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BOTSWANA
PRIMARY EDUCATION IMPROVEMENT PROJECT
PHASE II
PROJECT NUMBER 633-0240
1986-1991

FINAL REPORT

Sponsored by
United States Agency for International Development
and
The Government of Botswana
Under Contract With
The College of Education
Ohio University
Athens, Ohio 45701

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Prepared by
Dr. Max Evans
Chief-of-Party, PEIP

Dr. Luther Haseley
Deputy Chief-of-Party, PEIP

November, 1991

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ACKNOWLEDGEMENTS

I suspect that it is an infrequent occurrence among USAID contractors for one to have been a participant in the design of a project, a Campus Coordinator for it, later the Chief-of-Party and, finally, involved in writing the Final Report. Such, however, is my relationship to PEIP over a period of 11 years. From that perspective, the acknowledgements of thanks and appreciation which should be extended to individuals for their part in the success of PEIP are literally innumerable. Perhaps under these circumstances, the best I can do is to identify the agencies, organizations and groups which have been so important to this mission of improving primary education, with the full acknowledgement that it was really the people within these bodies who helped to make it all happen.

The Ministry of Education: The Ministers and Permanent Secretaries; the Chief Education Officers and their Departments; the Education Officers.

The University of Botswana: The Vice Chancellors and Central Administration; the Deans of Education; the Heads of Departments; Departments in other Faculties which served primary education students; and especially the staff of the Department of Primary Education

The United States Agency for International Development: The USAID/Botswana Mission Directors; the Human Resource Development Officers; the other USAID technical and support staff.

Ohio University: The President of Ohio University; the Deans of the College of Education; colleagues in the College who carried extra loads because of the long absences by tenured professors; the Campus Coordinator and Secretary who sustained the Ohio team in Botswana on a day-to-day basis.

The Teacher Education System in Botswana: The Staff in the PTTCs; the Colleges of Education; the Faculty of Education; the In-service Education system.

The Primary Schools of Botswana: The teachers; leadership teams; and, most importantly, the children, toward whom all of our efforts were directed.

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The Florida State Team: With whom we were able to cooperate in many ways.

The International Community of Donors: Who were co-participants in the reform process: British Council, Danida, German Volunteers, SIDA, UNESCO.

We thank you all for your many contributions to the accomplishments of PEIP.

Max Evans

I. INTRODUCTION

This Final Report deals with the second phase of the Primary Education Improvement Project (PEIP II - 633-0240) which was carried out in Botswana from 1986 - 1991. The first phase of the Project (PEIP I) took place from 1981 - 1986. The continuity between the two phases proceeded smoothly, with no hiatus. The transition from PEIP I to PEIP II was aided by long-range planning for the second phase, the continuation of the Institutional Contractor (Ohio University) and by the carry-over of key members of the Contractor team from Phase I to Phase II.

Since PEIP II built directly upon the work of PEIP I, a brief description of that Project and its outcomes will be presented in order to provide a context for this report. The reader is referred to the Final Report, Botswana Primary Education Improvement Project, Project Number 633-0222, 1981 - 1986 for more detailed information about Phase I.

PEIP I represented the first major intervention into the primary education system in Botswana following Independence in 1966. An earlier study (Economic Survey of 1965) had drawn "attention to the poor state of education in Botswana and the serious consequences this had for localization of the civil service, and for the economic, social and cultural development of the country." The Report of the National Commission on Education (NCE), Education for Kagisano (1977), confirmed earlier conclusions concerning the state of education in Botswana. The NCE report showed that the performance of Botswana students at both primary and secondary levels was unacceptably low in comparison with other tested developing countries, as well as developed countries. The findings and recommendations of the NCE formed the basis for the National Policy on Education which was set forth in Government Paper No. I of 1977. Fourteen years later, in 1991, those policies still largely guide educational development in Botswana.

National Development Plan 5 (1979-1985) enunciated the following policy for primary education:

The GOB attaches the highest priority within education to the primary education sector. First, in the interests of equality of opportunity and of developing the potential of all children, the Government seeks to provide universal access to primary education. Secondly, since primary education lays the foundation for further education and training and for productive employment, the government seeks to improve its quality and relevance.

In the long term primary education will form the first part of a basic education system available to all children. However, during this Plan period it will not be possible to provide access to junior secondary education for all primary school leavers, so for about half of the children completing Standard 7, primary education will be terminal. Hence the primary education sector must continue to make provision both for those who will be accepted for secondary education and for those who will not have further formal education.

The rapid growth in school-aged population combined with the Government of Botswana's goal of universal primary education and a high percentage of untrained teachers (36%) called for a rapid expansion in the supply of trained primary school teachers. The then three primary teacher training colleges had about 50% expatriate tutors and almost none of PTTC staffs had experience as teachers in Botswana's primary schools. In addition, most of the PTTC tutors had been trained as secondary teachers, not as teacher educators.

In this context, PEIP was designed by officials from the Ministry of Education, the University of Botswana, the USAID and Ohio University to address problems relating to the education of teachers. Primary school curriculum development was left to the then newly established Department of Curriculum Development and Evaluation in the Ministry of Education.

THE PURPOSES OF PEIP I

The two major purposes established for PEIP I required the Institutional Contractor (IC), with the support of USAID, to assist the Government of Botswana (GOB):

1. to establish in the (then) University College of Botswana (UCB) a permanent capacity to provide pre-service training through (a) the creation of a four-year professional Bachelor of Education degree program, and (b) a two-year diploma program to up-grade senior primary school staff for whom a degree is not appropriate; (Note: In 1982 the University College of Botswana became the national University of Botswana).
2. to strengthen the capacity of the Ministry of Education (MOE), in cooperation with the UCB, to organize and implement effective in-service programs for supervisory staff and teachers involved in primary education.

By the end of the project (PEIP I) it was anticipated that there would be:

1. A functioning Department of Primary Education (DPE) as a new entity in the UCB.
2. Botswana graduates of the UCB with B.Ed. degrees or two-year diplomas in primary education, qualified to serve as TTC tutors, head teachers, MOE officers and in other leadership positions.
3. Botswana trained in the U.S. to the Masters degree level in appropriate fields of primary education to supplement and replace US project staff at the UCB.
4. An institutional base established for the systematic and effective in-service training of head teachers, deputy heads, and senior teachers in the (then) 480 primary schools, and for the development of staff of the TTCs and the Inspectorate.

The scope of work for PEIP I provided for 25 years of long-term technical assistance and 37 months of short-term technical assistance; participant training in the U.S. for M.Ed. degrees in primary education for 10 Botswana; approximately \$250,000 in commodities (books, reference materials, instructional aids, equipment and supplies) and the construction of the Primary Education Center and a hostel at UB. All but one of the six long-term technical assistants were located in the Faculty of Education at the University of Botswana, but with responsibilities also for conducting in-service education for teachers and education officers and working with the Primary Teacher Training Colleges (PTTCs). One long-term technical assistant was assigned to the in-service education unit in the MOE.

SUMMARY OF PEIP I OUTPUTS

1. A functioning Department of Primary Education as a new entity within UB.
2. A total of 42 UB graduates with the B.Ed. degrees qualified as PTTC tutors and education officers in 1986.
3. Thirty-three UB graduates at diploma level qualified as teachers, head teachers and education officers with increased professional skills.
4. Ten Batswana trained in the U.S. to the MEd level in primary education who returned to replace U.S. project staff
5. An institutional base for in-service education designed and accepted by the MOE; partially implemented for the delivery of in-service education programs to teachers and administrators in primary schools and to education officers.

THE DEPARTMENT OF PRIMARY EDUCATION

The DPE consisted of two programs: a four-year B.Ed. Degree (Primary) and a two-year Diploma (Primary). At the project design stage it was envisioned that Degree graduates would be posted to the PTTCs as tutors; however, from the very first graduating class some were assigned as education officers. Two or three Diploma graduates became education officers; however, in keeping with the original intent of this program, almost all returned to the primary schools in the capacity of teacher or administrator.

Approximately 30 students were admitted to the DPE each year through the Mature Age Entry Scheme, since none qualified for admission on the basis of being secondary school graduates. Beginning with the third intake into the Department, the students were sectioned into degree or diploma programs, primarily on the basis of their academic performance in year one. In earlier years, the sectioning had been done on the basis of entrance examination scores, which had resulted in an unacceptable number of misplaced students. Typically, about two thirds of the students (20) were placed in the Degree program and one third (10) in the Diploma program. Admission requirements to the DPE also included two years experience as a trained primary teacher, a PTTC tutor or an education officer; possession of a junior certificate; and at least 25 years of age.

The DPE had an initial staffing establishment of eight positions, each relating to an area of specialization in the DPE curriculum. Experienced Batswana primary school teachers with first degrees from the University of Botswana were selected as participants for M.Ed. programs in the United States. All had completed their M.Ed. studies by 1986 and returned to take up positions in the DPE. In almost all instances there were periods of overlap between the departure of long-term technical assistants and their Batswana counterparts. During the final academic year of PEIP I, over three-fourths of the instruction in the DPE was carried out by the Botswana members of staff.

IN-SERVICE EDUCATION

PEIP I's second major purpose was directed toward the in-service education goal of establishing an institutional base for the systematic and effective in-service training of head teachers, deputy heads and senior teachers in the primary schools and for the primary education officers.

Throughout PEIP I, in-service education for teachers focused mainly upon instruction in English, Language Arts, Science and Maths. Week-long workshops were conducted for groups of approximately 40 at three different PTTCs on several occasions throughout the year. It was expected that those attending workshops would also be presenters of the same workshop material to colleagues in their school and to a neighboring school staff.

In the first two years of the workshops, the workshop presenters were Ohio University technical assistants; however, in the latter years, teams of presenters were developed drawing upon teachers in the schools and MOE personnel. Education officers were invited to the teacher workshops and attendance from this group was generally high.

The workshops for education officers, who then numbered about 36, were usually of four to five days in duration and conducted approximately three times each year. The focus of these workshops was on the development of leadership and administrative skills and updating officers on new programs. Workshop topics were usually selected on the basis of needs assessments conducted among the officers.

OVERVIEW OF PEIP II

Progress under the PEIP I project was periodically assessed by a standing PEIP Advisory Committee, supplemented by USAID semi-annual Project Implementation Reviews and regular external evaluations. USAID and the principal GOB participants in these reviews (i.e., representatives from UB, Ministry of Education, Unified Teaching Services and the Ministry of Finance and Development Planning) concluded that an additional five years was needed to assure the continued and sustained improvement of the quality of primary school teaching and administration. The principal reason for the proposed Phase II project was to further institutionalize the pre-service and in-service programs initiated under PEIP I and to permit their orderly expansion to meet country-wide needs. New needs to be addressed by PEIP II resulted from (1) the rapid expansion of primary school enrollments and the consequent need to upgrade the qualifications of more teachers, (2) recent policy decisions leading toward the integration of primary and junior secondary schooling into a nine-year basic education program and (3) some gaps in the institutional system which became apparent as PEIP I evolved and which then needed attention (United States Agency for International Development, March, 1986).

II. CONTRACTOR STATEMENT OF WORK: PLANNED/REVISED

The purpose of this section of the report is two fold: (1) to present the essence of the contract between USAID and the Institutional Contractor (IC) regarding the work which was to be accomplished under the second phase of PEIP and (2) to show how the statement of work was modified during the course of project implementation.

ORIGINAL STATEMENT OF WORK

A planning project paper was developed as a result of the cooperative efforts of representatives of the Government of Botswana (GOB), the staff of USAID/Botswana and the IC, Ohio University (OU). This paper defined the purposes of the second phase of the Primary Education Improvement Project (PEIP II), the inputs required to achieve the objectives of the project and the outputs expected. These elements of the plan are summarized in the following sections of this report.

PURPOSE

The purpose of the second phase of PEIP, as stated in the Project Paper (United States Agency for International Development, 1986) was as follows:

To strengthen the capacity of the Ministry of Education (MOE) and the University of Botswana (UB) to organize, revise and implement effective pre-service, in-service and curriculum programs for primary teacher education. There are four elements which fall within the purpose of this project:

1. To establish in UB the permanent capacity to provide appropriate graduate training in primary education;
2. To expand and improve the pre-service primary education training at the University of Botswana (UB) in both the four-year professional Bachelor of Education degree program and the two-year Diploma in Primary Education program;
3. To establish an institutional network for providing in-service education;
4. To coordinate and assist in the evaluation, revision and implementation of PTTC curricula appropriate to the training needs of primary teachers.

The elements set forth here are interrelated and reflect the need for inter-institutional cooperation.

Both pre-service and graduate education of PTTC tutors and other educational leaders are primarily the responsibility of UB. An element of this responsibility is one of providing for an increased annual intake of both B.Ed. and Diploma students from 20 to 35 B.Ed. and 10 to 15 DPE, respectively, yearly and the development of the Primary Education Specialization under the M.Ed. program at UB. A majority of the B.Ed. and M.Ed. (Primary) graduates will join the staffs of PTTCs, and the remainder will assume roles of educational responsibility as directors of education centers, education officers or serve in MOE main office

positions. These are deemed to be the most critical spots for university-educated Batswana to upgrade the national primary education network.

In-service education is primarily the responsibility of the MOE with the support of education centers and staffs of PTTCs and UB. The establishment of a network to reach all primary teachers will be pursued through the development of an interrelated system for in-service training, utilizing the linkage among MOE divisions, education centers, regional education office and PTTCs with support of the Faculty of Education at UB. Such a network will include all dimensions of the educational system and thereby reach the primary schools to make efficient use of the country's educational resource and provide a communication linkage among different levels of the education structure.

The Botswana Education Human Resources Sector Assessment (BEHRSA 1983), prepared in 1983 calls for an appropriate and common curriculum at all PTTCs. The achievement of this goal will require the cooperation of many groups and agencies under the direction of the proposed Department responsible for Teacher Education within the MOE. Curriculum development activities of the PTTCs will be pursued in a systematic manner which will begin with the staffs of PTTCs and involve appropriate curriculum panels, MOE officers, UB staff and the coordination and support services of PEIP personnel. Throughout these activities, communication and collaboration with JSEIP will be important since both projects are deeply involved in assisting in the preparation of teachers who are trained to meet the basic education needs of the country. These efforts will contribute to the development of PTTC training programs which meet the pre-service needs of primary teachers and relate directly to the basic education programs of primary schools.

SPECIFIC PROJECT OUTPUTS

The outputs which are expected to result from the attainment of the project purpose are as follows:

1. Pre-service

- a. An established two-year Primary Education Specialization under the M.Ed. Program at UB.
- b. A gradual increase in the number of students taken into B.Ed. and DPE programs at UB from the current number of 30 up to 50 per year in 1990 (from 20 and 10, respectively, to 35 and 15).
- c. A professional, experienced staff of Batswana in the Department of Primary Education in which
 - i) all members have the equivalent of an M.Ed. degree, and some have earned doctorates in areas appropriate to department needs;
 - ii) a core of the staff have sufficient training and research experience to provide leadership in research activities pertinent to the educational needs of Botswana

2. In-service

- a. An established institutional network for the systematic in-service training of classroom teachers and head teachers in all the 518 existing primary schools and the in-service development of EOs and staff at PTTCs.

- b. A cadre of resource persons experienced in the delivery of in-service programs.

3. Curriculum

- a. A revised and operating core PTTC curriculum appropriate to the training needs of primary teachers.
- b. An upgraded and more fully localized staff at PTTCs who are experienced in curriculum development and implementation.

ELEMENTS OF THE PROJECT

The project as designed obligated the Contractor (OU), working closely with the GOB, to work for the accomplishment of the PEIP II objectives through the provision of long and short term technical assistance personnel, through implementing all project-funded long and short term participant training, by procuring project-financed commodities, and by assisting in the construction of certain facilities.

1. Technical Assistance - Long Term

Ohio University was designated to provide an estimated 28 person years (py) of long-term technical assistance and 36 person months of short-term consultants over the life of the project. Specialists were to be provided to the GOB, UB and the PTTCs in the following areas: Supervision/Administration, Primary In-service Education, Math/Science/Teacher Competency, Social Studies, Primary Education (area of specialization dependent upon Botswana counterpart selected for advanced training in the U.S.), Research Methods and Design and Curriculum and Instructional Design. With the exception of the In-service Education Specialist, all long-term personnel were assigned to the Department of Primary Education at UB as was the case in PEIP I. The In-service Specialist was to be assigned to the MOE to work directly under the Chief Education Officer for Primary and Teacher Training, but to remain under the administrative guidance of the IC Chief-of-Party.

The Contractor was assigned the responsibility to recruit and nominate specialists for the positions that are discussed below. Nomination were to be forwarded to USAID/B for concurrence and reference to the relevant institution in Botswana. OU agreed to comply with all applicable AID regulations regarding personnel matters and to provide appropriate documents regarding compliance with equal opportunity requirements.

The required specialists, their qualifications and major job expectations were as follows:

- a. Chief of Party and Specialist in Supervision/Administration (5 py). The Supervision/Administration Specialist will serve as Chief-of-Party, assist with teaching and advising in the M.Ed. program and oversee all elements of the project. He/she will also be Head of the Department of Primary Education, UB, a position which carries responsibility in the Faculty of Education for the different primary education programs.
Qualifications: An earned doctorate and experience in teaching at a variety of levels - primary and tertiary. Experience in administration of educational projects in developing countries desired.

