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BANFES PROJECT FINAL REPORT

OF

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PRACTICAL SKILLS EDUCATION SPECIALIST

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There are no outstanding evaluation recommendations at Component II (NTTC), so I have chosen to report my work by logframe outputs, using the question and answer format developed by the Project Evaluation Office for conducting interviews and collecting data on initiatives which were not otherwise evaluated. The second section relates my work to the relevant contractual obligations. Finally, I attempt to summarize what has been accomplished, and to reflect on the current situation and possible directions for the future.

My work with BANFES in Lesotho covers the period beginning in September 1985 and concluding in February 1991. Throughout this period, I have been assigned to work as "Practical Skills Education Specialist" at the National Teacher Training College (NTTC). In late 1988, I was asked to work cross-component with the Home Economics and Health and Physical Education Divisions at the National Curriculum Development Centre (NCDC). Following the departure of the previous component coordinators in January 1990, I also assumed responsibility for coordination of Component II.

GLOSSARY OF ABBREVIATIONS

AFCO	African Curriculum Organization
APTC	Advanced Primary Teachers' Certificate
ARS	Action Research Survey
DACUM	Developing A Curriculum
DRT	District Resource Teacher
FNCO	Food and Nutrition Coordinating Office
HEU	Health Education Unit
IMRC	Instructional Materials Resource Centre
LAC	Lesotho Agricultural College
LDTTC	Lesotho Distance Teaching Centre
LIET	Lesotho In-service Education for Teachers
LPPA	Lesotho Planned Parenthood Association
MOE	Ministry of Education
MOH	Ministry of Health
NCC	National Curriculum Committee
NCDC	National Curriculum Development Centre
NDP	National Dissemination Programme
NTTC	National Teacher Training College
NUL	National University of Lesotho
PIEP	Primary In-service Education Programme
PHAL	Private Health Association of Lesotho
PMC	Primary Methodology Committee
PS	Principal Secretary
PTC	Primary Teachers' Certificate
RLAP	Radio Language Arts Programme
SDT	Survey Design Team
STC	Secondary Teachers' Certificate
TA	Technical Advisor
TPP	Teaching Practice Preparation
USIT	Urban Sanitation Improvement Team
WHO	World Health Organization

I. Work by Logframe Outputs

A2 Practical Skills introduced into the Standard 4-7 curriculum

A2b Textbooks selected for Home Ec and Health

The Home Economics Division reviewed several primary texts, but were unable to identify one which addressed all three areas of the syllabus, i.e. Food and Nutrition, Home Management and Clothing and Textiles. Since it is unlikely that more than one text could be purchased for the subject, and the syllabus had not been approved at the time, no selection was made.

The Health and Physical Education Division received and distributed a number of copies of Primary Health Education published by Longman for review by teachers. After I began working with them, I assisted in the development of a questionnaire to collect feedback. However, in the absence of an approved syllabus, no final selection was made.

A2e Hold workshops and working sessions to prepare teachers' guides in Home Economics, Health and Social Studies

Since both of the subject divisions with which I was working had only draft syllabi, we felt it would be premature to develop teachers' guides. Consequently, we developed less comprehensive Teachers' Manuals to introduce the subjects and present overviews of the draft syllabi. Subsequently, the Home Economics Division undertook testing of the syllabus and the Health and Physical Education Division developed a pilot test section of a teachers' guide. Work with both of these divisions is described in detail in the following sections.

NCDC Home Economics Primary Teachers' Manual and Syllabus

1. How was the need for this process identified?

The BANFES Project called for the development and pilot-testing of Teachers' Guides in several subjects, including Home Economics. However, the Home Economics Syllabus was in draft form, and a complete teachers' guide to the syllabus could not be developed until the syllabus was tested, revised and approved by the National Curriculum Committee (NCC). The Home Economics Curriculum Officers felt that it would be appropriate to use the national dissemination opportunity to develop a Teachers' Manual to present an overview of the draft syllabus, as well as sample lesson plans for home economics and other suggestions for teaching the subject. This was consistent with the BANFES goal of improving the instruction of practical skills at the primary level.

Although the Primary Home Economics Syllabus was developed before the BANFES Project began, when the NCDC Home Economics Curriculum Officers requested project assistance for testing, I agreed to assist and solicit project support for the process, in an effort to insure a better final product, thus again contributing to the project goal of improved practical skills in the primary schools.

2. Concise description: The Home Economics Manual for Primary Teachers is a 54 page manual in A4 size. It is accompanied by two sets of flash cards, Basic Sewing Equipment (9 cards) and Food Groups (27 cards). The Primary Home Economics Syllabus is a 44 page document in A4 size, using a wide format.

Objectives

Home Economics Manual for Primary Teachers - As stated in the introduction to the manual, it is designed to provide primary teachers with an overview of home economics aims and syllabus objectives, and the interrelationships among the three content areas. In addition, points of integration with other primary subjects are suggested. Specific guidelines and resources for teaching home economics are provided. Sample lesson plans are included, along with suitable methods and evaluation techniques.

Primary Home Economics Syllabus As stated in the syllabus introduction, the syllabus is designed to provide primary teachers with an overview of home economics objectives, content, suggested pupil activities, resources required, and evaluation methods. It is constructed to take advantage of the interrelationships among the three content areas and to suggest points of integration with other primary subjects. It also includes a Teachers' Reference Section, with suggestions for teaching selected syllabus topics.

Content

The **Home Economics Manual for Primary Teachers** contains an introduction, aims and objectives, a scope and sequence chart of syllabus objectives, guidelines for methods, lesson planning, integration with other subjects and evaluation, and sample lesson plans and resources for teaching home economics.

The **Primary Home Economics Syllabus** contains an introduction, aims and objectives, the syllabus for standards one through seven in the areas of food and nutrition, clothing and textiles and home management, and a teachers' reference section.

Use

The Home Economics Manual for Primary Teachers was developed and disseminated prior to the testing and revision of the syllabus to provide primary teachers with an introduction to the syllabus and ideas to increase the teaching of home economics in primary schools. (Home Economics had been outlined in an earlier syllabus, but not widely taught.) The Primary Home Economics Syllabus is to be used by primary teachers to guide them in the teaching of home economics.

3. Steps, participants and time-line for development

The Home Economics Manual for Primary Teachers was developed by Mrs. Makhaba and Mrs. Khasake, the Home Economics Curriculum Officers and me during the first half of 1989 for national dissemination at the workshop in July. Donna Kay LeCzel did the computer lay out and the IMRC artists prepared the illustrations.

The Primary Home Economics Syllabus was originally designed in a series of two-week workshops in 1979, 1980, 1981 and 1982 by the Curriculum Officers and the NCDC Home Economics Panel, M. Khiba, J. Monaheng, T. Mokuoane, A. Ramakhula, F. Sebatane and T. Tuoane. Testing was conducted by the NCDC Curriculum Officers, Mrs. Ramakhula of the School Feeding Unit and me from late 1988 through July 1990. I did the design and lay out of the revised syllabus which was approved by the NCC for printing in November of 1990, and printed for dissemination at the National Dissemination Workshop in January 1991.

4. Training:

Content

Training in the use of the Home Economics Manual for Primary Teachers and accompanying card sets was conducted through the National Dissemination Network, commencing with the national workshop held in Morija in July of 1989. Sessions and presenters at the national workshop included: Home Economics Methods (Mohasi and Pursley), Building a Stone Paola (Appropriate Technology Section), Knitting (Tuoane), Using Home Ec Flash Cards (Khasake).

The testing of the Primary Home Economics Syllabus involved orientation and follow-up visits to each of the 15 syllabus-testing schools. In addition, a week-long workshop was conducted at the end of the testing period for representatives of each school and the home ec panel members. Workshop sessions included: evaluation questionnaires, achievements and constraints, problem-solving the constraints, syllabus revision recommendations, demonstration lessons, making teaching aids, guidelines for teaching home ec, and action plans for implementing home ec in the primary schools. For detailed programme and workshop report, consult Report of Testing: Primary Home Economics Syllabus or the BANFES Training Office.

Participants and Dates in training for the **Home Economics Manual for Primary Teachers** were the dissemination programme participants at all levels from July through December, 1989. For the **Primary Home Economics Syllabus**, teachers at the 15 schools in which the syllabus was tested, as well as those at the final workshop should be included. (See Report of Testing: Primary Home Economics Syllabus.) Testing began in November 1988 and concluded with the workshop at the National Health Training Centre (NHTC) August 14-18, 1989. (The 15 trial schools were represented at the workshop by 26 teachers and 6 panel members also participated.) Training which followed the syllabus revision, NCC approval and printing is outlined under Follow-up.

Proposed and actual participants are listed by name in the Training Proposals and Workshop and Dissemination Reports.

Major Objectives

In both cases, the major objective was to prepare teachers to use the materials being presented to them. In the workshop which concluded the period of syllabus testing, objectives were to obtain feedback on the syllabus, specifically: 1)document the achievements and constraints in testing the primary home economics syllabus 2)make specific suggestions for syllabus format and revision 3)complete evaluation instruments on both the syllabus and support materials provided and 4)prepare to assist other teachers in implementing home economics at the primary level.

Follow-up

Follow-up on the **Home Economics Manual for Primary Teachers** was done in a DRT Training session. A questionnaire was administered to determine the ability of the District Resource Teachers to use the manual as a teaching reference, and to identify areas of content with which they needed assistance. The subsequent training session was designed accordingly.

Following testing, the **Primary Home Economics Syllabus** was revised and presented to the NCC for approval. Following approval, it was printed and just presented in January 1991 at the National Dissemination Workshop. This training was handled entirely by the Home Economics Curriculum Officers. Copies are currently being disseminated to the sub-district dissemination centres.

Evidence of Effectiveness

No attempt has been made to collect data on the use and effectiveness of the **Home Economics Manual for Primary Teachers**, although the sessions presented at the NDP 6 were highly evaluated by the participants in terms of organization, involvement, relevance and format. Some data are available from the BANFES Evaluation Office on the distribution of the manuals to the schools.

During the testing period for the Primary Home Economics Syllabus in the participating schools, the average home economics lesson increased in length from 48.5 to 61 minutes and the average number of lessons per week from 1.5 to 2.2. The testing provided useful guidance for syllabus revision and improvement of the format to make it easier for teachers to use. It also enabled the Home Economics Division to identify priority topics for the future development of materials to support the implementation of the syllabus. Finally, the support of parents and the community and the cooperation of colleagues were most often mentioned as "most helpful" to teachers in implementing the syllabus, emphasizing the importance of these factors in evaluating and insuring effective implementation.

5. Perceived benefits/evaluation

In view of the fact that before the introduction of the Home Economics Manual for Primary Teachers and accompanying card sets teachers had only a brief outline of topics, it seems that the materials must be of some benefit in teaching practical skills. In particular, the card sets can be used by the pupils themselves, augmented by teacher- or pupil-made cards, and used to teach English and Sesotho vocabulary in addition to home economics. The preparation of the manual, in particular, the scope and sequence chart of syllabus objectives led to revisions and improvements in the final syllabus. It would be premature to comment on the benefits of the Primary Home Economics Syllabus since it has yet to arrive in the schools. Nonetheless we are convinced it is a vast improvement on the outline which teachers had been expected to use until now.

6. Obstacles, problems and consequences

One of the biggest problems confronting teachers who tested the syllabus was obtaining resource materials for teaching the subject. Although it is possible to use some locally available and improvised materials, this is an issue which must be addressed if the syllabus is to be implemented successfully. A basic set of materials should be available to teachers in each school for demonstration purposes, and the involvement and support of parents in supplying learning materials for their children is critical.

7. Other comments

A small "Teachers' Reference Section" was added to the syllabus, however, the Home Ec Division plans to develop a number of other teaching materials to support the syllabus and assist teachers in implementing it. This process should be supported and aided as

much as possible. Proposed materials include: lists of basic and improvised equipment for teaching home economics, suggested activities and projects for primary pupils, and patterns and recipes for suggested projects. It is anticipated that the NTTC Home Economics Reference Manuals for PTC Students (Food and Nutrition and Fashion and Fabrics) now being printed, may be of use in developing teacher support materials.

8. Other sources of information

Home Economics Manual for Primary Teachers

Basic Food Groups Card Set

Basic Sewing Equipment Card Set

Report of Testing: Primary Home Economics Syllabus

NCDC Primary Home Economics Syllabus (draft and revised)

Training Proposals, Workshop Reports and Evaluations

Workshop Participants

Dissemination Programmes, Reports and Evaluations

Home Economics Curriculum Officers - Mrs. E. Makhaba and Mrs. S. Khasake

NCDC Health Primary Teachers' Manual and Guide to Basic Physiology and Anatomy

1. How was the need for this process identified?

The BANFES Project called for the development and pilot-testing of Teachers' Guides in several subjects, including Health. However, the Health and Physical Education Syllabus was in draft form, and a complete teachers' guide to the syllabus could not be developed until the syllabus was tested, revised and approved by the National Curriculum Committee (NCC). The Curriculum Officer felt that it would be appropriate to use the national dissemination opportunity to develop a Teachers' Manual to present an overview of the draft syllabus, as well as sample health lesson plans in priority areas. This was consistent with the BANFES goal of improving the instruction of practical skills at the primary level.

Following the development and dissemination of the Manual, the Curriculum Officer decided that even prior to the approval of the syllabus, it might be desirable to develop and test a teachers' guide to one section of the syllabus which could serve as a model for future materials development. The Basic Anatomy and Physiology section was selected, as it is basic, and seemed least likely to be changed by any future revision of the syllabus.

2. Concise description: The Health Education Manual for Primary Teachers is a 40 page document in A4 size, and the Primary Teachers' Guide to Health Education: Basic Physiology and Anatomy is 64 page document in A4 size. The latter is being pilot tested by teachers in a loose leaf format, to facilitate the addition of artwork as it is completed, and the later addition of guides to other sections of the syllabus.

Objectives

Health Education Manual for Primary Teachers - According to the introduction to the manual, it is designed to introduce the subject of Health Education at the primary level, provide specific information on selected priority topics and resources for teaching health, and guide teachers in using the Health Education Syllabus.

Primary Teachers' Guide to Health Education: Basic Physiology and Anatomy - As stated in the introduction to this guide, it was developed in response to requests from teachers for instructional support material which could interpret the syllabus content into meaningful teaching/learning experiences. Since the syllabus is still in draft form, it provides a further introduction to the syllabus through the Scope and Sequence Chart. It is designed to help teachers broaden their knowledge, skills and approaches to health education and to test the suitability of the format and content before guides to other sections of the syllabus are developed.

Content

The **Health Education Manual for Primary Teachers** contains an introduction and forward, aims and objectives, syllabus overview and guidelines for teaching in a general discussion of methods and lesson planning, and specific sample lesson plans. It includes sections on integration of health with other subjects, evaluation and resources for teaching health education.

