECT	14
IV.	PROJECT GOAL	20
V.	PROJECT PURPOSE	24
VI.	OUTPUTS: INSTITUTIONAL OPERATIONS	30
	1) Curriculum Development System	30
	2) Preparation/Production/Distribution Systems	34
	3) Teacher Education System	41
	4) Evaluation System	51
VII.	OUTPUTS: INSTITUTIONAL INFRASTRUCTURE	59
	1) Manpower Development	59
	2) Project Facilities/Equipment	71
	3) Management Model/Workplans	72
VIII.	INPUTS	73
TABLES.		i-vii
ANNEXES.		viii-xxvi

		p
Table 1	PRIMARY CURRICULUM UNIT ESTABLISHED POSTS 1979/80 - 1982/83	i.
Table 2	STATUS OF PRODUCTION BY SUBJECT AREA	ii.
Table 3	TASKS IN MATERIAL PRODUCTION CYCLE	iii.
Table 4	PRINTING FOR NATIONWIDE DISTRIBUTION (IBRD) (SPED)	iv.
Table 5	PCU AND NON-PCU STUDENTS TAKING EMU COURSES 1980-1982	v.
Table 6	PRIMARY CURRICULUM DEVELOPMENT 645-0009 PHASE II AID BUDGET/EXPENDITURE	vi.
Table 7	PCU RECURRENT BUDGET 1979/80 - 1982/83	vii.

ANNEXES

Annex 1	PRIMARY CURRICULUM UNIT POSTS AND STAFF	viii.
Annex 2	SCHEDULE OF PRODUCTION OF NEW CURRICULUM MATERIALS	ix.
Annex 3	PROJECT PAPER PROJECTION FOR CURRICULUM MATERIALS IN USE NATIONWIDE.	xix.
Annex 4	PCU CURRICULUM SPECIALISTS PROVIDED BY EMU BY SUBJECT/ ACTIVITY AREA 1979 - 1983	xx.
Annex 5	PCU PARTICIPANT TRAINING 1977 - 1983	xxi.
Annex 6	NON-PILOT SCHOOLS PRESENTLY TEACHING PCU MATERIALS, 1982	xxii.
Annex 7	TIME BETWEEN ADMINISTERING EVALUATIONS AND PUBLISHING RESULTS.	xxiv.
Annex 8	PCU/EMU STAFF TRANSFERS/VACANCIES	xxv.
Annex 9	PARTIES CONSULTED	xxvi.

PREFACE

This mid-Project evaluation of the Primary Curriculum Development Project (1979-83) was conducted between August 28, 1982 and September 30, 1982 by Drs. Carol Martin and William Duff, Consultants with Aurora Associates of Washington, D.C., the Contractor for this evaluation. The report of findings presents an analysis of items requested by the PIO/TS Scope of Work. The Project Logical Framework is used as the first point of reference and the Project Evaluation Summary (PES) of April 1980 as the second. The evaluation team did not, however, limit itself to questions contained in these two documents. Information beyond the Scope of Work is presented throughout the report.

Extensive interviews were held with all parties to the Project including senior officials from the Ministry of Education (MOE), the Director of the Primary Curriculum Unit (PCU) and staff, the Eastern Michigan University contracting team of four Advisors through the Chief of Party (COP) and AID/Swaziland. Officials from other educational institutions and representatives from MacMillan Boleswa Publishers were also contacted for comments.

Initial Findings and Recommendations were discussed with all parties separately and jointly for purposes of eliciting clarification. These discussions stimulated dialogue which was both diagnostic and prescriptive about Project activities. The Findings and Recommendations which follow represent common understandings from Project participants ensuring accuracy and a commitment to implement recommendations. The Recommendations, also, offer strong implications for developing other follow-on projects for Swaziland's educational development.

I. EXECUTIVE SUMMARY

Organization of Work

This mid-Project evaluation of the Primary Curriculum Development Project/Swaziland was conducted over a period of four weeks from August 28 to September 30, 1982. The report has primarily referenced the Project Paper's Logical Framework, the Project Evaluation Sumary of 1980, and other relevant documents and resources involved with Project. Interviews were conducted with Ministry of Education (MOE) officials, the Director and staff of the Primary Curriculum Unit (PCU), the Eastern Michigan University (EMU) Chief of Party and Advisor team, and with USAID/Swaziland.

Major Findings/Recommendations

12 Findings presented issues concerning: a) communication patterns between AID and MOE; b) the different degrees of emphasis laid by parties to the Project on Project purposes; c) the limited production of materials by PCU to date; d) the establishment and filling of posts at PCU by GOS/MOE; e) the achievement of skills by PCU staff appropriate for textbook writing and curriculum development; f) effectiveness of the pilot school evaluation and testing phases; and g) the need to build stronger institutional links with the teacher training efforts nationwide.

14 Recommendations specify needed actions in the following areas: a) improved communication channels between AID and MOE and between MOE and PCU; b) accelerated production of materials in all subjects through the addition of outside writers to write first draft manuscripts and additional Swazi staff through the continued support of EMU Advisors; c) developing a more manageable and effecient evaluation system for testing materials and student achievement; and d) transfer of teacher training responsibilities to TTCs for the infusion of materials nationwide, including strengthening in-service functions through the TIDCs. While the current focus will be on accelerated production of materials, the spirit of institution-building through training will continue as planned. These recommendations have strong implications for a follow-on teacher training program focused on institution building.

Project Background

Period I (1975-79) emphasized institutional manpower development of the PCU through training with Advisors. Period II (1979-1983) emphasized production of materials while maintaining focus on its ultimate purpose of training. The interpretation by all parties about what degrees of emphasis should be laid on these two primary purposes varied and caused a blurr of focus on the Project's operations.

Goal Achievement

So far, the content of primary education, through the new curriculum materials produced, is reflecting practical skills, attitudes and knowledge

and the learning goals appear acceptable to Swazi leaders and citizens. It is not yet possible to determine if the Project will have significant impact on student achievement rates and on post-primary school employment opportunities.

Purpose Achievement

The MOE recognizes the PCU as the unit responsible for national primary curriculum development and has filled all but 3 established posts. The Government of Swaziland has provided only 34 of the 42 posts called for in the Grants Agreement. The PCU is short by 8 posts. The MOE has provided most of its budget support. The production of materials is behind schedule in Maths, English, Practical Arts and ancillary subjects with a discrepancy factor in production between 1980 and September 1982 of 58%. The new materials currently in use nationwide are considered relevant and acceptable by pupils and teachers. The MOE through PCU has yet to develop the capacity to conduct evaluations and analyze results in a timely and efficient manner through the pilot schools. Because of PCU's limited production and the short time the materials have been in use nationwide, it is not yet possible to assess the MOE/PCU capability of measuring the overall effectiveness of the new materials. While the PCU has trained pilot school teachers according to its mandate, the linkage between the PCU and TTCs has been weak for training teachers nationwide.

Institutional Operations Outputs

Curriculum Development System: Teacher leaders of PCU assigned to the four district Teacher Innovation and Dissemination Centers (TIDCs) have carried out in-service training for pilot school teachers and have assisted the DEOs in disseminating materials nationwide. Because of its lag in production, the PCU can not engage itself in this in-service training of teachers. Rather, more responsibility for this needs to be placed on TTCs by MOE. Also, the intended linkage between the PCU and UCS for developing training programs, both for PCU staff as well as for teachers, has been thwarted by the non-acceptance by UCS of the training standards offered by EMU in this Project. The Bachelor's degree granted after a one year residency at EMU remains suspect. This suggests that foreign Contractors should be sensitive to in-country training standards if collaboration is intended. Another linkage of the PCU with the Secondary Curriculum Unit (SCU) has not yet taken place since few materials have been produced by either unit.

Preparation/Production/Distribution System: On the 19 curriculum packages estimated to have been available in schools nationwide by January 1982, only 8 packages or 42% have been produced, four more are presently being published. These 12 packages constitute 30% of the Project period's expected output of 39 packages (up to the end of 1983) or 26% of the total 46 curriculum packages expected to be in schools nationwide by 1985/86. The SiSwati, Social Studies and Science materials have required less editorial assistance from the MacMillan publishers. On the other hand, the teacher's guides for Grades 1, 2, and 3 Maths have essentially been written by outside writers commissioned by the publishers with the permission of MOE. There has been nothing published in English, Music, Domestic Science, Agriculture, Religious Knowledge, or Arts and Crafts. Delays in completing first draft manuscripts, and vacancies created

by writing staff leaving for participant training overseas are factors explaining the low productivity in writing materials. The trial testing of materials through 16 pilot schools scattered about the four Districts has proven cumbersome and inefficient, and does not involve designers in the evaluation experience. Likewise, the three different review panels which approve final materials for publication have not provided timely decisions or quality control necessary for such approval.

Teacher Education System: There has been little effort from the William Pitcher Teachers College (WPTC) to develop in-service training programs for teachers nationwide, the belief being that the inspectorate, through PCU workshops, will provide teacher upgrading in the use of the new materials. The new materials have had minimal exposure in TTCs pre-service training programs where teacher trainees were suppose to participate in critiquing trial materials as well as the new materials. The UCS has yet to develop a degree or diploma course in primary education. Teacher education at the District level has trained inspectors responsible for orienting teachers to the new materials, although inspectors believe the TTCs should take more action for this. Teacher leaders have time-consuming responsibilities in orienting teachers to pilot materials and have yet to use the TIDCs to their full capacity. The MOE has used PCU resources to train headmasters in the use of the new materials, thereby detracting PCU staff away from their writing effort. Orientation workshops for pilot school teachers have faced funding limitations. Non-pilot teachers visited were generally receptive to the new materials but were at different units because their starting dates differed.

Evaluation System: The staffing of local counterparts to the Evaluation Unit of PCU has been particularly weak in 1982. The pilot school teacher evaluations have been conducted in a timely fashion and substantial feedback has been more successful through discussions rather than through form-filling. Evaluations of trial materials have not kept pace with the revision process which muniscripts require. The experimental design used for pre- and post-tests of materials has elicited largely invalid results due to the lack of correlation in both test items and subject matter in controlled and non-controlled schools. More conveniently located pilot schools are needed to allow for closer contact between PCU designers and the schools.

Institutional Infrastructure Outputs

Manpower Development: Participant training has met scheduled targets with 13 staff members trained in professional education. Further training appears needed in subject content and in composition and editing. In-service courses at PCU have been adequate, but the non-PCU students have not, in fact, assisted in the writing effort at PCU as the Project envisaged. On-the-job training has been somewhat disruptive due to periodic staff departures and normal Advisor turnover. As a result, the publisher has been heavily involved with editing some subject manuscripts and working closely with PCU staff. Short study visits were paid by PCU staff to other African curriculum centers,

but no courses were undertaken. PCU staff with degrees have only recently become eligible for training sponsored by the African Council Organization (ACO).

Project Facilities/Equipment and Workplans: The International Bank for Reconstruction Development (IBRD) has provided the PCU offices, production/printing facilities, Curriculum Resource Library and four TIDCs. AID has provided 7 of the 9 houses for technical assistance staff since 7 houses were sufficient. No management models or work plans were available from USAID or the COP/EMU.

Inputs

From the Project Paper Logical Framework budget of $3,650,200, $2,564,964 has been the estimated expenditure by AID as of March 30, 1982. The Government of Swaziland (GOS) has budgeted more funds than required and 1981/82 expenditure exceeded the Grants Agreement figure. The IBRD has met its construction obligations and continues to finance material production. Even though the funds had been increased, the remaining amount may be insufficient for publishing all primary schools materials.

II. MAJOR PROJECT FINDINGS/RECOMMENDATIONS

FINDINGS

1. The operation of the Project seems to have been perceived differently by all parties due to communications patterns. The absence of an effective link from AID to MOE during Period II of the Project is one of the principal causes for this deviation. Communication from AID has not appeared to indicate agreement with MOE's understanding about how Project purposes were to be achieved. Consequently, responses from MOE appear to confirm the existence of misperceptions which have blurred the focus on Project objectives. Communication channels between AID and PCU and between PCU and MOE have been fairly open. However, certain communication limitations have existed between MOE and PCU which have slowed MOE decision-making, particularly regarding budgetary supports to PCU.

2. The production of curriculum materials is critical to MOE. As a result of different perceptions of the Project focus by all parties, the PCU has fallen behind in the production of Maths, English and Practical Arts materials. While the PCU is unlikely to meet its end-of-project targets at current production levels, the training schedules for the Project have been met.

3. The GOS has not established all the posts it agreed to establish in the Project Grants Agreement; PCU is short by 8 posts. Many of the missing posts are in the critical areas of curriculum coordination, curriculum writing/design and the trial testing functions of PCU. Delays in creating posts appear to be caused by decision-making efforts concerning the establishment of one national curriculum development unit.

4. The PCU has disproportionately redirected its energies into in-service training with non-pilot school educators, the purposes being to hasten the dissemination of new materials nationwide. Both AID and MOE have encouraged this deflection of efforts.

5. Some PCU designer/writers lack intensive course work in subject content areas, such as Science, Maths, editing and composition. This can be explained by a) the limited time period of one year allowed by MOE for local staff training overseas; b) the nature of the participant training program design at the Bachelor's level; and c) the lack of available instruction arrangements for course work at UCS, as had been proposed in the Project Paper.

6. The operation of in-country, on-the-job training has not been effectively implemented in developing curriculum writing skills for Swazis. Explanations for this are considered to be the following: a) Participant training has caused the creation of staff vacancies throughout the Project; b) Normal staff turnover among EMU Advisers has also disrupted the close interactions with local staff required in the training process; and c) The departure of trained personnel out of PCU and the delay in appointing replacements has also caused staff vacancies.

7. The trial testing and evaluation process utilizing the pilot schools appears unnecessarily costly, inefficient and statistically suspect. Moreover, due to the inaccessibility of pilot schools and delay in producing evaluation results, evaluation reports have not proved useful and timely as corrective inputs required in the curriculum revision process.

8. The Production Unit of PCU has undergone adequate in-country and in-service training of staff although it appears deficient in certain managerial functions and in illustration. The production operation appears to be relatively efficient.

9. The institutional links between PCU and other units that might contribute to be curriculum development process have not developed to the extent envisaged in the Project Paper. The important link between the PCU and the pre-service and in-service programs of the teacher training colleges needs to be strengthened. This strengthening, however, can not detract PCU efforts away from its primary mandate to produce curriculum.

10. The perception among some Swazis regarding the quality of the EMU academic degree training is that it is weak and does not meet accepted Swazi standards for a Bachelor's degree. This has frustrated PCU's efforts to establish links with UCS and appears to have diminished PCU's image in the Swazi academic community.

11. The Project assumption that PCU be responsible for developing and administering the national school leaver examination would be an unattainable mandate at this time given the evident weaknesses in its Evaluation Unit and production/dissemination responsibilities. An examination procedure is needed that can reflect the currently used materials, trial materials, and new curriculum.

12. The TIDCs appear to be underutilized, and in particular, equipment stands idle due to these factors: a) difficulties of bringing pilot school teachers to TIDCs for workshops due to distances of schools from Centers; b) teacher leader's lack of training in using Audio-Visual

equipment and software. Also, teacher leaders assigned duties from PCU appear to overlap with responsibilities of the primary inspectorate assigned to the district education offices.

RECOMMENDATIONS

1. USAID should assume an active communication posture with the Ministry of Education that will elicit from Ministry officials their perceptions of the Project's operations and clarification of Swazi purposes. The posture should build confidence and assurance that the production mandates of PCU will be met. Communication between MOE, PCU and AID should take place through monthly meetings, and possibly through more frequently held discussions. Meetings should be preceded by an agenda set by the PCU Director.

2. In order to accelerate the production of materials, we recommend that writers be formally contracted to write initial draft manuscripts in Maths, Science, English and Social Studies from Grade 1 through 7. Writers could be recruited through commercial publishers or by direct hire. Writers might be identified, also, through contacts with other African curriculum development units. The Project will require the services of up to 4 person years of outside textbook writer specialists in the above subject areas to perform the following functions for a period not exceeding Project termination: a) to specify a writing outline in collaboration with the PCU staff in these areas; and b) to produce first draft materials for immediate editing and revision by PCU staff writers. It is preferable that writers work at PCU in order that all designer team members collaborate closely. The MOE and PCU should set scheduled targets for production.

2a. Pending the increased production and the possible merger of the PCU and SCU, the PCU will need more support staff to include two typists for a two year period and one secretary assigned permanently to the PCU Director.

3. The tasks of the EMU Advisers will intensify in the editing, revision and evaluation of first draft materials with Swazi counterparts. They will be responsible for the completion of final manuscripts for publication. EMU Advisers should also provide intensive English Language training at PCU in composition, editing, grammar and other skills required for curriculum writing based on input from the local staff. Similar short-term instruction should be given at EMU for Swazis presently there, and should be provided by faculty members experienced in textbook writing. Where appropriate, the English Department of UCS should be approached to offer such instruction to PCU staff.

4. The MOE should consider adding staff with editing expertise to PCU by identifying Swazi writers and experienced educators who can contribute to the PCU writing effort, particularly in Social Studies and Practical Arts. Returned Swazi participants from EMU and those from SAMOP programs might be considered. The MOE should explore the possibilities of seconding staff from existing institutions. Moreover, the PCU should continue to develop its editing expertise by blending the skills of local resources with those of outside writers in the drafting, editing and revision of materials.

5. The EMU Chief of Party has indicated that the PCU Director is well trained and is more than able to perform his executive duties as Director of PCU. For this reason, we recommend that the Chief of Party position be terminated prior to December 31, 1982. The EMU Advisory team will report directly to the PCU Director and one EMU Adviser should be appointed to handle responsibilities for contractor's obligations.

6. The Project should phase out by December 31, 1983. However, consideration of extension of expatriate services should be based entirely on the production of materials in the subject areas in which the expatriates work. A decision for extension should be made several months prior to the phase out date. Moreover, all parties to the Project should bear in mind that increased production levels of materials will determine the timeliness of a future teacher training program for the nation.