- b. **Primary In-service Education Specialist (5 py).** The Specialist in Primary In-service Education will be responsible for helping to develop the in-service education network in the education centers (EC). As the only full-time MOE advisor on the IC team, this specialist has essential duties linking Faculty of Education efforts with those of the MOE and the PTTCs in expanding primary in-service workshops throughout the country.
Qualifications: An earned doctorate and experience in teaching education at various levels. Experience in educational administration/supervision desirable. Experience in positions requiring coordination between educational agencies desirable.
- c. **Math/Science/Teacher Competency Specialist (3 py).** The Math/Science/Teacher Competency Specialist, Social Studies Specialist and Primary Education Specialist will help maintain the teaching capacity of the Primary Education Department at UB during the time that their Botswana counterparts are engaged in graduate programs in the U.S. These specialists will assist also with in-service and curriculum development activities. Each of these will depart from Botswana soon after the counterpart returns from post-master's study.
Qualifications: Earned doctorate with specialization in the teaching of curriculum in primary Mathematics and Science. A working knowledge of teacher competency models desired. Primary and tertiary teacher experience required.
- d. **Social Studies Specialist. (2 py).** The Social Studies Specialist has a unique responsibility. Social Studies is a new component of the primary education curriculum, and there is an expressed need to define the nature of social studies education and determine the training needed to prepare social studies teachers.
Qualifications: Earned doctorate with specialization in the teaching of curriculum in primary social studies. Experience in developing primary social studies curriculum and instructional materials desired. Primary and tertiary teaching experience required.
- e. **Primary Education Specialist. (3 py).** This specialist will replace a Motswana counterpart in the Department of Primary Education who is selected for post-masters study in the U.S.
Qualifications: Earned doctorate with specialization in a primary teaching area or areas needed to replace the Motswana counterpart selected for post-master's study in the U.S. Primary teaching and tertiary teaching experience required.
- f. **Research Methods and Design Specialist. (5 py).** The Research Methods and Design Specialist has a key role throughout the life of the project. In addition to teaching research methodology and other research related courses, he/she will work closely with other departments at UB to develop courses for the M.Ed. (primary) program, serve on the Faculty Graduate Studies Committee and, in the latter capacity, contribute to the development of policies and procedures related to the M.Ed. program. The specialist will be responsible for working with the primary education graduate students and the DPE staff in the areas of research methodologies, including the use of computers and statistics. He/she will also take the initiative in identifying and securing needed resources for use in educational research, especially for an MEd in Primary Education. While taking leadership in the development of the Primary MEd program, she/she will coordinate with the PTTCs and the MOE to help determine special course designs and needs. An essential task will be to weave the new Primary MEd specialization into the existing MEd program as effectively and harmoniously as possible.
Qualifications: Earned doctorate with specialization in educational research methodology and experience in research design and supervision of research activities. College and tertiary teaching experience required.

- g. Curriculum and Instructional Design Specialist, (5 py). The Curriculum and Instructional Design Specialist will be assigned to the Faculty of Education at UB and will spend 75% of the time assisting PTTCs in curriculum development and in-service activities. It is important that there be one specialist who provides the linkage between UB and the PTTCs and coordinates the curriculum development activities among the PTTCs. A person will be needed in this position for the five years of the project.
- Qualifications:** Earned doctorate with specialization in curriculum and instruction design. Experience in developing teacher education curriculum and instructional materials required. Primary, teacher education and tertiary teaching experience required.

2. Technical Assistance - Short Term Consultants

The nature of an evolving five-year project is such that the need for consultant services cannot always be predicted in advance. However, it is estimated that 36 months of qualified technical assistance will be needed. The development and pace of activities will dictate the time and specific areas in which additional specialists will be needed. An examination of activities begun in PEIP I and problem areas identified suggested short-term consultant needs in the following areas: program evaluation and needs assessment, materials distribution systems, special education, remediation, guidance and counselling, correspondence and part-time instruction, materials development. primary education areas, teacher competency model and external evaluations/audit.

3. Participant Training

The project provides for a total of 12 long-term participants, distributed as follows: six who will pursue post-master's study in the U.S. and return to assume roles as primary education staff members in the Faculty of Education (UB); six who will study for the Master of Education Degree in the U.S. and will return to resume roles at PTTCs and in the Ministry of Education. In addition, there will be approximately four participants who will enroll in short-term courses of four to six months in the U.S. or in third world countries.

Planned fields of specialization for post master's programs for participants returning to the Department of Primary Education (UB) will be in areas, such as the following:

- a. Teaching English as a Second Language
- b. Reading/Language Arts
- c. Science Education
- d. Mathematics Education
- e. Social Studies Education
- f. Research Methods and Design
- g. Administration/Supervision
- h. Instructional Design Systems
- i. Curriculum/Instruction Development

Likely areas of M.Ed. specialization will be in one of the following areas:

- a. Special Education
- b. Remedial Education
- c. Early Childhood Education
- d. Education Assessment and Management
- e. Teacher Education Administration
- f. Guidance and Counselling

4. Commodities

The necessary commodities will be dictated by three major areas treated within the scope of PEIP II. These areas are (1) the establishment of the Primary Education Specialization under the M.Ed. program and the increased intake of students into the B.Ed. and DPE at the University of Botswana; (2) the need for additional materials and equipment to support curriculum development activities at the PTTCs; and (3) the requirement of a wide range of equipment, didactic and reference materials, for use in the various facets of the in-service education programs, including the provision of some materials to the new education centers.

5. Construction

The construction component of the project will consist of the following: three education centers, an enlargement of the Primary Education Center (PEC) at UB, and a 108-bed hostel at UB. The three new centers will complete the network of education centers expanded under the Junior Secondary Education Improvement Project (JSEIP). With an eventual 14 center network in place, the existing primary schools can be reached, including those in remote areas. The overcrowded situation at the PEC with the increase in the number of students in primary education has hampered the program. Three additional rooms will alleviate the problem. The 64-bed hostel, constructed under Phase I of PEIP, will prove to be inadequate for the expanded B.Ed. and Diploma program, especially when M.Ed. students are admitted, beginning in 1987, to the Primary Education program. Thus a larger hostel will be urgently needed to accommodate increases in student enrollment.

The Fixed Amount Reimbursement (FAR) procedure will be utilized with AID assuming 60% and the GOB contributing 40% of construction costs. The PEIP II contractor will have no responsibility for construction.

ADMINISTRATION OF PEIP

The administrative plan for the Primary Education Improvement Project was designed to continue the cooperative efforts among the Ministry of Education (MOE), University of Botswana, Ohio University (funded contractor) and USAID. The OU was designated to administer the contract through the College of Education of Ohio University. An OU-based project coordinator, in cooperation with appropriate Ohio University staff, was assigned the following responsibilities: to recruit specialists for assignment to the project team; to bear responsibility for maintaining records as required for periodic audit; and to assure that fiscal procedures were consistent with institutional practices. The MOE had overall responsibility for primary education in Botswana and, therefore, assumed the responsibility to provide overall coordination of the project in consultation with all agencies involved in the project. A broadly based Advisory Committee met regularly throughout the 10-year life of the Project to provide guidance and feedback and to monitor progress.

MODIFICATIONS TO THE STATEMENT OF WORK

The original PEIP II plan required only two substantive changes as it was being implemented during the period 1986 - 1991.

- A. Contract Extension for Ohio University from November 8, 1990 to November 30, 1991 (Project Implementation Order/Technical 633-O240-3, 01/05/90). The extension of the project for one year provided the time needed to assure sustainability and firm institutionalization of pre-service and in-service activities. The reasons for the extension were:
1. The end of the school year for both the University and Primary Schools is the end of November.
 2. Department of Primary Education, University of Botswana: To allow time for the DPE/UB faculty studying abroad for their PhDs to return and resume their posts in the Faculty of Education.
 3. Primary Teacher Training Colleges: To allow for completion of the self-study and curriculum revision process and for the implementation of selected ensuing results.
 4. In-service: To allow for the institutionalization and stabilization of the in-service network under the new Department of Teacher Education.
 5. Participant Training: To allow for participants pursuing PEIP-sponsored degree programs to complete their studies in the U.S. and resume their responsibilities in the University, the Ministry of Education or the Primary Teacher Training Colleges.
- B. Extension of the Length of Service of the Social Studies Specialist from Two to Three Years. The purpose of the extension was to allow the Social Studies Specialist to participate in curriculum development activities related to the 9-year basic education program and to develop a Social Studies Tutor's Guide for the Primary Teacher Training Colleges.

III. SUMMARY OF PROJECT INPUTS AND OUTPUTS

This section of the report provides a brief description of project inputs and outputs. Further explanations of many of the project components will follow in the section dealing with accomplishments. At this point it is well to reemphasize that PEIP was a cooperative effort and that there were inputs by each of the participating agencies. In addition, there was the input of time and effort of many persons which cannot be reflected in a summary such as this. However, the participation and cooperation of these persons and groups contributed greatly to the outputs of the projects.

SUMMARY OF PROJECT INPUTS

Inputs into PEIP II are shown for the following categories: financial, commodities, construction, long and short-term technical assistance and participant training.

FINANCIAL INPUTS

Table I shows the total USAID financial inputs to the contract with Ohio University through the life of the project and the expenditures by the contractor through August 31, 1991, the latest date for which data were available. The total USAID funding for the contract was \$ 5,528,990. As of August 31, 1991 there was an unexpended balance of \$ 397,496 in the contract. Projections of expenditures through March 31, 1992 indicate a balance of \$76,913 at that time.

Table 2, shows the expenditures by year through June 30, 1991 of the contractor. As would be expected, the years of peak expenditures were 1988 and 1989 when the largest number of technicians were on post.

COMMODITIES

Table 3 provides a summary of commodity expenditures for PEIP II. The largest single category of expenditure (\$ 94,810.86) was for books which were placed primarily in the University of Botswana and PTTC libraries. Over \$ 15,000 was spent for journal subscriptions for the PTTCs and the University. Of the total of \$115,827.79 expended from contract funds for Commodities, \$8,186.16 was spent in Botswana, primarily for library books.

TABLE 1 - PEIP II CONTRACT FINANCIAL INPUTS AND
EXPENDITURES , AUGUST 8, 1986 - August 31, 1991

Budget Category	Total USAID Funding	Expenditures
Salaries	\$2,176,033	\$ 2,014,210
Benefits	620,403	605,853
Post. Diff.	142,761	137,553
Travel	234,418	228,732
Other Direct	53,000	48,865
Equipm./supplies*	385,633	398,388
Participants	304,336	207,449
Indirect	1,612,406	1,490,444
Totals:	\$ 5,528,990	\$5,131,494

Source: USAID Project Agreement Amendment NO. 9, Sept. 23, 1991 (PIOT No. 633-0240-3-10007) and Treasurer and Controller's Office, Ohio University.

* Included in this budget category are costs, in addition to commodities, for such items as postage, telephone, shipping costs for commodities and part-time project clerical services.

TABLE 2 - PEIP II CONTRACT EXPENSES BY FINANCIAL YEAR
 JUNE 30, 1987 TO JUNE 30, 1991

Budget Category	Financial Year					Totals
	6/30/87	6/30/88	6/30/89	6/30/90	6/30/91	
Salaries	\$323,750	\$426,427	\$457,991	\$402,354	\$352,631	\$1,963,153
Benefits	99,906	127,984	132,258	117,055	108,673	585,876
Allowances	24,616	34,179	25,220	25,719	24,079	133,813
Travel	58,008	43,061	42,530	40,254	36,565	220,418
Equip/Supplies	45,423	104,929	104,121	56,173	43,628	354,274
Other Direct	6,542	10,684	8,222	13,205	10,238	48,891
Part. Training	-	59,370	48,122	62,101	50,211	219,804
Indirect Costs	227,261	318,730	340,385	282,029	271,375	1,439,780
Totals:	\$785,506	\$1,125,364	\$1,158,849	\$998,890	\$897,400	\$4,966,009

Source: Treasurer and Controller's Office, Ohio University

TABLE 3 - PEIP II COMMODITY PURCHASES*

Category	Contract Funds(\$)		Project Funds (\$)	Total (\$)
	Ohio Univ.	Botswana**		
Books	\$80,511.47	\$3,299.39	\$11,000.00***	\$94,810.86
Journals/ Subscriptions	15,502.91			15,502.91
Instructional Materials	7,611.75	3,064.36		10,676.11
Audio-visual Equipment		332.05	12,322.00	12,654.05
Computer Equip.			21,118.00	21,118.00
Computer Software	4,015.50	1,002.51	1,698.00	6,716.01
Other Equip.		487.85		487.85
Vehicles (3)			47,123.00	47,123.00
Totals:	\$107,641.63	\$8,186.16	\$93,261.00	\$209,088.79

Source: Ohio University Financial Records and USAID/Botswana, Office of the Controller

* Does not include expenditures for office supplies, postage, etc.

** Payments made in Pula. Conversion rate Pula 1 = \$ 0.50.

*** Shipping costs for books from Brother's Brother Foundation.

CONSTRUCTION

The estimated and actual construction expenditures for three education centers, a 108 bed hostel and expansion of the Primary Education Center is shown in Table 4. A total of \$ 1,557,300 was spent under fixed amount reimbursement (FAR) procedures with USAID assuming 60% of construction costs and the GOB covering 40% plus the professional fees. (Five other education centers were funded through the Junior Secondary Education Improvement Project). As noted earlier, the construction costs were outside the Ohio University/USAID Contract.

GOB CONTRIBUTIONS

Table 5, provides estimates of the financial contributions of the GOB to PEIP II implementation. With the exception of the GOB contribution to workshops, which approached one-half million dollars, actual expenditures were not available. An additional cost borne by the GOB was for the purchase of five project vehicles at an approximate total cost of \$70,000.

TECHNICAL ASSISTANCE

Table 6 shows the planned and actual person years of long-term technical assistance provided for PEIP II by area of specialization. The actual person years (29.35) exceeded the planned person years (28) by one and one-third years.

Table 7, presents the names, dates of service, specialization and years of PEIP I/PEIP II overlap of the long-term technicians with the Ohio Team. There were seven long-term technicians in all, serving over 29 person years with PEIP II. The continuation of three PEIP I technicians and a UB employee with the follow-on PEIP II project was an important factor in providing a smooth transition between the two-phases of PEIP.

Table 8 shows that there was a total of 19 short-term consultancies requiring nearly 50 months of consultant time. Approximately 10 months of that total were funded through USAID Mission cost-sharing arrangements. A wide variety of consulting assignments were required, including teaching, program proposals, program evaluations and video productions.

PARTICIPANT TRAINING

The participant training program for PEIP II is shown in Table 9. At the project's end, five lecturers at the UB will have completed PHDs ; five from the PTTCs and MOE will have earned Masters degrees; and one from the MOE will have been awarded the Bachelors degree.

TABLE 4 - ESTIMATED AND ACTUAL USAID/PEIP II CONSTRUCTION COSTS

Construction Item	Estimated Cost (\$)	Actual Expenditure (\$)
3 Education Centers	\$ 888,000	\$ 1,117,300
1 hostel (108 beds)	600,000	400,000
Primary Education Center Expansion	60,000	40,000
Totals:	\$1,548,000	\$ 1,557,300

Source: USAID (1986). Primary Education Improvement Project. Project Paper (633-0240) and Office of the Controller, USAID/Gaborone.

TABLE 5 - GOB FINANCIAL INPUTS FOR PEIP II, 1986/1987 -
1991/1992

Budget Category	Planned (Estimated)	Actual (\$)
Technical Services	\$ 354,000	Not available
Participant Training	125,600	Not available
In-service Workshops	500,000	\$ 493,500*
Commodities	350,000	Not available
Construction	641,300	Not available
Vehicles (5)		\$ 70,000

Source: USAID (1986). Primary Education Improvement Project. Project Paper (633-0240) and Estimates of Income and Expenditure, University of Botswana.

* Includes the cost of PEIP vehicle operation and staff travel.

TABLE 6 - PLANNED AND ACTUAL PERSON YEARS OF LONG-TERM
TECHNICAL ASSISTANCE FOR PEIP II

Specializations	Planned	Person Years	Actual
Team Leader and Specialist in Supervision/Administration	5		5.25
Primary In-service Education Specialist	5		5.25
Math/Science/Teacher Competency Specialist	3		2.6
Social Studies Specialist	2		3
Primary Education Specialist	3		3
Research Methods and Design Specialist	5		5
Curriculum and Instructional Design Specialist	5		5.25
TOTAL:	28		29.35

Source: USAID (198) Primary Education Improvement Project, Project Paper (633-0240) and Office of the Controller, USAID/Gaborone and Ohio University PEIP II records.