The **Primary Teachers' Guide to Health Education: Basic Physiology and Anatomy** consists of an introduction, a syllabus scope and sequence chart, content for standards 1-7 and a glossary. For each standard, the content is presented in a slightly modified African Curriculum Organization (AFCO) format including rationale, specific objectives, required knowledge, background information, teaching/ learning materials, teaching/learning experiences, pupils' activity, summary and pupils' assessment.

Use

The **Health Education Manual for Primary Teachers** was developed and disseminated during the period of syllabus testing to provide primary teachers with an introduction to the syllabus, and important background for teaching priority topics in health education. The Division at NCDC worked closely with the Health Education Unit (HEU) of the Ministry of Health (MOH) in selecting topics to address current health issues, and disseminated materials from that unit for teachers on smoking, Oral Rehydration Therapy (ORT) and Acquired Immune Deficiency Syndrome (AIDS) together with the manual.

The Primary Teachers' Guide to Health Education: Basic Physiology and Anatomy is to be used by teachers to guide them in teaching that section of the syllabus. It has been produced in limited quantity for testing the format and level of content. We anticipate that following testing and revision, it will be used as a model for developing teachers' guides to other sections of the syllabus.

3. Steps, participants and time-line for development

The Health Education Manual for Primary Teachers was developed by Lisemelo Moholi, the Health and Physical Education Curriculum Officer and me during the first half of 1989 for national dissemination at the workshop in July. Donna Kay LeCzel did the computer lay out and the illustrations were provided by the Ministry of Health and the IMRC artists.

The Primary Teachers' Guide to Health Education: Basic Physiology and Anatomy was drafted by Mrs. Hilda Leyimu and edited by Lisemelo Moholi, Limakatso Ntakatsane, Hilda Leyimu and me during the period from May 1989 to December 1990. Some preliminary work had been done by primary teachers at workshops held in September 1988 and January 1989. I did the computer lay out, and the cover illustration was a modification of the illustration from the teachers' manual. Additional artwork is to be developed in cooperation with the MOH Health Education Unit.

4. Training:

Content

Training in the use of the Health Education Manual for Primary Teachers was conducted through the National Dissemination Network, beginning with the national workshop held in Morija in July of 1989. Sessions and presenters at the national workshop included: Health Education Aims and Methods (Moholi and Leyimu), Guidelines for Health Education (Moholi and Pursley), Health Lesson Plan Presentations (Moholi, Leyimu and Pursley), Health Education Panel Discussion (representatives of the MOH Health Education Unit, Private Health Association of Lesotho-PHAL, and the Urban Sanitation Improvement Team-USIT), and Video Presentation and Health Education Discussion (Moholi).

A number of workshops were held for teachers which led directly and indirectly to the development of the Primary Teachers' Guide to Health Education: Basic Physiology and Anatomy. Topics addressed in these workshops included the following: Primary Health Care, First Aid, Planning Yearly Schemes and Records for Health and Physical Education, Integration of Health and Physical Education, Developing Materials, Instructional Objectives and Lesson Plans, Demonstration Lessons, Formats and Topics for Teachers' Guide.

In addition, a one-day orientation was provided to teachers from 4 schools who were asked to test a preliminary draft of the teachers' guide.

Participants and Dates in training for the Health Education Manual for Primary Teachers were the dissemination programme participants at all levels from July through December, 1989.

For the Primary Teachers' Guide to Health Education: Basic Physiology and Anatomy the workshops generally involved primary teachers from schools which were involved in testing the draft Health and Physical Education Syllabus.

Health and Physical Education Curriculum Orientation Workshop
January 4-8, 1988

20 primary school teachers
5 panel members/resource persons

Health and Physical Education Evaluation Workshop
September 5-7, 1988

21 primary school teachers
4 panel members/resource persons

Health and Physical Education Writers' Workshop
January 15-20, 1989

19 primary school teachers
4 panel members/resource persons

Proposed and actual participants are listed by name in the Training Proposals and Workshop Reports.

Major Objectives

In both cases, the major objective of training was to prepare teachers to use the instructional materials being presented to them. For the workshops which led up to the development of the teachers' guide, the objectives for participants are specified below:

Health and Physical Education Curriculum Orientation Workshop

- create awareness among their colleagues regarding the importance of Health and Physical Education curriculum
- implement the draft syllabus for Health and Physical Education with their classes in 1988 (i.e. have acquired ideas, knowledge, skills and motivation)
- provide evaluation and feedback to the NCDC for improvement of the draft syllabus

Health and Physical Education Evaluation Workshop

- report on implementation of draft syllabus
- present sample lessons
- test health lesson plans
- identify priority topics for future materials development

Health and Physical Education Writers' Workshop

- provide additional feedback on initial testing of lesson plans
- write lesson plans using a standard (NTTC) lesson plan format, resource materials provided and their own experiences

Follow-up

There was follow-up on the Health Education Manual for Primary Teachers in a DRT Training Session. A questionnaire was administered to the participants prior to the session to identify areas of content with which they needed assistance. The subsequent training was designed accordingly.

In the case of the Primary Teachers' Guide to Health Education: Basic Physiology and Anatomy, since the material has just been delivered from the printer for pilot-testing, follow-up remains to be done. The Division plans to add artwork to the printed materials and test them in about 50 primary schools. Necessary revisions will be made and this section will serve as a model for the development of teachers' guides to other sections of the syllabus.

Evidence of Effectiveness

No attempt has been made to collect data on the use and effectiveness of the Health Education Manual for Primary Teachers, although with the exception of the Panel Presentation, all the sessions presented at NDP 6 were highly evaluated by the participants in terms of organization, involvement, relevance and format. Some data are available from the BANFES Evaluation Office on the distribution of the manuals to the schools.

Since the Primary Teachers' Guide to Health Education: Basic Physiology and Anatomy has just been printed, we have no evidence of effectiveness.

5. Perceived benefits/evaluation

Since the syllabus for health and physical education is still in draft form and being tested, we believe that the Health Education Manual for Primary Teachers and the materials disseminated at the same time by the MOH Health Education must be of assistance to primary teachers in teaching important current topics in health education. It would be premature to comment on the Primary Teachers' Guide to Health Education: Basic Physiology and Anatomy since it has just been printed for pilot testing, but we hope that it will be the first step in the development of a more complete teachers' guide to the syllabus, once the syllabus is finalized.

6. Obstacles, problems and consequences

The testing of the Health and Physical Education Syllabus is being done beginning from standard one and adding one standard each year. Consequently, the process takes a minimum of seven years. For this reason, I felt that the BANFES Project could be of greatest assistance in the development of supplementary materials to assist with the eventual implementation of the syllabus when it is finally approved and disseminated.

The heavy demands on staff in this division were aggravated by the fact that the post for one of the two curriculum officers was vacant for more than two years, slowing the progress of work. As the only education representatives in the area of health, the curriculum officer(s) are called upon to represent the MOE in meetings and workshops both in Lesotho and in other countries, sponsored by the Ministry of Health, the World Health Organization (WHO), UNICEF, Lesotho Planned Parenthood Association (LPPA) and other similar organizations. This "networking" is important, but limits the amount of time available for actual curriculum development and testing.

7. Other comments

As mentioned under "obstacles," in view of the heavy demands on their time, and based on my own experience, I believe that it will be difficult for the current staff of the Health and Physical Education Division to implement the testing and revision of the Basic Anatomy and Physiology section of the teachers' guide, and to develop additional sections, without outside assistance. I have very limited knowledge of the MOH artists, but have worked with the MOE (IMRC) artists, and remain concerned about whether the necessary artwork can be produced in a timely manner by the artists in the MOH or MOE. I have encouraged the NCDC Curriculum Officers to prepare proposals for consideration by interested donor organizations.

8. Other sources of information

Health Education Manual for Primary Teachers
Primary Teachers Guide to Health Education: Basic Physiology and Anatomy
Health and Physical Education Curriculum Officers - Ms. L. Moholi and Ms. L. Ntakatsane
Hilda Leyimu - NTTTC Health/Physical Education Department
Training Proposals, Workshop Reports and Evaluations
Dissemination Programmes, Reports and Evaluations
Workshop Participants

B1 Pre-service primary teacher training curriculum at NTTC revised to improve overall effectiveness and to emphasize Practical Skills in all subjects

B1a All NCDC developed innovations to support Basic Education and Practical Skills incorporated into NTTC primary pre-service curriculum

A joint NTTC-NCDC committee was established, and functioned for some time. However, to my knowledge, no meetings have been held in the past year. Copies of all materials produced by NCDC with BANFES assistance have been obtained by NTTC and distributed through the office of the Deputy Director Academic Affairs. In addition, the staff working with the Radio Language Arts Project (RLAP) arranged a demonstration lesson for NTTC staff and students, and have shared both print and audio materials with them.

B1b Plan to revise NTTC primary pre-service program to improve graduates' mastery of content and pedagogy approved

B3 System of NTTC seed schools established to promote community involvement in primary schools and field-test new teaching methods and materials

B3a Pilot seed schools established at least 4 sites

The plan developed consists of the recommendations of the NTTC Primary Methodology Committee (PMC). The history and current status of this group are outlined in the PMC section. Seed schools became an initiative of the PMC, known as "link schools," and are also addressed in the PMC section.

NTTC Primary Methodology Committee

1. How was the need for this process identified?

The BANFES Project focused on improvement of primary education and outputs at NTTC included "revision and completion of NTTC curricula" and "an efficient instructional system." NTTC tutors and administrators recognized the need for attention to the Primary Teachers Certificate (PTC) Programme. Consequently, in October 1987, the Acting Deputy Director Academic Affairs (before this post was established), formed a Primary Methodology Group.

2. Concise description:

The Primary Methodology Group, made up of departmental representatives, spent one year analyzing the PTC programme and developing recommendations for improving it. These recommendations and implementation strategies are outlined in the Final Report of the Primary Methodology Committee. Since the publication of the report, the group has continued to meet and work on programme improvements.

Objectives

The purpose of the group, as stated by the chairperson at the initial meeting, was "to constitute a special group from the various departments for the study and renewal of the PTC programme." During the course of their work, priorities were set, and corresponding sub-groups formed:

- 1) revision of the PTC programme
- 2) integration
- 3) seed/link schools
- 4) practical skills
- 5) methodology

Content

In addition to their own experience at NTTC and some primary teaching experience, the group was provided with the following background materials: Extract from the Report of the NTTC Curriculum Workshop of June 1986, Model for a Teacher Education Curriculum from Malawi UNICEF Project, Time Allocation for Subjects in the Primary School Curriculum, NTTC PTC Syllabus, and Lesotho Primary School Syllabi.

Use

The Primary Methodology Group proved to be so useful in providing leadership for improvements in the PTC programme that in August of 1988, it became a standing committee of the NTTC Academic Board.

3. Steps, participants and time-line for development

The committee consists of representatives of each subject department teaching PTC students and student representatives. Departmental representatives are individuals with interest or expertise in primary education, and/or those currently teaching PTC students.

The work of the group from its inception through the publication of the final report is outlined below:

1987

16 October - group formation and initial meeting
25 November - meeting

1988

18 February - meeting
13 April - meeting
27 April - 1-day retreat at the Hotel Victoria
18 May - meeting
24-27 May - PTC Programme Analysis Workshop at IEMS
29 July - Terms of Reference for change to "committee" status approved for submission to the Academic Board
2 September - meeting
November - Final Report published (contains additional detail on the above chronology)

Work and progress since the publication of the report will be described under 5. Perceived benefits/evaluation.

4. Training: The only BANFES-funded training provided for this group was the PTC Programme Analysis Workshop, one aspect of the overall programme improvement efforts of the group, and a one-day workshop for the link schools. The programme analysis workshop was the result of a memo (10/12/87) from the Acting Deputy Director Academic Affairs to me requesting assistance in helping "to identify skills that a PTC graduate should have at the end of the programme." The entire PMC initiative was a group effort, and the "process" of working together toward an improved PTC programme could perhaps be viewed as training.

I believe that it is significant that the project input was primarily in terms of technical advice and logistical support (e.g. transport to link schools). The fact that the College funded the retreat at the Victoria Hotel attests to the importance which the NTTC attaches to the work of this group.

Content

Input by NTTC Director, Mr. Matete and BANFES Chief of Party, Dr. Russell helped to provide a background and context for the Programme Analysis Workshop. Their remarks are contained in Appendices B and C of the Final Report of the NTTC Primary Methodology Committee. Additional contributions were made by the Education Secretaries, representatives of the Inspectorate, school managers and head teachers. Finally, the DACUM task analysis process was used to develop a chart of the PTC programme, and in the writing of specific programme improvement recommendations.

The link school seminar was designed to facilitate the development of NTTC links with schools and to provide a forum for the participating school and community representatives to meet.

Participants and Dates

Programme Analysis Workshop May 24-27, 1988

members of the Primary Methodology Group/Committee
Education Secretaries
representatives of the Inspectorate
school managers
primary headteachers
Linda Pursley and Phil Christensen, facilitators

Link School Seminar February 22, 1990

members of the PMC and Professional Studies Department
representatives of link schools and communities
Linda Pursley and Gerald Zirimwabagabo

Proposed and actual participants are listed by name in the Training Proposals and Workshop Reports.

Major Objectives

Programme Analysis Workshop

- 1) Review the completed DACUM task analyses of the role of a primary teacher of various subjects, with particular attention to knowledge and skills which are integrative in nature (i.e. cut across departments).
- 2) Outline an overall curriculum plan for the revised programme.
- 3) Describe in detail the implications (staff, facilities, timetable, evaluation) of implementing such a programme.
- 4) Outline a plan (including timeline and responsibilities) for implementing the revised programme.

Link School Seminar

- 1) State the strengths and weakness of the activities of this past year from the perspectives of the NTTC, the schools and the communities.
- 2) Make suggestions and plans for improving implementation of the links in 1990.
- 3) Plan ways of incorporating the lessons learned from these experiences into the PTC programme.

Follow-up

The results of the Programme Analysis Workshop are reflected in the Final Report of the NTTC Primary Methodology Committee. Since the publication of this report in November 1988, efforts of the PMC have been directed toward implementing the strategies it outlines.

The visits and activities which followed the Link School Seminar are documented in the PMC Reports of School visits. A report of the seminar itself was also prepared for the Training Office.

Evidence of Effectiveness

The Programme Analysis Workshop produced a list of "programme objectives" for a revised PTC programme, and a DACUM Chart for the PTC programme (Appendices D and E of the Final Report of the NTTC Primary Methodology Committee), both of which have been used in implementing improvements in the PTC programme.

Following the Link School Workshop, one school which was previously undecided, decided to participate. Action plans were developed, including activity, date and person(s) responsible.