7. Since five local staff are presently scheduled to be away for training during 1983, we recommend that the departure in January 1983 of three PCU staff for participant training should be postponed until September 1983 in order that they participate in the intensified writing effort at PCU.

8. The PCU's association with the 16 pilot schools in the 4 districts for trial testing materials should be discontinued and 4 or 5 schools within an hour's drive of PCU be chosen for this purpose. Rural schools outside of the Manzini-Matsapa industrial area should be mixed so as not to bias the choice of schools in favor of the more urban areas. Trial testing procedures should be narrowed in time and simplified in order to avoid delays in the basic revision phases of materials production.

8a. In order that the present pilot school children not be cut off from the infusion of new materials, the 16 pilot schools should be phased out by returning the pilot schools over to the William Pitcher Teacher Training College In-Service Training to continue the field infusion process and dissemination of materials. The Teacher Education component

of PCU should supervise this phase out period and the transfer of responsibilities to the teacher training colleges. The MOE should assign more responsibility onto the teacher training colleges for the infusion of new materials in both their pre-service and in-service programs and devise a way to ensure that materials are bought for and distributed to TTCs.

9. TIDCs should be temporarily administered by the MOE/District Education Offices to support in-service teacher training activities. The Ministry of Education might consider reorganizing the district teams by giving intensive short-term training for inspectors in how to administer and utilize TIDCs, and by appointing an experienced educator to coordinate and develop for PCU various workshops for headmasters and teachers in using the new materials.

10. The evaluation of curriculum materials should involve less statistical manipulations as has been the case in the past and more recording of observations, teacher judgements of and pupil reactions to the new materials. Curriculum Designers should visit pilot schools to observe first hand the evaluation of their materials. The evaluation specialist will coordinate the evaluation efforts of designers by assisting them in designing test instruments and in analyzing results. Moreover, the evaluation specialist will be responsible for eventually developing the school leaver examination in each of these subjects.

11. The approvals process should be simplified through the appointment by the Ministry of Education of a smaller subject review panel for each subject to replace the present three approval panels which, because of

infrequently scheduled meetings, have delayed the approval process. This panel will work directly with PCU and have the authority to approve all new materials.

12. The PCU and MOE should continue to encourage the involvement of local contributors in the preparation of the Practical Arts curriculum by seconding local resource personnel and by designating counterparts as soon as possible to the PCU. The MOE should also provide the necessary facilities and equipment called for in the Practical Arts syllabus.

13. The Production Unit of PCU should be further strengthened by the provision of additional training in management and illustrations.

14. Consideration should be given to developing test procedures which will treat pilot school children separately from the rest of the nation's school children. This suggests need for a follow-on project that will develop adequate tests and the school leaver examination which will reflect the impact of the new materials in the educational system.

III. BACKGROUND

Swaziland inherited its school system from the British in 1968. The British also left Swaziland with a curriculum developed during the colonial period. Shortly after independence, the new Government of Swaziland decided to change the instructional content of their educational system and to orient the new curriculum to Swaziland's culture and development needs.

USAID's participation in Swaziland's primary curriculum development efforts began in 1973. In that year AID mounted a two year project implemented by the American Institute for Research (AIR). The major purpose of this project was to assist the Government of Swaziland in:

1) planning and initiating primary school curriculum reform;
2) defining its primary level curriculum goals;
3) determining what further resources were needed to implement curriculum reform; and
4) preparing proposals to appropriate donors for further assistance in curriculum development.

1. PERIOD I PROJECT 1975-1979

Out of this two year project grew another USAID/IBRD sponsored primary school curriculum development project. This project was envisaged in 1974 to run for a period of eight years. The project was divided into two four year phases: Period I, 1975 to 1979 and Period II, 1979 to 1983. During Period I AID provided $3,329,000 mostly for technical assistance. The IBRD provided $241,000, mostly for construction and equipment. The purpose during Period I of the project was to "establish an institutionalized capacity for developing primary school curriculum reflective of Swaziland's educational needs." (Project Paper, "Primary School Development", 1979, p.2).

a. External Evaluation

In 1978, AID commissioned an external evaluation of progress made during the first three years of operation of Period I. The evaluation team found that the project was behind schedule and that the quality of instructional materials being produced was lower than standards which had been set. (Biennial External Progress Evaluation, Swaziland's Curriculum Development Project, 1978, pp.11 and 51). Moreover, they found that this perception was shared by the Ministry of Education (MOE), the Teacher Training Colleges, as well as by those directly involved in the project's operations. (Ibid, p.6). The project evaluation team concluded, however, that while the project "did need overhaul", there was "reason to be optimistic". (Ibid, p.6). Because "project progress, though not what it should be, is sufficient to show promise", and because "the efforts required to bring the project up to standards as set would be minimal", the evaluation team recommended that the project be continued (Ibid, p.7).

2. REVISION OF PERIOD I PROJECT PAPER

a. The Ministry of Education's Position

It appears that confusion existed in interpreting PROP (Project Paper) objectives during Project Period I (1975-1979). Swaziland's Ministry of Education held some definite ideas about the changes required in the next Period II (1979-1983) of the project's operation.

> The MOE stated clearly and strongly this March, 1978, that the preparation/production of materials must take precedence. This was NOT interpreted as meaning that there shall be no training, but that it (training) should be provided in such a fashion as to improve the quality and speed of production. (Underlining in Original, Executive Summary, Biennial External Progress Evaluation, 1978, p.4).

This position on the part of MOE is recorded throughout the Biennial External Evaluation Report (see pp. 41, 42 and 49).

b. The External Evaluation Team's Position

The evaluation team also concluded, that clarification of the PROP objectives was indeed needed.

> A strict interpretation of the PROP terms would seem to indicate that training educators for curriculum reform is the prime objective, even at the cost of preparation of materials. However, the Ministry of Education has stated that under circumstances which exist, preparation, production and distribution of new instructional materials must take precedence. This places EMU (contractor, Eastern Michigan University) in an awkward position, as at one and the same time it must comply with its Contract with AID, and yet respond to local requirements as set out. (Biennial Progress Evaluation, 1978, p.49).

They recommended that PROP should be revised to include provisions for speeding up the production process (Ibid, p.63) by:

1) Encouraging the use of existing materials which can be revised and oriented to Swaziland's use. They recommended the creation of a curriculum materials center to house materials from other African countries.

2) Reviewing and rewriting the curriculum production and distribution schedule.

3) Defining the roles of the Swazi and EMU curriculum development staff as a partnership relationship.

4) Defining the role of the EMU staff member to include demonstration techniques as a method of training ("at certain stages of training the trainer should be expected to perform a task, using a hands-on method of teaching and manifestation of the requisite results").

5) Limiting the curriculum revision to within rather than across subject areas.

6) Changing staffing patterns to provide more production oriented technical assistance.

c. USAID Position

USAID saw two major areas that needed improvement in Period II: levels of production and the quality of materials produced. In its comments on the Evaluation Report "AID agrees to such a PROP revision because it can put the project in a proper perspective and redirect emphasis where needed, e.g.

changing the earlier (1974) idea of stressing training over production." (USAID Comments on the draft report of the Biennial External Progress Evaluation of the Primary Curriculum Development Project, 1978, p.3).

USAID also felt there was a problem with the quality of materials produced in Period I.

> The Evaluation Report found that there was room for improvement in both the quality and quantity of the materials written and produced by the PCU. While this is likely and natural finding when evaluating a relatively new and complex institution, USAID considers the criticism worthy of serious consideration... Therefore, USAID concurs with the Evaluation Report's recommendation that a review and approval system for materials be established and that a realistic timetable be constructed for reaching established production goals (Ibid, p.2).

3. PERIOD II (1979-1983) PROJECT PAPER

A new Project Paper was prepared in July, 1979, to guide Period II (1979-1983) of the project's operations. It differed from the Period I (1975-1979) PROP in that it provided "more technical assistance of a specialized nature", more extensive participation in the production process, and a "greater emphasis on actual production and distribution of curriculum materials" (Project Grant Agreement between the Kingdom of Swaziland and the United States of America for the Swaziland Primary Curriculum Development Project, 1979; Annex I, Amplified Project Description, p.1).

a. Purpose and Strategy

The project's purpose statement guiding Period II (1979-1983) of the project's operations reads as follows:

> The purpose of the project is to establish an institutionalized national capacity for developing primary curriculum reflective of Swaziland's national goals for education. This purpose, as originally conceived in the PROP, will not change during Period II of the project. However, increased importance will be placed on the production of curriculum materials for nationwide distribution use as an indicator of accomplishing this purpose. (Primary Curriculum Development, Project Paper, 1979, p.6).

The project's strategy was devised to accomplish the expanded purpose of Period II of the project. Since institution building and training remained an important objective in the Period II, much of the strategy of Period I was retained. On the other hand, because curriculum production was a new emphasis, the Period II strategy called for an increased participation of the US Advisers in producing curricula and a greater use of other African materials as models and prototype materials (Ibid, p.14).

Increased curriculum materials production and training-through-doing are the primary themes of the Period II Project Paper. In order to accelerate the production of materials, a Curriculum Resource Center was provided to be stocked with curriculum materials from other African countries. These materials were intended to be used as prototypes and adapted for use in designing Swaziland's new curriculum (PP, pp.21-42). A streamlined curriculum production process, from writing through distribution was also specified. (PP, p.14). This was intended to rationalize and quicken new materials production. Moreover, emphasis is given to training that is "work related and more in-country and on-the-job oriented". The intention is that the EMU curriculum specialists will "work collaboratively with Swazi curriculum designers on a day-to-day basis while producing new materials" (PP, p.43).

Clearly, the thrust of the Period II revision of the Project Paper was to produce high quality curriculum materials and make them available to Swazi school children. An institutionalized national capacity for curriculum development was to be developed through hands-on activities, trial demonstrations and through production. The Grant Agreement between the Governments of Swaziland and the United States reaffirms this point. It calls for a "greater emphasis on the actual production and distribution of curriculum materials" during Period II.

b. Interpretations of Purpose

The present evaluation team found that there is still some confusion regarding the change of emphasis in the Period II Project Paper. For example, in the evaluation team's introductory meeting with the entire PCU staff the USAID HRDO began his remarks: "The purpose of this project is not to produce curriculum, it is to develop the capacity to produce curriculum. The evaluation team is not here to count the curriculum materials produced." Later, in a meeting with the EMU Chief of Party, the evaluation team was told, "The purpose is institution building; the rest is relatively unimportant. Yet, the pressure for production we get from the Ministry is counter productive as far as training goes." Still later, in meetings at the Ministry of Education, the evaluation team was told by the Permanent Secretary that "The purpose is to produce curriculum materials and train our people at PCU". The Director of Education stated that the purpose is to replace existing colonial era curriculum materials with materials relevant to today's Swaziland. The Chief Inspector for Primary Schools also saw production of curriculum materials as the project's primary focus.

All of these people were responding to the same question about the same project. We feel their differences in perceptions of the project's purpose are basic to understanding the attitudes and relationships that have developed between PCU, EMU, USAID and the Ministry of Education. These differences are a matter of degree and emphasis. The aperature of the project's purpose as stated in the Project Paper is wide enough to capture these various points of view. On the other hand, the focus seems to be blurred in the eyes of the various project's participants. These different views should be reconciled.

IV. THE PROJECT GOAL

The goal of this project is to

> Accelerate the development of Swaziland's human resources within the framework of its national development goals by improving the quality of primary education and by reorienting its content towards the needs and circumstances of the Swazi environment.

PCU is charged with producing materials in seven subject areas for the seven grades of primary education. Thus, the original charge was that PCU produce 49 subject/grade combinations; an ambitious task. Materials are currently in use nationwide in only three curriculum areas; (Maths, Science and SiSwati). At the first grade level curriculum materials are available in all three subject areas. At the second and third grade level, materials in SiSwati and Science have been distributed nationwide. Third grade Social Science materials have also been distributed. No materials have been distributed nationwide for the other levels in any of the subject areas. Most of these PCU produced materials have been used in the schools for less than one year. Because of the limited production and because of the short length of time the materials have actually been in the schools it is difficult to comprehensively measure progress toward accomplishing the project's goal.

The following is an analysis of the objectively verifiable indicators as outlined in the Project Paper Logical Framework.

1. CONTENT

> The content of primary school level teaching and learning experience reflects practical skills, attitudes, and knowledge required in the rural agricultural environment of Swaziland.

The content of the PCU's Siswati textbooks is certainly geared toward use in Swaziland. They are the first national textbooks ever produced using the SiSwati language. This effort represents a major accomplishment in standardizing

spelling, sentence structure, and the grammar of the language. The introduction of these texts was an important event in Swaziland's short curriculum history.

PCU's Science texts use examples from the Swazi environment and contain units that relate the children's experience in Agriculture and Health as well as Swaziland's animals and plants to the Science subject matter. The grade 1 Science pupils workbook is written in SiSwati. The teaching guide encourages the use of local illustrations. It is written in English.

PCU's third grade Social Science book is divided into three parts: "Home and family", "On my way to school", and "Our community". The text and illustrations used relate directly to the Swazi experience. Much of the text is written in English with SiSwati translations highlighted under the English text. Towards the end of the book, fewer SiSwati translations of English are provided. The teachers guide is written in English and provides examples to accompany each lesson.

The Maths textbook is well illustrated and uses objects familiar to Swazi children to demonstrate numerical concepts, addition and subtraction. Abstractions are well illustrated and there appears to be ample practice sets provided. Very little language is used in the pupils workbook. The teachers guide as well as the pupils workbook are written in English. The teachers guide is comprehensive and detailed. It appears to be written at a more sophisticated level than the teachers guides provided in other subject areas.

The overall quality of the materials is adequate in Language Arts, Science and Social Studies. In Mathematics the student workbook and teachers guide seem particularly good. All the materials appear to slant towards the presentation of practical skills, attitudes and knowledge required in the Swazi context. They are certainly an improvement in this regard to that which was previously used in the schools.

2. SCHOOL LEAVERS

Primary school leavers are able to move more rapidly into the existing employment opportunities.

Because the new curriculum materials were available for national distribution for such a short period of time and because they cover less than half the subjects taught in grades 1, 2 and 3, it is not possible to verify this goal indicator at this time.

3. PUPIL PERFORMANCE

Pupil performance in primary schools is improved and high incidence of repetition and drop out is reduced.

Again, the length of time since the introduction of the new curriculum and the quantity of materials produced precludes the measurement of this goal indicator at this time. In addition, the time lapse between national testing and reporting of scores has been between 8 and 18 months. Thus, any testing that is available would not reflect the influence of the new curriculum.

4. LEARNING GOALS

Learning goals are determined by a broad-based consensus of Swazi leaders and citizens.

Direction in setting learning goals is provided in the education section of The Third National Development Plan and The National Primary School Curriculum Plan. These publications were written and accepted by GOS prior to the beginning of the Project. They have not been changed and provide direction for PCU's efforts. The syllabus for each subject area is developed by PCU working with subject area panels made up of individuals from the inspectorate, the teacher training colleges, teachers and the Ministry of Education. PCU appears to have little problem specifying general subject learning goals. They have, however, experienced some difficulty in organizing the specific subject panels to work on syllabus design and draft approval. There have been delays and frustrations in organizing these panel meetings. The thrust of the PCU-developed curriculum in

the schools appears to be satisfactory to most Swazi leaders and citizens. The team, however, did hear some criticisms about the quality, but not about the thrust, of the materials.

5. ASSUMPTIONS

Swaziland's leaders and citizens appear to remain committed to the curriculum reform outlined in the early governments documents. Moreover, the Ministry of Education has, if anything, increased its interest in Practical education. Also, it appears that at least in the subject areas distributed thus far, that practical, Swazi-related concepts can be translated into meaningful learning experiences.

The proportion of trained to untrained teachers has improved dramatically over the past few years. In 1970, the primary school teaching force included 1,124 qualified and 551 unqualified teachers. In 1980, there were 2,785 qualified and 493 unqualified primary school teachers. Thus, the proportion of untrained teachers has been reduced from approximately 33% of the teaching force in 1970 to 15% in 1980. The quality of the primary school teaching staff, however, has been questioned in a number of studies (e.g. G.D. Bishop et al, The Status and Development of Education in Swaziland, Nov. 1981).

V. PURPOSE

The purpose of the project is to:

Establish an institutionalized national capacity for developing primary curriculum reflective of Swaziland's national goal for education.

As mentioned earlier in this paper this purpose remains the same as it was during Period I (1975-1979). It differs in that it will be achieved by "hands on" on-the-job training while producing curriculum material. "Increased importance is placed on the actual production/distribution of materials for nationwide distribution and use".

1. PCU AS CURRICULUM COORDINATOR

PCU is recognized by MOE as contributor to development of policy with respect to primary curriculum and as principal vehicle for coordinating primary curriculum development.

The Ministry of Education recognizes PCU as the unit responsible for national primary curriculum development since PCU appears in MOE organization plans. PCU is carried under its own budget codes (Head 30, Activity 41) in the recurrent and the capital budget. Moreover, senior officers at the Ministry (the Permanent Secretary, the Director, the Chief Inspector for Primary Schools) were all aware of the progress and problems of PCU and repeatedly stressed the importance of the work being done at PCU.

a. Personnel

The Ministry of Education has not provided all the qualified personnel called for in the Project Paper. In 1979/80 there were 19 established posts at PCU. This number was increased to 32 in 1980 (see Table 1). The Project Paper and Grants Agreement specify that there should have been 42 established posts.

In 1980 PCU was given 2 additional curriculum design posts, 2 additional teacher leader posts, 1 laboratory assistant, 1 visual aids assistant,

2 printers, 4 assistant printers, and 1 telephone operator. Thus, 13 additional posts have been established.