TABLE 7 - PEIP II LONG-TERM TECHNICAL STAFF, 1986-1991, AND YEARS OF OVERLAP WITH PEIP I

Name	Contract Period With PEIP II	Specialization	Overlap With PEIP I
Dr. Gordon Behm	Aug. 1, 1986 - May 13, 1989	Math/Science Teacher	1 yr.,1 mo.
Dr. Max Evans	Aug. 1, 1986 - Nov. 30, 1991	COP , Adm./Superv.	2 yrs.,2 mo.
Dr. Luther Haseley	Aug. 1, 1986 - Nov. 30, 1991	Deputy COP,In-ser. Educ.	3 yrs.
Dr. John Milon	Aug. 1, 1987 - July 7, 1990	Teach. Eng. as a Sec. Lang.	none
Dr. Jack Reed	Aug. 1, 1986 - Nov. , 1991	Curr. and Instr. Design.	none
Dr. Josiah Tlou	Aug. 15,1986 - Aug. 12, 1989	Social Studies	none
Dr. John Yoder	Aug. 26, 1986 - July 17, 1991	Res. Meth. and Design	2 yrs. *
Total Pers. Yrs. for PEIP II:	29.35	Total Yrs Overlap w/ PEIP I:	8.25

Source: Ohio University PEIP II records.

* Dr. Yoder served two years (1984-86) as a direct employee of the University of Botswana before joining PEIP.

TABLE 8- PEIP II SHORT-TERM CONSULTANTS

Consultant	University/Institution	Assignment	Dates in Botswana	Number of Weeks.
Dr. Carl Personke	University of Wisconsin	Eval. of DPE Prog.	Jan 21-Apr.7, 87	10
Dr. Doris Brodeur	Illinois State University	Media Center Dev.	May 11-Jul. 14, 87	9
Dr. Albert Leep	Ohio University	DPE Program Revision	Sep 1-Oct. 18, 87	7
Dr. Doris Brodeur	Illionois State University	Video for BTCI	May 11-Jul. 30, 88	12
Dr. Iva Zajicek	Ohio Univiversity(retired)	Breakthrough. to Setsw.	Sep. 1-Nov. 23, 88	13
Mr. Marvin Bowman	Ohio Univer.ity	Video Tape (Supervision)	May 18-Ju.31, 89	10
Dr. Albert Leep	Ohio University	Diploma Program	Aug. 15-Oct. 14, 89	16
Dr. Richard Miller	Ohio University	UB Review Comm.	Feb. 10-Mar. 2, 90	3
Dr. Josiah Tlou	Virginia Tech.	Social Studies	Jun. 9-Jul. 20, 90	6
Dr. Gaonthatle Mautle*	University of Botswana	Social Studies	Jun. 9-Jul. 20, 90	3
Dr. Gordon Behm**	Ohio Department of Educ.	Science	Jul. 15-Dec. 15, 90	21
Dr. William Rader	Ohio University	Costing 3-yr. Diploma	Jul. 16-Aug. 7, 90	3
Dr. Melvin Witmer	Ohio University	Counselor Education	Aug. 3-Sep. 6, 90	5
Mrs. Doreen McColaugh	Ohio University	TESOL	Aug. 15-Dec. 15, 90	18
Mrs. Doreen McColaugh	Ohio University	TESOL	Jan. 1-Apr. 30, 91	17
Dr. Gordon Behm**	Ohio Department of Educ.	Science	Jan. 7-May 30, 91	20
Dr. David Baral	University of the Pacific	Setswana	Jun. 8-Aug. 2, 91	8
Dr. Albert Leep	Ohio University	Diploma Program	Jul. 20-Aug. 30, 91	6
Dr. Richard Miller	Ohio University	UBStrategic Planning	Nov.16-Nov. 30, 91	2
	Total Wks of Short-term Consultancies	199.0	Total Mon. of Short-term Consultancies	49.75

Source: Ohio University PEIP II Records

* One - half time

** Funded through Cost-sharing

TABLE 9 - PEIP II PARTICIPANT TRAINING

Name	Sex	Specialization	University	Degree	Departure	Return	Months
Mautle, G.	M	Social Studies	Ohio University	Ph.D.	Jan. 86	Apr. 88	14
Mosothwane, M.	M	Science Education	Univ. of Georgia	Ph.D.	Jan. 87	Feb. 91	43
Mogasha, M.	M	Administration	Ohio University	B.Ed.	Mar. 87	Aug. 87	6
Rathedi, M.	M	Administration	Ohio University	M.Ed.	Sep. 87	Sep. 88	13
Nyati, L.	F	Linguistics	Univ. Pennsylv.	Ph.D.	Aug. 87	Feb. 91	24
Marope, P.	F	Curr. & Supervision	Univ. Chicago	Ph.D.	Sep. 87	Dec. 91 est.	30
Kandjii, I.	F	Guid. & Counselling	Ohio University	Ph.D.	Sep. 87	Feb. 91	35
Jankie, D.	F	African Languages	U. of Wisconsin	Ph.D.	Jan. 88	Jan. 90	24
Mogasha, M.	M	Administration	Ohio University	B.Ed.	Jun. 88	Nov. 88	6
Kesupile, A.	M	Admin./Spec. Educ.	Ohio University	M.Ed.	Sep. 88	Aug. 89	12
Lesatle, R.*	F	Administration	Ohio University	M.Ed.	Jan. 91	May. 91	5
Moncho, N.	M	Administration	Ohio University	M.Ed.	Jan. 91	Dec. 91 est.	11
Odirile, L.	F	Guid. & Counselling	Ohio University	M.Ed.	Jan. 91	Mar. 92 est.	15
Total Months							238
Total Years							19.8

Source: Ohio University PEIP II records.

Note: PEIP II provided 20 years of participant training distributed as follows:

12 years for Doctoral degree study; 6 years for Masters degree study; and 2 years for short-term study.

* Returned after five months of study toward the M.Ed. degree because of a death in the family.

SUMMARY OF PROJECT OUTPUTS

Listed below is a summary of the planned outputs which were established for PEIP II in 1986 (Project Paper) and the actual outcomes which were achieved. Section IV of this report, dealing with overall accomplishments of the Project, discusses the outputs of PEIP in detail.

Planned

A. Pre-service

1. Two-year Primary Education Specialization under the MEd Program at UB

2. Increase in the intake of students taken into the BEd and Diploma programs from 30 to 50 per year (BEd from 20 to 35 and Diploma from 10 to 15).

3. Professional, experienced staff in DPE in which all have MEd degrees and some have PhDs; a core of staff qualified to provide leadership in research.

4. A core of staff at PTTCs qualified to implement the three-year Diploma program.

B. In-service

1. In-service network for training of teachers and administrators in all primary schools, for EO's and PTTC staff.

2. Cadre of resource people experienced in delivery of in-service

C. Curriculum

1. Revised and operating core PTTC curriculum

Actual

A. Pre-service

1. MEd program for Faculty of Education completely revised; 8 primary education specializations developed; 3 intakes into the program; total of 17 enrolled in primary specializations; 4 graduated.

2. With exception of 1990-91 when 41 students were admitted, DPE had a decreased intake due to smaller numbers passing Mature Age Entry Examinations.

3. All 8 Batswana staff hold MEd; 3 in DPE and 2 in Educational Foundations (PEIP participants) hold PhDs. All staff involved in research; several have published in books and journals.

4. In process of being achieved; 4 MEd (Batswana) completed and 9 in second year of program.

B. In-service

1. Eight new education centers constructed (3 by PEIP); staffed; in-service systematically conducted for EOs, head teachers and leadership teams in all primary schools; annual conferences for all PTTC tutors held.

2. Using multiplier modality, the following have had direct experience in organizing and presenting in-service education programs: 46 EOs, 18 Education Center Officers, 650 headteachers and 1,950 head, deputy and senior teachers.

C. Curriculum

1. The syllabi for the 12 subjects in PTTC curriculum revised by curriculum panels, published, and being implemented.

2. Upgraded and more localized staff at PTTCs experienced in curriculum development and implementation

2. Eighty-five % of staff now Batswana (50% in 1981); 80 % have primary teaching experience (estimated 30 % in 1981); structure for curriculum evaluation, revision and approval in place and operational; all colleges and staff participated in self-studies.

The outcomes achieved in the two phases of the Primary Education Improvement Project 1981 - 1991 contributed to the basis for the USAID follow-on project, Basic Education Consolidation, which has a dual focus of teacher education and curriculum development in the nine-year basic education program.

IV. OVERALL ACCOMPLISHMENTS OF THE CONTRACT, SUSTAINABILITY AND DEVELOPMENTAL AGENDAS

This section of the report is intended to provide detailed information about the major areas of accomplishment of PEIP II. The section will deal with the four objectives of the project and with other activities and outcomes not considered a part of the contractor's scope of work. A brief overview of the role of the Contractor Team (Ohio University) is presented as an introduction to this presentation.

ROLE OF THE OHIO UNIVERSITY TEAM

As noted earlier, six of the seven long-term specialists were assigned to the Department Primary Education (DPE) at the University of Botswana (UB) while the seventh was posted to the In-service Unit in the Ministry of Education (MOE). All personnel posted to the DPE served as regular members of the Faculty of Education which included teaching both graduate and undergraduate courses and service on a wide range of boards and committees. The Research Methods and Design Specialist served as the Graduate Coordinator for the Faculty of Education and Chairperson of the UB Graduate Committee. In the former role, he had leadership responsibility for the design of the M.Ed. program and for its administration after becoming operational.

The Curriculum and Instruction Design Specialist had a dual responsibility of teaching in the DPE and M.Ed. programs while, at the same time, providing direction to PEIP's work with the PTTCs. The Chief-of-Party served as Head of the Department of Primary Education and taught in the M.Ed. Program. The Social Studies Specialist was particularly active with the MOE primary social studies curriculum panel and in working with PTTC social studies tutors in developing a teaching guide. The Science Specialist also worked with the Botswana Teaching Competency Instruments Program and, in his last year, worked with Science tutors in the Colleges to develop a tutors guide.

It is estimated that nearly 50% of the work of the Ohio team located at the University was given to PEIP activities outside the University. All team members had involvement in the design of primary education special-izations and courses for the M.Ed. program.

The In-service Education Specialist in the MOE provided leadership across a wide range of PEIP efforts, including the following: organizing workshops for education officers (EOs), head teachers and leadership teams; liaising with USAID and the MOE in the design of the Education Center facilities, the monitoring of the construction programs and ordering equipment and supplies; liaising with other donor agencies to coordinate in-service education efforts; and developing the structure for the organization and management of the Education Center Network. In addition, the In-service Specialist participated regularly in the meetings of the DPE and served on some University committees.

1. THE MASTER OF EDUCATION (M.Ed.) PROGRAM

Objective: The establishment in the University of Botswana of a permanent capacity to provide appropriate graduate training in primary education.

BACKGROUND TO THE OBJECTIVE

Planning for the second phase of the Primary Education Improvement (PEIP II) included, from the first, provision for development of a Masters Degree with a specialization in Primary Education (United States Agency for International Development, 1986). This was a logical extension to the objectives of PEIP I which proposed, among other things, "To establish in the University of Botswana a permanent capacity to provide pre-service training in Primary Education through the creation of a four-year professional Bachelor of Education program. (p 7) It was anticipated that some of the graduates of the Bachelors degree program would enter the Masters program and go on to occupy senior positions in the Ministry of Education or the Teacher Training Colleges.

The commencement of PEIP II coincided with on-going developments in the already existing M.Ed. program in the Faculty of Education. Originally established in January, 1984, the M.Ed. program at that time consisted of a two-year sequence in which the first year was devoted to general course work and the second to completion of a "dissertation". In late 1985, in response to some criticism from both inside and outside the University, a decision was taken by the Faculty of Education to undertake a fundamental review and reorganization of the program. Planning for a reconceptualized program was well underway when PEIP II started up in September, 1986 and development of Masters degree specializations in Primary Education were then undertaken as part of the broader program development process.

This sequence of developments served to facilitate achievement of the PEIP II objectives in several ways. The Faculty's Graduate Studies Coordinator, who was providing leadership for the review and reorganization of the original masters degree program, joined the PEIP II project as specialist in Research and Design in September, 1986 and was able to carry forward the planning for the primary specializations in conjunction with his continued role as Graduate Studies Coordinator in the Faculty. Further, since the Masters degree program was being conceptualized as a unified whole (of which the primary specializations were only one part), there was only minimal need to develop regulations and procedures which were specific to the primary component of the program, thus smoothing the approval process through the Faculty and the University Senate.

ACCOMPLISHMENTS

While the specific wording of the above objective, as contained in the PEIP II project paper, referred only to development of "graduate training in primary education", it was generally agreed that this objective should be broadly conceived to include, where possible, general enhancement of the research environment and capability within the Department of Primary Education, the Faculty of Education and the larger education community. This came to include encouraging development of structures within the Department of Primary Education and the Faculty of Education to facilitate research, working with individuals from both the University and the larger education community to enhance their research skills and the purchase of appropriate commodities such as computer equipment and software to enhance the research capability of the Department of Primary Education and the Primary Teacher Training Colleges. The major accomplishments of the PEIP II under this more broadly understood objective are outlined below.

A Fully Functioning M.Ed. Programme with Specializations in Primary Education.

The revised M.Ed. was approved by Senate in late 1987 as a two-year full-time (or four-year part-time) program. During the first year, students take two "general core" courses and two "concentration core" courses (in either Educational Leadership or Curriculum and Instruction) and then choose one of 11 specializations in the second year involving three full-course equivalents and a research project. Specializations in Educational Leadership include educational administration, adult education and research and evaluation while those in Curriculum and Instruction are based on subjects such as Social Studies, Science or Education. Five of the Curriculum and Instruction specializations were designed specifically for primary educators. The program was designed so that additional specializations could be developed without needing to change the regulations which govern the program. The first students were admitted to the new program in August, 1988. The first part-time students were admitted into the program in 1990.

The program was administered by a Coordinator (the PEIP II Research and Design Specialist) who reported directly to the Office of the Dean. General oversight was provided by the Faculty Executive Board and a separate Graduate Studies Board, chaired by the Coordinator and composed of all members of academic staff who were teaching or supervising students in the M.Ed. program. In April 1991, as a part of the Faculty of Education's five-year development plan, the M.Ed. program became the Center for Graduate Studies and recruitment was begun for a full-time Director of the Center. The Research and Design Specialist was named Director of the Center until his departure from post in July, 1991.

Preparation of Graduate Students

Admission to the original M.Ed. program was suspended following the January, 1986 intake and applications to the new program were invited after its approval by Senate in 1987. Admissions and enrollments are shown in Table 10.

Seventeen applicants were offered admission to the new program to begin in August, 1988. Of these, only eight were released by the Ministry of Education and seven eventually enrolled. All seven were from the primary education sector.

Fifteen students were offered admission to the program in 1989, of which six were from the primary education sector. However, there was no intake that year since the number of students who met the required qualification would not have constituted a viable intake.

At the time of this report (late 1991) four of the first cohort of students have completed their degrees and are occupying positions in the Primary Teachers Training Colleges, Colleges of Education and the Ministry of Education.

Development of Research Activity and Awareness

Over the past five years, there has been a noticeable increase in educational research awareness and activity in the broader education community of Botswana. These include holding regular national and regional research conferences and periodic research seminars, establishment of both Primary and Faculty of Education Research Committees and broad participation of members of the Faculty in presenting papers at national and international research conferences. PEIP and the M.Ed. program cannot,

TABLE 10 - APPLICATIONS, ADMISSIONS AND ENROLLMENT IN THE M.ED.
PROGRAM 1988 - 92.

	1988/89	1989/90*	1990/91	1991/92
Total Number Applications	27	21	26	41
Total Number Offered Admission	17	15	21	22
No. Offered Admission with Primary Ed. Background	12	6	10	3
Total Actually Enrolled	7	0	16	15
No. Actually Enrolled with Primary Ed. Background	7	8	9	0

* There was no intake in 1989/90 due to an unexpected ruling by the Ministry to restrict further studies to those who had been in their post for at least 5 years since their most recent study leave. Since the remaining numbers were too small for a viable program, the intake was cancelled. Center of Graduate Studies

of course, claim credit for this increase in activity and awareness of research and research related issues. Nevertheless, there is reason to believe that they have played a significant contributing role in these developments.

SUSTAINABILITY

There are reasons for optimism with regard to the longer term viability and sustainability of the graduate studies program and the Faculty's research capability. Three of these developments are highlighted below.

The original M.Ed. program, as described above, was somewhat marginal to the Faculty of Education's other programs and was originally administered by a part-time coordinator. Over the years, the program gained increasing prominence within the Faculty, involving larger numbers of staff and students. In 1991, the program was institutionalized by the establishment of the Center for Graduate Studies. The Center was cross-departmental, attached directly to the Office of the Dean and drew its participating members of staff from the constituent departments of the Faculty. The full-time position of Director of Graduate Studies and Research was established in the Faculty to administer the Center and recruitment for a senior academic to occupy the position was undertaken in early 1991.

Staffing in the Faculty

The Faculty of Education's Developmental Plan for 1991-96 projected a significant increase in the number of students in the M.Ed. program over the period. In anticipation of these developments, the Faculty plan specified an overall increase of eight academic positions in the various departments to make it possible to staff the M.Ed. courses adequately. These positions were approved in April, 1991, and recruiting was undertaken.

Research Capability of the Faculty

The position title and job description for the new position of Director of Graduate Studies and Research are indicative of the importance which is being attached to development of research in the Faculty of Education. Among other things, the Director is to "Chair the Faculty of Education's Research Committee and provide leadership for enhancement of the research capability of the Faculty". Clearly, the Faculty is committing itself to the long term development of its research capacity.

A DEVELOPMENTAL AGENDA

While recognizing the accomplishments noted above, there are nevertheless a number of issues which constitute an agenda for continued development of the program. Three of these are listed here.