5. Perceived benefits/evaluation

The "benefits" of the efforts of the PMC can best be presented by reviewing the objectives adopted for the PTC programme, and the progress which has been made toward accomplishing these objectives.

- * develop the students' mastery of the primary school curriculum content and tools (e.g. syllabi, texts, charts, teachers' guide)
- * prepare students for effective administration and management of the learning environment and resources

The PMC worked with NCDC to obtain copies of current primary school materials. The syllabi, together with copies of sample pages from the Scheme and Record and Attendance Register, were compiled into the NTTC Syllabus Manual for Primary Teacher Certificate Students. The manual was printed with BANFES assistance, and is being sold to students. In this way, a revolving fund is being established to cover the cost of future revisions and reprints.

Although a joint NCDC-NTTC Committee functioned only briefly, copies of all BANFES-sponsored materials have been obtained for NTTC and distributed to the relevant departments and the library.

- * expose students to a wide variety of teaching methods through teaching and modelling both on-campus and in teaching practice (e.g. Child-to-Child, Breakthrough, integrated day, topic/theme, integrated studies and core curriculum approaches)
- * provide students with practical skills in every subject and topic to enable them to:
 - 1) make and use teaching aids effectively
 - 2) master practical skills appropriate for primary pupils and methods of teaching those skills
 - 3) acquire practical skills useful to the school and community
 - 4) apply their knowledge

Each department responded to a questionnaire from the Deputy Director Academic Affairs which asked them to list the teaching methods and practical skills currently being used in their department. These are to be discussed at the PMC in order to develop a plan for increasing the variety of methods and skills and introducing new ones, as appropriate.

PMC members and link school representatives participated in a week-long workshop on the Child-to-Child method, and a small group was asked to develop a plan for introducing this method at NTTC.

Staff of the Radio Language Arts Programme at the NCDC met with the NTTC English Department, and subsequently presented a demonstration radio English lesson for staff and students, and provided instructional materials to serve as resources for teaching PTC students.

In addition, an extensive proposal was developed for a Primary and Practical Skills Teaching Resource Centre. The proposed centre would contain demonstration rooms, workshops, extracurricular and basic handicraft areas, classrooms and storerooms, designed to improve PTC instruction. To date, however, the proposal has not received funding.

*** provide increased opportunities for departments to supervise microteaching of topics in their own subjects**

Although some initial work has been done to assess the current level of departmental involvement in microteaching and staff interest in increasing involvement, there seems to be confusion about what microteaching is and what its objectives are at NTTC. Efforts are being made to clarify these issues.

*** introduce students to techniques for coping with the challenges in Lesotho's primary schools (e.g. large classes, limited facilities, wide age range, repeaters)**

*** provide school experiences (in addition to teaching practice) whereby on-campus students have an opportunity to observe experienced teachers and to practise teaching in real classrooms**

In addressing these objectives, the PMC helped to implement a new course for Teaching Practice Preparation (TPP). A reduction in practice teaching from the full second year to the second half of the year means that the second year students are now on campus for the first half of the second year. One of the new courses planned for this added on-campus instructional time was TPP. During TPP, students are involved in:

- general visitation and observation at primary schools near NTTC
- observation of demonstration lessons presented by NTTC tutors
- teaching lessons to primary pupils, while being observed by their tutors and peers
- participating in class discussion following each of the experiences in schools

Although some argued that the logistics of scheduling this experience and transporting the students and staff were insurmountable, the course is now considered to be of benefit to both students and staff. The cooperation of the primary schools and the commitment of NTTC tutors, as well as their understanding of the objectives of TPP have proven to be crucial factors in the success of the student experiences.

* facilitate links between NTTC and selected schools and communities, in order for:

- students to observe and practice in different environments
- tutors to have the opportunity for systematic observation in primary schools and interaction with primary teachers; develop strategies for overcoming constraints; and test revised curricula and instructional methods
- schools and communities to have the opportunity for interaction with NTTC students and tutors; participate in workshops; participate in the testing of revised curricula, instructional methods and programmes (e.g. integration, child-to-child); and cooperate for their mutual benefit

This was one of the subcommittees of the PMC, so considerable work went into establishing the objectives of NTTC links with schools, how the links should be established and maintained, and what would be the benefits not only for the NTTC, but also for the schools and their local communities.

Four schools were identified and approached to solicit their cooperation. Members of the PMC selected the school(s) with which they were interested in working, and a standard format was developed for planning and reporting each school visit. After the first year, a workshop was held to review the activities, achievements and problems, and to prepare action plans for the following year.

Link school groups aimed to visit their schools once a month, however, this goal was not always realized. The importance of regular school visits by the same tutors, to establish a relationship with teachers and pupils and to develop an understanding of the school and community cannot be underestimated. The schools with which the strongest and most useful links have been established are those that were visited most frequently.

One school was assisted with a successful application for financial assistance to complete an unfinished classroom building. Despite poor facilities, the school has had 100% pass on the PSLE for the past several years. The strong staff cooperation and support of the community were evident at planning meetings and the celebration to open the new building.

Workshops were conducted in most of the schools, covering topics such as "Motivating Teachers and Pupils," "Methods of Teaching English," "Arts and Crafts" and "Primary School Agriculture."

Although M1000 in BANFES matching funds were available to each school, this did not seem to be an important factor in facilitating the linkages. Only one of the schools submitted a proposal for matching funds, although written guidelines and suggestions were provided in a workshop attended by school and community representatives, and during a number of school visits.

*** equip students with study and library skills in order to facilitate their enrichment in content and methods and as preparation for further studies and lifelong learning**

Study skills have been addressed by tutors during their tutors-doing-counselling sessions with students. With the departure of the BANFES-hired librarian and in the absence of an established post for a College librarian, it seems unlikely that library skills will be pursued in the near future. Although BANFES funded library consultancies, a local-hire librarian, some regional training, and supplies and materials, the College remains with no established post and a library operated by library assistants.

*** establish a relationship with students that will facilitate continued cooperation and communication between the College and its graduands**

To my knowledge, this objective has not been addressed directly, although other activities may have had an indirect impact.

*** enable on-going evaluation of programme effectiveness**

To collect initial data for use in meeting this objective, a questionnaire was developed and administered to the 1989 PTC 3 students (the last group to do a full year of practice teaching) and the 1990 PTC 3 students (the first group to do TPP and half a year of teaching practice). The results are to be discussed by the PMC to determine the next step.

*** prepare students to conduct community projects and extracurricular activities through participation in these activities which is planned, supervised and assessed both on campus and during teaching practice**

*** prepare students to function effectively in their schools and communities as professional educators, as well as for continued professional development**

Again, I am not aware of any activities undertaken to address these objectives directly, although the PTC questionnaires included questions about community involvement and participation in extracurricular activities.

6. Obstacles, problems and consequences

The resignation of the Deputy Director Academic Affairs, and some time later, the resignation of the Primary Programmes Coordinator

have made it difficult to maintain momentum and continuity of leadership, despite the fact that many of the members have remained the same.

The members (departmental representatives) have complained that the committee is too active and takes too much time. In the 1990 PMC Progress Report and Workplan the following constraint was stated: "Due to too many activities that take place, at NTTC, sometimes it is not easy for people to attend meetings or even complete the assignments they are given."

The summary of the PMC report emphasizes that while the committee attempted to insure that the implementation of PTC programme revisions would not be contingent on the establishment of an NTTC Department of Primary Education, this is, in fact, considered by many to be the most effective way to implement the necessary changes, and to insure that the PTC programme and students continue to receive the attention they deserve.

7. Other comments

In his address to the PMC at the Programme Analysis Workshop, Director Matete commented that one of the reasons that the PTC Programme has suffered in the past 13 years in the "lack of a Primary Education Department to look after the programme in order to ensure its continued viability, credibility and relevance to the primary school needs." Perhaps as the PS he will be in an even better position to facilitate the establishment of such a department.

8. Other sources of information

NTTC Syllabus Manual for PTC Students
Final Report of the NTTC Primary Methodology Committee
Report of the Child-to-Child Workshop
Primary and Practical Skills Teaching Resource Centre Proposal
Links School Action Plans
Reports of Link School Visits
Training Proposals, Reports and Participants in the Programme Analysis Workshop and the Link School Seminar
Mantina Mohasi - formerly Primary Programmes Coordinator (now at IEMS)
Vuywela Ntoi - formerly Deputy Director Academic Affairs (now at NUL)

B2 Practical subjects in NTTC pre-service primary teacher training curriculum strengthened

B2a 4 NTTC departments responsible for practical subjects involved in curriculum revision for primary pre-service training

B2c At least 4 departments write new instructional objectives, and at least 2 departments write new instructional materials

B2d Strategies for assessing practical work developed by at least one NTTC department

The curriculum revision work of these and other departments is described in the DACUM section which follows.

DACUM Curriculum Improvement Process

1. How was the need for this process identified?

Two of the contractual outputs of BANFES at Component II are "revision and completion of the NTTC curricula" and "an efficient instructional system." Following a presentation in early 1986 by Dr. Christensen at a BANFES-sponsored workshop for NTTC staff on "Improving Teaching and Learning," several departments expressed an interest in curriculum revision. In fact, many departments had not critically examined their programmes since the establishment of the NTTC in 1975.

The Home Economics Department was the first to act on their interest, and a DACUM (Developing A CURriculum) Workshop was proposed, planned and finally conducted in May 1986. The production of a DACUM chart, and the subsequent work of the department on writing instructional objectives, fueled the interest of other departments. Subsequent task analysis workshops in six additional departments, the overall PTC programme workshop, an inter-departmental workshop to develop the Health/Nutrition course and workshops on writing and evaluating instructional objectives were all outgrowths of the initial presentation and the Home Economics DACUM Workshop.

2. Concise description:

Objectives The DACUM Task Analysis Workshops were conducted with the immediate goal of producing a task analysis chart for the department in the programme being analyzed, and the longer-term goal of using the chart as a basis for on-going curriculum improvement.

Content The content of the workshops, and procedures followed are described in some detail in Section II "A Guide to Using DACUM" of the NTTC DACUM Handbook.

Use The DACUM Workshops have, in fact, provided the basis for continued curriculum revision. Specific instructional objectives have been written for seven of the nine programmes for which charts were developed. In four programmes (two departments), the objectives have been used in course design. Finally, instructional materials have been developed by two departments to facilitate teaching in three programmes.

3. Steps, participants and time-line for development

The steps in conducting DACUM Task Analysis Workshops are outlined in Section II of the Handbook. Following the production of a chart at a 2-3 day workshop session, follow-up work was largely dependent on the time and commitment of the individual department, as technical advisors were available to facilitate the work.

Related workshops on "writing and testing instructional objectives," "integrated course design," and "materials development" were planned and conducted to facilitate the completion of specific follow-up tasks. The workshops took place from May 1986 through August 1989. In addition to NTTC tutors, participants included NCDC curriculum officers, NUL counterparts, primary and secondary school teachers and subject resource persons (e.g. representatives of FNCO, LAC, Ministry of Health, MOE Inspectorate).

4. Training:

Content Training conducted as a part of the DACUM Curriculum Improvement process focused on teacher task analysis, writing instructional objectives, course design and test item development.

Participants by category (duplications not removed)

NTTC Tutors - 50
NCDC Curriculum Officers - 7
NUL Counterparts - 3
Primary Teachers - 20
Secondary Teachers - 3
Subject Resource Persons - 4
IMRC Instructional Designers - 6

Proposed and actual participants are listed by name in the Training Proposals and Workshop Reports.

Dates/Trainers

1986

May 19-20 and 28 - Home Economics STC Task Analysis - Christensen and Pursley
July 9-11 - Professional Studies PTC Task Analysis - Christensen and Pursley

1987

February 2 - Testing Instructional Objectives (for Home Economics and Professional Studies Departments) - Harpring and Pursley

February 2-4 - English PTC Task Analysis - Christensen and Pursley

April 23 - Setting Useful Objectives (for English Department) - Christensen and Pursley

June 9-11 - Health PTC Task Analysis - Pursley

1988

January 25-February 12 - Science PTC Task Analysis/Materials Development - Pursley

May 24-27 - PTC Programme Analysis Workshop - Pursley and Christensen

May 30-June 1 - Commercial Studies STC Task Analysis - Pursley

November 2-4 - Sesotho PTC Task Analysis - Pursley

1989

January 11-13 - APTC Course Design - Pursley

July 31-August 4 - Home Economics Materials Development - Pursley

August 7 - Home Economics Evaluation Strategies - Pursley

Major Objectives

The major objectives varied with the subject of the workshop, but are briefly summarized below:

Task Analysis - 1) train participants in the use of the DACUM Task Analysis technique 2) produce a DACUM Task Analysis Chart of the programme being analyzed 3) provide a basis for future curriculum development and improvement

Writing Instructional Objectives - 1) improve the skills of participants in writing useful instructional objectives

Evaluating Objectives - 1) provide instruction to participants in writing items with acceptable characteristics to test the achievement of instructional objectives 2) facilitate practice in writing and critiquing sample items in objective, short answer and essay formats

Course Design - 1) design an integrated APTC course in Health/Nutrition, including specification of course rationale, instructional objectives, teaching strategies and resources, and identification and sequencing of units of instruction

Materials Development - 1) identify objectives (content) which cannot be adequately taught using currently available resource materials 2) decide on suitable forms (e.g. print, a-v) and formats for meeting these objectives 3) share responsibilities, determine time-lines, and begin materials development

Complete summaries of objectives are contained in the Training Proposals and Reports for each workshop.

Follow-up

For each workshop, follow-up was made through departmental meetings and work sessions at the NTTC; and meetings with individual staff members on specific tasks.

Evidence of Effectiveness

The first evidence of effectiveness is the fact that 6 other departments and the PMC followed the lead of the Home Economics Department in requesting a workshop and conducting a task analysis. The "products" of this process also provide evidence of its effectiveness. A total of ten DACUM charts were developed, instructional objectives have been written for seven of the nine departmental programmes for which charts were developed, one integrated course has been designed, and the following materials have been developed: two PTC student science manuals and workbooks, two STC student home economics laboratory manuals, two PTC student resource manuals, four videotapes and teaching packages, and two instructional slide sets.

5. Perceived benefits/evaluation - Participant evaluation summaries and assessment of the extent to which training activities met their stated objectives are contained in the workshop reports available in the Training Office. The next level of benefit is in the implementation of the revised curriculum in NTTC classrooms. Unfortunately, there has been little opportunity to observe the benefit at this level.

6. Obstacles, problems and consequences - The only obstacle to conducting an initial task analysis was the lack of interest on the part of a few departments. All department heads were sent copies of the Home Economics DACUM Workshop report and chart in June of 1986, reminding them of the offer of curriculum review/revision assistance from Dr. Christensen and me.