The Period II Grants Agreement called for 23 additional posts; only 13 additional posts have been established. The Project currently lacks established posts for 5 people in the curriculum design/writing area, 4 in evaluation/pilot testing area, and 1 in support staff. The print shop has too more posts than required by the Project Paper. The original agreement also called for one cleaner and one resource specialist/librarian which brings the total of requested, but not established posts, to ten. Both the librarian and cleaner's positions have been filled by transfers from William Pitcher College. In sum, the Government of Swaziland has provided 34 of the 42 posts called for in the Grants Agreement or the Project Paper. The Project is short of 8 posts (see Table 1).

Today, 35 people are employed by PCU excluding EMU Advisers. All established posts are filled except one curriculum designer, one in the production center, and a typist's position (see Annex 1).

b. Budgetary Support

All of the established posts are supported with recurrent budget funds. Although the loss of key Swazi professional staff has been disruptive, the turnover rate at PCU does not seem excessively high by African standards (see Annex 1). Funds to temporarily replace PCU staff who leave for one year participant training are frequently not forthcoming from GOS. To do this, of course requires the Government of Swaziland to pay two salaries for each position; one for the PCU staff members studying abroad and a second for the replacement. No budget provision was specified in the Project Paper to cover these replacements either by USAID or GOS.

2. EFFICIENT PRODUCTION

PCU efforts lead to the timely, economical and efficient preparation, production and utilization of new teaching/learning (T/L) materials.

Table 2 and Annex 2 show the expected and actual status of production of materials in September 1982. The Project Paper projected that 39 sets of teacher's guides and pupil's workbooks each would be produced by August 1983, and that the large majority of materials would be in the schools nationwide by August 1983 (See Annex 3). PCU has remained close to the Project Paper's schedule in Science, SiSwati and Social Studies. PCU is behind schedule in Maths and far behind schedule in English, Practical Arts and ancillary subjects. The writing/preparation/testing/printing time has taken more than the estimated average of two and one half years. The PCU has determined this process will actually take four and one half years.

In Maths, MacMillan publishers had commissioned outside writers to prepare the Grades 1, 2, and 3 materials. The Grade 1 Maths materials have been published and are currently in nationwide use. These Maths materials have not been pilot tested. It should be noted that the publication dates of the pupil materials for Grades 1 and 2 SiSwati, Grade 1 and 2 Science and Grade 1 Mathematics are 1979 and 1980, and were essentially written and completed prior to the beginning of Period II of the Project.

3. RELEVANCY

New teaching/learning materials are relevant and accepted by pupils, parents and teachers.

Compared with the current materials being used in the school system, the PCU materials to date are considered to be very relevant to the learning needs of Swazi children and are focused, where appropriate, on aspects of Swazi life and culture. Evaluators visited 33 non-pilot school classrooms in Grades 1, 2,

and 3 where PCU published materials were being used, and talked with teachers, all being women. Teachers indicated their general acceptance of the materials and reported that students were responding favorably. Likewise, orientation workshops for teachers and administrators reported similar acceptance of the new materials. Where difficulties occur, they are found in some specific content areas. This indicates need for more intensive forms of teacher training.

4. EVALUATION

MOE through PCU has capability to analyze evaluation results and revise new curriculum materials as required.

Most evaluation methodologies employed by PCU have produced questionable results and have yet to produce information in a timely and efficient manner. There were significant time lags between the administration of evaluative tests and their reported results in published form. As a result, necessary revision procedures for scheduled purposes had to take place prior to a comprehensive review of evaluation results. On the other hand, a few PCU evaluations have developed adequate instruments for recording direct verbal responses from teachers and administrators. These might prove more vauable for revision purposes than the less valid statistical information. The PCU had to employ two trained evaluators part-time during 1981 and 1982 and still awaits the arrival of its full-time trained evaluator.

5. OVERALL EFFECTIVENESS

MOE/PCU capable of measuring the overall EFFECTIVENESS of the NEW CURRICULUM.

Sixteen pilot primary schools are used to test materials during the production process. These pilot schools were used to test the materials in SiSwati, Science and Social Studies. As earlier mentioned, the Maths materials for Grades 1, 2, and 3 will not be pilot tested. No systematic evaluation of the curriculum has occured since the materials have been published and available for

nationwide distribution. Because of PCU's limited production and the short period of time the materials have been in use, one would not expect much information on this question.

6. TRAINING TEACHERS

MOE/PCU capable of training teachers in the use of the new curriculum materials to enable the achievements of student outcomes.

According to its mandate, the PCU has carried out workshops and orientations for those pilot school teachers using the new materials. PCU has run yearly orientations in October for inspectors who are then responsible for organizing infusion workshops for teachers in their districts in the use of new curriculum materials. Where mandated by the Project Paper, the training of pre-service teacher trainees and in-service training in the TTCs has been less extensive. The linkage between these two bodies, the PCU and TTCs, has given less emphasis to the training of teachers since PCU resources have been limited in this area. Until the linkage is strengthened, the orientation of the nation's teachers will be delayed.

7. ASSUMPTIONS

It is clear that GOS continues to give a high priority to the primary education system. In 1979/80 the total recurrent budget devoted to primary education was E5,241,000. By 1982/83 this figure had grown to E8,987,000. The percent of the total GOS budget devoted to primary school education remained relatively constant during this period at about 43%. (Budget Estimates, 1979/80 and 1982/83, Government of Swaziland).

It is less clear that persons having no university degree can be trained to design, test and write curriculum materials. The EMU staff at PCU is very complimentary of their local counterparts declaring them capable of doing the job. Swazi designers are most productive in writing curriculum in content areas

with which they are familiar, such as SiSwati and Social Studies (the Social Studies syllabus outlines for Grades 3-6 deal with the Swazi community). However, training during the Project has been less sufficient in certain hard core content areas, such as Maths, Agriculture, Swazi Arts and Crafts and aspects of the English language relevant to textbook writing. It is also questionable whether degree level training, without intensive focus on specific curriculum writing skills peculiar to the needs of future textbook writers, can, in fact, produce curriculum designers.

The Project assumption that the GOS will provide for the participation of primary school teachers in learning to use the new materials is relevant and appropriate. The MOE has encouraged orientation workshops for teachers in the field. The focus on pre-service training in the use of the new materials can substantially take place only when production levels increase.

These increases will also dictate when and in what fashion the MOE through the PCU will be able to assume responsibility for developing and administering a primary school leaver examination. This examination must reflect the impact of the new materials. As at present, it is not clear when such expertise in testing and measurement will be developed by PCU sufficiently to enable it to undertake the rehaul of the present state of examinations.

VI. OUTPUTS: INSTITUTIONAL OPERATIONS

The outputs relating to the institutional operations in this Project are specified in the Logical Framework as: The Curriculum Development System, Preparation/Production/Distribution Systems, Teacher Education System, and the Evaluation System. Each of these indicators are discussed below and an analysis of the assumptions attached to each is also given.

1. CURRICULUM DEVELOPMENT SYSTEM

> A functioning curriculum development system for linking the curriculum units development activities of PCU at the primary level with those of other units working in curriculum development.

The Organization Chart reported in the Project Paper suggests that PCU should develop relationships with the District Education Officers (DEOs), the Teacher Training Colleges (TTCs) and the Ministry of Education. In addition, it was pointed out in the 1980 Project Evaluation Summary (PES) that the Project might also benefit if relationships were established between PCU and the University College of Swaziland (UCS) as well as between PCU and the Secondary Curriculum Unit (SCU).

The following section indicates whether "The Curriculum Development Activities of PCU takes place within an approved (by MOE) organization relationship (see organizational chart in PP)".

a. PCU/DEOs/TIDCs

There are four District Education Officers in Swaziland, one for each administrative district. Four pilot schools are located in each district. PCU's relationship with the DEO's office occurs during the production and distribution stages of PCU activities. PCU reports that the DEO's encourage their Inspectors to sit on curriculum evaluation panels and to support the field testing of materials in the pilot schools.

The Teacher Innovation and Dissemination Centres (TIDCs) have been built in each district center to store and distribute curriculum materials. They provide office space for the one teacher leader per district, audio-visual equipment and a resource library for teachers. The teacher leaders are responsible for organizing "in-service training for pilot school teachers and all other teachers using the new curriculum materials". Although the Project Paper calls for the teacher leader under the supervision of a teacher educator to help within service training, it was assumed that the TTCs would have the bulk of the responsibility in this area. It is obviously beyond the capacity of PCU's four teacher leaders to provide this service for Swaziland's 3,586 primary school teachers.

The Ministry of Education and USAID appear to have encouraged PCU curriculum developers to do more in the area of country-wide in-service training; more certainly needs to be done. The PCU knows that if curriculum developers devote time to in-service training they will have less time to devote to producing curriculum materials. It is obvious that more in-service teacher training in the use of the new materials will be needed as more materials are produced. It is equally clear that the magnitude of the efforts required in this area could drain all of PCU's resources. The teacher training colleges should be given more responsibility in this area. Although there is not much material produced and in the schools yet, it is apparent that the in-service training component will need to be strengthened in the near future.

a. PCU/TTCs

PCU's relationship with the teacher training colleges also should be strengthened. Even though Teacher Educators from Nazarene Teacher Training College and William Pitcher Teacher Training College have sat on curriculum review panels and have worked with PCU curriculum developers, their participation in pre- and in-service training of the nations teachers in the new

materials has been limited. There is a need to train the Teacher Educators at the TTCs' in order that they offer appropriate pre- and in-service teacher training. Again, we must remember that the new PCU-developed materials presently constitute a small fraction of the total curriculum taught in the primary schools. It is clear however, that the relationship and communication between PCU and the TTCs should be strengthened in the near future.

c. PCU/MOE

Prior to Period II of this Project, PCU was administratively responsible to the Principal of William Pitcher Teacher Training College and through him to MOE. The Period II Project Paper proposed that this relationship be changed: The Director of PCU was to report directly to the Chief Inspector (Primary) at MOE; The Director would no longer report through the Principal of William Pitcher. This direct relationship from PCU to MOE has been established. The organizational reporting structure of PCU runs through the Chief Inspector (Primary), through the Director of Education to the Permanent Secretary and Minister. The official organizational relationship between PCU and the Ministry conforms to the Organizational Status Chart specified in the Project Paper.

There are still problems, however, with the new organizational relationship. PCU administrators feel that it takes too long to get a decision out of MOE. They report difficulty in setting meetings with Ministry officials. Approval for printing of PCU materials sometimes takes as long as two months. Moreover, PCU reports delays in filling established posts and in getting posts established. We should recognize that some of the delays in the production of curriculum materials are beyond PCU's control.

d. PCU/UCS

In speaking with the Dean of Education at the University College of

Swaziland, it was clear that, although she was aware of PCU's activities, relationship along the lines envisaged in the Project Paper have not developed. The University has great concern about the standards of training that are offered at PCU through Eastern Michigan University. The University feels that the training lacks the subject matter preparation that should be associated with a University degree. They feel the entry qualification for EMU's degree program is too low. They feel that the EMU classes offered in Swaziland are below university level because of academic backgrounds of students allowed to enroll. Finally, they feel that the total package which EMU offers does not meet standards for a BSc degree (giving academic credit for work experience and on-the-job training, EMU's formal class offerings in Swaziland, giving University credit for PTC certification and requiring only one year on campus residence work in Michigan). This feeling seems to be widely held and deeply felt at UCS. For this reason UCS has resisted associating itself in any formal way with EMU/PCU formal training activities. This is unfortunate. The PCU and UCS could have benefited from a closer relationship. The problem might have been avoided if the design of the formal training portion of the project was more sensitive to the prevailing academic attitudes in Swaziland, namely, how Swazis view the relative academic value associated with the various types of high school and tertiary level certification offered in Swaziland.

e. PCU/SCU

SCU is involved in designing curriculum materials for the Junior Secondary Schools: Grades 8, 9 and 10. It is funded by UNESCO and has been in operation since 1974/75. Very few curriculum materials have been produced by SCU. The merger of PCU and SCU has been under consideration for a number of years. A subgroup of the National Curriculum Coordinating Committees is presently considering several alternative plans. The merger makes sense. PCU

is located in the same building as SCU. They share a common Curriculum Resource Center and Conference Rooms. Individuals in the two units seem to get along quite well on a personal level. Beyond this there is little contact or connection between the activities of the two units. The professional contact is minimal to non-existant.

a. Assumptions

GOS will provide adequate financial support for curriculum development system.

With the exception of the shortfall in established posts, GOS has provided much of the financial support required by the curriculum development system. (See inputs section of this Report).

2. PREPARATION/PRODUCTION/DISTRIBUTION SYSTEMS

Functioning system for the timely and efficient preparation, production and distribution of new curriculum materials for all primary schools.

PCU has concentrated its initial production efforts on the first three grades. As of this date, they have produced 5 teacher's guides and 8 pupil's workbooks/readers. (Grade 1 and 2 SiSwati readers both are produced in two units each).

Typically, but not always, there are two curriculum pieces associated with each subject at each grade level: a teacher's guide and a pupil's workbook/reader. These make one package. The actual number of packages to be produced for Swaziland's primary schools has not been determined at this date. In most cases, the syllabus has been set but the necessary design decisions have not been made.

According to the Project Paper estimates in Table 2, the final curriculum configuration by subject matter/grade/pupil/teacher is about 46 curriculum packages (PP, 1979, p.9). An estimated 19 packages of materials in 7 subject areas were to be produced for nationwide use by January 1982. To date, only 8 or

42% of those packages are in the school system (giving a discrepancy factor in production of 58%). As mentioned earlier, given the revised estimated time of four and one half years for producing the published materials, most of these materials were essentially prepared prior to Period II of this Project. The Project Paper estimated that 39 out of a total of 46 packages of materials were to be in use nationwide by the end of this Project in August 1983. In actual fact, the Project has, to date, produced only 21% (8 ÷ 39) of the Project period's expected output. An additional 4 packages will be published in November and will bring this percentage up to 30% (12 ÷ 39). Therefore, 70% of the Project period materials have yet to be published and infused into the schools between 1982-1983. The presently available 8 curriculum packages plus 4 to be published this year constitute 26% of the total 46 packages expected to be in schools nationwide by 1985/86. The revised 1982 work plans in Annex. 2 have extended production goals into 1985 and 1986 and beyond for most subjects. Clearly, production needs to be speeded up if the nation's educational system is to significantly improve its quality.

It requires a lot more effort and skill to write teacher's guides than pupil's workbooks for the early grades. The lessons of younger students must be supplemented with teacher-directed activities to explain concepts to young students. At the higher grades much of the explanation is included in the pupil's workbook. Teacher's guides are generally smaller and take less time to produce.

The following section indicates whether the

new teaching/learning materials prepared collaboratively by PCU staff and others are delivered and utilized in accordance with section IIB of the Project Paper.

a. Status of Production

Student materials and some teacher's guides have been produced in four subject areas: SiSwati, (Grade 1, 2, 3), Social Studies, (Grade 3), Science (Grades 1, 2, 3) and Mathematics, (Grade 1). (See Table 2). Social Studies and SiSwati materials production are the success story of this project. The Language Arts team has been able to meet or exceed production goals in SiSwati.

The current EMU and the Swazi Curriculum writers/designers in Language Arts seem to work together as a team. The editors at MacMillan Publishers say the SiSwati materials need only minimal editing when it reaches them.

In Social Studies the Swazi writer/designer has produced her first text and teacher's guide (Grade 3) without an EMU counterpart directly assigned to her subject area (See Annex 4). She did receive help from members of the EMU team working in other areas, and from MacMillan editors, but the books are largely the result of her efforts. In addition, a handbook in Social Studies covering teaching methods in Grades 3 through 7 has also been produced. The editors at MacMillan say that the Social Studies materials do not need excessive editing when it reaches their desks.

The Project has also met its targets in the production of Science materials. There have been no Swazi writers/designers assigned to the Science unit. The work is primarily the product of the EMU Adviser. The editors at MacMillan report that the Science materials are in good shape when they reach their desks.

The Maths materials were written by MacMillan Publishing Company. Because PCU's production in Mathematics was so far behind schedule (they began in 1976), the Ministry of Education asked MacMillan to write the teacher's guide and student's workbook for the first three grades in Mathematics. MacMillan commissioned outside writers (in the UK and the Republic of South Africa) to write the material. The material for these three grades will not be pilot tested. MacMillan does, however, consult with the PCU staff during the editing process and does use "what they can" from the PCU pilot materials in Maths.

There has been nothing published at PCU in English, Music, Domestic Science, Agriculture, Religious Knowledge or Arts and Crafts. PCU has yet to

publish materials for 4th, 5th, 6th and 7th grade Science, 4th, 5th, 6th and 7th grade SiSwati; 2nd, 3rd, 4th, 5th, 6th and 7th grade Maths and 4th, 5th, 6th and 7th grade Social Studies. Materials are in the development stage in many of these subject areas (see Annex 2).

Table 3 identifies the general stages in the production collaboration/review process. During the first year of the Project's operation, PCU realized that the original time frame, specified in the Project Paper, could not be met and proposed a new time frame to MOE. Discussions with MOE officials indicate that they agree that the production process requires more time than they originally thought.

In the narrative that accompanied the revision in time frame proposal (Annex 2), the Director of PCU concentrated on two problem areas: a) the initial writing of the first draft curriculum materials and b) problems associated with constituting and working with the collaborative committees/panels. The evaluation team also found these to be major problem areas. Once the materials are appropriately written, movement through the design/review/trial testing tasks, while not without problems, does occur and the materials are published. The evaluation team however, see the problems in production as not only resulting from these two factors but also the following: too few established posts; the type of training offered to the Swazi curriculum writers; the tendency to assign PCU responsibilities outside its basic charge; the time local staff spend away from post while on participant training; and problems getting typing and illustrations done in a timely fashion.

b. Preparation/writing task

A number of factors appear to be causing low productivity in the writing of curriculum materials. First, a look at Table 1 shows that PCU does not have all the established posts called for in the Project Paper; there are

critical shortfalls in the writing/design areas. Second, curriculum writers are required to devote time to duties outside their basic mission. They have been heavily involved in a USAID-sponsored Headmasters' Workshop and in general are over committed in the area of in-service nationwide teacher training. Third, PCU's participant training programs further drains the writing staff. For example, out of the nine individuals assigned curriculum development responsibilities, three are currently at EMU and three more are scheduled to leave in the next few months (see Annex 5).