Developing Appropriate Selection Criteria for Admission to Graduate Studies

Two of the first cohort of seven students admitted into the revised program left the program without completing their degree. Both left because of difficulty with meeting the academic demands of the program. This attrition rate is unacceptably high. Procedures need to be developed which will minimize failures. Such procedures could include, among other things, strengthening admissions procedures by using special selection tests or providing for more formal, structured input from referees; alternatively, attention could be given to restructuring the program to delay formal entry into degree candidacy until after completion of the first year of required courses or of providing special academic support for students with difficulty.

Increasing Part-time Options and the Flexibility of Program Delivery Patterns.

Until the 1991-92 cohort, all of the students who entered the M.Ed. program were full-time students who were sponsored by the Ministry of Education. This has meant that though the University made its admission decisions on the basis of its own academic criteria, the Ministry of Education retained ultimate control over admissions through its decisions about sponsorship. This was forcefully demonstrated when in 1989/90 there was no intake to the M.Ed. program because of an unexpected ruling by the Ministry of Education to restrict further studies to those who had been in their post for at least five years since their most recent study leave.

The initiation of provisions for part-time students with the 1991/92 intake has alleviated this problem to some extent with four students out of 16 enrolling part-time. The provision is a limited one, however, and can be utilized only by those who are within commuting distance of Gaborone and who are able to leave work early several afternoons each week. A greater variety of modalities for pursuing part-time studies need to be developed such that motivated and able individuals may be able to follow one of several possible paths toward a degree. A corollary requirement will be for development of regulations which will permit flexibility of delivery formats within a general degree structure. Various permutations of location, time and course-assignments could be developed to address the specific needs of educators in a particular cadre or in a particular region of the country from time to time. It should be possible to adapt the format and structure of courses for a specific situation without needing to re-write the regulations which govern them.

Coordination of Admissions and Program Development with Manpower Needs in the Ministry of Education.

Though provisions for part-time and self-sponsored students need to be expanded, it is to be expected that the majority of students will continue to come from the Ministry of Education. It is important, then, that program offerings and program development reflect both the long and short-term needs of the Ministry. Developing particular masters degrees specializations at the University and recruiting specialized staff to teach them requires considerable forward planning. To do this effectively requires, in turn, that the Ministry of Education is clear about the directions it may be taking and where its major manpower needs are likely to be found for both the long and short-term. Unfortunately, such coordination has proven to be an elusive goal. Nevertheless, if the M.Ed. program is to serve the Ministry and, ultimately the country, well, it is important that ways be found to facilitate this process.

2. THE DEPARTMENT OF PRIMARY EDUCATION

Objective: To expand and improve the pre-service primary education training at the University of Botswana (UB) in both the four-year professional Bachelor of Education degree program and the two-year Diploma in Primary Education program.

BACKGROUND TO THE OBJECTIVE

The first phase of PEIP had two major objectives, the first of which was to establish at the UB a four-year Bachelor of Education (Primary) degree program and a two-year Diploma Program. In order to accomplish this objective, a number of major tasks had to be accomplished, including the following:

1. The development of the course of study for the two programs in the new Department of Primary Education (DPE).
2. The development of regulations for the management of the Department including admission requirements.
3. The recruitment and graduate training of Batswana who could staff the newly established Department.
4. The integration of Batswana staff into their new roles as lecturers in the University with responsibility for the operation, management and eventual success of their Department.

PEIP II, then, was viewed as a period of consolidation of the DPE's accomplishments over the previous five years and as an opportunity for the growth and development of the Batswana members of staff. The accomplishments of PEIP II relating to the DPE will be discussed under the following headings: outputs of the DPE; the transfer of responsibility from the contractor personnel to the Batswana; staff development; program development; the acquisition of materials, equipment and facilities; departmental administrative structure development; and establishing external relationships.

ACCOMPLISHMENTS

Outputs of the DPE

The purpose for establishing the Department of Primary Education was to prepare primary school educators who could function effectively as teacher educators, education officers or as more highly qualified personnel in the primary schools. Table 11 shows the quantitative output for the Diploma and Degree Programs for three different time periods: 1981 - 1986 or the period for PEIP I; 1987 - 1991 or the period for PEIP II; and the grand total for ten-year period 1981 - 1991,

With rare exceptions, all Diploma graduates have been posted back to the primary schools at the same rank as when they entered the DPE program. Degree graduates have been posted to the PTTCs as tutors, to the Department of Primary Education in the MOE as EOs and, in recent years, to the primary schools also assuming their earlier status.

At the time of the preparation of this report (October, 1991) approximately 80 % of the tutors in the PTTCs and over 50 % of the primary EOs are products of the DPE degree program. It is readily apparent that the DPE has become the dominant source of degree-qualified educators in the primary education sector in Botswana.

Transfer of Responsibility.

The transfer of responsibility from the Ohio team to the Botswana was a gradual process starting literally with the design of the graduate programs of study for those selected to staff the Department and continuing throughout the life of PEIP II. The shift in teaching responsibilities from the contractor team to the local staff was, in many respects, the simplest task to accomplish. Conceptualizing a departmental role, learning how the machinery of the Faculty and University functioned, the processes and politics to effect change, understanding the relationship to the Ministry of Education and the PTTCs and getting the departmental administrative work accomplished were learned on the job, over time, by contractors and Botswana alike.

The culmination of the transfer of responsibility involved two related events: the promotion of a Botswana member of the DPE staff (Dr. Gaontathe Mautle) from the rank of lecturer to senior lecturer (February, 1991) and his appointment as substantive Head of the Department of Primary Education, effective April 1, 1991. The teaching responsibilities of the Ohio staff terminated with the end of the second semester, 1990-91. Consultations between the Chief-of Party (former Head of Department) and the new Head continued on an "as needed" basis until the departure of the Chief-of Party in November, 1991.

Staff Development.

The PEIP II plan called for six participants to be sponsored for doctoral level studies; however, this was later reduced to five because of budget limitations. Doctoral participants were selected from the DPE staff in the areas of Social Studies, Primary Science Education, Teaching English as a Second Language and two were selected from the Department of Educational Foundations in Guidance and Counselling and Curriculum and Supervision. UB is committed to a staff development plan for its entire staff which offers the opportunity to pursue doctoral studies; thus, as PEIP II comes to a close, additional members of the DPE are planning to go abroad in the immediate years ahead to pursue PhD studies.

Staff development has also taken other forms for members of the DPE staff. Through a linkage with the University of Manchester, several have spent three to six weeks there in study in their special areas; three have studied during the long vacation period at the University of Oslo; and most have attended conferences and presented papers both in Botswana and internationally. Several have received research grants for special interest studies, while others have engaged in paid consultancies.

TABLE 11 - GRADUATES OF THE DIPLOMA AND B.ED.(PRIMARY)
PROGRAMS, 1983 - 1991

Year	Diploma	B.Ed.	Total
1983	8	--	8
1984	7	--	7
1985	8	20	28
1986	10	22	32
1987	9	21	30
1988	9	19	28
1989	16	22	38
1990	15	32	47
1991	15	15	30
Total 1983 - 1986	33	42	75
Total 1987 - 1991	64	109	173
TOTAL 1983 - 1991	97	151	248

Source: University of Botswana Calendars, 1982-83 - 1990-91.

Program Development.

Program development has taken several forms during PEIP II: formal program evaluations resulting in recommendations for change; the integration of appropriate content from MOE innovations in the schools; and the revision of departmental academic regulations.

Early in PEIP II (February - May, 1987), an extensive evaluation of the DPE program was conducted by Dr. Carl Personke (University of Wisconsin - Madison) to (1) assess the Department's effectiveness in addressing its manpower training objectives and to (2) formulate recommendations for improving the Department's effectiveness. The appraisal led to a substantial reorganization of courses in the B.Ed. (Primary) programs and the expansion of the number of specializations available to students.

In 1990, the DPE proposed to the MOE that there be a review of the Diploma program in view of the fact that it had been nearly a decade since its establishment and that new training needs were emerging in the primary sector. A broadly-based committee is currently considering a number of revisions in the program to improve preparation for such leadership roles as teacher advisor and head, deputy and senior teacher. The Committee plans to recommend the introduction of an internship at the end of the second year of study which would have to be successfully completed by students in order for them to be awarded the Diploma.

The process of incorporating in the DPE program relevant content about MOE innovations is an on-going one. Key developments in the primary schools to which the Department must relate in an academic sense include: Breakthrough to Literacy in Setswana, the Project Method of Teaching, the Botswana Teaching Competency Instruments, Continuous Assessment, Guidance and Counselling, Special Education and Early Childhood Education.

A number of changes have been made in departmental regulations to clarify ambiguities, deal with oversights and respond to program changes. Revisions in assessment and progression regulations have introduced both higher standards and expectations for student achievement.

Since the inception of the Department there have been several external examiners: two from the United States serving one year each; one from the United Kingdom serving two years; one from Zimbabwe serving three years and one from Lesotho who has completed his second year. The Examiners' reports, while generally being quite positive about the DPE programs, have also included recommendations which the Departmental Board seriously considers.

Departmental Infrastructure Development.

The organizational structure of the University of Botswana requires that each academic department be capable of dealing with a myriad of administrative matters and policy and planning issues at the departmental, faculty and university levels. Illustrative of these demands are matters such as student admissions, reviewing regulations, timetabling, recruiting and selecting personnel, processing examinations, analyzing and providing feedback on program and policy issues arising outside the Department, and the like. Over the period of PEIP II, the DPE evolved a committee structure for handling this heavy load which retained final decision-making responsibility for the entire DPE Board. The DPE staff also had the experience of engaging in the lengthy process of reflection and planning associated with the National Development Plan No. 7.

Departmental Linkages Beyond the University.

The DPE is linked in a number of significant respects to the educational system beyond the University boundaries. Some of these linkages are found in the Board of Affiliation which establishes the relationships between the teacher training institutions and UB. Most lecturers in the DPE are also moderators for the foundation subjects offered by the PTTCs, a responsibility which imposes particularly heavy demands related to the examination system. The PEIP team also expressed a philosophy that the members of the Department should be engaged in primary school curriculum development activities, serving as consultants, making presentations at workshops and conducting research in the schools, thus avoiding, in so far as possible, a perception by school officials and teachers of being only "ivory tower" academicians.

Because the DPE was established as a direct result of a collaborative effort between the MOE and UB, the MOE has had closer ties to the DPE than would be true of most departments in the Faculty of Education. The structure for implementing PEIP required much consultation with MOE officials either directly or through a network of interrelated committees.

The Acquisition of Instructional Materials.

Throughout the 10-year life of PEIP, the acquisition of relevant library materials was a high priority. The largest commodity expenditures have been for books and journals; however, some computers, educational videos and other educational aids have also been acquired: A Curriculum Laboratory has been established in the Primary Education Center which houses instructional materials of a type not suitable as University library holdings. The PEIP contributions to library holdings have been substantially augmented by funding from University sources.

Equipment and Facilities.

A complete listing of PEIP commodity purchases is presented in a separate report. The equipment placed in the Primary Education Center included five computers, copying, binding and laminating machines, projectors, a telescope, video cassette players, video and other types of cameras and tape recorders. The equipment available to the staff of the DPE was also used to implement the in-service education program.

Two construction projects were carried out under the PEIP II which directly related to the DPE. These were a classroom addition of 200 square meters to the Primary Education Center, which had been constructed during PEIP I, and a 108 bed-hostel to accommodate the increased student enrollment expected in the DPE in the future.

SUSTAINABILITY

There are several conditions at the close of PEIP's decade of development which suggest that the DPE is, indeed, a viable department within the University of Botswana; that it can continue to develop in its role as a scholarly entity contributing to the knowledge base of disciplines related to teaching, learning and leading; that it can serve as a center for higher level human resource preparation for the primary sector; and that it can become a beacon of leadership in the improvement of primary education in

Botswana. Three factors that are believed to be directly related to the long-term sustainability of the Department will be discussed below. It is appropriate to note at this point, however, that some within the University have expressed reservations over the years about the appropriateness of having an academic department devoted to the disciplines related to primary education and which deviates from the norms of the University in its admission requirements.

Status Within the University

The DPE occupies the same legal status as all other departments within the University. Even though the Department drew heavily upon donor assistance for its initial establishment, the usual University processes for the establishment of the new unit were strictly observed, namely, review and approval by the Faculty of Education, the University Senate and the University Council. From the beginning, even though the Ohio team was supported through USAID funds, the salary of all Botswana staff and all departmental operating costs were assumed by the UB. Thus, the conclusion of donor support for DPE does not impose any new expenditures for the University.

Qualifications of the Department Staff

The University is following a policy of moving toward localization as rapidly as is feasible, in keeping with the desire to maintain standards of quality which are internationally acceptable. The DPE is certainly in that mainstream, with all occupants of the current establishment of eight posts having a masters degree, three holding the PhD degree, and others who have been admitted to universities for doctoral studies. The staff of the Department is also well qualified by virtue of the experience which most of them bring to their university roles having served both as teachers in primary schools and as tutors in the primary teacher training colleges. The indications are that the staff fully understands the University expectations of scholarly productivity and is responding to this by engaging in research, publishing in books and journals and making presentations at national and international gatherings. A number of the DPE staff have also engaged in paid consultancies, yet another indication of their expertise and growing reputations. Within the Faculty of Education, several have already been selected to teach graduate courses and to guide the research of students in the M.Ed. program.

Resources

Because of the external (USAID) assistance, the DPE has been the beneficiary of a number of resources which have contributed to a solid base for an academic department. In addition to the participant training program, first at the Masters degree level, then the PhD, a facility has been constructed to serve specifically the program in primary education. In addition, thousands of books and nearly three dozen professional journals have been placed in the UB library and the Department's Curriculum Laboratory. Since the equipment which was necessary for carrying out the extensive PEIP in-service education program was located in the Primary Education Center, the Department has also had access to these resources for teaching and research purposes.

Particular attention should be drawn to the fact that, although the resources mentioned above were made available to assist in the development of the DPE, many of them - classroom and library materials, for example - served the entire Faculty of Education including the M.Ed. program and, in some instances, the University as well.

A DEVELOPMENTAL AGENDA

The DPE, as noted earlier, is on a solid footing for this stage of its development. Looking ahead to the Department's continued growth, a number of matters stand out as being particularly important. Among them are the following: continued staff development; continued program development, clarification of the Department's manpower training mandate from the Ministry of Education; departmental/faculty reorganization; and relationships with the schools and teachers.

Continued Staff Development

The development of a larger core of PhD holders in the DPE should be regarded as a logical next step in the process of departmental evolution and the search for greater excellence. Several benefits will accrue to the Department as a result of further advanced study. Increasingly, the doctorate is viewed by University officials as the desired academic qualification for staff. By increasing the number of PhD holders, the Department will be in step with the University's goal of a staff which is highly competent both as teachers and as researchers who can contribute to the fund of knowledge in their respective fields. A well-prepared staff will also enhance the perception of the Department of Primary Education as a respected academic unit worthy of its place in the University community.

Continued Program Development

While several substantial changes in the programs (B.Ed. and Diploma) offered in the DPE have already been made or are in the process of occurring, the dynamic nature of educational development in Botswana and elsewhere suggests that the need for programmatic development will be continuous. For example, the Faculty of Education proposal for a school administration preparation program will have direct implications for the Department as will the three-year Diploma program for preparing primary school teachers which will soon be introduced on a pilot-basis in one of the PTTCs.

The DPE Manpower Training Mandate

One of the original purposes for establishing the DPE was to provide degree-level training for tutors in the PTTCs and for education officers (EOs), and diploma-level preparation for primary school staff who could improve the quality of teaching and leadership in the schools. Although the need for some degree personnel will always be on-going, the initial high demand for staffing the colleges and the EO ranks has largely been satisfied. Thus, the DPE is now producing more degree level candidates than are required for these institutions. Faced with this situation for the first time in 1990, the Unified Teaching Service posted degree holders back to the primary schools because there seemed to be no other alternative. There is, however, considerable unease in the MOE over this situation and a clear policy statement has yet to emerge.

A number of alternatives do, however, seem to exist. One would be a policy decision to deliberately begin placing degree holders in primary schools. Secondly, the graduates of the DPE are easily qualified to move into teaching in the junior secondary schools. A third alternative could be to reduce the intake into the degree program and to increase the diploma numbers. Since the MOE is moving toward a policy of staffing

the primary schools with Diploma trained teachers, the problem of an over-supply of diplomates does not exist.

Departmental/Faculty /Reorganization

The Faculty of Education Development Plan (NDP7) includes provisions for the establishment of a committee to examine the organizational/departmental structure of the Faculty. This is, no doubt, a needed undertaking since the basic structure of the Faculty is unchanged since the University's founding. Over the years, much growth has occurred within the University and the training needs of the educational system have likewise expanded both quantitatively and qualitatively. The MOE policy decision of nine years of basic education for all has yet to be examined in terms of its implications for the organization of the Faculty. For example, at some point in the not-too-distant future, diploma graduates of the Colleges of Education will be returning to the Faculty to pursue degrees. Regardless of the outcomes of the committee-on-reorganization's deliberations, and the Faculty's eventual structure, the implications for the fledgling Department of Primary Education will be significant. The DPE will need to be prepared to present its views logically and articulately as this important matter is discussed in various forums.