The major problem with follow-up work was that it requires a significant commitment of time on the part of each department as a whole and the members individually. Interest and motivation waned, with the result that a number of departments did not complete the process, in spite of the availability of technical assistance.

We had hoped to increase the impact of the videotapes and slides by offering them for sale to other educational institutions in the region. In fact, we developed order forms to advertise and facilitate ordering. However, there does not appear to be an adequate mechanism at the IMRC to determine the price, and handle duplication and distribution.

Finally, the problem of expertise to continue the process remains. In November of 1988, Mrs. Ntoi, Acting Deputy Director for Academic Affairs requested that the Professional Studies Department, the Curriculum and Evaluation Committees appoint representatives to form a team to work with me to develop exper-

tise in the curriculum improvement process using the DACUM model. For a variety of reasons, this team was never formed. I have written the NTTC DACUM Handbook in an effort to provide some documentation of what has been done and guidance for continuation of work in the future.

7. Other comments - To the knowledge of the two facilitators, this process had not previously been used to analyze the task of a teacher and develop teacher training curricula. It was selected for the following reasons, which seem to remain valid:

* The involvement of practicing teachers helps to insure that the objectives are practical and based in the real situation currently prevailing in the schools.

* Reliance on the knowledge and experience of the group members (they are not asked to consult any "experts" or outside references), is confidence-building and de-mystifies the curriculum development process.

* Involvement of key individuals in the subject area gives weight to the consensus achieved, and enables them to support the curriculum changes.

* The objectives are specified in behavioural terms, in contrast to a more general theoretical content which seemed to predominate in many departmental syllabi.

* The DACUM chart provided a basis for planning the entire instructional system, including the writing of objectives, design of courses, and development of materials and teaching and evaluation strategies.

* The usefulness of the chart as a concise communications tool. For example, the health and home economics charts were used to identify areas of overlap and integration in designing the integrated course.

8. Other sources of information

NTTC DACUM Handbook

Training Proposals, Workshop Reports and Evaluations

Products - i.e. charts, objectives, course outlines, print and a-v materials

Workshop Participants

D3 NTTC strengthened in support of more effective and relevant primary education

D3b Linkages between NTTC and related institutions in place

B2b Facilities for teaching at least 2 practical subjects improved and BANFES technical advisors teach practical classes at NTTC for purposes of developing and modelling effective teaching methods

To assist the Home Economics Department, the following facilities were provided:

Model Home Garden - In consultation with the NTTC Agriculture Department, the horticultural technical advisor to the Lesotho Agricultural Project for Institutional Support (LAPIS) and the technical staff of the LAPIS Home Garden Programme, a site was selected, fenced and the ground prepared. Fertilizer, seed and fruit trees were provided, as well as advice through a one-week training workshop at Lesotho Agricultural College (LAC) and the regular newsletter of the Home Garden Programme.

Practical Instructional Materials - A demonstration table was designed and constructed to make it possible for the department to present demonstrations which would be visible to the large PTC groups which they teach. Other small food preparation and sewing equipment was purchased to facilitate improved instruction. A VIP latrine was purchased for Home Economics to share with the Health/Physical Education Department in teaching home improvement and sanitation. Finally, 8 knitting machines were purchased to for the department to use with both PTC and STC students.

The improvement of facilities for the Department of Agriculture is addressed in the report of the Agricultural Education Specialist.

The following section describes how courses taught at NTTC and LAC simultaneously addressed objectives for modelling (through team teaching) and improving institutional linkages. In addition, the involvement of relevant Home Economics colleagues from LAC and NCDC in materials development and the subsequent sharing of home ec instructional materials developed at NTTC have contributed to increased professional dialogue.

Teaching practical courses at NTTC (pre-service and in-service) and LAC

1. How was the need for this process identified?

Although neither project documents nor my position description called for me to do actual classroom teaching, both specified that I should advise colleagues on more "practical" curriculum and methods, and help to strengthen linkages between NTTC and related institutions.

I felt that I would be in a much better position to advise at NTTC, if I had experienced the actual working situation of tutors in the pre-service and in-service courses and become familiar with the student abilities and limitations. However, I agreed to accept only team teaching opportunities in an effort to introduce new teaching and evaluation strategies to my colleagues.

LAC was not only among the institutions with which we were expected to improve linkages, but also exploring potential for joint programmes with NTTC in agriculture and home economics. At the start of their new diploma programme, they were short of staff, and therefore I agreed to teach one course in an effort to get to know the college, home economics staff and students, and to put myself in a better position to facilitate improved linkages.

2. Concise description:

At NTTC - In term one of 1987 I taught a Needlework course with Bothephana Makhakhane to 160 PTC I students; and in the January 1988 in-service course, I taught home economics with Mantina Mohasi to 85 headteachers and 230 LIET 2 students.

At LAC - in the first semester of 1986, I taught home management to 17 first year students in the Rural Domestic Economy (Home Economics) Diploma Programme.

Objectives

In addition to providing necessary instructional services and courses to the two teaching institutions, my personal objectives in accepting these assignments were as follows:

1. Experience the actual working situation of in NTTC tutors in the pre-service and in-service courses and become familiar with the student abilities and limitations.
2. Introduce a greater variety of teaching methods and evaluation strategies through team teaching.
3. Get to know LAC, the home economics staff and students, in an effort to strengthen my ability to facilitate improved linkages between NTTC and LAC.

Content

The content of my work was, in cooperation with my colleagues at NTTC and individually at LAC, to plan, teach and evaluate the assigned courses. The content of the courses were:

NTTC pre-service - primary needlework
NTTC in-service (headteachers and LIET 2) - primary home economics
LAC - home management

Use

Presumably, the teaching was of use to the two educational institutions, and to the students in the courses. Furthermore, the experience was extremely useful to me personally in achieving the objectives outlined above.

3. Steps, participants and time-line for development

The PTC course was planned and taught with Ms. Makhakhane during the period of December 1986 through April 1987.

The in-service course was planned and taught with Ms. Mohasi in December 1987 and January 1988.

The course at LAC was planned and taught from August through December 1986.

4. Training:

Specific training for teaching these courses consisted entirely of on-the-job training delivered through the team teaching experience. However, a number of BANFES training activities have focused on improving instruction at NTTC.

5. Perceived benefits/evaluation

As I observed above, I believe that these courses were of benefit to the two institutions and to the students. I was able to increase my own understanding of NTTC certificate and in-service students, as well as LAC diploma students. I became familiar with the conditions under which instructors teach at both NTTC and LAC. For technical advisors in academic areas, teaching courses is an important means of building rapport with academic colleagues. Furthermore, I have the following anecdotal evidence of ways in which the content and methods employed in the courses had impact beyond the end of the course:

NTTC - Team teaching required more detailed plans than one might make when teaching alone, and close cooperation and coordination. When working with departments on curriculum revision, I learned that tutors were not always aware of the content being taught in other courses in the same programme in which they were teaching. Occasional team teaching assignments can help to alleviate this problem and facilitate closer cooperation and sharing of teaching methods and resources.

We made a special effort to introduce and demonstrate a great variety of teaching methods and techniques. For example, during the three-week in-service courses we used role play, laboratory, lecture, brainstorming, discussion, games and demonstration.

The PTC Needlework course we were teaching had been taught a number of times before, however, we introduced new content on fibre content and care, and consumer decision-making in the purchase and care of clothing and textiles. Some of the charts and course outlines from this course were later incorporated into the PTC Student Resource Manual.

Previously, the evaluation of the practical aspects of the PTC course relied solely on the student specimen books and final projects. We designed and administered a practical exam, in addition to the usual theoretical exam, in an effort to increase emphasis on the practical aspects of the course, and to demonstrate to future teachers how such tests can be developed and used.

In the marking of final products, we developed and used marking guides, which clarified the basis on which the projects were evaluated, and provided specific feedback to students. I later observed colleagues using similar guides in other courses.

LAC - The year after I taught in the diploma programme, I was asked to meet with the instructor assigned to teach the home management course to share my course outline, lecture notes, assignments, handouts and tests. In 1988, 1989 and 1990, I prepared and moderated a panel discussion for diploma students in both agriculture and home economics. (I just received a request to assist again this year, which, in view of my departure, I unfortunately had to decline.)

6. Obstacles, problems and consequences

There were no particular obstacles or problems with my teaching experiences. I believe that more exchange of faculty and guest lecturing between the agriculture and home economics faculties at NTTC and LAC would benefit both institutions. However, transport would undoubtedly pose a problem, although not insurmountable.

7. Other comments

I highly recommend some teaching/school experience, at an appropriate level, to any technical advisor working in an academic area.

8. Other sources of information

Mrs. Pinda - Head of Home Economics at LAC
Mrs. Mokoteli - Head of Home Economics at NTTC
Mrs. Mohasi - team teacher for in-service course (now at IEMS)
Ms. Makhakhane - team teacher for PTC course
students in the courses taught

C1 Action Research Project initiated to foster two-way school-community participation and support

C1a Action Research carried out in at least 20 sites to ascertain community perceptions of and needs from primary schools and to promote school-community links

Basic Education and Practical Skills Action Research Survey

1. How was the need for this process identified?

Upon arrival in Lesotho in 1985, the technical advisors responsible for basic education and practical skills, i.e. Dr. Fredi Munger, Ms. Susan Scull, Mr. Gerald Zirimwabagabo and me, met to discuss our individual and cooperative tasks and to brainstorm strategies for accomplishing them. We discovered that much of the information on which the project design was based dated from the National Education Dialogue conducted in 1978 and the Education Sector Survey Report published in 1982. The annual statistical returns and resulting school profiles provide reliable, up-to-date information on the context in which education takes place, and make it possible to generate pupil flow models, reports on facilities and teacher qualifications. However, little or no reliable recent data were available on what was actually being taught in the classrooms, what methods were being used and how teachers, managers, parents, pupils and other community members felt about the activities of the school.

Designing a survey to meet these information needs also provided the opportunity for BANFES Technical Advisors (TAs) to develop essential working relationships with colleagues at various MOE institutions and strengthen linkages between those institutions.

2. Concise description:

The Action Research Survey on Basic Education and Practical Skills in Lesotho was cooperatively designed by professionals representing relevant institutions of the Ministry of Education to familiarize them and their institutions with the current situation in primary schools, provide up-to-date information for planning BANFES Project initiatives, and explore local solutions to problems identified. It was implemented by field staff of the NTTC in 20 primary schools throughout the country.

Objectives

The stated objectives of the survey were as follows:

- 1) Create awareness and build consensus among the individuals and institutions involved in education regarding: a) their role in education, b) the scope of the problems faced by Lesotho's schools, c) the scale of changes needed and d) their abilities to effect change;

2) Analyze available information and determine further information needs in order to identify which changes are critical;

3) Collect and analyze information in order to learn what is actually happening inside the schools and communities in the areas of basic education and practical skills, including attitudes, achievement and behaviours;

4) Feedback and report to survey participants in order to generate discussion in issues of common concern;

5) Develop site-specific action plans in order to determine how to accomplish desired changes by making use of locally available human and material resources.

Content

The development of the survey and design of data collection instruments was a long group process to achieve consensus and develop the skills of design team members. Surveyor training and instrument testing were conducted, and data collection was followed by a "Feedback and Action Planning Conference." The conference report contains general findings in the areas of 1) educational administration 2) primary curriculum and 3) school/community involvement, and site specific reports and school profiles. Many of the Action Research Survey (ARS) schools have been involved in supporting subsequent BANFES Project initiatives.

Use

Not only was the information generated by the survey used by TAs and education colleagues, but the relationships established among education professionals, their institutions and participating schools continue to be quite useful.

3. Steps, participants and time-line for development

Late in 1985, a team of educators representing the NTTC, NCDC, IMRC, LDTC and the MOE Inspectorate were selected to design the survey with the following criteria in mind:

- * links with basic and/or practical skills
- * research and evaluation experience
- * experience in primary education
- * instructional design experience

From late 1985 until April 1986 the group followed these steps in designing the survey:

- 1) reviewed what we knew (education statistics) and what Lesotho wants (Task Force Report and MOE Policy)
- 2) determined information missing and needed WHAT
- 3) listed potential sources of missing information WHO
- 4) designed strategies for collecting the needed information HOW
- 5) developed visual aids
 - a. "Thabo's Story" - a videotape dramatising the need for relevant and useful primary education, designed to present the objectives of the survey
 - b. 2 training videotapes for teaching observation techniques required to conduct Pupil Behaviour Observation and Teacher Behaviour Observation
- 6) conducted presentations to elicit involvement and recommendations for information-gathering and instrument design to the following groups: NTTC (2), LDTC, Inspectorate, Advisory Board to the Survey Design Team and USAID, BANFES and NCDC Representatives
- 7) developed and tested the following instruments:
 - 7 interview/questionnaires (for managers, headteachers, teachers, parents, pupils, chiefs, and community leaders)
 - 1 Policy Awareness Checklist
 - 1 Educational Resources Checklist
 - 3 Sesotho Oracy Achievement Tests (Standards 2,4,6)
 - 3 Maths Achievement Tests (Standards 2,4,6)
 - 1 Pupil Behaviour Observation Sheet
 - 1 Teacher Behaviour Observation Sheet
- 8) conducted field surveyor training, instrument pre-testing and site selection (April 1986)
- 9) data collection was delayed, and consequently a "refresher" training course was conducted for surveyors in July 1986
- 10) data was collected and submitted from August 1986 - January 1987
- 11) data analysis followed
- 12) the feedback and action planning conference was held in October 1987
- 13) follow-up contacts with participating colleagues and schools continue to the present time

4. Training:

Three training activities were conducted to support the implementation and aims of the survey. The process itself may be considered on-the-job training for the Survey Design Team Members and the Field Surveyors.

Field Surveyor Training, Instrument Pre-testing and Site Selection

Date: April 1986 (1 week)

Venue: Mazenod Training Centre

Participants: 24 NTTC Field Staff/Surveyors, Survey Design Team Members

Content: Video practice and surveyor role rehearsal, video instrument testing in 7 Maseru District primary schools and school/community site selection with consideration to geographic distribution, proprietor, receptivity and accessibility to the surveyor

Field Surveyor "Refresher" Course

Date: July 1986 (3 days)

Venue: Anglican Training Centre

Participants: 24 NTTC Field Staff/Surveyors, Survey Design Team Members

Content: Review of final instruments and additional practice on survey/data collection techniques

Feedback and Action Planning Conference

Date: October 1987 (4 days)

Venue: Lakeside Hotel

Participants: 24 NTTC Field Staff/Surveyors, Survey Design Team Members, School and Community Representatives from each site (e.g. head teachers, school managers, chiefs, parents)

Content: Background and rationale for the survey, presentation of general findings, reports of site findings and action planning

Training proposals and reports listing participants by name are on file in the Training Office.