It is interesting to note that in spite of these difficulties PCU has met its Period II production targets in two areas; SiSwati and Grade 3 Social Studies which deals with Swazi institutions and environment. These are two areas in which the curriculum writers are very familiar with content. A review of the backgrounds and training of the Swazi staff suggests that they may be weak in other curriculum content areas, such as English (composition, editing), Maths, Practical Arts, Science, etc, and for that reason have experienced difficulty writing materials in those areas. EMU's formal training program appear to have overstressed curriculum design and education methods at the expense of writing and content related courses.

c. Design/Review/Printing Tasks

Accomplishing the materials design and review tasks are of course dependent on first getting the first draft materials written. Materials design is understood to be laying out the material in a fashion and in language appropriate to the grade level. It is an extension of the writing/preparation stage discussed earlier.

The lack of established posts, time devoted to non-production related tasks, and, overseas participat training requirements hamper curriculum design as well as curriculum writing. In addition, the design task appears to particularly suffer from lack of qualified typist and illustrator support. The

EMU Chief of Party has designed special local training activities to improve the quality of these two support areas.

The printing unit at PCU, with the exception of illustration, appears to perform its tasks fairly well. Although small it is presently operating below capacity. It could easily accomodate additional workload.

d. Trial/Testing

After the materials have been printed they are trial tested in the pilot schools. As reported elsewhere in this Report, there are problems associated with the evaluation design used in the pilot testing process and with the time required to process the information and return it to the curriculum writers/designers.

The lack of established posts in this area is one major problem. Table 1 indicates that PCU is short 4 positions to support the field test process.

A second problem is the distance pilot schools are from the PCU. There are four administrative districts in Swaziland and pilot schools are scattered in each of the four districts. Swaziland is a small country, but even so, a great deal of time must be spent travelling to visit the pilot schools. This makes it difficult for curriculum designers/writers to observe the use of their materials during pilot testing. Moreover, some project vehicles are periodically out of service and MOE has reduced the Project's gasoline allocation.

e. The Review Panels

The material produced by PCU is reviewed by three different groups: the subject panel, a review committee and the National Curriculum Committee. This review process, however, is not always followed.

The subject panels vary in size by subject area. Typically, they have a membership of between 12-20 people and regularly meet once each term. The

review committee is set up on an ad hoc basis for each curriculum area. They are usually smaller than the subject panel and are intended to guide the writers in the design/field test/revision stages of the curriculum development process. The National Curriculum Committee has between 25 and 35 members. It seldom meets.

The purpose of these review panels and committees was to provide quality control and to review the appropriateness of the materials to be printed. According to the Project Paper they were intended to "streamline" the materials approval process. In practice they have not worked as they were intended. In the first year of the Project PCU attempted to follow the review process outlined in Table 3. Later as pressures build to produce curriculum materials the process has sometimes been circumvented. There is still a need for quality control and checks for relevancy in the materials production process, but is must be a much simpler procedure than originally envisaged.

f. Commercial Printing

There seems to be no major problems accomplishing the commercial printing tasks in this project. Table 4 displays the amount and costs of materials published during the project. The reader will note that the cost of producing Grade 1 Mathematics is much higher than that associated with other materials. This difference, however, is probably due to the fact that PCU did not write either the teacher's guide or the student's workbook. MacMillan, at the direction of the MOE, commissioned an outside writer to produce these materials. Similar arrangements have been made with MacMillan to produce Grade 2 and 3 materials in Mathematics.

g. Assumptions

GOS will provide necessary funds for production of curriculum materials for nationwide distribution.

MOE has provided the funds necessary to support the curriculum development process. The number of established posts at PCU although lower than planned, is sufficient to support more production than has occurred. The EMU/COP reports that he is reimbursed by GOS for agreed to government obligations. Later in this report, when we address project inputs, this topic will be discussed in more detail.

3. TEACHER EDUCATION SYSTEM

> A functioning system for the timely and efficient carrying out of pre-service and in-service training, in cooperation with other units, for all primary teachers in the use of the new teaching/learning materials.

The UNESCO Hendry Report of April 1979 stressed that the coordination between curriculum development and teacher education could not succeed without the systematic training of administrators, inspectors, teacher educators, curriculum specialists and head teachers as a priority (p.ii). With these recommendations in mind, several linkages were to take place in Period II of the Project. a) The Teacher Education Component of PCU was meant, according to the Project Paper, to develop institutional linkages with the TIDCs and the Teacher Training Colleges and the University College of Swaziland in preparing teachers to use the new materials. (PP p.20). Linkages for such training were to be explored informally and then ultimately designed and implemented from directives emanating from the MOE. A previous discussion has show that these linkages were weak. b) The in-service education staff of WPTC, supported since 1973 with outside funds and UNESCO, has been expected to support teachers nationwide in using the PCU materials while the PCU focused activities on developing curriculum and training programs for pilot school teachers (PP. p.20). c) The new TIDCs, through their teacher leaders, were meant to disseminate materials to pilot schools and to provide orientations for and solicit feedback from the field teachers (PP. p.41).

The Teacher Education EMU Advisor suggested in his phase-out proposal in latter 1981 that better functional links between institutions were still needed in order to "work cooperatively in the revision of syllabi, evaluation of trial materials and in the orientation of student teachers on the use of new curriculum materials" (Samonte, Phase Out Proposal, no date, p.3). The links would facilitate the various forms of in-service and pre-service training activities conducted essentially by the institutions with PCU collaboration from its pilot base.

Several points of confusion have arisen from Project sources concerning the nature and extent of PCU's pilot function. This has led to a certain overmandating of PCU's Teacher Edcuation responsibilities, thought to be more widely encompassing by MOE than was feasible, according to EMU reports.

a. Teacher Training Colleges

1) In-Service Training

The broader responsibilities for upgrading teachers, generally, and orienting them to the new material have been delegated to WPTC (PP. p.20). The Project design intended that institutional links would be explored and then formalized by the MOE, according to the 1980 PES (p.5). This implies that TTCs will initiate training programs as needed as the new materials from PCU are published. Inspectors and team leaders interviewed agreed that TTCs should concentrate their efforts on serving the needs of already trained teachers needing orientation with the new materials. This suggestion is consistent with the Hendry Report's stress on the retraining of teachers through TTCs and TIDCs (p.43,a).

In actual fact, there has been little effort from WPTC to develop in-service training programs, the belief being that the inspectorate, through PCU workshops, will provide the best opportunities for teacher upgrading. This appears to shift responsibility

for field training onto the TIDCs which are too new for effective comprehensive training nationwide. This discrepancy in function and linkage of these institutions needs clarification and direction from the MOE. As a result, the teacher training colleges' activities in in-service training have been characterised by disinterest, non-commitment and a general lack of direction.

2) Pre-Service Training

Pre-service training of teachers was also considered to be a priority item of acticity if the curriculum development outcomes were to be linked with teacher training. This training would consist of introducing teacher trainees both to the art of writing curriculum as well as to the content and method of the new materials.

> The PCU will also negotiate with WPTC and Nazarene College to give credit for a pilot group of second-year teacher trainees to work as materials preparation assistants... to help PCU designers in the writing of materials (Project Paper, pp.23-24).

With this emphasis on PCU's writing and designing role, the Project intended that TTCs be directly responsible for training future teachers by exposing them to the PCU trial materials. These would be distributed to TTC classes and discussed by both teachers and students who would feedback and analyses to PCU staff. In turn, PCU staff would give demonstrations and lectures in college classes.

Collaboration with college teachers has taken place more on a discussion basis than with in-classroom activities. According to most sources, the TTCs were not meant to merely make academic enunciations of curriculum development concepts and strategies, but to participate in on-going, hands-on workshops between teachers,

students and PCU staff which would provide various inputs, evaluations and feedback to designers. An example of some less hands-on, product-oriented TTC workshops were the following in 1980:

- talk with Nazarene TTC students on concept of CD
- second talk with students on use of teaching aides and developing simple aides
- 2 talks by PCU Maths staff with WPTC students
- several meetings with WPTC, Nazarene TTC, College of Technology, UCS School of Education for lecturers on concepts of curriculum development and the use of PCU materials in their classes (EMU Semi-Annual Reports, 1980).

While the TTCs have, indeed, recognized the importance of hands-on workshops, they have not had the time to provide specific courses in curriculum development. Consequently, student trainees participation appears to have been kept to a minimum.

3) Other TTC and UCS Collaboration

TTC lecturers have assisted in examining content aspects of trial materials and in offering revision assistance in writing. They have also helped with materials approval procedures so that other approval panels do not spend a long time in their approval process.

Because of its very limited resources in teacher training for the primary level, UCS views its potential role as a collaborator in providing content specialists rather than curriculum and methodology specialists.

These operational linkages and activities between PCU and the TTCs have not been adequately established, it appears, largely for the following reasons: Throughout the period of the Project so far, MOE had not established a separate inspectorate for teacher training which could assist PCU in negotiating for formalizing institutional links with the TTCs. This request had been

made in the PES of 1980. As a result, initiation of strategies for training teachers has had to emanate from PCU, already taxed by its piloting efforts, rather than from MOE headquarters and TTC administration.

An example of the second point is the Induction Course which PCU held for several weeks with new students entering Ngwane TTC. In January 1982, the facilities of this new TTC were not ready for use. The 200 students were housed temporarily at WPTC. Rather than allow the students to remain idle, the PCU held workshops for them in the curriculum development process, while orienting them to the new materials. While this may have been considered a useful and pragmatic exercise, it was clearly beyond the scope of PCU's activity schedule. Also, introducing students, new to the professional teaching field, to new curriculum without having had prior theoretical or practical study of curriculum use, raises questions as to the wisdom and timing of such orientation to PCU materials.

b. Teacher Education at District Level

1) TIDCs

This extension of the PCU Teacher Education activities through the TIDCs has constituted one of the more strengthening aspects of materials dissemination and teacher orientation. Teacher leaders appear to be committed and prepared to exercise the extension duties of TIDCs. Problems in TIDC functions appear to lie more with the expectations by MOE that PCU be responsible, through the DEOs, for the smooth distribution of materials to all the nation's schools and for subsequent teacher orientations. Another problem lies more with defining the collaborative duties with the DEO's office and inspectors concerning reaching pilot schools. These themes are reiterated throughout the following sections.

2) DEOs and Inspectors

The Project has reached the stage where the Inspectors are now trained and responsible for organizing a system of orientation and feedback for educators using PCU materials. Inspectors have attended PCU-run workshops each October since 1979 in the new curricula as it becomes available. They have also determined ways to infuse it in the schools.

Several limitations have appear to have weakened the inspectors' effectiveness in field dissemination: 1) Inspectors would prefer that TTCs take responsibility for infusion prior to distribution and carry out teacher in-service workshops. This further points to the need for more definition and coordination of TTC duties from MOE headquarters. Inspectors would then have more time to devote to follow-up activity in assisting teachers in making visual aids, practicing effective methodologies, etc. 2) The distribution of materials by inspectors has become awkward because of the financing scheme of selling books to schools discussed in another section. As a result, certain materials have arrived late to the schools and teachers nationwide have encountered difficulties in revising their teaching schedules while changing over to the new material.

3) Teacher Leaders

Teacher leaders, recruited and trained by PCU, have been hard-working agents in PCU's outreach activities. Their duties were primarily to assist in the piloting phases of materials testing in pilot schools. Their role has by necessity been extended to involve field outreach to teachers in all schools. Mobile Teachers' Centers

exist to transport them to schools and to provide a base of operation from which the leaders demonstrate methods and display predesigned teaching aides. These activities have been considerably curtailed since January 1982 due to directives that "petrol would not be available".

On the other hand, the TIDCs have been equipped since March 1981 with materials and equipment for use by teachers visiting the Center. In two TIDCs visited by the evaluation team, none of the equipment was used except for the laminator machine. Teachers have not been visiting the TIDCs as planned. This indicates that teacher leaders along with inspectors have not, for a variety of reasons, been effectively using the services which TIDCs provide for teacher in-service training. One of these reasons appears to be the time-consuming responsibilities of teacher leaders in minding the efforts of pilot school teachers while having to extend assistance to other schools through the MTCs.

There still remains a jurisdictional issue between the responsibilities of teacher leaders and the DEO's office in training the large proportion of teachers nationwide who need upgrading in the use of materials. This responsibility for the comprehensive distribution of materials and the orientation of teachers may need careful revision by PCU and MOE since the current activities of teacher training in the districts appear overly ambitious and taxing on the limited resources involved.

4) <u>Headmasters</u>

According to the Project infusion plan, headmasters were suppose to be oriented to PCU materials periodically by the

inspectors. From reports, inspectors have organized workshops and meetings with headmasters and teachers jointly although it is difficult for this evaluation team to assess the real impact of these interactions.

Project mandates have not directed that the PCU, as an institution, have direct collaboration with those headmasters outside the scope of the materials piloting efforts. The headmasters' workshops in 1982 is a case for contention. It was staffed and administered by PCU, one of the purposes being to upgrade headmasters' awareness and understanding of how the new curriculum materials were to be used in schools. While this activity was considered by PCU staff to have had positive rewards in enhancing PCU's image and in exposing PCU materials to headmasters, such a workshop was clearly outside of PCU's mandate and essentially directed staff time and effort away from the pressing duties of curriculum materials writing, PCU's main acticity. (See EMU Semi-Annual Progress Report, Jan-June 1982, p.4).

5) Pilot Teachers

Pilot teachers are being reached periodically by teacher leaders who assist them in securing teaching aids and using the new materials. Some pilot schools appear to be far from the TIDC base of operation and, therefore, suffer lack of contact with teacher leaders, particularly since January 1982, teacher leaders have been restrained by the unavailability of petrol from travelling out to visit pilot teachers.

According to the PCU Director, orientation workshops for pilot teachers held at PCU have faced funding limitations. They are

not funded by MOE and must come from Project funds. This financial problem has essentially influenced the number of workshops or meetings with pilot teachers, who are important assets to trial phases, and the problem should be immediately corrected.

6) Non-Pilot Teachers

One team member visited 33 classrooms in five non-pilot schools in Hhohho and northern Lubombo districts, talked with Grades 1, 2, and 3 teachers there and observed their classrooms and texts being used. The purpose of the visits was to assess how PCU materials were being used and what difficulties or general comments teachers had. Also, discussions were held with inspectors and teacher leaders.

Observations are the following:

1. SiSwati Grades 1-3:

   a) The Grade 1 books were usually started after using Longman's "Lifa". The PCU "Asifundze" was considered the harder of the two Grade 1 books and was used with quicker pupils.

   b) One Grade 1 class teacher had grouped pupils according to reading ability, the most capable reading "Asifundze".

   c) Teachers in Grades 2 and 3 enjoyed the books, although they continued to use the Longman's "Sancoti".

2. Maths Grade 1:

   a) Teacher's Guides had been received even though a fixed price had not been established. Hence, the books were secured without prior purchase by the headmasters.

   b) Teachers explained that the paper quality in the pupils' workbooks was very poor.

c) Generally, teachers were quite behind schedule since they received their Guides between April and July 1982.

d) Several classrooms were displaying objects grouped in sets or number patterns.

e) Pupils tended to jump around ahead to units in workbooks not yet taught. Teachers considered this a sign of interest.

3. Science Grades 1-3:

a) Teachers generally liked the units and found a few units difficult for pupils.

b) Most expressed difficulty in finding objects to include in lessons.

c) Some pictures and units in workbooks were difficult for pupils.

d) General observation that teachers tended to skip unit lessons which were difficult to teach and to proceed ahead.

4. Social Studies Grade 3:

a) Generally, teachers enjoyed this book.

b) Complaints that the family tree in workbooks was difficult for pupils to fill out.

General impressions were the following:

Teachers had covered materials at different points in time (see Annex 6). Interest levels and teacher performance appeared to differ widely from one teacher to another. The Maths coverage was far behind schedule. SiSwati seemed to be a subject with the fewest complaints. Science classes generally were difficient in visual

aides and objects. Teachers tended to refer to Longman series for SiSwati saying the PCU material was too advanced for many pupils. Lesson plans in teachers' Schemes of Work plans were generally very brief, sometimes up to 2 lines long.

c. Assumptions

GOS will ensure cooperation of teacher training colleges and other in-service and curriculum development units.

Organizational links between the institutions having input into teacher education activities have been very weak. This is largely due to lack of coordination from the MOE in providing an inspectorate division responsible for various levels of teacher training.

PCU's exercise of initiative in developing training schemes, in view of this lack of coordination, has side-tracked its primary duties in curriculum development. As a result, PCU has pursued an ambitious plan to network the dissemination of materials with the simultaneous orientation of educational sectors. While this is an inevitable and necessary task, this plan has strained PCU schedules and resources.

Teacher leaders will need further upgrading, particularly in methodology and supervision of teachers if they are to meet the qualifications equal to that of inspectors. Relationships between these two components have faced friction due to the somewhat over-mandated definition of the PCU leaders.

The above are major points of emphasis for developing a more comprehensive teacher training system. The PCU must feed this system with new materials but can not be responsible for developing linkages without Ministry assistance.

4. EVALUATION SYSTEM

A functioning evaluation system for measuring the effectiveness of new teaching/learning materials in achieving designated learning outcomes.

The PCU Evaluation Component has been staffed by one EMU Advisor and

by one Swazi evaluator between 1977 to mid-1980. After completing a Master's degree, the evaluator served part-time with the PCU Evaluation Unit. A Swazi professional consultant worked part time for the unit and both evaluators completed the analysis of results from various testing exercises. In terms of staffing, the Evaluation Unit has remained weak and has had to occasionally use available PCU staff for assistance in designing tests and analyzing results, particularly in 1982.