Relationships with the Schools and Teachers

One can argue that the ultimate influence of the DPE preparation programs is to improve the quality of instruction which occurs in the nation's primary schools. There is always a risk that departments in faculties of education, under the pressures which exist to "publish or perish" and to deal with internal issues, will become "ivory towers", increasingly remote from the real issues and problems facing teachers, children, parents, administrators and policy makers.

The Primary Education Improvement Project provided a number of significant communications and involvement linkages between the DPE and the schools. Chief among these linkages were the regular participation of the In-service Education Specialist in the board meetings of the DPE and the participation of the DPE staff in in-service activities and on PEIP-related committees. With the conclusion of PEIP, a number of these rather long-standing relationships will be severed. It will be important for the Department to examine its evolving relationships to the primary education system in an effort to deliberately structure those relationships which are likely to contribute to an increasingly relevant DPE.

3. IN-SERVICE EDUCATION

Objective: To establish an institutional network for providing in-service education.

BACKGROUND TO THE OBJECTIVE

The establishment of an institutional network for providing in-service education was a logical extension of the in-service objective of PEIP I which stated that the project will: strengthen the capacity of the Ministry of Education (MOE) in cooperation with the UCB to organize and implement effective in-service programs for supervisory staff and teachers involved in primary education (United States Agency for International Development, 1981).

During PEIP I, workshops were mounted for classroom teachers and promoted staff from selected schools and for the cadre of primary education officers (EOs), who supervise the primary schools. The teacher participants were grouped into teams which were responsible for conducting workshops in their own schools as well as in neighboring, geographically accessible primary schools which were termed "sister" schools. The "spin-off" workshops were the first stages of a comprehensive multiplier effect modality which was to be implemented fully in PEIP II.

During the course of PEIP I, workshop organization, delivery and evaluation was gradually refined and improved. This was done through a more careful selection of workshop participants, additional training for prospective trainers and more rigorous evaluation and follow-up of workshop program. Although Ohio University specialists were responsible for organizing the workshops and doing much of the teaching, some Batswana "master teachers" were incorporated into the trainer group. This proved to very effective in mounting workshops, as evidenced by participant evaluations.

At the conclusion of PEIP I, significant progress had been made in providing a series of workshops for all education officers and approximately 1,200 primary school teachers. However, as an increasing number of workshops were mounted it became evident that more facilities would be needed to adequately cope with the workshop demand. The existing six education centers had no residential facilities and the four teacher training colleges could be used for courses only during the three vacation periods. This situation led to the conceptualization of a national network of nine new and five upgraded centers which would provide a national institutional infrastructure for in-service education.

A few of the more significant lessons learned from PEIP I had an influence on the planning for in-service activities in PEIP II. These lessons were: a) prospective trainers needed more workshops/courses to prepare them adequately; b) the promoted staff in schools were key figures for implementing in-service programmes; c) education officers had to have assistance in modifying their role from inspector to supervisor; and d) head teachers needed basic training in supervision, administration and leadership.

At the conclusion of PEIP I, there were significant developmental trends in the MOE which were to have an important effect on in-service education. Among these were the following: discussions were being held on the adoption of a basic nine year curriculum; a new Department of Teacher Education was being formulated which would incorporate both pre-service and in-service education; the MOE was developing plans for decentral-

ization which would give more responsibility to local EOs and head teachers; and, the proposed education centre network was in the process of being adopted.

PEIP II moved into this very fluid but challenging environment with some innovative plans for in-service education. While the specific in-service objective in PEIP II was to establish an institutional network for providing in-service education, there were two project outputs relating to this objective. Each of these outputs will be discussed in terms of accomplishments, sustainability and developmental agendas.

ACCOMPLISHMENTS

Related to the establishment of an institutional network for the systematic in-service training of primary classroom teachers and head teachers and the in-service development of education officers and staff at PTTCs.

Construction of Education Centers

The education center network will be almost completed by the end of PEIP II (see Table 12). USAID and the MOE, collaborating through the PEIP and Junior Secondary Education Improvement Projects (JSEIP), were responsible for the construction of nine new education centers with residential and classroom facilities. The In-service Unit in the MOE was responsible for the coordination of center programming and administration.

Because of funding limitations, it was determined in 1990 to construct eight centers instead of the nine originally envisioned. At the time of this report, six of the new centers have been completed and are fully utilized. The remaining two are under construction and should be completed by March, 1992. The MOE is in the process of upgrading the old centers.

The completed centers have been provided with vehicles, computers and multi-system audio visual equipment by USAID. They also have a full complement of professional and industrial staff funded by the MOE.

Professional Activities of Education Centers

The education center network has increased responsibilities as well as expanded facilities. Centers are now multi-purpose, providing services to primary, secondary, tertiary and non-formal educationists. Secondary education officers and primary teacher advisers are housed at each center where they organize workshops for their respective groups of educators.

National, regional, district and local workshops have been mounted at education centers for primary school staff,

TABLE 12 - STATUS OF THE EDUCATION CENTER NETWORK

EDUCATION CENTERS EXISTING IN 1986

1. Lobatse
2. Serowe (upgrading completed 1991)
3. Tlokwen (being replaced with new center; old one being incorporated into the PTTC)
4. Molepolole (replaced with new center)
5. Teaching Aids Production Unit (Francistown)
6. Kang

NEW EDUCATION CENTERS (Constructed with USAID support through PEIP and JSEIP)

	<u>Center</u>	<u>Date of Operation</u>
1.	Selebi-Phikwe	February, 1988
2.	Maun	August, 1988
3.	Mochudi	February, 1990
4.	Molepolole	March, 1990
5.	Tsabong	March, 1990
6.	Ghantsi	April, 1990

CONSTRUCTION UNDERWAY WITH Estimated Completion
USAID SUPPORT

- | | | |
|----|---------|------------|
| 7. | Kasane | March 1992 |
| 8. | Tlokwen | March 1992 |

CONSTRUCTION PLANNED FOR NDP 7 (1991-1997)

1. Mahalapye
2. Kanye
3. Gumare
4. Masunga

secondary staff, PTTC tutors, UB faculty and MOE officials. In addition, centers, when available, have offered their facilities to the Ministries of Health and Local Government and Lands and to local District Councils. Since they are strategically located throughout the country, access for schools in every district in Botswana has been greatly facilitated (See Figure I).

Staff Development Program for Center Personnel.

A comprehensive staff development program was designed for center personnel. This program was the result of the combined efforts of the MOE, PEIP and the British Council. The MOE has sponsored courses for education center staff on Audio/Visual Equipment, Basic Computer Programming and Fiscal Management; PEIP has conducted workshops on Administration, Supervision, MOE Innovative Programs and Communication; and the British Council has conducted an annual series of three-week workshops on Education Center Management and Administration.

Also in the staff development program, one in-service officer has been sent to the United Kingdom each year since 1986 under the auspices of the Overseas Development Agency (ODA) to study for a Masters Degree in Educational Administration. Increasingly in the future, staff development programs of this nature will be provided through the Masters' Degree Program developed with PEIP assistance at the UB.

International Cooperation in Center Development

The education center network has been supported by significant contributions from various donor agencies. The most notable of these were: a) three mobile classroom units from Denmark (Danida) to facilitate in-service activities in remote areas; b) textbooks and reference books from Brothers' Brother Foundation for education center libraries; c) books and video tapes from the British Council focusing on Breakthrough to Literacy in Setswana and the Project Method programs which are used by the teacher advisers stationed at each education center; d) video equipment and a vehicle from the Japanese Government which will be used at the Media facility to be constructed at the Mochudi Education Center; e) audio-visual equipment and computers from the Australian Government to help upgrade the existing older centers; f) vehicles, computers and audio visual equipment through USAID-funded PEIP and JSEIP for all of the new centers; and, g) four experienced and qualified educators from the German Volunteer Service who have served as Education Center Directors.

ACCOMPLISHMENTS

Related to the development of a cadre of resource persons experienced in the delivery of in-service programs.

In-service Education for Teachers and Education Officers

The thrust and extent of in-service education activities for primary school administrators, teachers and education officers are shown in Tables 13 and 14. PEIP II focused on mounting in-service workshops to train trainers and thus to provide an efficient personnel infrastructure that could implement the multiplier concept in the

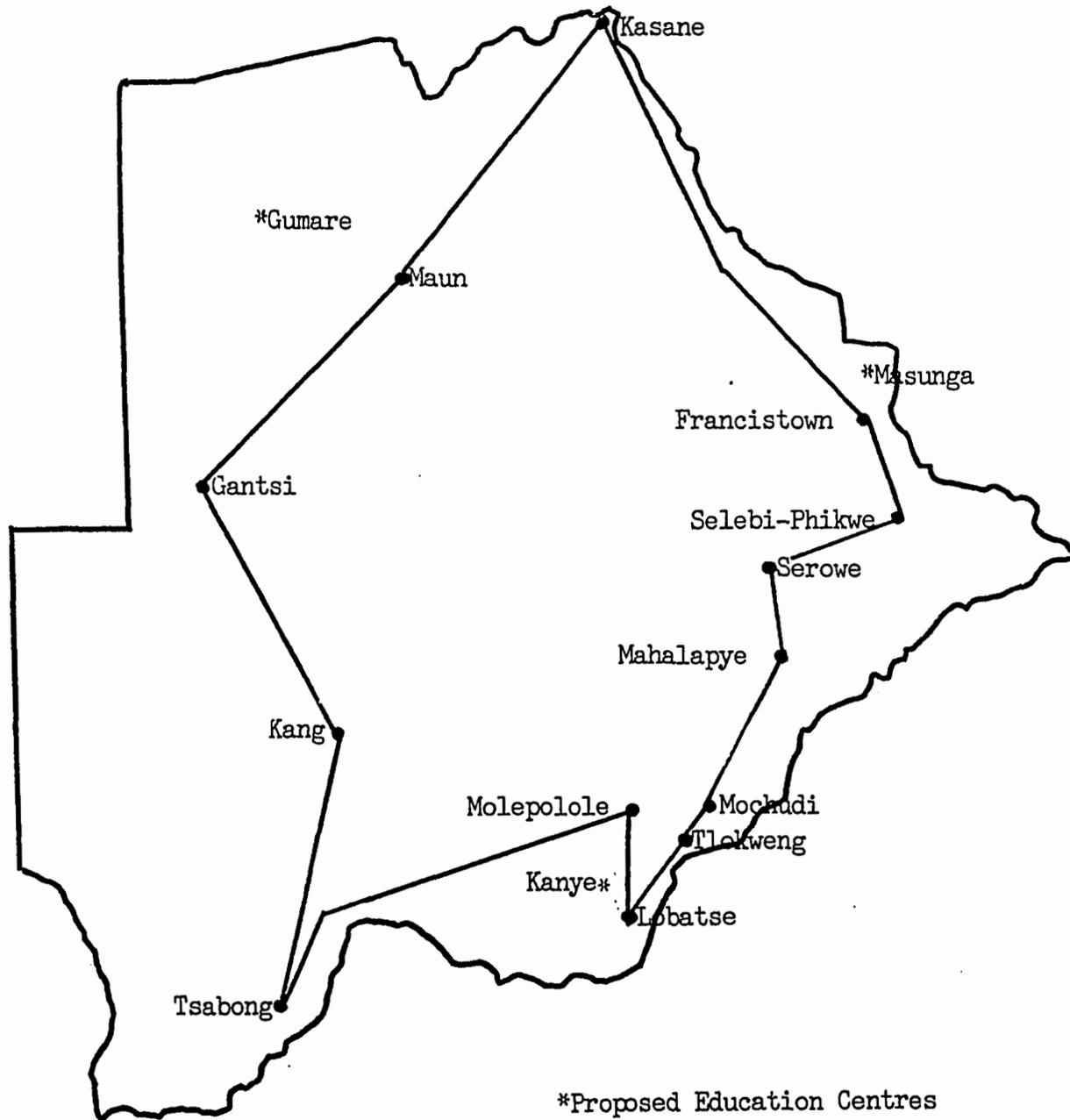


Figure 1 - Education Centres in Botswana

delivery of workshops at national, regional, district and local levels. As a result of the experiences in PEIP I, headteachers were identified as the most appropriate target group for the first two years of PEIP II. In this two-year period, four one-week workshops were provided for every headteacher in Botswana. The subject matter of these workshops dealt with the following: administration, supervision and leadership; Ministry of Education innovative programs; curriculum issues; and school relationships with EOs, education secretaries, education centers and the community.

Approximately 80 trainers were involved in teaching more than 550 headteachers during the two-year program. At the conclusion of each of the four workshops, the headteachers were required to conduct related workshops in their respective schools. Using the multiplier modality, (See Figure 2) more than 9,000 teachers received workshops in the four subject matter areas mentioned above. This is the first time in Botswana that an in-service activity reached an entire target group (all head teachers) of this size, and also the first time in Botswana, that an in-service activity was presented to virtually all primary school teachers (See Table 13).

Planning and
Design of National
Workshops by
PEIP - MOE - ODA
Consultants

Who conduct workshops to train workshop
trainers/presenters (primary education
officers, PTTC tutors, teacher advisors,
education center staff, etc.)

Trainers and presenters conduct workshops for promoted staff
(head, deputy and senior teachers) from all primary schools
at various venues (education centers, PTTCs, etc.) across the
country. The number of schools represented at each workshop
venue varied from 10 (30 participants) to 20 (60 participants)

Promoted staff from each of the current 650 primary schools conduct school-based
workshops for their respective staff, totaling approximately 9,000 teachers

Figure 2. - The multiplier concept as applied to in-service education in Botswana

TABLE 13 - SUMMARY OF PEIP II IN-SERVICE EDUCATION WORKSHOPS FOR PRIMARY SCHOOL ADMINISTRATORS AND TEACHERS

Target Group	No.	Dates	Duration	Content	Train./Presenter	Venues	Follow-ups
Headteachers	550	1987-1988	4 weeks	Admin./Superv. MOE prog. Curr. innov.	MOE Officers, Headteachers, National Lib., Educ. Sec.	PTTCs, UB, Maun, Education Center (EC)	EO visits to schools using Behavioral Rating Scale on Workshop obj. EO Visits
Primary Teachers	9,000	1987-1988		Admin./Superv. MOE prog., Curr. Innovat.	Head Teachers	Local Schools	
Trainees: EOs Teacher-Adv., EC officers	71	1989	3 week	Team Ldership, Project Method, Supervision, Components of good Teaching	PEIP staff, MOE Officers, ODA Consult. (14)	Oasis Motel	Questionnaire from Trainers
Promoted Staff: Head, Dep., Sen. Teachers (3 fr. each school)	1950	1989-1990	4 days	Team Ldership, Project Method, Supervision, Good Teaching	EC Officers, EOs, Teacher advisors	ECs, PTTCs	Questionnaire
Primary Teachers	9000	1989-1990	3-4 days, typically	Team Ldership, Project Method, Supervision, Good Teaching	Promoted staff Head, deputy senior teachers	Primary Schools	Questionnaire
Selected EOs, TAs PTTC tut. Primary Teachers	16 9,000	1991 1991-1992 (In process)	5 days 4 days proposed	Training of trainers: BTCI BTCI	BTCI Coord. and practition. Promoted Staff	ECs Primary schools	Eval. Forms & C A journals Teacher Adv./EO follow-up

TABLE 14 - SUMMARY OF PEIP II IN-SERVICE EDUCATION WORKSHOPS FOR EDUCATION OFFICERS

Target Group	No.	Dates	Duration	Content	Trainers/Presenters	Venues	Follow-ups
Education Officers	45	June, 1987	5 days	Administration BTCI	PEIP,UB,Hd.Tea.	OasisMotel	Questionnaire
duc. Off., Prim., Sec., Non- mal, CD&E, Selected PTTC utors, UB,(Nat. Workshop)	104	Feb., 1988	5 days	MOE Programs, Fin./Budget, Supervision	UB, MOE Officers	Oasis Motel	Questionnaire
duc. Off., Prim., Sec., Non- mal, CD&E, Selected PTTC utors, UB (Nat. Workshop)	120	Sept., 1988	4 days	Communication, Continuous Assess	CD&E/PEIP	Oasis Motel	Questionnaire
-service EOs	30	Jan., 1989	3 days	Mobil Centers	Breakthrough Staff	Serowe EC	Vis.remote sch.
-service EOs	14	June, 1989	3 days	Operation of USAID funded AV equip.	PEIP/Media Coordinator	Tlokweg Ed. Center	Visits to Educ. Centers
Primary and In-service EOs	50	Feb., 1990	3 days	Team Leader., Proj. Meth., Supervision, Workshop Org., (Training of Trainers)	PEIP/MOE Officers	Oasis Motel	Observation of EO Workshops, Questionnaire
Primary and Inservice EOs ed PTTC, Tutors & Head ch.	70	March/April, 1990	10 days	Comp. of Good Teaching, Mounting Workshops, (Training of Trainers)	ODA/PEIP, MOE	Mochudi, Selibe- Phikwe Cen.	Questionnaire, Workshop Observations
Primary and In-service EOs	40	July/Aug., 1990	3 days	Finance/Supplies, Mounting PEIP Workshops	MOE/PEIP	Mochudi Ed. Center	Questionnaire
-service EOs	18	June/July, 1991	10 days	Basic Computer Tech.,(USAID Comp.)	Media Special., MOE/JSEIP	Mochudi Ed. Center	Visits to each Ed. Center

An evaluation of the workshop program revealed that the headteachers a) desired more training and, b) would like to have members of their promoted staff included in future training programs. As a result of this feedback, four-day workshops were designed especially for the promoted staff (leadership teams) from each of the nation's schools which, by this time, numbered more than 600. More than 1,900 head, deputy and senior teachers participated in this program.