5. Perceived benefits/evaluation

With reference to the stated objectives of the survey, I believe that it did heighten awareness among the individuals and institutions involved regarding: a) their role in education, b) the scope of the problems faced by Lesotho's schools, c) the scale of changes needed and d) their abilities to effect change. In order to cooperatively design the survey, i.e. determine which questions should be asked of whom, available information had to be analyzed and consensus had to be achieved among the design team.

At that time many of the SDT members had little or no current experience with the situation in rural primary schools. Instrument testing and follow-up visits to participating schools and communities gave them an opportunity to view problems from the perspective of their education colleagues at the local level, and to explore solutions to these problems.

The survey collected a wealth of information on the situation inside classroom, the behaviour of teachers and pupils and the Sesotho and math achievement of the pupils. In addition, insight was gained on the attitudes of key people in the schools and communities toward education and their roles and contributions.

The feedback conference was successful in generating not only discussion of issues and problems, but also site specific action plans. The action plans were detailed, indicating what actions would be taken, when, by whom, and how progress would be measured. In general, the plans relied on locally available human and material resources.

The relationships established with MOE institutional representatives during the course of the survey have proved to be extremely useful to each of the TAs in carrying out their work during the rest of the project.

The relationships established with the participating schools and communities have also continued and proved useful in a number of ways. Several of the schools have tested new curriculum and instructional materials. Two were selected as NTTC link schools. Some have arranged exchange visits with other participating schools to share school improvement ideas and experiences.

6. Obstacles, problems and consequences

One of the biggest problems encountered was the tremendous amount of time required to achieve consensus and design the survey cooperatively. It was extremely difficult to plan convenient meeting times for representatives of so many different institutions, and to schedule the training, instrument testing and data collection around school vacations. Nonetheless, I believe that the time spent to insure involvement of and consultation with all relevant parties was well spent, and helped to increase their receptivity to proposed changes. The delays did not seem to result in loss of interest or attrition of SDT members, as might have been expected.

A second problem also resulted, in part, from the cooperative way in which the survey was designed. Different sub-groups of the SDT were responsible for the development of different survey instruments. Consequently, analysis of the data across respondents was complex, and it was often difficult to draw general conclusions. However, this did not diminish the usefulness of the information on each site for planning appropriate actions, and it did enable all SDT members to be actively involved in developing the actual survey questions. This problem might have been eliminated through the use of a smaller group to draft the instruments for review by the total group, or an editing team to check for consistency, with a view to how the data would be analyzed and used.

7. Other comments

From my own perspective as a TA, the ARS was, in the short term, a highly useful orientation to the MOE institutions and Lesotho's primary schools, and in the longer term, a source of contacts with local colleagues that have continued to be of mutual benefit throughout the Project. Although a tremendous amount of time was devoted to this activity, and it is now possible to cite ways in which it could have been improved, I strongly believe that impact of the process extends far beyond any data collected and findings reported.

8. Other sources of information

Basic Education and Practical Skills Action Research Survey -
Preliminary Report
Report of the Conference on Feedback and Action Planning
Members of the Survey Design Team (including other participating
TAs)

II. Contractual Obligations

Following are Project obligations for Component II, NTTC, and a summary of the activities which have been undertaken to meet them.

A. Sufficient trained staff for NTTC

The BANFES Training Office can provide a complete list of NTTC long-term overseas training participants, regional study tours and short term training activities which were conducted for NTTC staff through the BANFES Project. In addition, the reports of the other four TAs who worked at NTTC should be consulted, i.e. June "Cookie" Bourbeau, James Harris, Barnabas Otaala and Gerald Zirimwabagabo.

As specified in the contract, training topics have included, among others: specific academic background deficiencies, supervision, evaluation, guidance and counselling, principles of teaching and learning, curriculum development, community involvement with schools, budgeting and financial management.

Although work was done in "Schemes of Service" and personnel management, any improvements made were not sufficient to stop the departure of trained staff from the College, for better positions both inside and outside the country. (Three staff who have left received Masters degrees in the USA through BANFES, and another participated in a BANFES-funded study tour.)

Although work was done in the Action Research Survey, through the Primary Methodology Committee (Link Schools) and in the DACUM Task Analyses to emphasize school-community cooperation, a short-term specialist was not recruited for this purpose. Community involvement is part of the curriculum in almost all departments, and there was not agreement on the need for a special course. The College does recognize the need to prepare student teachers to work with the community and in the PMC workshop, identified the following objectives for "school-community involvement/cooperation."

The PTC Programme should be designed to:

- permit the development of one or two preferred skills for future community service
- include meetings with the community
- facilitate team teaching with community colleagues
- involve students in community cooperation activities while at the college e.g. taking active part in churches, organizing community activities, working on projects with community members and organizations

- bring in community resource people to teach skills
- offer college facilities to the community (as an example of school-community cooperation)
- give opportunity for interaction with the community outside of school
- include a community involvement project

B. A revised curriculum for the NTTC, which includes Agriculture/Practical Skills and which is based on a teacher-task analysis

The earlier sections of this report, in particular those reporting on DACUM and the PMC, describe curriculum revision and facilities improvement made possible by the BANFES Project, including the design and dissemination of instructional materials and fostering of linkages between NTTC, NCDC and LAC. The report of Gerald Zirimwabagabo, the Agricultural Education Specialist, will provide additional detail specifically on the area of agriculture. The report of the Academic Programmes Advisor, Dr. Barnabas Otaala, may also provide insight into College structures (e.g. Academic Board) established to formulate and monitor programme changes.

Dr. Otaala worked as an advisor to the Curriculum Committee, Mr. Zirimwabagabo served on the Evaluation Committee, and I was a member of the Timetable Committee and the Space Utilization Committees.

C. A tested and efficient instructional system consisting of trained faculty and appropriate instructional materials

Testing of the PTC Programme improvements has been limited by the fact that the changes are still in the process of being implemented. Questionnaires (Appendix A) were developed and administered to two groups of PTC students for comparison. One group (1989) participated in the "sandwich" course, with the first and third years on campus and the entire second year devoted to practice teaching. The other group (1990) was the first to spend two and one half years on campus, going for teaching practice in the second half of their second year. This group was also received "early" school experience through the initiation of Teaching Practice Preparation. Some key findings with respect to teaching practice are highlighted below:

- * 40% of the 1989 group reported being assigned to teach a class alone (contrary to College guidelines), but only 3% of the 1990 group reported teaching alone i.e. without a cooperating teacher
- * in both groups more than 80% of the respondents indicated that they were able to use teaching resource materials received or made at NTTC

* there was a slight increase (from 49 to 56%) in the percentage of students who reported teaching practical skills, however there was a decrease in the percentage who reported responsibility for extracurricular activities (from 56 to 33%)

* in both groups more than 60% reported that the community was involved in the school in which they taught, and the percentage of students reporting involvement in the community increased slightly (from 32.5 to 36%)

Faculty training is outlined under A (sufficient trained staff) and instructional materials development is discussed in this report in the DACUM and PMC sections, and in the report of Mr. Zirimwabagabo with respect to Agriculture.

D. Sound personnel, administration and financial management systems at NTTC

The reports of Mrs. Bourbeau and Mr. Harris should address this obligation. Considerable time and effort was devoted to the pursuit of greater autonomy for the College, which appears to be prerequisite to effective hiring, supervision and retention of qualified staff.

Marked improvements have been made in student admissions and enrollment procedures. Through the work of Peace Corps volunteer, Dr. Marcia McBeath and the training of Mrs. 'Malebona Mphalane, an improved system of student counseling has been established.

Computer, photocopying and a-v equipment was purchased and maintained through the project.

I have given some advice and assistance to the NTTC Food Service management and drafted an NTTC Computer Plan, in response to a request from the administration (Appendix B).

E. A functioning program for testing curriculum and teaching methods, through established linkages with seed schools and communities

This output was addressed by the College through the work of the PMC. The importance colleagues attached to the initiative is evidenced by the fact that seed/link schools group was one of the five sub-groups formed by the PMC to focus on priority concerns.

My work at NCDC since 1988 has addressed obligations at Component III, NCDC/IMRC as outlined below:

F. Curricula relevant to the skills requirements and development needs of Lesotho to include practical skills, agriculture and basic education

My work in addressing this obligation is fully described in the earlier section of this report which deal with the Home Economics and Health and Physical Education Subject Divisions.

G. Implementation of an effective training system for orienting primary teachers and local school administrators to the new curricula and assessment materials, and for providing feedback from teachers

Since I began to work with them, both divisions have delivered in-service teacher training on two occasions (July 1989 and January 1991) through the National Dissemination Programme network. In addition, we planned and conducted supplementary training for the District Resource Teachers (DRTs).

H. Training programs for NCDC/IMRC staff needed to fully institutionalize their capacity to carry out the preceding tasks on a continuing basis

The majority of training for NCDC/IMRC staff has been on-the-job training through their participation both as workshop and seminar participants and in the cooperative design, delivery and evaluation of training and materials.

For example, NCDC staff have participated in DACUM workshops in their areas of subject specialization, and IMRC staff have helped to facilitate both DACUM and materials development workshops. All the above mentioned training through the NDP and the PIEP programmes, has been a joint effort between me and my respective colleagues in the subject areas, with the exception of the 1991 NDP Workshop, which, due to my impending departure, was conducted by the NCDC staff alone.

III. Summary and Conclusions

This section is an attempt to reflect and to highlight lessons learned, what I consider to be the most important contributions of my work, to suggest areas worthy of future support.

A guiding principle in all of my work has been my belief that the role of a technical advisor is to share expertise and experience from their own background, in so far as they are appropriate, and to facilitate access to Project resources to accomplish mutually agreed upon goals. Consequently, almost all of my work has been cooperative. An emphasis on "process" has generally come before any "products" were produced, and a great deal of training has been "on-the-job," in the context of working together.

Materials which have been produced through my work, and activities which have been undertaken are not therefore, the same as they might have been if I had had sole responsibility in my own cultural context. I am also sure that they are not the same as those my local colleagues would have developed independent of my input. Hopefully, the "whole is greater than the sum of the parts," and our collaborative efforts have resulted in materials and activities which take advantage of our unique skills and backgrounds for the benefit of primary education in Lesotho.

I believe that the establishment and work of the NTTC Primary Methodology Committee has made, and will continue to make important contributions toward the improvement of primary teacher education in Lesotho. In my five and one half years here, I have observed major changes in the attitudes and interest of staff in the PTC students and programme, and greater awareness of the crucial role of the primary teacher in building a foundation for life and further education.

I believe that emphasis on primary education could be increased through the creation of a Department of Primary Education at NTTC, and through the provision of additional facilities catering to the preparation of primary teachers. Appendix C is a copy of a proposal prepared with input from the PMC for a Primary Practical/Basic Skills Teaching Resource Centre. Since BANFES funds were not approved for the construction of a building, the proposal was presented to other donors, but no support has been offered to date. This document should be up-dated to reflect current needs and thinking, but it is my opinion that the facilities described could still be used to improve the PTC programme by increasing the emphasis on practical skills and content.

Through our work in materials development and testing, my local colleagues have gained valuable experience and ideas for materials which, I believe should be developed in the future. In particular, the NTTC Science Department has an interest in producing PTC Student Manuals and Workbooks in priority areas other than the two already addressed. During the process of syllabus testing, the NCDC Home Economics Division identified support materials which will help teachers to implement the syllabus more

effectively. The NCDC Health and Physical Education Division is in the process of testing one section of a teachers' guide, which should be revised to serve as a model for a complete teachers' guide to the syllabus once the syllabus is finally approved.

While each of these departments and divisions have ideas and objectives for the materials they wish to produce, in my experience, the weight of their normal workloads, lack of certain computer technical skills, and developmental costs will prohibit the actual materials production without outside assistance. I strongly recommend that their efforts be supported.

With respect to instructional materials, I also want to suggest that a mechanism be explored to facilitate the sharing and purchase of locally produced materials on a regional basis. We were able to share some of the home economics materials with home economics educators from Botswana, Swaziland, Malawi and the Republic of South Africa. These have been enthusiastically received, and some interest has been expressed in purchasing additional copies. We developed sample order forms (Appendix D) for use with the "teaching methods" videotapes and home economics slide sets, however, we were not able to establish a mechanism for IMRC to set prices and follow through with duplication and distribution. Based on our experiences with the materials we have been able to obtain from other countries and to share with them in return, it seems to me that the potential for regional benefit from locally produced materials is largely unrealized.

If the instruction of "practical skills" in Lesotho's primary schools is to be improved, minimal equipment and materials will need to be available to primary schools. Teachers have been creative in improvising tools and materials, but the utility and durability of such equipment is limited. For example, in the teaching of primary agriculture, suitable land must be allocated to the school, and sufficient water, spades, digging forks and seeds must be available. Implementing the primary home economics syllabus requires basic needlework tools and materials, such as scissors, needles, pins, thread and fabrics, many of which are difficult, if not impossible to improvise. A first aid kit should be present in every primary school, and could facilitate the teaching of practical skills in health education.

Finally, I wish to express my appreciation to my colleagues in the Ministry of Education, the BANFES Project and USAID for their cooperation and assistance. My work has been challenging and interesting, and my relationships with my Basotho colleagues instructive and enriching. There are many challenges remaining, and I leave them with my sincere best wishes for continued progress toward the worthy and formidable goal of improved primary education for all of Lesotho's children.

APPENDIX A

QUESTIONNAIRE SUMMARY
FOR 1989 PTC III STUDENTS

GROUP	# DISTRIBUTED	# RETURNED
21	23	11
22	22	12
23	22	6
24	23	12
25	25	8
26	20	1
27	22	21
28	23	9
TOTAL	180	80 (44%)

PREPARATION FOR INTERNSHIP/TEACHING PRACTICE

During your course of study at NTTC, did you learn to use the following:

	YES	NO
scheme and record book	95 %	6 %
NTTC lesson plan format	92.5%	7.5%
Primary School Syllabi for:		
Sesotho	49 %	51 %
English	41 %	59 %
Science	61 %	39 %
Maths	87.5%	11 %
Social Studies	40 %	60 %
Arts & Handicrafts	41 %	59 %
Health & Physical Ed	26 %	74 %
Home Economics	24 %	76 %
Agriculture	30 %	70 %
		NO RESPONSE 1%

Which methods were you taught at NTTC prior to your teaching practice?

70% lecture
100% demonstration
73% discussion
96% discovery

Other methods and the number of students listing each were as follows:

grouping - 15
dramatization/role play - 12
question & answer - 8
look & say, team teaching - 6 each
explanation, phonic, telling - 4 each
games, translation - 3 each
storytelling, questioning, introducing a lesson, breakthrough - 2 each
problem solving, grammar translation, direct, memorization, probing, logical organization - 1 each

Which practical skills did you learn at NTTC prior to your teaching practice?