The following section indicate whether "An Evaluation System will be able to supply required data throughout the duration of the project". Evaluations of trial materials have obtained information from the following groups:

1) teacher in pilot schools through Teacher Feedback Forms;
2) Teacher Leaders in TIDCs through the Observation Instrument;
3) pilot and non-pilot schools through pre- and post-tests;
4) pupils through end-of-year achievement tests given in November of each year;
5) Infusion workshops.

a. Teacher Feedback Forms

Questionnaire forms of 4-5 pages were distributed to teachers in pilot schools in order to obtain opinions and comments about any successes or difficulties in using new materials. Generally, this technique for recording responses from teachers met with little success since the forms required considerable writing out of responses with explanations. As a result, teachers only completed the forms with ticked Yes/No answers. The PCU Evaluation Unit has discontinued using this format for feedback from teachers on the basis that a) teachers may not be able to write their responses adequately in English and b) form-filling takes too much time and effort.

b. Observation Instrument

This Instrument was designed for Teacher Leaders to complete while observing pilot school teachers teaching in their classrooms with the new curriculum materials. The Instrument consisted of a 10 page detailed list of questions to be completed by the observer about various observations of classroom activity. It also incorporated comments from the pupils and an interview with the teacher by using a tape recorder. Its purpose was to get direct feedback on how PCU materials were being used in the classroom and to assess pupils' and teachers' reactions and attitudes towards the PCU materials.

The evaluation team considers this evaluation technique quite appropriate, provided Teacher Leaders are well trained to use the Instrument. There were difficulties in getting Leaders to fill out the Instrument forms comprehensively due to Leaders' lack of initiative, lack of time to visit teachers' classrooms, and the inavailability of petrol or vehicles for travel to schools. While the Instrument appears to be a useful approach to gaining first-hand information, the Leaders may need more experience through training to use it or assistance from teachers themselves in filling out the forms. From the experience of 1981 exercises, the PCU received only 3 forms (of 3 classroom visits) from one district Teacher Leader in the nation. It would also appear that this mattershould be addressed in the teacher training colleges as well as in the Teacher Education Component of the PCU.

c. Pre- and Post-Tests

Tests were given in pilot and non-pilot schools which were suppose to provide a platform for comparison of the effectiveness of the new pilot materials with the current curriculum. The comparisons were to be made between knowledge obtained from subject matter offered through the new materials in selected pilot schools and knowledge from the same subject matter offered through the current curriculum in selected non-pilot schools. Pupils were

given pre- and post-tests at both types of schools at the same time on subject matter content relating to the new trial curriculum being tested. In actual fact, and in terms of constructing a valid experimental design, the pre- and post-test methodologies used for testing did not take into account the true correlation of the same subject matter in the non-pilot schools to that of the pilot schools. No information was sought, prior to the testing phases, about what subject content was being taught or had been taught in the pilot and non-pilot schools. This fact was confirmed by both PCU Evlauation consultants. As a result, any statistical inferences from pupuls' scores can not be validly used to compare the effectiveness of the new material versus the current curriculum.

The pre- and post-tests did provide some indication of trouble areas in the new trial materials in pilot schools. However, without adequate knowledge about subject matter taught prior to testing, the pre- and post-testing activities remain difficult to justify as worthy.

Besides design difficulties, these tests also faced time lag problems in producing published results. The purpose of these tests was to provide information to designers about significant learning issues related to the use of the new materials. By the time test results were analyzed and published, several months (up to 8) had elapsed, during which unit drafts were already in the process of being rewritten and revised by designers. The example of time lags is given in Annex 7.

Certain testing items were thought by one professional evaluator to be inadequate in terms of their relevance to the subject matter being appraised. Other related issues affecting the testing process emerged concerning the transfer of teachers during the testing process and the need to somehow control for these changes since they impact on pupil learning and performance.

d. Achievement Tests

The significant issue concerning the usefulness of end-of-year achievement test results, again, addresses time lag problems in publishing and using test results for design and revision phases of curriculum development. Tests were given according to Annex 7 in November of 1979, 1980 and 1981, the purpose being to determine if students in pilot schools selected for these tests had indeed mastered the objectives contained in the Teacher's Guides. The process of analyzing and processing test results extended over a period of 4 to 5 months, and in one case up to 17 months, during which time revisions to trial materials had to be made to meet scheduled deadlines. In essence, the test reports were neither consulted nor utilized as they were originally intended to be.

Reasons for delays in processing test data primarily appear to be a) errors resulting from punching data cards and b) lack of enough evaluation staff at PCU to handle the time-consuming aspects of data processing. Some system will need to be devised to test pilot children separately from non-pilot children nationally if fair account to the new material is to be given.

e. Workshop Evaluations

The Evaluation Unit of PCU has also evaluated the effectiveness of several workshops organized or run by PCU for purposes of introducing the new curricula to teachers and other educators. These are the Curriculum Infusion workshops and Pilot Teachers Orientation workshops.

Two Infusion workshops have been given in December, 1979 workshop for 447 headmasters, and in December/January, 1981/82 for Inspectors, DEOs, headmasters, Grade 3 teachers and PCU staff. Evaluation questionnaires were circulated during these workshops for feedback from participants. It took about 4 months to report the evaluation results in published form. This appears to be

too long a time lapse if analysis of workshop results is to be adequately incorporated into the continuous design/preparation/revision stages of the curriculum development process.

The workshops did attempt to obtain comments, suggestions and recommendations from participants about the new materials. These narratives were probably more useful than the Yes/No/Some item questions which were less critical, like "Did you get new ideas to use in teaching?"

The 1979 workshop evaluation was on the whole much better constructed and more informative than the 1981 workshop evaluation. The latter, however, allowed for the recording of discussion comments, though this method is usually harder to tabulate and cumbersome to present in report form. In the future, questions addressed to Inspectors, DEOs, headmasters and teachers could be designed to elicit more analytical comments arranged on a scale of value rather than to elicit Yes/No answers which contain little room for explanation.

Several other types of workshops for teacher feedback and orientations and for inspectors were given periodically for 2-3 days. Reports of these workshops suggest that adequate information was obtained from participants during workshop activities. Such reporting and recording of participant comments should be encouraged and continued for immediate evaluative purposes.

f. Designer Inputs in Evaluation

It would appear that curriculum designers are not closely linked to the Evaluation Unit in order to benefit from feedback on their materials. They have reportedly been very reluctant to go to schools themselves to observe their materials being used believing that this is the job of teacher leaders and others. Some believed such school visits are too time-consuming

and that designers should be making tests, not evaluating.

Also, the delays in publishing various pupil test results using their trial material have essentially divorced designers from opportunities to investigate areas for revision. The lack of designer inputs of an evaluative nature suggests need to review the whole revision cycle and speed up both collaborative efforts between units as well as test results reporting.

g. Conclusions

The very nature of piloting requires constant checks and revisions. Corrections continually have to be made if experimental material and activities are to be carefully tested for relevancy and validity.

The following are conclusions concerning PCU's evaluation efforts:

Evaluation activities of the PCU have not met their schedule targets and have not kept pace with the revision process which manuscripts require.

There is a need to combine more effectively questionnaire forms-filling responsibilities of teachers and leaders so as to reduce this time-consuming task on teachers while enabling leaders to more conscienciously provide detailed feedback.

If pre- and post-tests are to be given, a better experimental design for testing new materials in school would have to be made by making sure that items in controlled and non-controlled schools correlate properly with the same subject matter duing the testing phase.

The use of the 16 randomly selected pilot schools used for trial testing appears to be inefficient due to distance. A more convenient selection of pilot schools closer to PCU would provide for speedier trial testing and would allow more contact with curriculum designers.

Consultation with various testing and evaluation results have not have not taken place for purposes of design and content revision of material

since results were not reported in a reasonable time frame to meet revision schedules. Hence, most revisions appear to have been based on speculative data rather than on reported results.

VII. OUTPUTS: INSTITUTIONAL INFRASTRUCTURE

1. MANPOWER DEVELOPMENT

a) PCU Staff: Formal, in-service, and on-the-job training for the following PCU units:

1) Management
2) Materials Design and Preparation
3) Production
4) Teacher Education
5) Evaluation

b) Other Personnel:

1) Curriculum Writers - in-service training for personnel outside the PCU selected to assist in materials writing;
2) Senior MOE staff responsible for the curriculum development process will be provided with specialized academic training.

Project training of PCU staff and others related to curriculum development has been a component of prime importance. From 1980 to the present time, it has consisted of these aspects:

1) Participant training involving formal course work with EMU credit at EMU;
2) In-service courses at PCU for EMU credit and other training with resources both within Swaziland and in African countries, where appropriate.
3) On-the-job training within PCU tasks in curriculum development.

In terms of scheduling and outputs, the formal and in-service training has been implemented smoothly. According to Annex 4, seven Swazi nationals who are presently with the PCU have been trained overseas, another five are presently at EMU and two more are scheduled to leave for overseas training in 1983. Course work was carried out at PCU prior to participants attending EMU.

On-the-job training was solidly emphasized in the Project Paper to provide hands-on, experiential activities in the writing, trial testing, and production of curriculum texts. Advisors were to assume a close collaborative role in assisting counterparts in the daily tasks of the PCU. Throughout the

Project period, this task-related training had considerable limitations at various times due to either the vacancies created by participant training, transfers of personnel, including EMU staff, out of PCU or the few cases of interpersonal problems which reportedly diminished the positive atmosphere for working collaboratively (see Annex 8). Because of the lag in production schedules at this time, Advisors can not realistically assume an "advisory" role at this time as had been envisaged in the Project Paper. While Swazi staff have attained reasonable skill levels for PCU functions, the continued participation of Advisors in writing materials is still needed.

a. Participant Training

According to Annex 5, participant training schedules have been met. Five of those already trained left the PCU for other positions.

According to returnees interviewed, their training for one year at EMU was very adequate except for weaknesses in certain content areas. Its effect has been highly motivational. Participants felt their course work was relevant but that their program of instruction lacked needed writing skills for developing curriculum.

It also appears to the evaluation team, after examining transcripts of trainees, that the B.Sc. program offering for the one year stay did not contain sufficient solid course work in subject content areas such as Maths and Science, History, methodology, English composition, etc. This can be explained more by the fact that the limited time of one year is not sufficient. (It has been earlier stated that participants are not allowed by Ministry regulations to stay away from their jobs in Swaziland for more than one year while salaried. If they do, they must return their salaries to the Government.) The EMU Faculty and course offerings certainly provide adequate instruction in these areas. Another explanation for weaknesses in content instruction may

be due to the nature of the tailor-made Bachelor degree program for Swazi students. For instance, EMU allows a planned individualized interdisciplinary concentration of 60 semester hours to replace the major and minor (Undergraduate EMU Catalogue, 1981/82, p.101). Hence, students essentially did not have concentrations in their chosen subject of interest. In some ways, therefore, the quality of Bachelor's degree training at EMU remains suspect. Alternatively, the training appears to have warranted a status of Certificate level instruction, not a Bachelor's level.

Related to this issue is the clear fact that some Swazi perceptions of the EMU degree have been less than favorable. Criticisms emanate from Ministry levels as well as from other institutions. The most prominent criticism has come from UCS who have questioned the general quality of the EMU Bachelor's degree for the Swazis.

These weaknesses can be remedied, the evaluation team feels, through linkage-building and by the PCU concentrating on its primary mandate to produce curriculum materials. Also, the team believes that further short-term training may be needed in two areas: 1) subject content and 2) writing and composition/editing techniques. It should be explored whether the faculty at EMU, particularly those with writing experience with textbook publishers, can offer to the present and future participant trainees short-term instruction in hands-on writing and editing. Instruction in content may have to come from sources in Swaziland or at other African institutions.

b. <u>In-service Training</u>

1) <u>EMU Course Offerings at PCU</u>

During the 1980 - 1982 (through 2nd term) period of course offerings, eight PCU staff took courses comprising of the following below.

subject area	title of course	credits	no. of students
5 currirulum	Curr 303 Principles of Teaching	3	13
	Curr 310 Teaching Reading	3	20
	Curr 312 Experiential Approaches to Language Arts	3	12
	Curr 478 Development of Curriculum in Swaziland	2	8 (mainly PCU staff)
	Curr 479 Education in Other Lands	3	16
2 educational psychology	EDP 302 General Educational Psychology	3	11
	EDP 478 Human Development and Swazi Culture	2	20
2 Maths	MTH 101 Content	3	16
	MTH 381 Methods	3	15
1 Biology	Bio 224 Principles of Conservation (for Practial Arts)	4	18
1 English	CEN 410 Teaching English as a Second Language	3	21
1 Physics	PHY 211 Elementary Physical Science	3	9
2 Astronomy	AST 203) Explorations of the	3	20
	AST 503) Universe (graduate)	2	1

Three courses which were listed in the Training Plan (1980 - 1983) for the staff of the PCU were not offered: Audio Visual Methods in Teaching, Introduction to Measurement and Evaluation, and Community Education. They are considered important and relevant offerings.

Practically all PCU student participants were pleased with the course offerings, some demanding more, such as English language in order to improve their English writing abilities. The choice of topics and courses actually offered at PCU for credit by EMU Advisors is an issue, however. The courses tended to be randomly selected according to available expertise rather than chosen and sequentially offered to

address identified skill needs and interests of Swazi participants, given their various writing duties in the production schedule. For instance, of all the course offereings, Astronomy was considered by evaluators to have the least relevance for instruction considering the immediate knowledge and skill level requirements demanded of PCU staff in their functional roles within the PCU. This is not to say that the course was inappropriate for primary level educators, but a course in evaluation or testing would have been more timely vis a vis the daily needs of the PCU piloting efforts. In particular, the relevance of the Astronomy course offering at the graduate level, compared to the appropriateness of other courses, is highly questionable. It is understood that graduate level credit was made since once student was eligible and interested in accumulating graduate level credits.

Some courses offered were followed by departures of some local staff for participant training or for other reasons. Therefore, the content of courses could not be put into practice in the curriculum writing process. For instance, a course suitable for the Practical Arts curriculum (Principles of Conservation) was offered in the 2nd term of 1982 prior to several PCU designers leaving for study in the USA. It is hoped, then, that those who took the course can assist in the writing of the Practical Arts curriculum since the Advisor has, at present, no counterpart.

While the courses addressed well the distinction between the method of teaching and content, particularly with reference to the Maths and Curriculum courses, it is understood that practically all except one course, did not stress writing or editorial skills development. Admittedly, on-the-job training in writing was to cover such

skill development in an experiential way. Yet, Curr 478, probably the most relevant of all courses for PCU's purposes (Development of Curriculum in Swaziland), devoted only 2 credit hours and was considered by some students to be "too theoretical".

The two students (out of the total of 30 students) having the poorest grades, ranging between C- and D, were the Teacher Leaders responsible for curriculum infusion and teacher education in this Project through the TIDCs. They were personally visited by an evaluation team member in their district. Compared with the teachers, headmasters, and inspectors who took courses resulting in better grades, the poor academic performance of these Teacher Leaders does not appear to confirm their competencies in being catalysts and facilitators in the important curriculum defusion process, The PCU Director should carefully consider such factors as academic performance in the choice of teacher leaders who must understand the content, theory and methods contained in the new curricula. Teacher Leaders are also expected to have similar qualifications as inspectors.

2) Non-PCU Staff Participation

In order to make the best use of EMU Advisors as instructors, other educators outside of PCU were invited to take the courses for credit with PCU staff. These 22 non-PCU students constituted 73% of the total numbering students 30. According to the Project Paper, these individuals were to assist the PCU in preparing curriculum materials. However, this intention did not work out like this, although these educators perhaps provided much needed supports to other PCU activities, such as infusing the new materials in their schools (see Table 5). None of these 22 students took the Curriculum course #478 which

specifically dealt with curriculum development in Swaziland. Five of these 22 non-PCU students managed to secure further university placement in the U.S.A. through SAMDP (Southern African Manpower Development Program) sponsorship which is USAID-funded. For the remaining number, a question remains about the value, let alone the purpose, these courses have in the long run in being applied towards other institutional training in-country, in view of the apparent lack of credit transfer possibilities with the University College of Swaziland. The courses have also raised expectations among these participants as to their eligibility for degree course work in the U.S.A. The actual effect of EMU courses offered at PCU appears not be have resulted in the direct contributions of non-PCU staff over a period of time to the curriculum design and other manwpoer needs of PCU, but in perhaps misplaced hopes for an overseas experience.

c. On-The-Job Training

Because of its demands on personal styles, patience and understanding of the learn-by-doing process, on-the-job training is admittedly a difficult form of training to plan and execute smoothly. Tasks must be identified clearly for each individual and matched with a time-line of activities to be accomplished.

This form of training was thought by Project designers to be the most effective way to transfer skills while developing curriculum. In theory, Advisors did work collaboratively with their counterparts on a daily, task-oriented basis. In practice, this scenario was disrupted and pitted with a variety of constraints. These raise major questions about the extent to which this intended one-on-one collaboration was effective. One question still remains: Can this form of training produce a skilled cadre of Swazi staff

capable of continuing the intricate design, writing and evaluation phases of curriculum development after the Project terminates in 1983?

The present situation of this aspect of PCU institutional development suggests shifting more emphasis on product development, i.e. writing and completing materials for trial and publication. Past experience has shown that, for a variety of reasons, production of tangible materials has been very slow suggesting that the transfer of skills has also not been adequate. an erratic and disruptive process of producing materials implies a slow and somewhat inadequate institution-building capability. given that assumption, the following constraints can assess why the on-the-job training has resulted in a weak, though remediable, development of needed skills.