Education officers, teacher advisers and education center staff were selected as the first group of trainers to carry out the promoted staff workshops. They were given three weeks of training sponsored by PEIP and British Council for this purpose. Following these workshops, the trainers organized four-day workshops for promoted staff at district levels utilizing the education center facilities as the venue for the workshops. Each workshop brought together leadership teams from 10 to 20 primary schools.

As a follow-up to their own workshop experience, the participants were required to mount similar workshops for the teachers in their respective schools. Questionnaire returns received by the In-Service Unit in the Department of Teacher Education indicated that all of the schools in Botswana did conduct a follow-up workshop organized by their promoted staff. The teachers' and organizers' evaluations of the school-based workshops were judged as being either "successful" or "very successful".

The final major in-service activity of PEIP was an effort to complete the institutionalization of the Botswana Teacher Competency Instruments in the primary schools. These instruments were introduced and first developed by PEIP in 1984, but they were "overtaken" by the urgency of other MOE programs. In the consolidation stage of in-service activities which began in 1990, the BTCI were conceptualized as indicators of good teaching which could be applicable to all MOE programs at all levels. Again, drawing upon the multiplier format developed earlier for the promoted staff workshops, a national program was initiated by PEIP in 1991 to improve the quality of teaching in all primary schools through use of the Botswana Teaching Competency Instruments. At the time of this report, the program is in the "District Workshop" stage. All workshops should be completed at all levels by March, 1992.

As implied earlier, one of the important strengths of the PEIP II in-service education efforts was the high degree to which its initiatives were successfully integrated with those supported by other agencies. Table 15 provides an overview of workshop linkages developed among PEIP, MOE, the Overseas Development Agency (ODA - British Council) and UNESCO.

As PEIP II draws to a close, it is evident that a large number of primary educators have had active roles as in-service education providers over the past five years. These include 45 primary field education officers, 18 in-service officers staffing the education centers, 31 primary teacher advisers and about 1,950 promoted staff from the 600 plus primary schools. Obviously, the level of experience with organizing and implementing in-service education varies considerably among these more than 2,000 educators. Those at higher levels of the network have been given increasingly greater responsibility throughout PEIP II for implementing in-service programs; however, it is the head, deputy and senior teachers who have been responsible and accountable for the transmission of knowledge, skills and attitudes into the Botswana's schools and classrooms.

In conclusion it may be said that the infrastructure of facilities, processes and personnel is in place and when activated, with able leadership, is able to reach all primary school teachers in Botswana.

Target Group	No.	Dates	Duration	Content	Trainers/Presenters	Venues	Follow-ups
Prim., Secondary In-service EOs	40	Feb., 1987	10 days	Statistics	UNESCO Officers	Tlokweg EC	2 Seminars
Selected EOs, Headteachers-Headmasters	40	June, 1987	5 days	Continuous Assessment	ODA, MOE/PEIP	Tlokweg EC	Visits by cont. assess teams
Prim. & Sec. EOs, Headmasters	50	Oct., 1987	10 days	Administration Modules	UNESCO, PEIP, MOE	Morang Hotel, F'twn	Questionnaires, Workshops
EOs Head Masters/Sec. Teachers	40	Aug., 1987	3 days	Family Life, Family Planning	Intern. Committee, MOE/PEIP	Molepolole CoE	Questionnaire
Primary EOs, Selected Headteachers & Headmasters	42	May, 1989	10 days	Administration	MOE, UNESCO, PEIP	Selebi-Phikwe EC	Questionnaire
Primary EOs, Selected Head Teachers & Head Masters	44	Aug., 1989	10 days	Administration	UNESCO, MOE, PEIP	Selebi-Phikwe EC	Questionnaire
In-service EOs, Selected TAs *	36	March 1988	10 days	Educ Center Management	ODA, MOE, PEIP	Tlokweg EC	Rev. of Recom.
Prim. EOs, TAs, Stan. II Teacher	36	Sept., 1988	3 days	Project Method	MOE	Selebi-Phikwe EC	TA * Visit to schools
In-service EOs, Prim. EOs, TAs	38	Oct., 1990	10 days	Ed. Center Management	ODA, MOE, PEIP	Maun EC	Rev. of Recom.

* TA: Teacher Advisor

SUSTAINABILITY

The Education Center Network

The MOE's commitment to in-service education and lifelong-learning for teachers strongly suggests that the developments initiated through PEIP will be built upon and further expanded. The following may be regarded as evidence for this conclusion.

1. The MOE has incorporated in NDP7 provisions to construct the education center at Mahalape, which was delayed by funding limitations, and to construct additional centers at Masunga, Kanye, and Gumare. The MOE has already completed the upgrading of the old education center at Serowe to approximately the same standard as the new ones.
2. The demand for use of all centers is very high. Most are in nearly continuous use for workshops, seminars, classroom demonstrations and the like, frequently being fully booked three months, or more, in advance. The centers additionally are in demand for community uses by business, civics and religious groups.
3. The Department of Teacher Education was established during PEIP II to provide greater leadership and coordination to both in-service and pre-service education. The development of a cadre of primary teacher advisers and the decision to move the junior secondary field education officers into the Department of Teacher Education will, in all probability, result in a stronger and better integrated in-service education program to serve the needs of basic education in Botswana.
4. The necessary steps have been taken by the MOE to develop the organizational infrastructure necessary to operate the education center network, to recruit both professional and industrial staff and to conduct programs of both staff and organizational development.
5. The in-service education network seems increasingly to be regarded by the MOE as an integral aspect of the movement toward greater decentralization of the administration of the school system.
6. The successful experience of conducting massive in-service programs reaching every primary school and teacher, as well as the various education centers' responsiveness to the needs of the teachers in their immediate areas, has developed a level of confidence in local in-service providers to continue the work already begun.
7. A high level of cooperation has been evident among various departments and units which are deemed critical to the effectiveness of the in-service education network. These include the Departments of Teacher Education, Primary Education, Curriculum Development and Evaluation; the Primary Teacher Training Colleges; the Colleges of Education; and, the University of Botswana.

A DEVELOPMENTAL AGENDA

The system of in-service education has grown at a rather dramatic rate over the past five years. It would seem to be advisable that a comprehensive evaluation of the system be carried out in the near future to assess developments to date and to provide guidance for future development. Listed below are number of important issues which have surfaced during the era of PEIP II and which, no doubt, should be addressed in the evaluation.

1. The integration and upgrading of the centers at Kang (now serving primarily the Department of Non-Formal Education), the Teaching Aids Production Unit at Francistown and the Lobatse Education Center. The issue of location for the latter two centers must also be considered.
2. Funding for the operation of the in-service education system needs to be studied holistically in view of the demands being made upon it now and the needs which will have to be considered in the future.
3. All centers should be fully staffed for efficient and effective operation. At this time, six centers have only one senior education officer. The staffing problem will become even more critical as the network expands and the number of field officers and teacher advisors using the centers increases.
4. An on-going issue for years has been the matter of incentives for both those serving as in-service presenters as well as the participants in the in-service programs. What seems to be needed is a way of recognizing the achievements of both teachers taking courses as well as the providers who present the courses, many of whom do so over and above their regular jobs. Studies on this issue which have been carried out in Botswana in recent years or are now underway should be helpful in addressing this problem.
5. Regular, planned programs of staff development for those professionals operating the education centers need to be given a high priority by the Department of Teacher Education.

4. THE PRIMARY TEACHER TRAINING COLLEGES

Objective: The coordination and assistance in the evaluation, revision and implementation of a PTTC curriculum appropriate to the training needs of primary school teachers.

BACKGROUND INFORMATION

Though PEIP I (1981 - 1986) did not have a specific objective related to the pre-service preparation of primary school teachers, other facets of the project did prepare the way for the extensive curriculum development in the Primary Teacher Training Colleges that was characteristic of PEIP II (1986 - 1991). PEIP I established the Department of Primary Education within the Faculty of Education of the University of Botswana. The B.Ed. program initiated by the Department was specifically designed to prepare experienced primary school teachers to be trainers of pre-service and in-service teachers and, thus, to effectively localize the staff of the Primary Teacher Training Colleges and the In-service Unit of the Ministry of Education. The training process produced graduates who seemed to be receptive to change and who had greater understanding of

current strategies for helping children learn. In this way, the stage was set for the Colleges' curriculum development activities of PEIP II.

During PEIP I, also, future staff members of the Department of Primary Education were selected and provided graduate training overseas. It was this group that became available to assist in the implementation of the Agreement of Affiliation between the University of Botswana and the PTTCs and, in so doing, to facilitate the development, evaluation and revision of the PTTC curriculum in PEIP II.

In 1982, PEIP I supported a consultancy which provided a plan for further professionalization of the teaching cadre through a Self-Study Process. Among the terms of reference addressed by the consultant was the development of a "plan for professional visiting, evaluating, chartering and accrediting of Teacher Training Colleges". In responding to the request, the consultant produced "A Model for the Professional Evaluation of the Teacher Training Colleges of Botswana" (Evans, 1983). This document became the underpinning of the Self-Study activities of PEIP II.

ACCOMPLISHMENTS

The Self-Study of the Primary Teacher Training Colleges

A series of large-scale meetings were held to review the document "A Model for the Professional Evaluation of the Teacher Training Colleges of Botswana". These meetings produced a Self-Study Guide representative of the primary teacher training conditions and programs in Botswana. The Self-Study Guide (Ministry of Education, 1987) was used to obtain a set of college data through an extensive study by the staff in each of the colleges.

The Self-Study, which addresses issues of institutional development, resulted in a detailed description and evaluation of the structure, program and student body by the staff of each of the four colleges. The report of each college was reviewed by an outside reviewing body (Review Team) and, through this accumulated data and the resultant recommendations, the colleges produced development plans which are currently being implemented. The findings of the Self-Studies confirmed the need for intensive curriculum development efforts in the colleges and provided documentation concerning the need for an upgraded (Diploma) primary teacher preparation program. Based on the Self-Studies and the Review Team visits to each of the four PTTCs, a report was prepared entitled "The Status of the Primary Teacher Training Colleges in Botswana" (Curriculum Implementation Committee, 1989).

Formalised the Subject Panel Structure as a Curriculum Development Modality

National curriculum conferences were held in January of 1989 and 1990 to develop and implement a framework for curriculum development through cooperative action of the primary teacher training college staffs. As a result, subject panels were formed for each of the 12 subjects of the PTTC program. The panels were provided terms of reference to use as guidelines to build their programs. The panels identified their membership, objectives and annual meeting schedules during the conferences.

The Ministry of Education, through the newly established Department of Teacher Education, formalised the status of the subject panels through a series of directives governing the school-year operation of the panel activities. The Primary Teacher

Training Colleges have provided in their annual budgets for the operation of the panels as a regular part of the college function. The Faculty of Education of the University of Botswana has appointed staff members, mainly from the DPE, to serve as advisors to the panels and to promote the functions of the panels as they pertain to the responsibilities of the Board of Affiliated Primary Teacher Training Colleges.

The Establishment of a Structure that Oversees Curriculum Development in the Primary Teacher Training Colleges.

With the onset of PEIP II, a broadly based (30 members) Curriculum Coordinating Council (CCC) was established to consider all matters related to curriculum development and approval. Along with the formation of the CCC, a sub-committee, the Curriculum Implementation Committee (CIC), was formed to liaise with teacher training college subject panels involved with curriculum development. This committee functioned mainly to facilitate the work of the curriculum subject panels and to provide a curriculum communication channel between the colleges and the CCC.

In the committee structure that evolved, it is now possible for a subject panel to revise its curriculum materials and, through the support and assistance of the Curriculum Implementation Committee, to pass the revision to the Curriculum Coordinating Council. In the CCC, all facets of the teacher education community are represented and the suggested revision can be considered in the light of the total program before the proposal is presented to the Board of Affiliated Primary Teacher Training Colleges for final review and ratification. In this way, duplications and omissions in curricular offerings can be identified and dealt with to provide a greater cohesion in the total primary teacher preparation program. Figure 3 presents a flow chart showing the paths by which curriculum development and approval for the PTTCs occur.

Revision of the PTTC Curriculum

As an outgrowth of the curriculum evaluation work carried out through the Self-Study process, an intensive syllabus revision process occurred during the second half of PEIP II. An important dimension of the development process was the use of two National Subject Panel Conferences involving, among others, all tutors in the PTTCs to initiate and coordinate this undertaking. Twelve subject panels, one for each PTTC subject, were established as the vehicle for review and revision. Panel membership included in most instances representatives from each college and resource people from the Curriculum Development Unit and the University. USAID-funded consultants assisted in the areas of Social Studies, Science and Setswana. The Curriculum Coordinating Council reviewed the syllabi changes proposed by the panels and offered some suggestions. The revised syllabus is scheduled to be submitted to the Board of Affiliation for final approval in late 1991, then bound and distributed throughout the teacher education system.

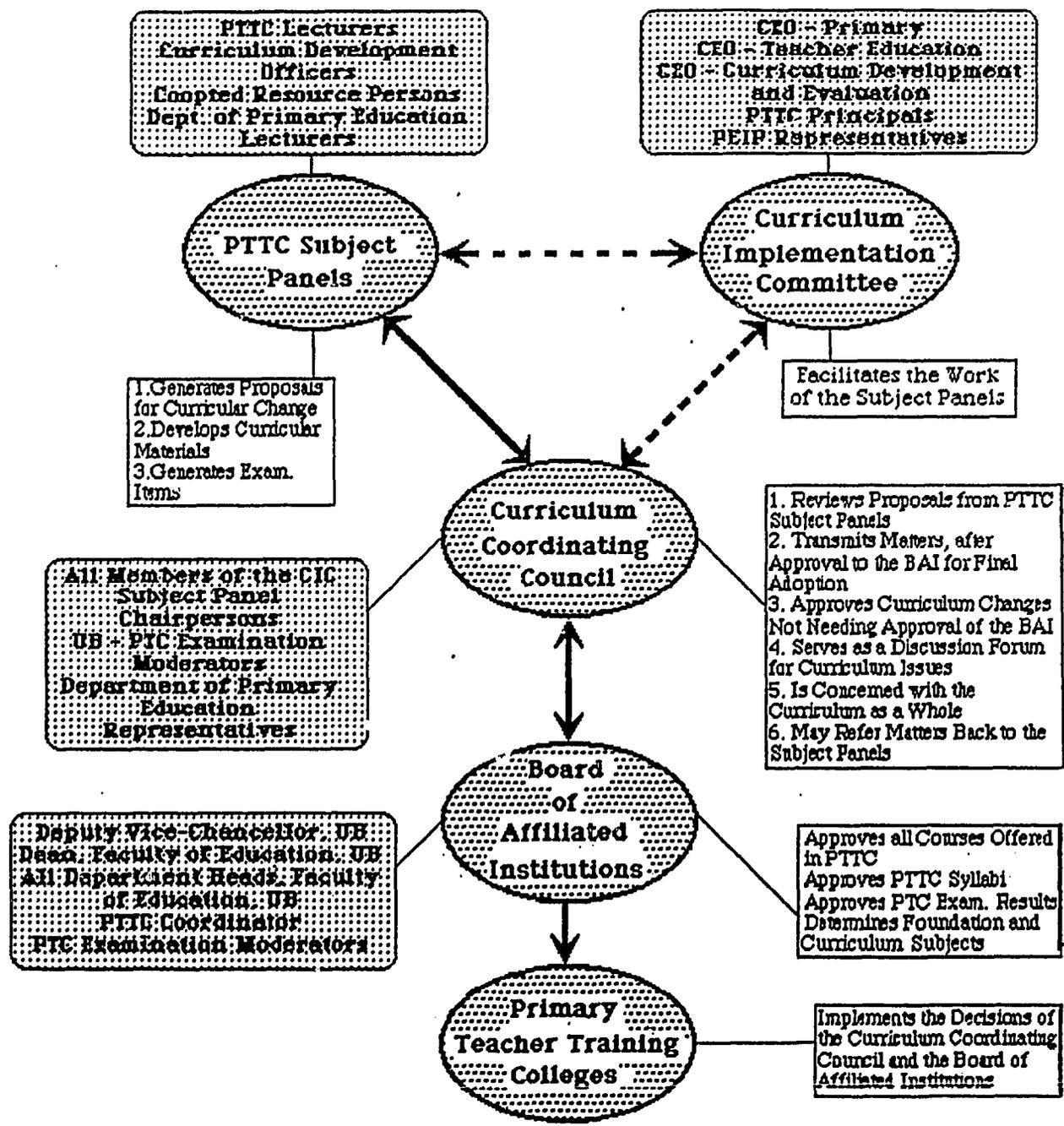


Figure 3. - Flowchart for PTTC Curriculum Development and Approval

Supported Establishment of Three Permanent Staff Positions for Overseeing and Assisting the PTTCs in Developing Curriculum and Assessing the Results of Instruction

In order to maintain the extended scope of services to the Primary Teacher Training Colleges after the completion of the Primary Education Improvement Project, it was desirable to formalise certain roles established in the Faculty of Education (UB) and in the Department of Teacher Education, Ministry of Education.