Practical skills listed and the number of students listing each were as follows:

demonstration - 23
introducing a lesson - 21
logical organization - 18
closure, visual aids, explanation - 5 each
learning environment, pacing, reinforcement - 4 each
stimulus variation, elaboration, forcing question, pupil participation, logical skill, observation - 3 each
questioning, hypothesis, listening, enthusiasm - 2 each
micro-teaching, grouping, manipulation, reading, writing, stimulus, discovery, posing questions, experimentation, classification, sewing, knitting, garden work, modelling, drawing, none 1 each

NO RESPONSE 51%

INTERNSHIP/TEACHING PRACTICE

School of Internship/Teaching Practice (data entered by school registration number)

Standard (or standards) taught	%
1	3%
2	13%
3	28%
4	25%
5	18%
6	8%
7	2%
NO RESPONSE	1%

Did you teach: 40 % alone
57.5% with another teacher
0 other (please explain)
2.5% NO RESPONSE

Number of pupils you taught RANGE 18 - 200 AVERAGE 71

Would you describe the school facilities and equipment as:

19 % excellent
26 % good
39 % average
12.5% poor
1 % very poor
2.5% NO RESPONSE

Please explain: (Sample student comments are listed after the response they made.)

excellent

- everything I needed to use in my class as visual aids was provided by the headteacher
- there were tables and chairs, chalkboards, chalk (in various colours), teaching materials
- many garden tools and plots, netball, football and singing

good

- sufficient facilities, except Stds. 4 & 5 shared class-room
- most things were available, e.g. garden tools
- everything in good order, enough chalkboards, desks, well-ventilated, windows in good condition

average

- classrooms and chairs were not enough, desks for Stds. 5-7 only
- not enough classrooms or equipment; exchanging wasted teachers' time
- chalk, dusters, chairs, garden tools, others were enough

poor

- one classroom shared by 2 classes, no desks and chairs, teacher asked to use 1 piece of chalk for 3 days
- no desks, no doors, books torn by wind
- no equipment for gardening

very poor

- 3 classes in the same building, no chairs and benches for pupils, and a very small piece of blackboard

Would you describe the regular teachers at your school as:

- 52 % very helpful and cooperative
- 25 % somewhat helpful and cooperative
- 16 % neutral
- 3 % not helpful and cooperative
- 3 % not at all helpful and cooperative
- 1 % NO RESPONSE

Please explain: (Sample student comments are listed after the response they made.)

very helpful

- helped me reach internship objectives
- we could say things we didn't know; they guided us now and then; they treated us as teachers, not students
- gave all required assistance, especially headteacher and deputy
- teachers appreciated team teaching; pleasant and easy to talk to; helpful with methods of teaching
- whenever I asked for help, they did not hesitate and sometimes asked me to explain how to tackle certain topics

somewhat helpful

- good, I could gain more methods of teaching
- cooperation in other activities, even sometimes observing teaching, especially the cooperating teacher
- they helped me with solutions, methods to approach difficult subjects, organizing inter-class competition
- not all were cooperative, as it is in life; some exceptions

neutral

- I asked them to observe my teaching, but none accepted
- they are jealous and call us teachers of new methods, but they have lack of skills

not helpful

- they were not cooperative to me

not at all helpful

- most of the work in class was done by me; she didn't help when needed; she gossiped about me to the pupil's parents

- teachers complain that NTTC doesn't train teachers, it trains cheaters (students are forced to do things they don't understand, so they cheat to pass)

Please tick which of the following primary school subjects you were responsible for teaching; and for each subject you taught, indicate the topics you taught.

SUBJECT	TOPICS (frequency)
97.5% Sesotho	grammar(32), mekhoa, meetlole maele(26), reading(21), writing(11), moqoqo(9), other(8), none(32)
90 % English	structures(33), grammar(28), reading comprehension(22), letter, essay and storytelling(5), writing(4), poems and rhymes(3), none(34)
92.5% Science	living and non-living things(55), solids and liquids, sinking and floating(24), soil(17), exploring the environment(14), other(7), none(31)
95 % Maths	basic operations and place value(34), sets(21), number, base, squares(12), fractions(11), measurement(7), time(6), money(6), none(32)
80 % Social Studies	geography of Lesotho(23), history(19), Basotho culture and tradition(18), none(30)
35 % Arts & Handicrafts	modelling(27), drawing and colouring(8), grasswork(4), knitting and crocheting(4), weaving(2), none(14)
49 % Health & Physical Education	bodily hygiene and cleanliness(22), games, exercise and sports(7), first aid(5), food and nutrition(4), water(3), other(3), none(19)
30 % Home Economics	three basic food groups and functions(21), sewing(17), food hygiene and preservation(6), knitting(3), none(4)
66 % Agriculture	sowing, planting and caring for plants(28), soil erosion and conservation(10), gardening, farming and tools(9), none(24)

What language did you use for teaching subjects like Science, Social Studies, Maths, etc.?

17.5% Sesotho
35 % English
47.5% Both

Students gave some of the following reasons for their responses:

English

in Stds. 1-3 - to promote the knowledge of English and because pupils understood English and Maths taught in English

in Stds. 4-7 - to help improve English, because it is the medium of instruction, texts are written in English

Sesotho

in Stds. 1-3 - stipulated in the syllabus, for understanding, books are written in Sesotho

in Stds. 4-7 - it was used by the regular class teacher, to promote understanding

Both Languages

in Stds. 1-3 - some books are in English, some in Sesotho; when they fail to understand in English

in Stds. 4-7 - sometimes pupils fail to understand in English, some texts are written in Sesotho and others in English

In teaching Sesotho, in which of the following areas did you encounter problems?

24 % language
17.5% modern literature
47.5% traditional literature
7.5% Other (please specify)
24 % NO RESPONSE

Which of the following methods did you find most effective in teaching Sesotho?

- 4 % phonic
- 16 % look & say
- 4 % sentence
- 64 % combination of the above
- 4 % Other (please specify)
- 9 % NO RESPONSE

How helpful was the use of pre-reading skills (e.g. recognition, identification)?

- 37.5% very helpful
- 29 % helpful
- 12.5% neutral
- 1 % not helpful
- 1 % not at all helpful
- 7.5% did not use pre-reading skills
- 11 % NO RESPONSE

Please list the teaching methods you used during your teaching practice and the subjects in which you used each method.

METHOD	SUBJECTS (see code below)													
	00	10	02	03	04	05	06	07	08	09	10	11	99	
LECTURE	4	2	-	-	-	1	-	2	1	1	-	7	3	
DISCUSSION	3	13	7	2	4	11	1	3	-	-	-	3	5	
DISCOVERY	7	-	1	38	20	4	-	-	-	-	-	-	7	
DEMONSTRATION	6	3	11	38	11	6	3	9	3	11	-	-	8	
EXPLANATION/ TELLING	8	6	2	-	3	8	-	1	-	-	-	4	4	
GROUPING	8	7	9	4	12	4	-	-	1	1	-	-	6	
DRAMATIZATION/ ROLE PLAY	2	2	3	-	-	-	-	-	3	-	-	8	-	
QUESTIONING/ QUESTION & ANSWER	7	11	10	2	2	3	-	-	-	-	-	3	6	
OBSERVATION	-	-	-	2	1	-	-	-	-	-	-	-	-	
GAMES	1	1	1	1	-	1	-	1	-	1	-	-	2	
LOOK AND SAY	-	3	10	1	-	1	-	-	1	1	-	-	-	

METHOD	SUBJECTS (see code below)												
	00	10	02	03	04	05	06	07	08	09	10	11	99
STIMULUS VARIATION	1	-	2	-	-	-	-	-	-	-	-	1	1
INTRODUCING A LESSON	-	-	-	-	1	-	-	-	-	-	-	-	-
FIELD TRIPS	-	-	-	-	-	1	-	-	-	-	-	-	1
EXPERIMENTATION	-	-	-	2	-	-	-	-	-	-	-	-	-
PUPILS' PARTICIPATION	-	1	3	3	3	3	1	-	-	-	-	-	-
SUBSTITUTION DRILL	-	-	1	-	-	-	-	-	-	-	-	-	-
LISTENING	-	5	2	-	-	-	-	-	-	-	-	-	-
LOGICAL ORGANIZATION	-	-	-	-	-	1	-	-	-	-	-	-	-
SENTENCE	-	1	1	-	-	-	-	-	-	-	-	-	-
TOTALS	47	55	63	93	57	42	4	16	9	15	0	26	43

NO RESPONSE - 45

*Subject Codes

- 00 No Subject Given
- 01 Sesotho
- 02 English
- 03 Science
- 04 Maths
- 05 Social & Development Studies
- 06 Art & Handicrafts
- 07 Health & Physical Education
- 08 Home Economics
- 09 Agriculture
- 10 Music
- 11 Religious Education
- 99 All Subjects

Were you able to use teaching resource materials you received or made at NTTC? 81 % YES 17.5% NO 1 % NO RESPONSE

Materials and the number of students who listed each are indicated below:

abacus 49
fraction board 43
charts and cards 29
correspondence chart 24
other miscellaneous 14 (some listed subject materials, but were not explicit, e.g. Maths, Home Economics, Professional Studies, Resource Centre materials
language and math games 10
maths cards 8
balancing scale 8

Did you teach any practical skills? 49 % YES 32.5% NO
21 % NO RESPONSE/MISSING

Specific skills and the number of students who listed each are indicated below:

agriculture/gardening/digging 11
modelling 9
arts & crafts 8
demonstration 7
music/singing 4
netball, introducing a lesson 3 each
logical organization skill 2
questioning, measuring, cooking, sewing, drawing, making a garbage pit, soil conservation, logical skill, discovery 1 each

Were you responsible for any extracurricular activities?

56 % YES
29 % NO
15 % NO RESPONSE/MISSING

Specific activities and the number of students who listed them are indicated below:

music/singing/choir conductor 17
netball 14
sports 12
athletics 7
kitchen manager 3
mural activity, school secretary, matron, gardening activities, game playing, basketry 1 each

Was the community involved in the school in which you taught?

64 % YES

24 % NO

12.5% NO RESPONSE/MISSING

Sample student explanations of how the community was involved in the schools are listed below:

- collecting wood for school children
- if there was going to be a change in our school the community was informed
- attended some parents meetings to solve problems
- paying school fees, pupils discipline, other school planning
- in the kitchen preparing food
- through school committee, cutting wood and growing trees
- building and maintaining (cleaning and smearing) classrooms, kitchens and toilets
- asking advice of the teachers on steps to be taken and how to help children to learn at home
- when children take a journey
- in a Girl Guide project, gardening, fish pond

- They were not involved, because the school was in town, so everybody was concerned with his/her own business; unlike in rural areas where everybody is involved.

Were you involved in the community during your internship/teaching practice?

32.5% YES

52.5% NO

15 % NO RESPONSE/MISSING

Sample student explanations of how they were involved in the communities are listed below:

- preventing soil erosion
- doing guidance and counselling
- attending village activities, e.g. tree planting
- discussing pupils' behaviour and performance
- planning new latrines
- in meetings only

- I was not involved in the community due to the fact that in urban schools people don't bother themselves to be close to the teacher. I was too busy with my work every time.

How many times did your supervisor visit you?

VISITS %

0-10	78 %	RANGE 0 - 35
10-20	10 %	AVERAGE 8.52
20-30	10 %	
30-40	1.5%	

In which week of your teaching practice did you first meet with your supervisor?

15 %	first week
30 %	second week
15 %	third week
1 %	Other
	NO RESPONSE/MISSING

Indicate by number how many visits by your supervisor fell into each of the categories below:

4.2	observation of your teaching
.8	observation of your teaching with a pre-conference and/or a post-conference
1.16	conference without observation of your teaching
1.11	conference with your cooperating teacher
1.13	conference with you and your cooperating teacher

How satisfied were you with the NTTC on-campus supervision you received?

64 %	very satisfied
18 %	satisfied
7.5%	neutral
7.5%	unsatisfied
0	very unsatisfied
2.5%	NO RESPONSE

How helpful was your NTTC on-campus supervisor?

62.5%	very helpful
24 %	helpful
6 %	neutral
4 %	not helpful
1 %	not at all helpful
2.5%	NO RESPONSE

How clear were the objectives of your internship/teaching practice experience?

44 % very clear
44 % clear
6 % neutral
4 % unclear
1 % very unclear
2.5% NO RESPONSE

How clear were the assignments given by your cooperating teacher in the school?

24 % very clear
41 % clear
12.5% neutral
2.5% unclear
4 % very unclear
16 % NO RESPONSE

How helpful was your cooperating teacher?

39 % very helpful
46 % helpful
2.5% neutral
1 % not helpful
7.5% not at all helpful
4 % NO RESPONSE

How satisfied were you with the supervision you received from your cooperating teacher?

34 % very satisfied
40 % satisfied
14 % neutral
0 % unsatisfied
4 % very unsatisfied
9 % NO RESPONSE

How satisfied were you with the overall teaching practice experience?

39 % very satisfied
41 % satisfied
10 % neutral
1 % unsatisfied
4 % very unsatisfied
5 % NO RESPONSE

How well do you feel that the teaching practice experience prepared you for assuming the role of a teacher?

56 % very well
26 % well
9 % neutral
0 somewhat
2.5% not at all
6 % NO RESPONSE

What do you think NTTC could do to better prepare students for teaching practice? Student replies are summarized below and the number of students giving similar responses is indicated in parentheses following the statement.

- teach the use of records and tools, e.g. syllabi, scheme and record book, teachers' guides (8)
- * supervise daily/increase the number of supervisors (7)
- have student teachers observe teachers in the schools (7)
- teach content and its methodology in all subjects at the college (5)
- have demonstration schools and give student teachers a chance to practice in all subjects before teaching practice (5)
- begin TPP in the 1st year of training (5)
- improve micro-teaching for efficiency (4)
- train student teachers in what is done in schools (taught and practiced) (3)
- have college departments work cooperatively (team teach) (3)
- * increase the stipend (3)
- have students visit their teaching practice schools prior to teaching practice (2)
- * run workshops on making teaching materials (2)
- * have college tutors visit the sites regularly (2)
- * make proper arrangements with the heads of schools (2)

* These recommendations do not directly respond to the question, since they relate to the actual teaching practice and not to the preparation.

NO RESPONSE 37.5%

What was the biggest problem you had during your teaching practice?
Student replies are summarized below in six categories and the number of students giving similar responses is indicated in parentheses following the statement.