- A negative atmosphere for collaborative, hands-on writing was evident over a two year period of one Advisor, reputed to be the cause of discontent. His actions and the prevailing attitude of PCU staff were reported to have considerably retarded the general progress of the PCU. The present climate for learning and working among staff has vastly improved and has overcome these past constraints significantly.

- During the early curriculum writing phases, the identification by local designers aided by Advisors of learning objectives for curriculum units was said to have been a thorny and confusing process for the designers. Several workshops offered by Advisors to clarify objectives-writing were thought by some local staff to be "too flowery with theoretical explanations" and not well understood.

- The approval and editing aspects of materials writing had occasional problems, particularly with reference to the Maths units. Some of

these difficulties had to do with task identification by designers and Advisors and with interpersonal behaviors and attitudes. Collaboration in ideas exchange and task accomplishments was essentially disruptive and strained.

MacMillan Boleswa publisher intervention took place in writing the Grade 1 Maths and other texts because of the above constraints. It appears that since writing and editorial tasks were operationally weak among joint PCU staff efforts, and happen to constitute the primary expertise of resident MacMillan representatives, that these representatives participated in the collaborative writing process more than they were presumably contractually obligated to do. Specifically, one representative worked on a daily basis with Language Arts designers and the Advisor in latter 1981 for a period of about 6 weeks to iron out problems in drafting initial manuscripts of the English text. The local designers were said to have benefited greatly from this assistance which was also morale-boosting.

Another significant factor contributing to certain weaknesses in the intended on-the-job style of training was the sporadic occurance of vacancies in needed manpower areas of PCU's development (see Annexes 8 and 1). Clearly, the flow of local staff in and out of PCU for participant training purposes has prohibited the establishment of steady, joint task completion in the collaborative production effort. Ironically, the Advisor with the longest presence (up to 3 years) at PCU had the fewest counterpart designers, namely one (Science). Other examples point to the present lack of evaluators while awaiting one returning from EMU in January 1983. This point of staff vacancies and

the contribution participant training has made to creating the vacancies may be the thorniest of Project issues. It is also an issue which will require considerable reassessment if the curriculum writing process is to intensify.

Training for Production staff appears adequate. Several members, including the Production Manager, have had or are having short-term training with other agents in Swaziland and in South Africa. Two members will be sent for training in typing for purposes of learning how to use the word processor machine which PCU hopes to purchase. These staff members who are already familiar with printing will help increase the efficiency of production through use of the processor. Such a training approach is commendable. The Production Manual prepared by the EMU Advisor appears adequate and useful for those involved in various stages of production. Concern was expressed about whether the Production Unit will be sufficiently knowledgeable in methods of procuring equipment after the EMU team leave. Training in this area and in general management principles and practices of running the Unit should be considered where necessary and relevant.

In conclusion, institution building through training has been an important objective. Yet, according to the EMU reports, there remains concern about a) the degree of editorial responsibility possible for the local staff to assume at the project's conclusion and b) how much support from the editorial services of MacMillan publishers should be built into the system. (EMU Semi-Annual Progress Report, Jan-June 1982, pp. 4-5).

d. Training for Outside Personnel and Senior MOE Staff

As indicated in Table 5, 22 non-PCU staff took the in-service courses offered for credit at PCU by EMU Advisors. It has already been mentioned in

this chapter that these individuals, for whatever reasons, did not assist in any substantial way in the writing process. Those educators who did contribute to the writing effort were not actually trained at the PCU program, but through other sponsorship. For instance, probably the most significant hands-on writing workshop held at PCU (in 1980) was one organized and funded by the Science Education Programme for Africa (SEPA) for PCU staff and non-PCU science lecturers.

Two People with teaching experience and interest participated part-time in writing curricula (one for Science units and one for Maths units), but for only a short period - one for up to three weeks. Their short stay was apparently due to "a negative atmosphere which existed between some EMU Advisors and local staff" which made close collaboration strained. On several occasions, outside writers, principally lecturers from TTCs and High Schools, have assisted in writing, but no formalized training was offered to them.

The African Curriculum Organization sponsored several seminars in 1980 to wich senior MOE staff were participants: a seminar on Teacher Education in Zambia was attended by the Principal of Nazarene TTC and the Vice Principal of WPTC. Another Diploma course in curriculum development was offered at the University of Nairobi and was attended by two staff members from WPTC. However, according to the PCU Director's 1981 report to the ACO, "these educators have not been able to apply their skills" as curriculum writers.

Since the African Curriculum Organization sponsors only those candidates with a Bachelor's degree, no PCU staff members were eligible for ACO training programs in 1980 and 1981. Yet, the GOS paid $6,500 for PCU's 1980/81 subscription to this organization. It is only in 1982 that two PCU staff with degrees are being sponsored for the University of Nairobi course in Systematic Curriculum Development.

e. Other Training Links - UCS

There appears to be no existing capability in the UCS Faculty of Education for primary level education or curriculum development. Nor is there any expressed interest to develop in-service training for primary level educators. Where concern may lay, in relation to PCU requirements, is in developing management expertise among educators and administrators in facilitating institutional development. For now, there appears little interest or willingness to award some sort of credit transfer of EMU courses to Bachelor's degree programs in Education at UCS. There also does not appear to be a role at this time which UCS can play after EMU Advisors leave in catering to skill training needs of PCU staff in content areas.

It has been mentioned elsewhere that UCS has not looked favorably upon the EMU standards of training. This experience suggests that outside academic contractors should be cognizant of and sensitive to the accepted standards of training held by the Swazi academic community. An attempt to match those standards should also be made.

f. Visits to Other African Countries

One PCU staff member (Maths Designer) made a visit to Zambia in 1982 for 3 weeks to study curriculum development efforts there. A plan for visits by PCU staff to African curriculum centers had been proposed for the three year period 1981-1983. Each year two centers were to be visited - one in East Africa and one in West Africa - for a period of 7 days each. The details of this plan were apparently not discussed due to a change over of EMU Chiefs of Party in 1980 and the PCU Director's leaving for study in the USA.

The Language Arts team visited Zimbabwe to study the MacMillan Ventures Programme in March 1982. They were accompanied by the Senior Inspector of English.

g. Assumptions

The GOS/MOE will provide suitable staff for training at the proper time to accomplish the phased training schedule.

Training has been provided for those available staff members according to schedule (See Annex 5). However, with reference to Table 1, the GOS has not established the number of posts called for in the Project Grants Agreement. Hence, PCU was short 8 staff who would have been eligible for training, 5 of whom were to be curriculum designers.

Two of the ten curriculum designers have left the PCU employment. Two teacher educators have been trained but one remains with PCU.

2. PROJECT FACILITIES/EQUIPMENT

According to the Logical Framework, the International Bank for Reconstruction and Development (IBRD) was to provide PCU with office facilities, production /printing facilities and a Curriculum Resource Library. The office and production facilities were completed during Period I of the Project. The Curriculum Resource Library was completed in 1982. It is located about 50 yards from the PCU complex on the William Pitcher Teacher Training College campus.

IBRD was also to provide 4 Teaching Innovation and Dissemmination Centers (TIDCs) in each of the four administrative districts. The TIDCs in Lubombo (Siteki), Hhohho (Pigg's Peak), and Shiselweni (Nhlangano) were built during Period I of the Project. The TIDC for the Manzini district, located in the city of Manzini, was built in 1982.

USAID was to provide 9 houses for the technical assistance staff. Six were built in Period I of the Project. Two more specified in the log-frame were not built but one additional used house was purchased on the local market. The log-frame also called for USAID to lease one house. This was not done. It was determined that 7 houses were sufficient for PCU's needs.

3. MANAGEMENT MODEL / WORK PLANS

The log-frame specifies that a life-of-project PERT type model and a life-of-project set of work plans be produced. The evaluation team asked COP/EMU and HDRO/USAID for these documents, but they could not be found. Both remembered that they had been produced but evidently they have not been followed or used for some time.

VIII. INPUTS

1. USAID

Table 6 provides a breakdown of USAID's expenditures through April 30, 1982 and projected expenditures to September 1882. The Controller's Office at USAID/S could not provide information by the expenditure categories outlined in the Logical Framework. Evidently, the financial records on technical assistance and participant training are kept on the EMU campus. The reports to USAID/S are formulated by line item, not by log-frame expenditure categories.

It appears there may be a budget surplus at the end of Project in the participant training, construction, external evaluation and the housing categories.

2. GOS

Table 7 provides information on the Government of Swaziland's recurrent budget/expenditure associated with the project. The amount of recurrent funds budgeted each year by GOS for curriculum development is recorded. Underneath the budgeted figure, the actual expenditure data are given.

Looking first at the 1982/83 budgeted line and comparing those figures with the obligated GOS contribution in the Project Grants Agreement, we note that GOS has budgeted more funds than required. Moreover, in 1981/82 the actual expenditure exceeded the Grants Agreement figure. The GOS accounts are not broken out in the same way as those in the Grants Agreement so it is impossible to see if GOS has met its specific obligations by providing funds for the African Curriculum Organization, provision for vehicle replacement, staff travel and part-time clerical assistance. If we add in these additional items, the GOS budgeted figure and the Grants Agreement figure are within E500.00 of each other. This type of aggregate analysis probably hides some important information. First, it

is safe to assume that the Grants Agreement figure did not allow for the pay rises given to the Swaziland Civil Service during the project's life. This increase in personnel costs obviously does not mean that GOS has provided all agreed to personnel (see Table 1). Moreover, at present three of the vehicles (purchased for the project since 1980) are damaged and out of service. It is clear that a fund for replacement of vehicles has not been established. GOS fees for African Curriculum Organization Membership have, by mutual agreement, been paid by USAID.

On the capital side GOS has provided funds for curriculum materials production (IBRD pass through) and furnishings for staff housing.

3. IBRD

IBRD has completed all its construction obligations associated with the Project. Bank funds are still being used to finance materials production. The amount currently available for this purpose has been increased to $975,000 ($288,100 is shown in PP). Table 4 provides a list of expenditures made by the Swaziland Project for Educational Development (SPED) IBRD funds for printing. At this point in the PCU project operation, the Project's expenditure of E298,159.50 is 27% of the budgeted amount of E1,108,386 (using $.88 = E1.00). Only $713,000 (E810,227) remains to be used for publishing primary school materials. This amount may not be sufficient for that purpose.

The reader will recall that the Maths materials were written, edited and printed by MacMillan Publishers. PCU was only marginally involved in the process. Comparing per page costs of the 1st grade Maths teacher's guide with the per page cost of a similar print run on the 2nd grade Science teacher's guide we see that the cost of writing, editing and printing the Maths material is 12.31% higher than if MacMillan only provided normal editing and printing services. Comparing the per page cost of the 1st grade pupil's workbook in Maths with the similar

print run in 2nd grade Science pupil's handbook we see that the new Maths material was actually produced at a lower per page cost. The type of paper used, the amount of graphics provided, quality binding and number of colors used in printing all affect price for printing. Yet, our cursory analysis indicates that the costs of engaging MacMillan in the design/writing as well as the printing process may not be prohibitively expensive.

Table 1

PRIMARY CURRICULUM UNIT
ESTABLISHED POSTS
1979/80 - 1982/83

POST TITLE	ESTABLISHED POSTS 79/80	80/81	81/82	82/83	GRANTS* AGREEMENT	SHORT FALL
Director	1	1	1	1	1	0
Writer/design						
Sr. Curr. Designer	3	3	3	3		
Curr. Designer	5	7	7	7	—	—
Sub-Total	8	10	10	10	15	5
Pilot Testing						
Teacher Educator	-	-	-	-	1	
Leader Teachers	4	6	6	6	8	
Evaluator	-	-	-	-	1	—
Sub-Total	4	6	6	6	10	4
Print Shop						
Senior Printer	1	1	1	1		
Printer	-	2	2	2		
Assistant Printer	-	4	4	4		
Laboratory Asst.	-	1	1	1		
Visual Aids Asst.	-	1	1	1	—	—
Sub-Total	1	9	9	9	7	(2)
Support Staff						
Typist	3	3	3	3		
Telephone Operator	-	1	1	1		
Librarian**	-	-	-	-		
Messenger	1	1	1	1		
Driver	1	1	1	1		
Cleaner**	-	-	-	-	—	—
Sub-Total	5	6	6	6	9	1**
TOTAL	19	32	32	32	42	8

* Grants Agreement uses different titles than Establishments Register.

** Provided but carried on William Pitcher's Establishments Register.

SOURCE: Project Grants Agreement, Amplified Project Description pp.2 and 3.
GOS Establishments Register 1979/80 - 1982/83

Table 2

STATUS OF PRODUCTION BY SUBJECT AREA

SUBJECT	Jan 1980	Jan 1981	Jan 1982	Jan 1983	Aug 1983	STATUS OF END OF PROJECT	
SCIENCE						Grade 6	Grade 7
Expected	1	2	3	4	5	R	W
Actual (9/82)	1	2	3	P	W	W	-
SISWATI						Grade 6	Grade 7
Expected	1	2	3	4	5	R	W
Actual (9/82)	1	2	3	P	T	T	W
MATHS						Grade 6	Grade 7
Expected		1	2	3+4	5	R	W
Actual (9/82)		1*	P*	P*R	W	W	-
SOCIAL STUDIES						Grade 7	
Expected		3	4	5	6	R	
Actual (9/82)		3	R	-	-	-	
ENGLISH							
Expected		1	2+3	4+5	6+7		
Actual (9/82)			-	-	-		
ANCILLARY SUBJECTS: Music, Domestic Science, Agriculture, Religious Knowledge, and PE							
Expected			1+2	3+4	5+6	7 piloted and revised	
Actual			-	-	-		
ARTS AND CRAFT							
Expected		1+2	3+4	5+6	7		
Actual		-	-	-	-		

* At printer: these books are being written by MacMillan Publishers from outline provided by PCU.

Status of books not in distribution nationwide in 1982:

W - book is written, but not in pilot schools

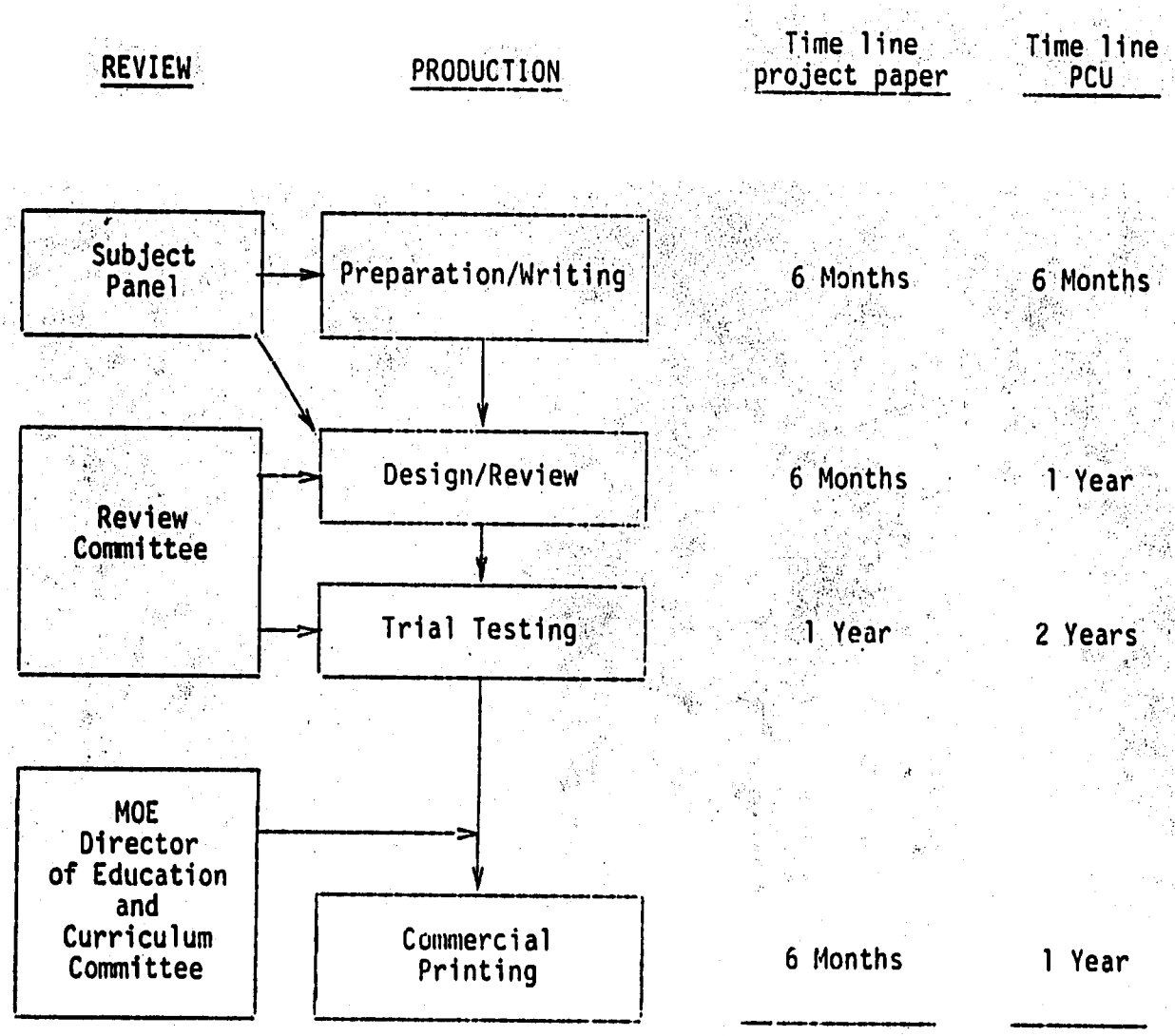
T - book in pilot school for testing.

R - book has been tested and is being revised.

P - book with publisher.

Table 3

TASKS IN MATERIAL PRODUCTION CYCLE



Source; Project Paper, page 6; Memorandum (19/9/81) from Director PCU to Director of Education, MOE; coversation with COP, EMU and the Director PCU.