The Faculty of Education has employed two persons who, as part of their job descriptions, will assume various responsibilities associated with the University's role in awarding the Primary Teacher Certificate and the College of Education Diploma. The first person, the Board of Affiliated Institutions Coordinator, will oversee the preparation, administration, marking and moderation of the PTTC final examinations and also supervise the moderation of the final teaching practice results at each of the four colleges. In cooperation with the MOE, the Coordinator will also assist with curriculum development and in-service education. The second person, the Assistant Registrar-Board of Affiliated Primary Teacher Training Colleges, will be in charge of recording and reporting the results of PTTC examinations and teaching practice.

In the Department of Teacher Education, the Senior Education Officer- Teacher Education was employed to coordinate all subject panel activities related to curriculum development and to help subject panels to incorporate Ministry of Education instructional innovations into the Primary Teacher Training College curriculum.

Facilitated Development of a Three-Year Diploma Program for Primary Teachers

While not an objective for PEIP II, the Project Paper took cognizance of the limitations of the two-year Certificate program and formally introduced the concept of a three-year Diploma program, enrolling secondary school graduates (Cambridge Overseas School Certificate holders), into the mainstream of policy consideration. Over a four-year period, the issue of changing the preparation of primary teachers to Diploma level was studied first by the National Council for Teacher Education and then at the Policy Advisory Committee level of the Ministry of Education. The outcome of these deliberations, assisted by three USAID-funded consultancies (Leep 1989, Leep/Pilane 1991 and Rader, 1990), has been the decision to convert to one of the PTTCs (Tlokweg) to a pilot Diploma program. The provisions in National Development Plan 7 for the Diploma require that the pilot program be evaluated and found to be effective in comparison to the present two-year certificate program before extending the Diploma to the other PTTCs.

Revision of the Academic Regulations for the Primary Teacher's Certificate

The PTCCs as noted earlier are linked to the UB through the Board of Affiliated Primary Teacher Training Colleges. Since the award of the Certificate to graduates of the PTTCs is made by the University, academic regulations and standards are established and enforced by that body. An extensive revision of the regulations was carried out and approved by the Board of Affiliation, the University Rules and Regulations Committee, the Faculty of Education and the University Senate.

The First National Teacher Education Conference

One of the major culminating activities of PEIP was the organization of the First National Conference for Teacher Educators. Convened in April, 1991, under the general sponsorship of the National Council for Teacher Education, the three-day Conference brought together 250 educators representing the nine institutions preparing teachers for the primary and secondary schools. (The institutions are: four PTTCs, two Colleges of Education, the Botswana Polytechnic, the Botswana College of Agriculture and the Faculty of Education). The Conference focused upon the pre-service preparation of teachers; however, it was recommended that the next conference deal extensively with in-service education. The costs of the Conference were borne largely by PEIP workshop funds. Five hundred copies of the Proceedings of the Conference were printed and distributed to teacher educators and others.

SUSTAINABILITY

Institutional Structures

Two modifications in institutional structures during the life of PEIP II bode well for the continued development of the programs in the PTTCs. First, the Ministry of Education has created and staffed a new Department of Teacher Education which has within its portfolio responsibilities for pre-service teacher education, in-service education and training. Within the Department, the post of Senior Education Officer for Teacher Education has been filled by an experienced PTTC administrator. Second, the Faculty of Education at UB, which has responsibility for the Boards of Affiliation for both the PTTCs and the Colleges of Education, has created and filled a new senior level position of Coordinator of Boards of Affiliation. These developments represent significantly increased commitments to the development of teacher education at both the primary and junior secondary levels.

The Self-Study Process

The Self-Study process, as an approach to institutional development, has been exceptionally well received across the education community. Development plans of varying degrees of sophistication have been established for each of the PTTCs and are in the process of implementation. The two Colleges of Education, which prepare Junior Secondary teachers, are in the initial stages of implementing the Self-Study process in their institutions. Well over 100 educators have already been involved with some phase of the Self-Study process, a situation which provides a broad base of experience for its continuation.

A Structure for Curriculum Review and Development

Curriculum development in the PTTCs through the activities of the subject panels has become an integral part of the college program. The Primary Teacher Training Colleges have developed specific budget items to cover the cost of staff participation in regular meetings of the subject panels. In turn, the Department of Teacher Education has recognized the existence of the subject panels by publishing a directive that controls the frequency and the duration of the subject panel meetings.

The existence of the Curriculum Implementation Committee, the Curriculum Coordinating Council and the Board of Affiliated Primary Teacher Training Colleges provide a committee structure for the review of curriculum and implementation of changes.

Involvement of University staff members in PTTC Curriculum Development.

The Faculty of Education, University of Botswana, has appointed members of the Faculty, most of whom are from the DPE, to serve as external examiners of the PTTC final examinations. The examiners are charged with the responsibility for overseeing the development of the PTTC examinations, their security during printing, their marking and moderation. The examiners also provide consultative assistance to the subject panels in their curriculum development activities. With this responsibility, there is a continuing linkage between the University and the development activities of the subject panels.

A DEVELOPMENTAL AGENDA

Because of the curriculum development personnel and structures that are in place, there are significant activities that, no doubt, should be pursued to expand, extend and improve curriculum development in the teacher training college system.

The Three-Year Diploma Program

As PEIP II phases out, the Department of Teacher Education is deeply involved with plans for implementing a pilot three-year Diploma program for the preparation of primary school teachers. A start-up date of January, 1993 has been selected and a master schedule for meeting that deadline has been adopted. A broadly based Advisory Committee has been established, chaired by the Chief Education Officer for Teacher Education.

In August, 1991 two consultants (a Motswana and an American - Pilane and Leep, 1991) developed a curriculum proposal for the Diploma program which will be submitted to a broad section of the teacher education community for review and comment. The proposed curriculum also outlines evaluation procedures which can be utilized to make assessments of the relative effectiveness of this new program. Assuming that the Diploma program is found to meet the Ministry of Finance and Development Planning's criteria of effectiveness, the Ministry of Education will need to develop a plan to phase the Diploma program into the other three colleges. It would appear that this transition phase would continue into the 21st century.

Monitoring of the Implementation of PTTC Development Plans

There will be a continuing need for MOE and University personnel to be aware of the components of the PTTC development plans and to serve as catalysts in the process of attaining the plans' objectives. Steps must be taken to assure that a systematic approach is employed to monitor the process and to stimulate those persons and institutions responsible for implementing the plans within the recommended time frames.

Continuation of the Self-Study Process

The Colleges of Education and other institutions have indicated a desire to initiate the Self-Study process. It is important to act on this opportunity and to facilitate this exercise without unnecessary delay. Personnel who could provide the appropriate guidance should be identified. It may be that PTTC staff members could serve as resource persons and facilitators based on their previous experience.

Primary Teacher Training Colleges should be planning now for the second phase Self-Study activities. On the basis of previous experience with The Self-Study Guide, the Guide should be reviewed and revised to provide criteria and data that more closely describes the College program. The PTTCs should also begin planning for the second evaluation of their institutions. Perhaps the most effective timing would be to relate the exercise to the next National Development Plan (NDP8).

The National Council on Teacher Education

The National Council on Teacher Education, with new Terms of Reference approved by the Ministry of Education, seems now to be positioned as a body which can provide both leadership and coordination to the development of teacher education in Botswana. The NCTE, which is both an advisory and consultative body to the MOE, is at the time of this report examining its operating structures and studying approaches to selecting its agenda.

PUBLICATIONS, PAPERS AND REPORTS

A comprehensive listing of major publications, papers and reports arising from the Primary Education Improvement Project is provided in the Appendix. This material is grouped into the following categories: General, Consultant's Reports, the Self-Study Process, the Primary Teacher Training Colleges, the Department of Primary Education/Faculty of Education and the Semi-Annual Reports prepared for USAID.

Attention is drawn here to one publication - Patterns of Reform in Primary Education: The Case of Botswana (1991) edited by Max W. Evans and John Yoder and published by MacMillan, Botswana. The publication, which includes contributions from 19 educators, attempts to describe the important elements of the reform process underway in primary education in Botswana during the decade 1981 - 1991. Through the cooperation of USAID and the Junior Secondary Education Improvement Project, 2,000 copies of the book were purchased for distribution to all schools, the teacher education institutions and Ministry of Education officials, among others.

OTHER ACTIVITIES AND OUTCOMES OF PEIP II

The implementation philosophy of the PEIP Institutional Contractor (Ohio University) was to take a broad view of its role rather than a narrow, restricted one. Such an outlook involved team members in a variety of activities which, while perhaps not directly related to project objectives, seemed to be highly consistent with its purposes and important generally to the development of primary education in Botswana.

Over the decade of PEIP, in addition, a number of productive linkages and rich relationships were established between Botswana and Ohio University. These developments were, no doubt, facilitated by the fact that two long-term PEIP technicians were senior staff members (tenured professors) with strong ties to the contracting university and that the President of Ohio University was highly committed to international education and development.

This section of the report seeks to summarize a number of these additional activities and project by-products which seemed to add an important qualitative dimension to PEIP.

PROJECT RELATED ACTIVITIES

Involvement with Primary Curriculum Development

While the focus of PEIP was upon the development of primary education through the improvement of teaching, the PEIP team had involvement with the curriculum development process throughout the 10-year period. The involvement took a variety of forms: participation on national curriculum panels, providing consultancies, participation in curriculum workshops, and providing some equipment. PEIP maintained a positive, ongoing relationship with the major MOE innovations of Breakthrough to Literacy in Setswana, the Project Method of Teaching, Special Education, Guidance and Counseling and Continuous Assessment.

Serving as External Examiners

PEIP team members served as external examiners at the Molepolole College of Education, the University of Dar Es Salaam and the University of Zimbabwe.

National Curriculum Consultative Conferences

Responsibility for the National Curriculum Consultative Conferences rested with JSEIP; however, PEIP played a supporting role in two conferences and a leading organizational role in the third one.

National Council on Teacher Education

PEIP gave considerable support to NCTE by providing the Secretary for the organization. In addition, the PEIP Chief-of-Party provided input over the years urging a reexamination of the Council's role and procedures.

Organizing Extra-Curricular Activities for Students

One PEIP team member took a group of approximately 50 DPE students on a six-day field trip to the Great Zimbabwe Ruins, a practice which is still being followed by the then counterpart lecturer. Another technician interested in Astronomy, organized several sky-watching activities for students and staff, using the PEIP telescope.

Approximately 2,000 UB students had an opportunity to view Halley's Comet through this activity.

Scholarly Presentations

Four presentations were made by PEIP team members at international conferences, including the American International Research Association and the Teaching English as a Second Language Convention.

Publication of Book

Members of the PEIP team provided leadership in the publication of a book entitled Patterns of Reform in Primary Education: The Case of Botswana. There were 19 contributors to the publication, including five PEIP team members and eight Batswana.

OHIO UNIVERSITY/BOTSWANA LINKAGES

BOLESWA Educational Research Symposium

This biennial educational research conference had its genesis in the College of Education at Ohio University in 1985, then being named the Symposium on North-South Collaboration on Educational Research. At the second conference of its kind in 1986, which included substantial participation by representatives from Botswana, Lesotho and Swaziland, the decision was taken to move the site of the conference to the BOLESWA countries. The BOLESWA Educational Research Symposiums have now been held in Lesotho (1987), Botswana (1989) and Swaziland (1991). Attendance at each of the three conferences has been over 200 with ever-widening African participation. The President of Ohio University was instrumental in securing partial support from an American-based foundation for the Conference and Ohio professors continue to give support and to participate in the Symposium.

Donations of Encyclopedia and Personal Libraries

Through the good offices of the President of the World Book Company, an alumnus of Ohio University, sets of the World Book Encyclopedia were made available to all of the PTTCs and education centers. A number of faculty members at Ohio University also donated their personal libraries to the PEIP project. One donation was an intact 25-year collection of a professional journal in the field of guidance and counselling which was transmitted to the UB Library.

Books through Brothers' Brother Foundation

During PEIP II, nearly 200,000 new books with a retail value of over \$1,250,000 were received in Botswana and distributed to schools, PTTCs, and libraries throughout the country. Brothers' Brother Foundation of Pittsburg served as the liaison between the US book publishers donating the books and the Rotary Club of Gaborone which was

the receiving agency in Botswana. The USAID/Botswana Mission paid shipping costs for a significant number of books.

PEIP Team Offering Ohio University Courses in Botswana

Several participants studying at Ohio University were able also, to take OU courses in Botswana from PEIP team members who were qualified to teach the courses. The courses included supervising research activities of doctoral candidates and the supervision of internships in guidance and counseling as well as regular courses.

Ohio University Designated as North American Depository for Botswana Documents

His Excellency, President Quett Masire, announced on his visit to Ohio University to give the graduation address in June, 1989, that Ohio University had been designated by his Government as the North American depository for Botswana documents. The National Library of Botswana provides these materials to the Ohio University Library free of charge, with the recipient paying shipping costs. Ohio University has similar arrangements with Swaziland and Malaysia.

Quett K.J. Masire Fellowship

The Quett K.J. Masire Fellowship, which was established in 1989, provides full tuition support for graduate study at Ohio University for a graduate of the University of Botswana or, if from some other institution, a citizen of Botswana. His Excellency has requested the University of Botswana to administer the Fellowships.

Through an earlier agreement between the University of Botswana and Ohio University (1982), a fellowship is reserved at Ohio University for members of the staff of UB to pursue graduate studies. Six UB staff members have been assisted through this Fellowship arrangement.

V. LESSONS LEARNED

The following lessons learned are drawn from the interim evaluation of Phase II of PEIP (Munger and Benbow, 1989) and the experience of the PEIP team members engaged in carrying out the project. The lessons learned are organized under the following headings: General, Project Design and Project Implementation.

GENERAL

1. One key component of this project's success is a commitment to a philosophy of collaboration and participation. This philosophy is clearly expressed by including in policy-setting and decision-making activities those whom the decisions will most affect. This pattern of inclusion is apparent at national, regional, district and school levels. A strong sense of ownership on the part of the Batswana is a direct result of this participation in project design and decision-making (Munger and Benbow, 1989).
2. The success of a major project is dependent upon many leaders, all working toward the same goal. In order to achieve steps in implementation, a project, however, must have sustained direction, strong leadership, monitoring and active problem-solving by key administrators who adopt the project as their own. Such was the case with PEIP. Effective, continuous leadership from the participating units in the MOE, UB, and institutional contractor and strong support from the USAID/Botswana Mission characterized PEIP throughout.
3. Special resources are necessary to achieve reform ideas. PEIP had the advantage of a good resource base provided by the GOB and USAID for accomplishing its objectives.
4. The capacity of the MOE to address problems related to teacher development was greatly enhanced when the proposed Department of Teacher Education became operational. Such an organizational arrangement established within one division the responsibility for primary and junior secondary pre-service and in-service teacher preparation.

PROJECT DESIGN

1. There are no "quick fixes" in the reform of educational practices! The second five-year phase of PEIP was essential to bring to closure the initiatives undertaken during PEIP I to improve primary education. PEIP II provided for the solid establishment of the Department of Primary Education at UB under local leadership; the substantive development of the infrastructure for the in-service education network and the effective demonstration of how the network could function; the initiation of institution-building programs in the four PTTCs through the Self-Study process and structured curriculum review and development procedures; and the development of Masters degree specializations in primary education to address higher level training needs.
2. Some flexibility must be built into projects to allow for modification in project implementation strategies, and even goals, if necessary.

3. PEIP I was externally evaluated by USAID on an annual basis; however, PEIP II had only an interim evaluation. The strong preference of the PEIP team, based on its experience with the two evaluation formats, is for annual evaluations. It should be noted that the PEIP II project paper called for annual evaluations; however, this was modified by the USAID/Botswana Mission.
4. Staff training and localization of leadership are important components of effective institution building (Munger and Benbow, 1989). Counterparts are critical to the development of sustainable projects.
5. A four-year period for completion of a doctoral programs should be built into both the time-frame for project implementation and the project budget. Approximately one year should be allowed for doctoral candidates to return to their home country to collect data for their dissertations.
6. Implementation problems are created when the timelines specified by the donor are incompatible with conditions in the field. These problems are exacerbated when timeframes are specified in the outputs section of contracts and grant agreements (Munger and Benbow, 1989).

PROJECT IMPLEMENTATION

1. Project success is magnified under conditions where there is a high degree of cooperation among donor agencies (Munger and Benbow, 1989).
2. A sustained, deliberate effort must be made at the outset of a new project to inform target populations of its purposes and objectives; however, two-way communication efforts need to continue throughout the life of the project as new local personnel become involved in activities associated with the project and to simply help others feel that they know what is happening.
3. While project purposes and objectives are typically fixed in the project design, there are likely to be a number of alternative paths which may be followed in achieving them. The PEIP II project managers have placed great emphasis upon and faith in the consultative/needs assessment process as a planning aid in choosing from among a alternative strategies. Such a process seemed to result in decisions which generally had a high technical quality and at the same time increased their acceptability to personnel who were involved in the implementation. Although the time spent in planning seems to be materially increased as more people become involved, the outcomes of broad-based acceptability of such plans were more than compensating.
4. The introduction of an innovation or a reform must be followed by a plan of implementation which includes close monitoring, provisions for feedback, formative evaluation and the on-going training of personnel involved in the innovation. When the intent is to impact upon a large, complex system of education, as was the case with PEIP II, a time period of up to five years or more of continuous, vigorous effort must be anticipated in order to get the innovation accepted and practiced by a critical mass of teachers as a normal, on-going part of the educational program.
5. In projects which involve a very limited number of contract specialists, as was the case with PEIP, particular attention must be given to developing "multiplier-effect" strategies for the dissemination and installation of educational changes.