Teaching Conditions

large number of pupils (8)
many classes in the same room (2)
broken windows (2)

Teaching Resources

no teachers' guides and syllabi (5)
inadequate funds for teaching/learning aids (7)

Living Conditions

no accommodation available (6)
not enough food (2)
far from home (2)
poor health (2)

Administration

not being informed when colleagues would be absent (3)
students were not punctual (3)
student absenteeism (3)
no supervisor from March to December (2)
not being allowed to set tests (2)
being in charge of parents activities disrupted teaching (2)
classes being dismissed early during Papal visit (2)

Preparation

not knowing how to use records and tools, e.g. register, scheme and record, syllabi (10)
not knowing methods of teaching (4)
unable to make lesson plans except for Sesotho which was practiced in micro-teaching (2)
having to prepare lessons each day (2)
teaching slow learners (2)
being unable to control the classes (2)
did not want to do practice teaching (1)

Attitudes

no cooperation among teachers (4)
pupils thought we were student teachers, not teachers (3)

NO RESPONSE 27.5%

QUESTIONNAIRE SUMMARY
FOR 1990 PTC III STUDENTS

GROUP	# DISTRIBUTED	# RETURNED
21	18	17
22	17	7
23	18	15
24	22	15
25	18	16
TOTAL	93	70 (75%)

PREPARATION FOR INTERNSHIP/TEACHING PRACTICE

1. During your course of study at NTTC, did you learn to use the following:

	YES	NO
a. scheme and record book	71%	29%
b. NTTC lesson plan format	99%	1%

Primary School Syllabi for:

	YES	NO
c. Sesotho	30%	70%
d. English	37%	63%
e. Science	40%	60%
f. Maths	87%	13%
g. Social Studies	34%	66%
h. Arts & Handicrafts	79%	21%
i. Health & Physical Education	13%	87%
k. Home Economics	16%	84%
l. Agriculture	7%	93%

Which methods were you taught at NTTC prior to your teaching practice?

30% lecture
100% demonstration
67% discussion
89% discovery

Other methods and the number of students listing each were as follows:

questioning - 13
introducing a lesson - 10
grouping - 8
logical organization - 6
evaluating - 2
stimulus variation, development, conclusion - 1 each

Which practical skills did you learn at NTTC prior to your teaching practice?

Practical skills listed and the number of students listing each were as follows:

demonstration - 21
logical organization - 20
introducing a lesson - 17
art - 5
home economics - 4
making teaching aids, evaluation - 3 each
closure - 2
agricultural skills, questioning - 1 each

NO RESPONSE 23%

INTERNSHIP/TEACHING PRACTICE

School of Internship/Teaching Practice (data entered by school registration number)

Standard (or standards) taught	%
1	0%
2	15%
3	15%
4	14%
5	24%
6	31%
7	0%
All	1%

* Two students taught two standards.

Did you teach: 3% alone
96% with another teacher
1% other (please explain)

Number of pupils you taught RANGE 19 - 157 AVERAGE 72

Would you describe the school facilities and equipment as:

16% excellent
34% good
29% average
17% poor
3% very poor
1% NO RESPONSE

Please explain: (Sample student comments are listed after the response they made.)

excellent

- the school had good equipment, clean and well kept
- there were no broken chairs, windows and doors
- there was a library where all the materials for classes were available, adequate chalkboards, enough stools and desks
- the school supplied teachers with everything e.g. charts, rulers, coloured pencils, etc. to produce teaching aids and there was a special day for making teaching aids

good

- all teaching aids were available, and enough for students
- I had every book guiding me about the subjects I taught. I also had the reference books.
- adequate chalkboards, every child seated at a desk

average

- there were few tools and teaching aids, and not enough for the students
- no office, no school garden, not enough buildings, not enough pots for the kitchen
- has toilets, water tap, garden and netball field, but not enough desks, chalkboards or classrooms

poor

- lack of equipment, e.g. chairs and teaching aids
- short of books
- no desks or tables for writing

very poor

- no chairs
- no classrooms
- no equipment for home economics or watering cans (use Sta-soft bottles)
- pupils are taught outside under the trees

Would you describe the regular teachers at your school as:

- 60% very helpful and cooperative
- 11% somewhat helpful and cooperative
- 19% neutral
- 6% not helpful and cooperative
- 3% not at all helpful and cooperative
- 1% NO RESPONSE

Please explain: (Sample student comments are listed after the response they made.)

very helpful

- helped in classwork
- helped in solving financial problems and classroom observation
- we discussed lessons together and how to teach
- we planned lessons together
- they were working very hard to develop the school, and they did not leave me behind for any issue concerning the school
- whenever I had some difficulties in planning a lesson, they helped me to go about it and if I asked them to help me with teaching aids, they gave me if they had them

somewhat helpful

- some of them were cooperative
- were cooperative and did regular class observation
- helped me in and outside of class, observed me regularly
- helped me use register and scheme and record, but I planned alone

neutral

- socially they were cooperative, but were shy
- not all of them were cooperative and willing to help
- observed the class situation when I was teaching
- they were always busy with their classes
- not all of them were able to help me when I asked for help. Most of them were complaining about my work and also saying that they don't have much time for me. And also saying that NTTC is demanding too much from them and yet they are not paid for that work.

not helpful and cooperative

- no teachers visited my class, they even refused to attend my invitations
- the cooperating teacher was the only person who was very helpful to me, others were not

not at all helpful and cooperative

- they were in three groups hating each other
- they said we might be knowing much better...as we spend one and half years in the College, so they were not helping me in any way

Please tick which of the following primary school subjects you were responsible for teaching; and for each subject you taught, indicate the topics you taught.

SUBJECT	TOPICS (frequency)
90 % Sesotho	
93% English	
96% Science	
94% Maths	
60% Social Studies	
46% Arts & Handicrafts	
27% Health & Physical Education	
40% Home Economics	
41% Agriculture	

What language did you use for teaching subjects like Science, Social Studies, Maths, etc.?

13% Sesotho
63% English
24% Both

Students gave some of the following reasons for their responses:

English

in Stds. 1-3

in Stds. 4-7

Sesotho

in Stds. 1-3

in Stds. 4-7

Both Languages

in Stds. 1-3

in Stds. 4-7

In teaching Sesotho, in which of the following areas did you encounter problems?

26%	language
10%	modern literature
40%	traditional literature
1%	Other (please specify)
36%	NO RESPONSE

Which of the following methods did you find most effective in teaching Sesotho?

3%	phonic
20%	look & say
4%	sentence
59%	combination of the above
0%	Other (please specify)
14%	NO RESPONSE

How helpful was the use of pre-reading skills (e.g. recognition, identification)?

36% very helpful
 21% helpful
 7% neutral
 0% not helpful
 1% not at all helpful
 13% did not use pre-reading skills
 21% NO RESPONSE

Please list the teaching methods you used during your teaching practice and the subjects in which you used each method.

METHOD	SUBJECTS (see code below)												
	00	10	02	03	04	05	06	07	08	09	10	11	99
LECTURE	1	1	1	-	-	3	-	-	-	-	-	6	-
DISCUSSION	-	9	7	3	6	1	1	6	-	-	-	2	1
DISCOVERY	1	2	4	29	37	2	3	-	-	1	-	-	1
DEMONSTRATION	2	1	9	43	22	6	9	8	10	12	-	1	1
EXPLANATION/ TELLING	-	9	3	2	1	3	-	-	-	-	-	4	1
GROUPING	-	10	8	12	18	2	-	1	-	3	-	-	2
QUESTIONING/ QUESTION & ANSWER	2	19	10	4	5	7	-	-	2	-	-	4	2
LOOK AND SAY	-	8	4	2	-	1	-	-	-	-	-	-	-
STIMULUS VARIATION	-	1	2	-	-	-	-	-	-	-	-	-	3
INTRODUCING A LESSON	-	1	1	1	2	-	-	1	-	1	-	-	1
EXPERIMENTATION	-	-	-	13	2	2	-	-	-	-	-	-	-
PUPILS' PARTICIPATION	-	1	-	-	-	-	-	-	-	-	-	-	1
LOGICAL ORGANIZATION	-	-	-	1	1	1	-	-	-	-	-	-	2
SENTENCE	-	5	3	1	-	-	-	-	-	-	-	-	-
INDIVIDUAL APPROACH	-	5	2	2	1	3	1	-	2	-	-	3	-

METHOD	SUBJECTS (see code below)													
	00	10	02	03	04	05	06	07	08	09	10	11	99	
DEDUCTION & INDUCTION	-	1	6	-	3	-	-	-	-	-	-	-	-	
PHONIC	-	3	-	-	-	-	-	-	-	-	-	-	-	
LEARNING SET	-	-	-	1	1	1	-	-	-	-	-	-	-	
CLOSURE	1	1	2	4	3	-	-	-	-	-	-	-	-	
NONVERBAL CUES	-	1	1	-	-	-	-	-	-	-	-	-	-	
TOTALS	7	78	63	118	102	32	14	11	14	17	0	22	15	

NO RESPONSE - 30

*Subject Codes

- 00 No Subject Given
- 01 Sesotho
- 02 English
- 03 Science
- 04 Maths
- 05 Social & Development Studies
- 06 Art & Handicrafts
- 07 Health & Physical Education
- 08 Home Economics
- 09 Agriculture
- 10 Music
- 11 Religious Education
- 99 All Subjects

Were you able to use teaching resource materials you received or made at NTTC? 83% YES 13% NO 4% NO RESPONSE

Materials and the number of students who listed each are indicated below:

Did you teach any practical skills? 56% YES 33% NO
11% NO RESPONSE

Specific skills and the number of students who listed each are indicated below:

arts & crafts 8
demonstration 5
sewing, knitting, manipulative skills 4 each
discovery, agriculture 3 each
cooking, music 2 each
how to make equipment, how to build compost, nonverbal cues 1 each

Were you responsible for any extracurricular activities?

33% YES
53% NO
14% NO RESPONSE

Specific activities and the number of students who listed them are indicated below:

netball 13
music 8
sports 3
football 2
leather work, gardening, cleaning 1 each

Was the community involved in the school in which you taught?

63% YES
33% NO
4% NO RESPONSE

Sample student explanations of how the community was involved in the schools are listed below:

- community organized the school feeding scheme and participated in parents' meeting
- helped in a project of self-reliance
- assisted in running school agricultural projects
- planted potatoes in the school
- helped pupils collect wood and water
- contributed a field for crops
- loaned some garden tools to the school
- improved the school building

Were you involved in the community during your internship/teaching practice? 36% YES 59% NO 6% NO RESPONSE

Sample student explanations of how they were involved in the communities are listed below:

- attended "pitso"
- coached sports for village
- road construction
- involved in burial society

How many times did your supervisor visit you?

VISITS %

0-10	49%	RANGE 0 - 54
11-20	29%	AVERAGE 12.22
21-30	7%	
31-40	3%	
41-50	1%	
51-60	1%	
NO RESPONSE	10%	

In which week of your teaching practice did you first meet with your supervisor? 47% first week
33% second week
10% third week
6% Other (please specify)
4% NO RESPONSE

Indicate by number how many visits by your supervisor fell into each of the categories below:

- 4.08 observation of your teaching
- 2.04 observation of your teaching with a pre-conference and/or a post-conference
- 1.79 conference without observation of your teaching
- 2.24 conference with your cooperating teacher
- 2.45 conference with you and your cooperating teacher

How many times did all student teachers meet at your site?

RANGE 0 - 16
AVERAGE 5.4

How many times did student teachers do team teaching at your site?

RANGE 0 - 9
AVERAGE 1.2

How satisfied were you with the NTTC on-campus supervision you received?

23% very satisfied
23% satisfied
14% neutral
24% unsatisfied
3% very unsatisfied
13% NO RESPONSE

How helpful was your NTTC on-campus supervisor?

27% very helpful
26% helpful
17% neutral
14% not helpful
7% not at all helpful
9% NO RESPONSE

How clear were the objectives of your internship/teaching practice experience?

37% very clear
41% clear
9% neutral
6% unclear
0% very unclear
7% NO RESPONSE

How clear were the assignments given by your cooperating teacher in the school?

30% very clear
44% clear
3% neutral
0% unclear
0% very unclear
23% NO RESPONSE

How helpful was your cooperating teacher?

66% very helpful
13% helpful
7% neutral
10% not helpful
1% not at all helpful
3% NO RESPONSE

How satisfied were you with the supervision you received from your cooperating teacher?

53% very satisfied
21% satisfied
11% neutral
6% unsatisfied
4% very unsatisfied
4% NO RESPONSE

How satisfied were you with the overall teaching practice experience?

36% very satisfied
46% satisfied
11% neutral
4% unsatisfied
1% very unsatisfied
1% NO RESPONSE

How well do you feel that the teaching practice experience prepared you for assuming the role of a teacher?

44% very well
39% well
10% neutral
4% somewhat
1% not at all
1% NO RESPONSE

What do you think NTTC could do to better prepare students for teaching practice?

NO RESPONSE 11%

What was the biggest problem you had during your teaching practice?

NO RESPONSE 24%

Did you have a Learning Fair at your site? 91% YES 7% NO
1% NO RESPONSE

If yes, tick which off the following people were involved in the Learning Fair:

- 40% pupils/students
- 36% headteacher
- 39% cooperating teacher
- 17% school manager
- 90% field supervisor
- 67% NTTC Teaching Practice Office
- 46% Tutors
- 21% Others
- 7% NO RESPONSE

Other participants listed include:

Do you believe it is important to have a Learning Fair at the end of Teaching Practice? 74% YES 21% NO 4% NO RESPONSE

Reasons given by students for the importance they attach to the Learning Fair include:

APPENDIX B

BANFES

BASIC AND NON-FORMAL EDUCATION SYSTEMS PROJECT

P.O. Box 333

Maseru, Lesotho

Telephone: 312511/311211

MEMORANDUM

16/3/90

TO: Deputy Director Mothae

FROM: Linda Pursley

SUBJECT: Draft NTTC Computer Plan

Attached is the draft of the computer plan which I was asked to prepare in our recent meeting with Dr. McBeath. The draft has already been reviewed by Dr. McBeath and Mrs. Bourbeau, and their comments incorporated. As you will see, it is divided into 4 sections, BACKGROUND, current status of EQUIPMENT and STAFF, SHORT TERM RECOMMENDATIONS and LONG TERM RECOMMENDATIONS. Since one of the recommendations is to obtain the services of a computer consultant/coordinator, a draft position description is also attached.

As I already indicated to you, the BANFES Project Workgroup has approved our request for the transfer of one computer and printer and the purchase of another computer and printer. I am hopeful that the transfer may take place some time next week. Quotations have been solicited on the other equipment, and we hope to have it in about a month. I'd like to meet with you to discuss the suitable furniture and arrangement of the computer lab before we get the new equipment.