Table 4

PRINTING FOR NATIONWIDE DISTRIBUTION
SWAZILAND PROJECT FOR EDUCATIONAL DEVELOPMENT (SPED)
(IBRD)

DATE	ITEM			NO. OF COPIES	NO. OF PAGES	COST/COPY	TOTAL COST	COST/PAGE
3/81	Science	Grd-2	Pupil's handbook	102,000	16	E0,25	E25,525.00	.0156
	Science	Grd-2	Teacher's Guide	1,500	97	4,20	6,300.00	.0433
	SiSwati	Grd-2	Pupil's Textbook	28,500	20	0,76	21,660.00	.0380
	SiSwati	Grd-2	Teacher's Guide	1,550	59	1,15	1,782.50	.0195
11/81	Science	Grd-3	Pupil's Workbook	80,939	60	0,47	38,041.00	.0078
	Science	Grd-3	Teacher's Guide	2,001	165	5,90	11,841.00	.0358
	Social Studies	Grd-3	Pupil's Workbook	79,539	58	0,46	36,587.00	.0079
	Social Studies	Grd-3	Teacher's Guide	1,979	114	4,29	8,490.00	.0376
	Social Studies	Grd-3	Teacher's Handbook	1,939	26	1,03	1,995.00	.0396
	SiSwati Reader	Grd-3		30,067	99	0,85	25,556.00	.0086
6/82	Maths	Grd-1	Pupil's Workbook	100,102	141	1,00	100,102.00	.0071
	Maths	Grd-1	Teacher's Guide	2,028	249	10,00	20,280.00	.0402
				432,144	1,104		298,159.50	

SOURCE: SPED Project Office Files.

Table 5

PCU AND NON-PCU STUDENTS TAKING EMU COURSES 2nd Term/1980 - 2nd Term/1981

Name of Student	Present Designation	No. of credits	Attended EMU
PCU Staff:			
1. Albert Dludla	Maths Designer	38	presently
2. Olga Mabuza	Language Arts Designer	23	presently
3. Ablon Mavuso	Language Arts Designer	23	due January 1983
4. Wilson Mavimbela	Teacher Leader (Hhohho)	29	No
5. Concillia Munro	Language Arts Designe.	32	presently
6. J. Nhlengetfwa	Maths Designer	21	Yes
7. Miriam Nxumalo	Teacher Educator	8	Yes
8. Raymond Nxumalo	Teacher Leader (Lubombo)	29	No
	Total -	203	
	Average credits per person -	25.4	
Non-PCU Students:			
9. P. Dlamini	Private Sector	21	No
10. E. Dludlu	District Education Officer (Nhlangano)	11	No
11. L. Gamedze	Teacher Leader	20	Not recommended for training
12. I. Ginindza	Headmaster	8	presently (SandP)
13. J. Mabuza	Headmaster	25	presently (SandP)
14. Agnes Masuku	Lecturer WPTC	30	No
15. Alpheus Masuku	Teacher	15	No
16. F. Mamba	Australia (BSc) In-service	8	No
17. L. Mdluli	Lecturer WPTC	7	No
18. N. Langa	Teacher	15	Yes (SandP)
19. A. Lukhele	Inspector	17	presently (SandP)
20. A. Makhanye	District Education Officer	23	No
21. A. Mkhonta	High School Headmaster	10	No
22. C. Mkhonta	TTC Assistant Lecturer	10	No
23. J. Nkumane	Lecturer	36	No
24. E. Nsibande	Lecturer WPTC	26	presently (SandP)
25. K. Nxumalo	School Supervisor	6	No
26. E. Nzuza	Headmaster	21	No
27. V. Simelane	Inspector	24	No
28. Joseph Zwane	Headmaster (former PCU)	17	No
29. Jabulile Zwane	Teacher	33	No
30. K. Vilakazi	Teacher	10	No
	Total -	393	
	Average credits per person -	17.8	

SOURCE: PCU Record of EMU Courses.

Table 6

PRIMARY CURRICULUM DEVELOPMENT

645 - 0009 PHASE II

AID BUDGET/EXPENDITURE

	PP Budget (Log-frame)	Estimated Expenditures Costs 3/30/82	Actual Contract Costs 4/30/82(2)
Technical Assistance			
Long-term	2,446,100		
Short-term	284,000		
Sub-Totals	2,730,100	2,013,540	1,577,026
Participant Training			
US	195,800		
Local	33,800		
Africa	138,200		
Sub-Totals	367,800	108,100	111,365
Equipment/Commodities	338,900	311,600	235,084
Construction	70,000	42,392	-
Others			
Membership	11,600	6,500	-
Rental of Housing	11,800	-	-
External Evaluation	120,000	22,832	
TOTAL	$ 3,650,200	$ 2,564,964	$ 1,923,475

SOURCE:

(1) USAID Records

(2) EMU Financial Reports of 4/30/82

Table 7

PRIMARY CURRICULUM UNIT
MOE RECURRENT BUDGET
1979/80 - 1982/83
(Emalangeni)

	PERSONNEL	TRANSPORT	SERVICES	CONSUM ABLES	DURABLES	TRANSFERS	TOTAL	*** GRANTS AGREEMENT
1979/80								
*Budget Estimate	E80 000	E9 000	-	E4 000	E1 000	-	E94 000	E115 100
**Expenditure	46 270	7 560	592	2 255	783	-	57 460	
1980/81								
*Budget Estimate	127 000	13 000	-	6 000	1 000	-	147 000	116 700
**Expenditure	111 213	7 512	3 016	-	513	-	122 254	
1981/82								
*Budget Estimate	162 000	18 000	2 000	4 000	-	-	186 000	170 000
**Expenditure	162 840	16 560	-	1 843	3 680	-	184 923	
1982/83								
*Budget Estimate	201 000	5 000	1 000	1 000	-	-	208 000	180 400
**Expenditure	-	-	-	-	-	-	N/A	

SOURCE: * Budget Estimates, Government of Swaziland, 1979/80 through 1982/83

** Management Statements, Abstract of Accounts Summary, used for 1979/80 and 1980/81
Month 12 was used for 1981/82 as GOS books are still open.

*** Project Grants Agreement, Amplified Project Description, pp. 1-10.

PRIMARY CURRICULUM UNIT

POSTS AND STAFF

POST	STAFF 1981	STAFF 1982
1. Director	L.B. Lukhele	L.B. Lukhele
2. Sr. Curr. Designer* (Evaluator)	D. Nsibandze	T. Singwane
3. Sr. Curr. Designer (Maths)	M. Mongokong	M. Mongokong
4. Sr. Curr. Designer (Curr. Coord.)	R. Magagula	R. Magagula
5. Curr. Designer (Science)	Vacant	F. Maseko
6. Curr. Designer (Social Studies)	Z. Ginindza	Z. Ginindza
7. Curr. Designer (Lang. & Arts)	O. Mabuza	O. Mabuza
8. Curr. Designer (Lang. & Arts)	C. Munro	C. Munro
9. Curr. Designer (Lang. & Arts)	A. Mavuso	A. Mavuso
10. Curr. Designer (Maths)	A. Dludla	A. Dludla
11. Curr. Designer (Maths)	T. Nhlengetfwa	T. Nhlengetfwa
12. Teacher Leader	S. Mkhonta	Vacant
13. Teacher Leader (Teacher Education)	M. Nxumalo	M. Nxumalo
14. Teacher Leader	L. Nkambule	L. Nkambule
15. Teacher Leader	J. Zwane	R. Nxumalo
16. Teacher Leader	S. Dlamini	S. Dlamini
17. Teacher Leader	M. Mavimbela	M. Mavimbela
18. Senior Printer	V. Zwane	V. Zwane
19. Printer (Visual Aids Asst.)	S. Dlamini	S. Dlamini
20. Printer	Vacant	W. Masina
21. Printer (Stripper/layout)	K. Maphalala	K. Maphalala
22. Technical Assistant	Vacant	Vacant
23. Printing Assistant	D. Ngubane	D. Ngubane
24. Printing Assistant	Vacant	H. Motsa
25. Printing Assistant	Vacant	A. Cele
26. Printing Assistant	Vacant	B. Ndzinisa
27. Driver	O. Nxumalo	O. Nxumalo
28. Typist	J. Mavuso	T. Dlamini
29. Typist	N. Dlamini	N. Dlamini
30. Typist	M. Mtimkhulu	M. Mtimkhulu
31. Telephone Operator	E. Shongwe	E. Shongwe
32. Messenger	W. Masina	L. Mbhamali

* PCU Job Description in parenthesis.

In addition to the above, the MOE has provided one additional typist and two cleaners. The Librarian at Curriculum Resource Center is provided by William Pitcher Teacher Training College.

SOURCE: Primary Curriculum Unit
Personnel rosters 1981 and 1982
EMU, Chief of Party and PCU Director classified positions to posts for 1982.
The 1979 and 1980 rosters were not available.

Annex 2

SCHEDULE OF PRODUCTION OF NEW CURRICULUM MATERIALS

KEY - 1980 WORK PLAN

DTM	Design of Trial Material
FT	First Trial of Material in Pilot Schools
ST	Second Trial of Material in Pilot Schools
PP	Commercial Publication and Printing of Materials
I	Infusion of Materials in All Schools

KEY - 1982 WORK PLAN

DTM	Design of Trial Material
FT	Field Test of Materials in Pilot Schools
R	Revision of Trial Materials
LP	Local Production of Finished Product by PCU Production Center
PP	Commercial Publication and Printing of Materials
I	Infusion of Materials in All Schools

SUBJECT: SCIENCE

1980

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
GRADE I*	DTM	FT	ST	PP	I							
GRADE II*		DTM	FT	ST	PP	I						
GRADE III			DTM	FT	ST	PP	I					
GRADE IV				DTM	FT	ST	PP	I				
GRADE V					DTM	FT	ST	PP	I			
GRADE VI						DTM	FT	ST	PP	I		
GRADE VII							DTM	FT	ST	PP	I	

1982

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
GRADE I*	DTM	FT	FT/R	PP	I							
GRADE II*		DTM	FT	FT/R	PP	I						
GRADE III			DTM	DTM/FT	FT/R	R/PP						
GRADE IV				DTM	DTM/FT	FT/R	PP	I				
GRADE V					DTM	DTM/FT	FT/R	PP	I			
GRADE VI						DTM	DTM/FT	FT/R	PP	I		
GRADE VII							DTM	DTM/FT	FT/R	PP	I	

* First and Second Grades - Workbook and Teacher's Guide only

SUBJECT: MATHEMATICS

1980

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
GRADE I	DTM	FT	ST		PP	I						
GRADE II		DTM	FT	ST		PP	I					
GRADE III			DTM	FT	ST	PP	I					
GRADE IV				DTM	FT	ST	PP	I				
GRADE V					DTM	FT	ST	PP	I			
GRADE VI						DTM	FT	ST	PP	I		
GRADE VII							DTM	FT	ST	PP	I	

1982

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	198
GRADE I	DTM	FT	FT	FT	R	PP	I						
GRADE II		DTM	FT	FT	FT	R	PP	I					
GRADE III			DTM	FT	FT	R	R	PP	I*				
GRADE IV				DTM	DTM/FR	FT	FT/R	R	PP	I			
GRADE V					DTM	DTM/FT	FT	R	R	PP	I		
GRADE VI						DTM	DTM/FT	FT	R	R	PP	I	
GRADE VII							DTM	DTM/FT	FT	R	R	PP	I

1. Pupils' texts, workbooks and teacher's guides - Grades IV-VII
2. Workbook only grade I-III

*There are advantages to shifting the infusion of Grade III and higher materials up one year for each. This permits a more orderly infusion process. As it was, children provided Grade III materials did not have the new programme to that point.

SUBECT: SOCIAL STUDIES

1980

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
GRADE I												
GRADE II												
GRADE III			DTM	FT	ST	PP	I					
GRADE IV				DTM	FT	ST	PP	I				
GRADE V					DTM	FT	ST	PP	I			
GRADE VI						DTM	FT	ST	PP	I		
GRADE VII							DTM	FT	ST	PP	I	

1982

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
GRADE I												
GRADE II												
GRADE III			DTM	FT	R/FT		R/FT	I				
GRADE IV				DTM 4/5	FT	FT	R*	PP	I			
GRADE V						DTM 1/4	DTM*/FT	R	PP	I		
GRADE VI							DTM*	FT	R	PP	I	
GRADE VII								DTM	FT	R	PP	I

4/5: 4 means four lessons written and LP
5 means five lessons are planned

*The Social Studies designer returned from EMU January, 1982.

SUBJECT: PRACTICAL ARTS

1. Arts
2. Music
3. Crafts
4. Physical Education
5. Agriculture
6. Home Economics

1980

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
GRADE I						DTM	FT	PP	I			
GRADE II						DTM	FT	PP	I			
GRADE III							DTM	FT	PP	I		
GRADE IV							DTM	FT	PP	I		
GRADE V								DTM	FT	PP	I	
GRADE VI								DTM	FT	PP	I	
GRADE VII									DTM	FT	PP	I

1982

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	198
GRADE I							DTM	FT	R/LP	I			
GRADE II							DTM	FT	R/LP	I			
GRADE III								DTM	FT	R/LP	I		
GRADE IV								DTM	FT	R/LP	I		
GRADE V									DTM	FT	R/LP	I	
GRADE VI									DTM	FT	R/LP	I	
GRADE VII										DTM	FT	R/LP	I

SUBJECT: RELIGIOUS EDUCATION

1980

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
GRADE I						DTM	FT	PP	I			
GRADE II						DTM	FT	PP	I			
GRADE III							DTM	FT	PP	I		
GRADE IV							DTM	FT	PP	I		
GRADE V								DTM	FT	PP	I	
GRADE VI								DTM	FT	PP	I	
GRADE VII									DTM	FT	PP	I

1982

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	88 / 8
GRADE I							DTM	FT	R	PP	I		
GRADE II							DTM	FT	R	PP	I		
GRADE III								DTM	FT	R	PP	I	
GRADE IV								DTM	FT	R	PP	I	
GRADE V									DTM	FT	PP	I	
GRADE VI									DTM	FT	PP	L	
GRADE VII										DTM	FT	R	PP / I

This is not an area with which the EMU team will be deeply involved although EMU will help where requested.

SUBJECT: siSWATI

1980

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
GRADE I	DIM	FT	ST	PP	I							
GRADE II		DIM	FT	ST	PP	I						
GRADE III			DIM	FT	ST	PP	I					
GRADE IV				DIM	FT	ST	PP	I				
GRADE V					DIM	FT	ST	PP	I			
GRADE VI						DIM	FT	ST	PP	I		
GRADE VII							DIM	FT	ST	PP	I	

SUBJECT: siSWATI - 1982

Reader and Language Book (Commercially Published)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
GRADE I *	DTM	FT	FT/R	PP	I						
GRADE II*		DTM	FT	FT/R	PP	I					
GRADE III			DTM	FT	FT/R	PP	I				
GRADE IV				DTM	FT	FT/R	PP	I			
GRADE V					DTM	FT	FT/R	PP	I		
GRADE VI						DTM	FT	FT/R	PP	I	
GRADE VII							DTM	FT	FT/R	PP	I

* No Language Book

Teacher's Guide (Locally Published at PCU) - 1982

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
GRADE I	DTM	FT	FT/R	LP	L						
GRADE II		DTM	FT	FT	R/LP	I					
GRADE III						DTM/LP	I				
GRADE IV						DTM	FT	I			
GRADE V						DTM	FT	R/LP	I		
GRADE VI							DTM	FT	R/LP	I	
GRADE VII							DTM	FT	FT	R/LP	I

SUBJECT: ENGLISH - 1980

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
GRADE I						DTM	FT	PP	I			
GRADE II						DTM	FT	PP	I			
GRADE III							DTM	FT	PP	I		
GRADE IV							DTM	FT	PP	I		
GRADE V								DTM	FT	PP	I	
GRADE VI								DTM	FT	PP	I	
GRADE VII									DTM	FT	PP	I

SUBJECT: ENGLISH - 1982
(Locally published at PCU)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
GRADE I	DTM	DTM/FT	FT/R/LP	I							
GRADE II		DTM	DTM/FT	FT/R/LP	I						
GRADE III			DTM	DTM/FT	FT/R/LP	I					
GRADE IV				DTM	DTM/FT	FT/R/LP	I				
GRADE V					DTM	DTM/FT	FT/R/LP	I			
GRADE VI						DTM	DTM/FT	FT/R/LP	I		
GRADE VII							DTM	DTM/FT	FT/R/LP	I	
GRADE VIII								DTM	DTM/FT	FT/R/LP	I

NOTE

English Language Program materials developed at PCU, which are scheduled for publication by the Production Center at PCU, are of three types, as follows:

1. ORAL PROGRAM BOOK
   a) One copy per classroom
   b) None-consumable

2. TEACHERS' GUIDE
   a) One copy per classroom
   b) Non-consumable

3. AUDIO VISUAL CHARTS
   a) One set per classroom
   b) Non-consumable

ENGLISH - 1982

(Commercially Published)

	1982	1983	1984	1985	1986	1987	1988	1989	1990
GRADE I	All Grade I materials locally published								
GRADE II	DTM	DTM/FT	R/PP	I					
GRADE III		DTM	DTM/FT	R/PP	I				
GRADE IV			DTM	DTM/FT	R/PP	I			
GRADE V				DTM	DTM/FT	R/PP	I		
GRADE VI					DTM	DTM/FT	R/PP	I	
GRADE VII						DTM	DTM/FT	R/PP	I

NOTE:

English Language Programme materials developed at PCU which are scheduled for publication by commercial publishers are of two types, as follows:

1. LANGUAGE WORKBOOKS

   a) Not used in Grade I
   b) Used in Grades II - VII, only
   c) Consumable in some grades

2. READERS

   a) Not used in Grade I
   b) Used in Grades II - VII, only
   c) Non-consumable
   d) Locally written, adapted, selected

Annex 3

CURRICULUM MATERIALS IN USE NATIONWIDE

SUBJECT	Jan. 1980	Jan. 1981	Jan. 1982	Jan. 1983	End of Project Aug.1983+	
1. Science	1++	2++	3+	4+*	5	6 piloted and revised and 7 in draft.
2. SiSwati	1++	2++	3+	4+*	5	6 piloted and revised and 7 in draft.
3. Maths		1°°	2*°°	3&4°°	5	6 piloted and revised and 7 in draft.
4. Social Studies		3+	4+*	5	6	7 piloted and revised.
5. English		1+	2&3	4&5	6&7	
6. Music, Domestic Science, Agriculture, Religious Knowledge, & Physical Education			1&2	3&4	5&6	7 piloted and revised.
7. Arts and Crafts		1&2	3&4	5&6	7	

SOURCE: PROJECT PAPER, 1979 p.9

++ prepared during Period I by PCU
+ prepared during Period II by PCU
* in publish form by November 1982
°° prepared by MacMillan publisher

During Period I 9 Curriculum packes were produced, 2 by MacMillan and 7 by PCU.