Such strategies must, of necessity, focus upon the development and use of leadership teams or groups.

6. Concerted efforts must be made in the design and implementation of projects such as PEIP to understand the education system holistically, and to integrate reform efforts at the various levels within the system. Primary education in Botswana may be conceptualized as comprising several different subsystems: the primary schools themselves; the primary teacher training colleges; the DPE in the university; the in-service education system; the curriculum development system; and the school supervisory system.

Reforms would appear to have their greatest opportunity for impact if they are institutionalized within all of these subsystems. Thus, teacher trainers who are being prepared at UB should be well grounded in educational reform practices; the same reasoning applies to the students who are being prepared in the teacher training colleges to staff the nation's primary school classrooms; and the innovations should be disseminated to serving teachers through well-designed programs of in-service education.

7. Care must be taken to avoid overloading the education system at any one period with too many reform initiatives. With limited staff in the MOE, UB, the PTTCs and education centers, project planners and managers must be sensitive to the additional demands which changes place upon personnel, including the teachers themselves. Broad-based planning and consultation and provisions for feedback should assist greatly in identifying early symptoms of "burnout" and in taking appropriate steps to deal with the associated problems.
8. Careful planning is required if the optimum benefit is to be derived from the use of short term consultants. Perhaps it goes without saying that requests for consultants should be based upon documented needs related to the project goals. In the PEIP project, the use of broadly based committees to assist in developing the terms of reference for consultants assisted greatly in defining specifically the tasks to be undertaken and in laying the ground-work for conducting the actual consultancy. As a general rule, the Reference Committee worked directly with the consultant throughout his or her stay in the country and, in several instances, provided follow-up leadership once the consultancy report was received.
9. Before undertaking a decentralized in-service training model, a careful cost/benefit analysis should be conducted. It should include an assessment of recurrent costs, as well as analysis of the manpower demands which a decentralized training network places on limited human resources (Munger and Benbow, 1989).

VI. RECOMMENDATIONS

The recommendations are of three types: a general recommendation addressed to the Ministry of Education; recommendations arising from developmental agendas related to the four objectives of PEIP II which were presented earlier; and recommendations directed to USAID and the institutional contractor team selected to implement the Basic Education Consolidation Project (BEC) which will follow PEIP II and JSEIP. (Note should be taken that the writers' knowledge of BEC is very general since, at the time of this report, the Mission's "Request for Proposals" has not yet been released.)

A GENERAL RECOMMENDATION

1. No doubt, the most important recommendation arising from the PEIP II team's experience is the critical need at this juncture for a comprehensive study of the total education system, similar in scope to Education for Kagisano: Report of the National Commission on Education (Republic of Botswana, 1977). That study provided Botswana with a blue-print for educational development which has served the nation exceptionally well. Because of the dramatic changes in the country's development over the past 15 years, however, events have overtaken the guidance provided by the 1977 Report. An important value of a comprehensive study is that it will allow decision-makers to weigh the impact of alternative policy proposals on various elements of the educational system in setting forth development plans which would carry forward into the 21st century.

RECOMMENDATIONS RELATED TO PEIP II OUTCOMES

THE MASTER OF EDUCATION (M.ED.) PROGRAM AT UB

It is recommended:

1. That the current criteria for admission to the M.Ed. program be reviewed in light of the accumulated experience of the Center for Graduate Studies since the program's inception in 1988.
2. That a variety of modalities for pursuing part-time graduate studies be developed and that regulations be modified to permit flexibility of delivery formats within a general degree structure.
3. That the Ministry of Education give particular attention to both its long and short-term training needs in order that admissions to the M.Ed. program and program development may be better coordinated with the manpower needs of the Ministry.

THE DEPARTMENT OF PRIMARY EDUCATION AT UB

It is recommended:

1. That encouragement and support be given to those members of the DPE not now holding the doctoral degree to pursue advanced graduate studies.
2. That the DPE staff, in cooperation with the Department's various constituencies, continue to engage in a systematic process of program review and development in order to be responsive to the manpower training needs of the Ministry of Education.
3. That the DPE participate fully in discussions and deliberations related to the possible reorganization of the Faculty of Education, keeping in mind the mission which must be addressed in the improvement of primary education in Botswana.
4. That the staff of the Department continue to give a high priority to their relationships with schools, teachers, children and reform efforts undertaken by the Ministry of Education in order to remain in the fore-front of primary education improvement initiatives.

THE IN-SERVICE EDUCATION PROGRAM

It is recommended:

1. That the Ministry of Education take decisions as soon as possible regarding the completion of the in-service education network, with particular attention being given to the integration, upgrading and location of the centers at Kang and Lobatse, and the Teaching Aids Production Unit at Francistown.
2. That an evaluation of the effectiveness and efficiency of the total in-service education program be carried out, including attention to the following: integration of the primary and secondary programs; overall in-service coordination; center utilization, staffing, management and funding; and the multiplier modality.
3. That steps be taken by the Ministry of Education to develop a system of incentives for in-service education participants which recognizes their achievements as well as those of in-service providers.
4. That regular, planned programs of staff development be provided for the professional staff managing the education centers.

THE PRIMARY TEACHER TRAINING COLLEGES

It is recommended:

1. That the Ministry of Education continue to give full support to the development of the Diploma program at Tlokwen; that a planned program for monitoring the implementation be instituted; and that a rigorous evaluation of the program be carried out in accordance with the intent stated in NDP7.

2. That the implementation of PTTC development plans arising from the Self-Study process be systematically monitored.
3. That the Self-Study process be institutionalized; that it be extended to the Colleges of Education; that the timing of the Self-Studies in the Colleges be such that the recommendations can contribute to the preparation of future National Development Plans; and that the process itself be subjected to formative evaluations.
4. That agreements reached concerning the enlarged role of the National Council on Teacher Education be implemented, including the establishment of a strong Secretariat in the Department of Teacher Education.

RECOMMENDATIONS DIRECTED TO USAID AND THE BASIC EDUCATION CONSOLIDATION CONTRACTOR TEAM

It is recommended:

1. That the final reports from PEIP I and II and JSEIP be reviewed very early in the start-up period for Basic Education Consolidation Project (BEC) in order that the lessons learned and experiences of earlier contractors can be considered for their relevance and applicability to the follow-on project.
2. That since BEC cuts across several departmental lines, a broadly based advisory committee should be established very soon after the BEC start-up. Particular attention should be given in its formation to its terms of reference and the frequency of meetings.
3. That annual formative evaluations of BEC by external evaluators be conducted to provide the Ministry of Education, USAID and the institutional Contractor with objective information about the project's progress, problems, strategy changes which may be appropriate.
4. That the contract team be thoroughly informed about USAID's expectations arising from the implementation of the Assessment of Program Impact (API). The Advisory Committee needs also to be knowledgeable of this USAID strategy to the extent that it impacts upon BEC implementation strategies and resource needs/utilization.
5. That the BEC contract team be especially sensitive to the current, major MOE reform commitments arising from PEIP, JSEIP and other sources in selecting its strategies for development.

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- USAID (1990) Project Implementation Order/Technical 633-0240- 01/05/90. Justification for Contract Extension for Ohio University from November 8, 1990 to November 30, 1991.

APPENDIX

PEIP II PUBLICATIONS, PAPERS AND REPORTS

PEIP II PUBLICATIONS, PAPERS AND REPORTS

Major publications, papers and reports generated by the Primary Education Improvement Project are listed below under the following categories: General, Consultant's Reports, The Self Study Process, Primary Teacher Training Colleges, Department of Primary Education/Faculty of Education and Semi-Annual Reports to USAID. In addition to the authors or editors of the publications, the date of publication is shown and the location(s) where copies could most likely be located. The locations are abbreviated as follows:

BAI	Board of Affiliated Institutions, Faculty of Education, University of Botswana
BERA	Botswana Educational Research Association (Proceeding of the BOLESWA Educational Research Symposium, Gaborone)
DPE	Department of Primary Education, University of Botswana
DTE	Department of Teacher Education, the Ministry of Education
FOE	Faculty of Education, University of Botswana
MOE	Ministry of Education
NCTE	National Council for Teacher Education, Ministry of Education
NIR	National Institute for Research
OU	Ohio University (Primary Education Improvement Project files)
SAR	Semi-Annual Report
UB	University of Botswana Library
USAID/B Mission	United States Agency for International Development/Botswana

GENERAL

<u>Author/Editor</u>	<u>Title</u>	<u>.Date</u>	<u>Location</u>
Chilisa, Bagele Yoder, John	Input/Output Measures of School Results: Towards a Model of Academic Effective- ness (BOLESWA Educational Research Symposium-Botswana.)	Aug., 1989	BERA
Evans, Max W.	Status, Unfinished Tasks and Unresolved "Grey Areas" Relat- ed to the Primary Education Improvement Project: A Report to the PEIP/Advisory Committee.	Oct., 1990	SAR 9

Evans, Max W Mogami, H. S. Reed, Jack (EDs)	The Education of Educators: The Proceeding of the First National Teacher Education Conference. (National Council on Teacher Education, Ministry of Education.)	Nov., 1991	68 DTE
Evans, Max W. Yoder, John H. (EDs)	Patterns of Reform in Primary Education: The Case of Botswana. USAID/B (Macmillan Botswana.)	1991	UB DTE
Milon, John P.	Research in TESOL: The State Of the Art (BOLESWA Educational Research Symposium-Botswana).	Aug., 1989	BERA
Milon, John P.	Discourse in the Primary English Syllabus of Botswana (African Curriculum Organization, Addis Ababa).	Dec., 1989	OU
Milon, John P.	Language Choice in a Dual Language Primary System (TESOL 24th International Convention, San Francisco).	Mar., 1990	OU
Ministry of Education Republic of Botswana (Evans, Max W.)	Improving the Quality of Basic Education in Botswana (Botswana Country Paper prepared for the Eleventh Conference of Common- wealth Ministers).	Oct., 1990	MOE
Yoder, John H.	Gifted Education: A View from the Third World (Gifted Educat- ion International 1986, Vol. 4, pp 74-79).	1986	See Title
Yoder, John H.	Secondary School Non-Graduates in a Bachelors Degree Program in Education: Botswana's Experience (American Educational Research Association, New Orleans).	Apr., 1988	OU
Yoder, John H.	School Effectiveness Research: Proceeding of a Symposium Held at the University of Botswana. (Faculty of Education.)	July, 1989	FOE
Yoder, John H.	What Makes a Good Teacher: Perceptions of Effective and Ineffective Primary Teachers (BOLESWA Educational Research Symposium Botswana).	Aug., 1989	BERA
Yoder, John H.	A Behavioural Observation Scale for Primary School Children in Botswana: Finding Children at Risk. (BOLESWA Educational Research Journal Volume 7, 1990).		See Title

CONSULTANT REPORTS

(Funded by USAID through the Primary Education Improvement Project)

<u>Consultants</u>	<u>Title</u>	<u>Date</u>	<u>Location</u>
Baral, David	A Report on the Improvement of the Training of Teachers of Setswana.	Aug., 1991	OU DTE DPE
Bowman, Marvin DPE	Supervision Yesterday and Today (Videotape production).	July., 1988	OU DTE,
Brodeur, Doris	A Report on the Development of The Media Center in the Department of Primary Education at the University of Botswana.	July, 1987	OU DPE
Brodeur, Doris	The Botswana Teaching Competency Instruments: Improving Instruction in Primary Schools (Videotape production) and a Manual to Accompany the Videotape.	Nov., 1988	OU DPE
Leep, Albert G.	Proposed Changes in Departmental Special Regulations for the Bachelor of Education (Primary) and the Diploma in Primary Education.	Oct., 1987	OU DPE
Leep, Albert G.	A Proposed Plan for Developing and Phasing In a Diploma Program for Primary Teachers.	Oct., 1989	OU DTE
Leep, Albert G. Pilane, Gladstone	A Proposed Curriculum Plan for a Pilot Three-Year Diploma Program to Prepare Primary Teachers.	Aug., 1991	OU DPE
Munger, Fredi Denbow, Jane	Interim Evaluation, Primary USAID/B Education Improvement Project Phase II USAID/Botswana.	Jan., 1989	OU
Muyanda-Mutebi, Peter	Final Report of the Executive Director of the African Social Studies Program on his Visit to Botswana as a Consultant.	July, 1989	OU DTE DPE
Personke, Carl	A Report of an Evaluation of the Diploma and Bachelor of Education Programs in the Department of Primary Education, University of Botswana.	May, 1987	OU DPE

			70
Rader, William	A Cost Estimate for Developing and Phasing in a Diploma Program for Primary Teachers, 1991-2000.	Aug., 1990	OU DTE
Witmer, Melvin	Establishing A Counselor Education Program at the University of Botswana.	Sept., 1990	UB OU
Zajicek, Iva	A Graded, Coded Kit of Activities for the Botswana Breakthrough to Setswana Program.	Nov., 1988	OU MOE

THE SELF STUDY PROCESS

<u>Author/Editor</u>	<u>Title</u>	<u>Date</u>	<u>Location</u>
Evans, Max W.	The Status of the Primary Teacher Training Colleges in Botswana.	Oct., 1989	DTE BAI, OU
Evans, Max W. Sephuma, Peter V.	Self Study Review Team Reports for: Tlokweng PTTC. Lobatse PTTC. Francistown PTTC. Serowe PTTC.	Aug., 1988 Dec., 1988 Mar., 1989 May, 1989	PTTCs BAI OU
Evans, Max W. Reed, Jack (EDs)	A Self-Study Guide for Botswana Primary Teacher Training Colleges.	1987	DTE BAI OU
Staff, Francistown PTTC Staff, Lobatse PTTC Staff, Serowe, PTTC Staff, Tlokweng PTTC	Self-Study Report Self-Study Report Self-Study Report Self-Study Report	Jan., 1989 Aug., 1988 Dec., 1988 July, 1988	PTTCs BAI

PRIMARY TEACHER TRAINING COLLEGES

<u>Author</u>	<u>Title</u>	<u>Date</u>	<u>Location</u>
Behm, Gordon	Science Syllabus for the Primary Teacher Training Colleges in Botswana.	Dec., 1990	PTTCs BAI DTE
Behm, Gordon	The Primary Teacher Training College Science Lecturer's Guide.	June, 1991	PTTCs DTE
National Council on Teacher Education Evans, Max W. Reed, Jack	A Diploma Program for Primary School Teachers: A Proposal presented to the Policy Advisory Committee, Ministry of Education.	Mar., 1988	NCTE
Reed, Jack (Ed)	Primary Teacher Training College Curriculum Development Survey.	Apr., 1987	BAI

Reed, Jack (Ed)	National Primary Teacher Training College Subject Panel Proceedings.	Jan., 1989	BAI DTE
Reed, Jack (Ed)	Proceedings: Second Annual National Primary Teacher Training College Subject Panel Conference.	Jan., 1990	BAI DTE
Reed, Jack (Ed)	Academic Regulations for the Primary Teachers Certificate.	Oct., 1991	BAI
Subject Panels PTTCs Reed, Jack (Ed)	1991 Subject Syllabi for the Botswana Primary Teacher Training Colleges.	Oct., 1991	DTE BAI
Reed, Jack	Teaching Practice Moderation Reports.	Dec., 1987 Dec., 1988 Dec., 1989 Dec., 1990	BAI
Tlou, Josiah Mautle, Gaontatlhe	Social Studies Guide for the Primary Teacher Training Colleges in Botswana.	July, 1990	PTTCs DPE

DEPARTMENT OF PRIMARY EDUCATION/Faculty of Education

<u>Author</u>	<u>Title</u>	<u>Date</u>	<u>Location</u>
Department of Primary Education Evans, Max W. (Ed)	Development Plan for the Department of Primary Education (In the Faculty of Education Development Plan 1991-1997).	Apr., 1990	FOE DPE
Yoder, John	Master of Education Degree Program: University of Botswana.	Nov., 1988	FOE

SEMI-ANNUAL REPORTS TO USAID

<u>Author/Editor</u>	<u>Title (Reporting Periods)</u>	<u>Location</u>
Ohio University Contract Team Max, Evans W. (Ed)	Semi-Annual Reports for the Primary Education Improvement Project.	USAID/B OU, MOE, UB, NIR
First Report	September 1, 1986 - February 28, 1987	
Second Report	March 1, 1987 - August 31, 1987	
Third Report	September 1, 1987 - February 29, 1988	
Fourth Report	March 1, 1988 - August 31, 1988	
Fifth Report	September 1, 1988 - February 28, 1989	
Sixth Report	March 1, 1989 - August 31, 1989	
Seventh Report	September 1, 1989 - February 28, 1990	
Eight Report	March 1, 1990 - August 31, 1990	
Ninth Report	September 1, 1990 - February 28, 1991	
Tenth Report	March 1, 1991 - November 30, 1991	