Annex 4

PRIMARY CURRICULUM UNIT

CURRICULUM SPECIALISTS PROVIDED BY EMU

BY SUBJECT/ACTIVITY AREA

1979 - 1983

YEAR	MATHS	LANGUAGE ARTS	SCIENCE	SOCIAL STUDIES	PRACTICAL* ARTS	TEACHER EDUCATION	EVALUATION	LIBRARIAN	PRODUCTION	CHIEF OF PARTY
1979	Merick (A-2/78) -	Prins (A-11/79) -	Thomas (A-11/79) -	- -	- -	Samonte(A-11/79) -	Ssengoba(A-12/79) -	- -	McCarron(A-2/77) -	Kromer(A-6/79) -
1980	Merick Dogbe (A-3/80)	Prins -	Thomas -	- -	- -	Samonte -	Ssengoba -	- -	McCarron -	Kromer -
1981	Merick Dogbe (L-3/81)	Prins (L-11/81) Metler(A-11/81)	Thomas -	- -	Allen (A.12/81)	Samonte(L-11/81) -	Ssengoba(L-12/81) -	Kolar(A.5/81) -	McCarron(L-12/81) -	Kromer(L-6/81) Kreps (A-6/81)
1982	Merick (L-6/82) Johnson(A-6/82)	Metler -	Thomas -	- -	Allen -	- -	- -	Kolar(L.5/82) -	- -	Kreps -
1983 Projected	Johnson	Metler	Thomas	- -	Allen -	- -	- -	- -	- -	Kreps -

* Practical Arts includes Ancillary Subjects and Arts and Crafts Subjects.

SOURCE: EMU, Chief of Party.

PRIMARY CURRICULUM UNIT
PARTICIPANT TRAINING
1977 - 1983

LEFT MO/DAY	RETURNED MO/DAY	DEGREE	NAME	PCU ASSIGNMENT	CURRENT STATUS
6/77	9/78	MA	* Dlamini, Della (Per-2)	Evaluation (Part-time)	National Employment Service
1/77	10/78	BSC	Magagula, Raymond	Curriculum Design	Primary Curriculum Unit
8/77	1/78	NONE	** Zinyane, Simon (Per-2)	Production Manager	Left Country
1/77	10/78	BA	Dlamini, Simon	Teacher Education	Deceased
1/78	12/78	BSC	** Dlamini, Alfred (Per-1)	Curriculum Design (Lang. & Arts)	Private Sector
9/78	5/79	MA	Lukhele, Leonard	Director	Primary Curriculum Unit
1/81	1/82	BSC	** Mkhonta, Simon (Per-2)	Teacher Education	High School Headmaster
6/78	6/79	BSC	Mngomezulu, Peter	Never Assigned to PCU	William Pitcher TTC
9/78	8/79	BSc	** Bhembe, Patrick (Per-1)	Curriculum Design (Science)	Deputy Headmaster
1/81	1/82	BSc	Nxumalo, Mariam	Teacher Education	Primary Curriculum Unit
1/81	1/82	BSc	Ginindza, Zodwa	Curriculum Design (Social Studies)	Primary Curriculum Unit
1/81	1/82	BSc	Nkambule, Leonard	Teacher Leader	Primary Curriculum Unit
1/81	12/81	BSc	Mhlengetfwa, Thuli	Curriculum Design (Maths)	Primary Curriculum Unit
1/82	8/82	Specialist	Lukhele, Leonard	Director	Primary Curriculum Unit
1/82	AT EMU		Singwane, Timothy	Evaluator	On Leave
1/82	AT EMU		Dlamini, Samuel	Teacher Leader	On Leave
8/82	AT EMU		Dludla, Albert	Curriculum Design (Maths)	On Leave
8/82	AT EMU		Mabuza, Olga	Curriculum Design (Lang. & Arts)	On Leave
9/82	AT EMU		Magagula, Raymond	Curriculum Coordinator	On Leave
	Planned 1983		Maseko, Fairy	Curriculum Design (Science)	Primary Curriculum Unit
	Planned 1983		Mavuso, Albon	Curriculum Design (Lang. & Arts)	Primary Curriculum Unit

*to with PCU on part-time basis, 10 hours per week
**to left PCU for other positions.

SOURCE: USAID/S Records and conversations with PCU Director and Chief of Party.

Annex 6

NON-PILOT SCHOOLS PRESENTLY TEACHING PCU MATERIALS 1982

			1ST TERM	2ND TERM	3RD TERM
Gr.1	SiSwati	A.	Longman's "Life"	PCU	"Asifundze"
		B.1)	Longman's "Life"	PCU	"Asifundze"
		B.2)	Longman's "Life"		PCU
		C.	Longman's		PCU →
		D.			(Teacher absent)
		E.	Longman's "Life"	PCU	Completing "Asifundze"
	Maths	A.	PCU		Unit 3
		B.1)	Practical activities	PCU	Unit 3
		B.2)	Practical activities	PCU	Unit 3
		C.	Practical activities	PCU	Unit 3
		D.			(Teacher absent)
		E.	PCU		Unit 5, Lessons 5-8.
	Science	A.	PCU		Units 3-4
		B.1)	PCU		Unit 4
		B.2)	PCU		Unit 5
		C.	PCU		Unit 4. Finished Workbook
		D.			(Teacher absent)
		E.	PCU		Unit 6
Gr.2	SiSwati	A.	Longman's	PCU	Lesson 3
		B.1)	PCU (no problem)		Lesson 18
		B.2)			(Teacher absent)
		C.	Longman's	PCU	Lesson 10
		D.			(Teacher absent)
		E.			(Teacher absent)
	Science	A.	Art		PCU →
		B.1)	PCU		Unit 3 No. 1
		B.2)			(Teacher absent)
		C.	PCU		Unit 2 No. 2
		D.			(Teacher absent)
		E.			(Teacher absent)

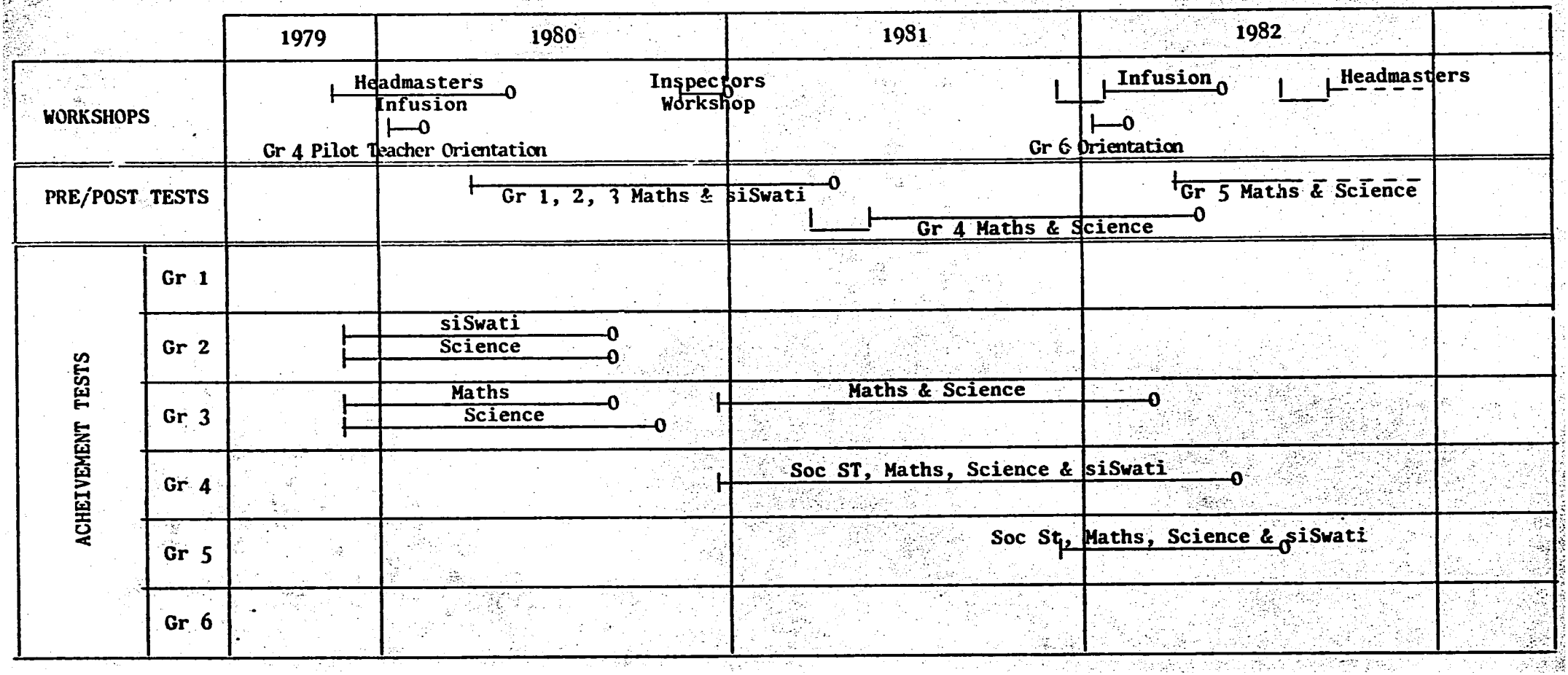
			1ST TERM	2ND TERM	3RD TERM
Gr.3	SiSwati	A.	Not yet started		
		B.1)	Longman's "Sancoti"		PCU ——→
		B.2)		PCU ——	Lesson 3
		C.			(teacher absent)
		D.	Longman's	PCU ——	Lesson 15
		E.			(teacher absent)
	Science	A.	Uses PCU Gr.1 & 2 books	PCU —— Unit 2 not done	—— ?
		B.1)	PCU ——	——	Unit 1 No.4
		B.2)		PCU ——	Unit 1 No.5
		C.			(teacher absent)
		D.	PCU ——	——	Unit 2 No.1
		E.			(teacher absent)
	Social Studies	A.	PCU ——	——	Lesson 5 No.1
		B.1)	PCU ——	——	Unit 3 No.5
		B.2)		PCU ——	——
		C.			(teacher absent)
		D.	PCU ——	——	Unit 2
		E.			(teacher absent)

SOURCE:	HHOHHO DISTRICT	A.	Pigg's Peak Nazarene Primary School	) interviews on 16 September, 1982
		B.1) B.2)	Ntfonjeni Primary School (2 streams)	)
	LUBOMBO DISTRICT	C.	Lubombo Primary School	) interviews on 17 September, 1982
		D.	Good Shepherd Primary School	)
		E.	Khalakahle Primary School	)

Annex 7

PCU EVALUATIONS

Time Between Administering
Evaluations and Publishing Results



|— Test/Evaluation administered

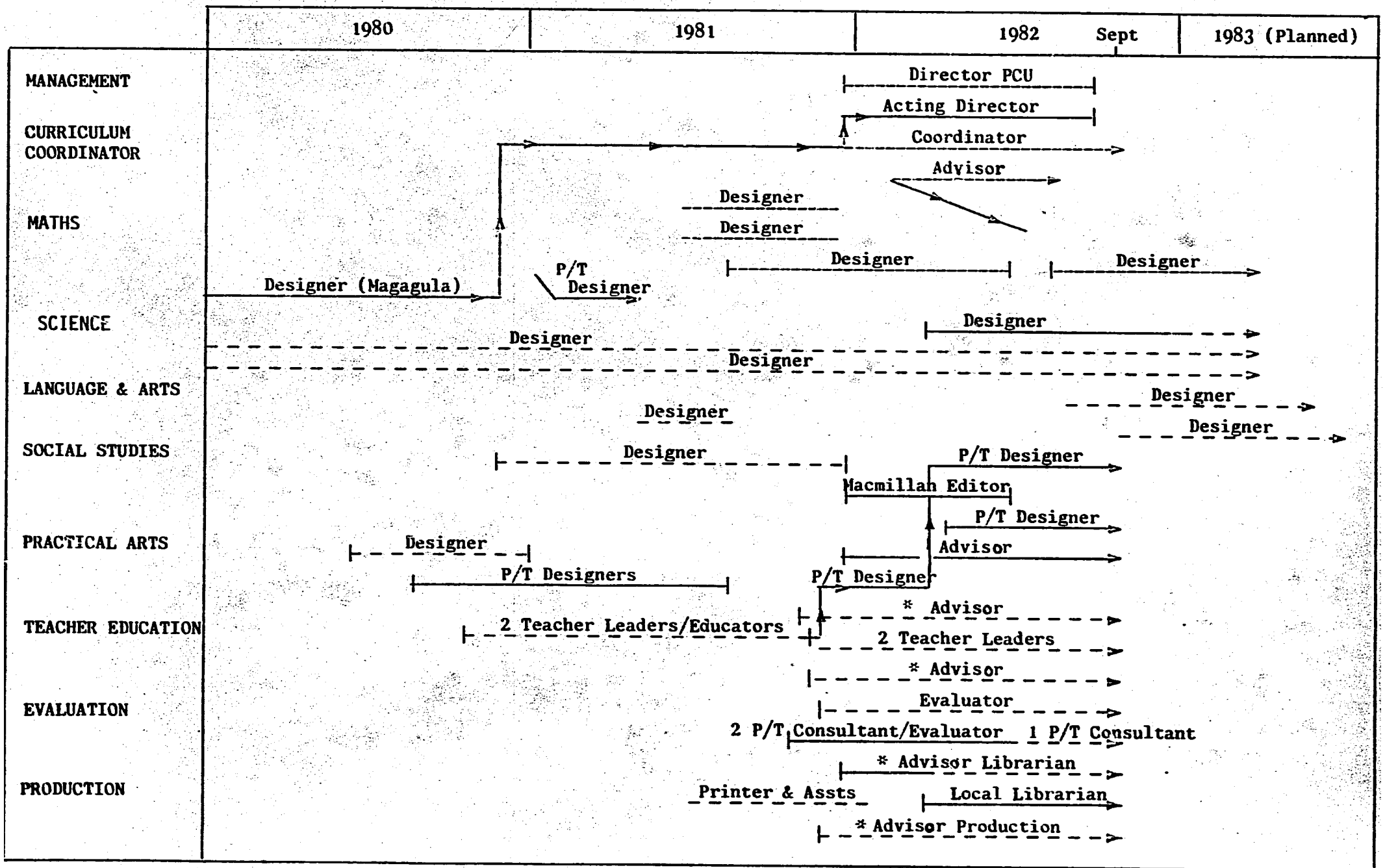
—O Results published by PCU

—— Not yet published.

Source: PCU Evaluation Reports
EMU Semi-Annual Progress Reports

104

EMU STAFF TRANSFERS/VACANCIES



* End of Contract — — — Vacancies
——— Arrivals/Transfers

Source: EMU Progress Reports
Adaption of Annexes 1, 2 and 4

Annex 9

PARTIES CONSULTED

Ministry of Education

Justice Nsibandze, Permanent Secretary
A.F. Hlatshwayo, Under Secretary
Solomon Simelane, Director of Education
Hugh Magagula, Chief Inspector Primary
Bella Katamzi, Chief Planner
Peter Jones, Education Planner (UNESCO)
Joseph Mamba, Planner
George Bishop, European Economic Community Consultant
John Hay, Senior Inspector (Maths)

Department of Economic Planning

Wilson Kunene, Educational Desk Officer
Neil Campbell, Technical Expert (UNESCO)

Swaziland Project for Educational Development (SPED) (World Bank)

Joseph Dlamini, Director

University College of Swaziland (UCS)

B. Putsoa, Dean, Faculty of Education

Primary Curriculum Unit

Leonard Lukhele, Director
All staff members.
Bob Krebs, Chief of Pary, Eastern Michigan University
All EMU Advisors

William Pitcher Teacher Training College

P. Mngomezulu, Head, In-service Department

USAID/SWAZILAND

Bob Huesmann, Director
Bill Charleson, Human Resource Development Officer
Other Staff.

contd... Annex 9

Teacher Innovation and Dissemination Centers (TIDCs)

1. Hhohho District - Pigg's Peak
   Mr. Wilson Mavimbela, Teacher Leader
   D.E.O.'s office

2. Lubombo District - Siteki
   Raymond Nxumalo, Teacher Leader
   Mrs. Lucy Gamedze, Inspector

Non-Pilot Primary Schools

Pigg's Peak Nazarene Primary School (Hhohho)
Ntfonjeni Primary School (Hhohho)
Lubombo Primary School (Lubombo)
Good Shepherd Primary School (Lubombo)
Khalakahle Primary School (Lubombo)

Part-time Consultants to PCU

Mrs Della D. Nsibandze (Evaluator), National Employment Service
Dr. Masotsha J. Ziyane, (Evaluator), Principal, Swaziland Institute for Management and Public Administration (SIMPA)

MacMillan Boleswa Publishers

Frances Somars-Cocks, Language Arts representative
Charles Bewley, Maths/Science representative.