I'll also look forward to your reactions to the draft plan, and assisting NTTC in the implementation of whatever strategies you decide to adopt.

cc: Director Matete
Dr. McBeath
Mrs. Bourbeau

DRAFT

NTTC COMPUTER PLAN

1990

In order to plan for the future, it is important to have a clear picture of both the background and current situation. Therefore, this document first gives a very brief background, next outlines the current situation at NTTC with respect to computer equipment, supplies and maintenance, and personnel skills and training; and finally, makes recommendations for sustaining and building on the current level of operations.

BACKGROUND

Although the first computer at NTTC was introduced in the In-service department in the early 1980's, due to lack of trained personnel and maintenance of computer records, this is no longer in use.

Three Apricot computers were transferred from the IMRC to the NTTC in 1986, and a two-day orientation was conducted for selected clerical staff. However, these machines were found to be inadequate for the needs, and local maintenance and repair services lacking (probably the same reasons they were not useful to the IMRC).

In January 1988, three IBM-compatible computers and printers were purchased for the College through the BANFES Project. In the ensuing two years, both academic and non-academic staff have received training on-the-job and in short courses. The machines have been in ever-increasing demand, and the College has recently requested and purchased additional equipment in an effort to meet this demand and the expanding needs of the College. The current situation with respect to equipment and staff training and experience is outlined below.

STAFF

To date, only four staff have received any formal training. These were clerical staff members who received introductory training in Word Perfect. However, a significant number of both academic and non-academic staff have received on-the-job tutoring as summarized below:

<u>Number</u>	<u>Category</u>	<u>Application</u>	<u>Skill Level</u>
15	non-academic	Word Perfect	3 - excellent 3 - good 9 - introduced
13	academic	Word Perfect	5 - excellent 3 - good 5 - introduced
6	non-academic	Lotus 1-2-3	2 - excellent 1 - good 3 - introduced
2	academic	Lotus 1-2-3	2 - introduced
1	non-academic	dBase III+	1 - introduced

Note: Dr. McBeath also taught Word Perfect to 11 Commercial Studies Specialist students. She plans to work with 4 others this year, if equipment is available.

SHORT TERM RECOMMENDATIONS

EQUIPMENT

Hardware - The College should take advantage of opportunities to acquire additional equipment compatible with what is currently in use. In particular, attention should be given to the needs of the Stores Department.

Software - Word Perfect 4.2 should be upgraded to version 5, and accompanying manuals should be acquired. (Kevin Braim is pursuing this through BANFES, which purchased the original copy.)

Inventory programmes suitable for Stores and Refectory should be investigated. (DAC Easy has been ordered for this purpose.)

Scheduling programmes which could simplify the work of timetabling should continue to be explored.

STAFF

Staff members who have acquired skills with specific applications should receive additional training to enable them to become "trainers" for colleagues at NTTTC, and "problem solvers" relative to those applications. Specifically, it is suggested that the following people develop the skills indicated:

Mr. Seleke	dBase, Lotus 1-2-3
Mr. Leteketa	Lotus 1-2-3
Ms. Mantutle	Word Perfect

It is also recommended that these staff members receive a basic introduction to DOS and file management.

Kevin Braim, Computer Specialist with the BANFES Project has agreed to work with these individuals in assessing their skills, giving on-the-job training, and/or identifying suitable training courses.

While informal training can continue, the College may want to consider developing a more formal plan for staff development in computers.

The College should pursue the hiring of a computer consultant/coordinator, especially for the period of time that NTTTC staff are receiving additional training. A draft position description is attached. Potential sources of persons with the required skills include: NUL Computer Science Dept., LIPA, US Peace Corps, British, German, Irish, Danish and UN Volunteer Services, and other international donors.

USES

Computer users should be encouraged to develop skills with all three applications programmes in order to apply them to a wider range of College tasks (e.g. using Word Perfect to type and merge form letters, using Lotus 1-2-3 to prepare graphs and charts, etc.).

In particular, the Macintosh computer can be used for preparation of the new College magazine, the College calendar, and any graphic teaching materials. (Recent examples include the Science booklets and Home Economics manuals currently in process.) The IMRC has a special programme for the Mac which prepares library cards and bibliographies.

LONG TERM RECOMMENDATIONS

EQUIPMENT

Hardware - Additional computers, power supplies and printers will be needed as the use and demand increases. It should be noted that increase in use by academic staff will ultimately reduce the need for support staff, as tutors do more and more of their own typing and materials preparation. It should also be noted that two computers of the same type (i.e. both IBM-compatible or Macintosh) in the same location can be attached to the same printer with a switch.

If the NTTC plans to include computer skills in any of their student courses, a plan will need to be developed for acquiring, locating, and scheduling the needed equipment; as well as for identifying or hiring a qualified instructor.

STAFF

Computer skills should be part of the larger NTTC plan for development and training of both academic and non-academic staff.

USES

As NTTC staff become more skilled, additional uses will become apparent. Item banking and the use of the computer to do item analysis has been implemented at the NCDC to improve the PSLE test and could contribute to improving instruction at the NTTC, as well.

DRAFT POSITION DESCRIPTION

FOR

NTTC COMPUTER CONSULTANT/COORDINATOR

Qualifications:

- General knowledge of installation and maintenance of hardware and software, file management procedures and the use of manuals and documentation.
- Training, experience and skill in the use of DOS, Word Perfect, Lotus 1-2-3, dBase, utilities such as Norton, and a computer language such as Pascal.
- Ability to work as a trainer with patience and good personal skills.
- Attention to detail such as setting out the sign-up sheet, turning off equipment at night and requesting supplies before they are depleted.

Responsibilities:

- Maintain computer hardware and software, and records of equipment and training.
- Liaise with vendors and computer resource persons to monitor service contracts, equipment repairs, and requests for supplies.
- Assist with the development and implementation of a uniform file management system and labeling of diskettes and files.
- Design and present staff training, as needed. Coordinate on-the-job training to ensure consistency and relevance to the needs of the College.
- Provide computer users with daily back-up support and assistance in problem-solving.
- Assist in the development of new computer programmes, as needed by the College.

APPENDIX C

The Primary Practical/Basic Skills Teacher Resource Centre proposed for the National Teacher Training College is a logical response to a number of the teacher training needs first identified in the 1978 National Education Dialogue, and clarified and elaborated in the 1982 Education Sector Survey. It is also an extension of recent WTC initiatives, which will facilitate College Instructional Improvement and plans.

National Education Dialogue and Education Sector Survey

Two critical educational concerns identified in the National Education Dialogue and investigated in the Education Sector Survey were quality and relevance of education. Concern over the quality of education at the primary level involves a number of factors, but the teacher is certainly of central importance. It has been noted repeatedly that many of the teacher trainers at the WTC are essentially subject matter specialists with little or no experience in primary teaching. They need opportunities and facilities to develop and test primary methods and materials.

NTTC PRIMARY PRACTICAL/BASIC SKILLS

TEACHING RESOURCE CENTRE:

A PROPOSAL

The lack of integration across and within primary curriculum has also been criticised for its negative impact on teaching/learning. The Primary Teacher Certificate Programme (PTC) at WTC is subject to the same criticism. Since educational research and experience show that teachers tend to teach in the way in which they were taught, changes in the teacher training programme could prepare teachers to implement the existing curriculum in a more integrated manner, as well as to use the integrated materials currently being developed at the NCDC.

At the primary level, the concern with relevance is expressed as a need for increased emphasis on "practical skills". The Education Sector Survey Report of the Task Force describes this need in broad terms as "greater integration of conceptual knowledge and practical experience" and "a practical orientation in the teaching of all practical subjects by the use of project work and an experimental, applied approach".

A current education project, written in response to the Task Force Report, indicates that a major task is to introduce practical skills into the formal school curriculum, which will "develop skills and impart the basic principles of health, hygiene, sanitation, first aid, child care, home nursing, personal money management, home food supply, production, preparation, storage and utilization, home maintenance, repair of simple farm and household equipment, fabric and clothing production, use of simple hand tools to make useful items for farm and home, alternative sources of energy, and home industry crafts, such as leather work, pottery, basketry, woodwork and needlework". The preparation of teachers to meet all these skills requires facilities and equipment which are not currently available at the WTC or supported under the terms of any current projects.

I. BACKGROUND AND JUSTIFICATION

The Primary Practical/Basic Skills Teaching Resource Centre proposed for the National Teacher Training College is a logical response to a number of the teacher training needs first identified in the 1978 National Education Dialogue, and clarified and elaborated in the 1982 Education Sector Survey. It is also an extension of recent NTTC initiatives, which will facilitate College instructional improvement goals and plans.

National Education Dialogue and Education Sector Survey

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The lack of integration across subjects in the primary curriculum has also been criticised for its negative impact on teaching/learning. The Primary Teacher Certificate Programme (PTC) at NTTC is subject to the same criticism. Since educational research and experience show that teachers tend to teach in the way in which they were taught, changes in the teacher training programme could prepare teachers to implement the existing curriculum in a more integrated manner, as well as to use the integrated materials currently being developed at the NCDC.

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A current education project, written in response to the Task Force Report, indicates that "a major task is to introduce practical skills into the formal school curriculum" which will "develop skills and impart the basic principles of health, hygiene, sanitation, first aid, child care, home nursing, personal money management, home food supply production, preparation, storage and nutrition, home maintenance, repair of simple farm and household equipment, fabric and clothing production, use of simple hand tools to make useful items for farm and home, alternative sources of energy, and home industry crafts, such as leather work, pottery, basketry, woodwork and needlework." The preparation of teachers in many of these skills requires facilities and equipment which are not currently available at the NTTC or supported under the terms of any current projects.

NTTC Initiatives and Plans

The National Teacher Training College has plans for improvement in both the quality and relevance of primary teacher education, as evidenced by the following recent developments at the College:

1) Curriculum Committee Report on Practical Skills - In response to the need for a more clear and specific definition of "practical skills", the MOE responded by appointing a Task Force to formulate its definition, and the NTTC asked the Curriculum Committee to facilitate discussions and develop recommendations.

At the College, discussions involved all academic departments and resulted not only in an NTTC definition of practical skills, but also recommendations to increase this emphasis at NTTC through Programme Development, Staff Development, Facilities Development and Primary Curriculum Development (see Appendix A). The NTTC Curriculum Committee Report on Practical Skills was presented to the Director and subsequently approved by the Academic Board of the College. The Primary Methodology Group was identified as the appropriate body to facilitate and coordinate the implementation of the recommendations.

2) Primary Methodology Group - In September of 1987, NTTC Administration asked each academic department to identify a tutor with particular background and/or interest in primary education to represent them in a "primary methodology group." In their first meeting on October 16, 1987, the Deputy Director, Academic Affairs explained the purpose of the group as "the study and renewal of the PTC programme." She went on to stress the importance of an "integrated" PTC curriculum and improved cooperation among departments to produce the best possible primary teacher. The group has held frequent meetings, and two retreats to discuss issues, approaches and recommendations.

3) PTC Programme Review and Revision - In concert with the first programme development recommendation of the Curriculum Committee report on practical skills, the Primary Methodology Group identified and expressed the need to "identify skills that our end-product (a PTC graduate) should have at the end of the programme so that all departments can address these through their courses." The DACUM Task Analysis approach, a technique which has now been successfully utilized as a tool for curriculum analysis and revision in 6 NTTC Departments was adapted to the required programme analysis, which focused on the knowledge and skills required of a competent primary teacher. In addition, sub-groups of the larger body have been addressing issues in the following areas: PTC Curriculum Revision, Practical Skills, Links with Schools, Programme/Curriculum Integration and Primary Methodology. The Primary Methodology Group is in the process of preparing a final report of recommendations for PTC Programme Revisions.

4) Staff Development and Training in Primary Methods and Practical Skills - In a 1985-86 training needs assessment, primary methods and practical skills were both identified as areas of NTTC need. As a result, one staff member has already returned from long-term training in primary methods (and is serving as chair of the Primary Methodology Group) and another from long-term training in Practical Skills (home economics education). Participants have just departed for training in the following relevant areas: primary methods (additional candidate), arts and crafts, and agriculture (two candidates). Again, this is consistent with the Curriculum Committee recommendations in the area of staff development.

Philosophy and Objectives for the Centre

This proposal is based on a number of educational trends and assumptions about teaching/learning. It is important that the design and use of the Centre be consistent with future directions in education and the educational philosophy and goals of the MOE/NTTC.

Within education there are a number of discernable issues and trends with important implications for educationists in general, and educational planners, in particular.

Concern with both the process and the product of education is increasing. This causes educators to examine more closely the way in which students are taught, and has important implications for facilities required to implement a greater variety of teaching methods. The "product" of the NTTC has been strongly criticised, and this proposal is one of a number of efforts to address those criticisms.

Emphasis on the use of a more unified, integrated and interdisciplinary approach to teaching/learning is expanding. Such an approach can improve student performance by correlating learning in related disciplines, and encouraging applications of learning. It discourages compartmentalization of learning and requires departmental cooperation and team teaching efforts.

The use of a variety of technical and mechanical teaching aids is increasing. It is important for teacher trainees to have experience with these aids, as well as with locally available alternatives.

In preparing students to function in an increasingly complex world, educators must rely on multiple sources, methods and media for learning. Future teachers must be trained to view and use all aspects of their environment as teaching/learning resources. The creation and use of less traditional learning environments can facilitate the development of these abilities.

Education increasingly employs a variety of course structures, sequences and innovations in instructional design. Effective utilization of this Centre will require the NTTC to not only re-examine the structure and organization of the Primary Teachers' Certificate Programme, but also to take a fresh look at flexible timetabling required to implement a revised and integrated curriculum.

Interest and involvement of the community in the total education process continues to expand. This is evidenced by the ever-increasing social demand for education, and the outstanding accomplishments of a number of community schools.

Emphasis on the importance of the physical and aesthetic environment in the education process is increasing. It is certainly appropriate that NTTC should provide leadership and serve as a model in this regard, in the hope that graduates will implement similar ideas in the schools in which they are employed.

MOE/NTTC assumptions which underly this proposal include the following:

- education (i.e. knowledge, skills and attitudes) should be relevant and practical for the situation in which it will be applied
- skills must be practiced in order to be learned
- given the time constraints in the current teacher training programme, utmost consideration must be given to the direct application and usefulness of all teaching/learning
- considering the socioeconomic situation in Lesotho, serious attention must be given to "education for productivity and development"
- teachers generally teach in the way in which they were taught i.e. teacher training must not only deliver the essential knowledge, and skills; but also model the desired teaching methods and attitudes
- primary education, and therefore, primary teacher education should be integrated

Proposed Centre

The building, furnishings, equipment and commodities outlined in the following section will enable NTTC to implement new initiatives in teacher training which respond to the critical issues in education in Lesotho, and, at the same time, to build on recent developments and future directions at the College. These facilities will testify to the significant place of practical skills in teacher training. They will also emphasize the critical role of the primary teacher in laying the foundation for all future education and learning; and the corresponding importance of primary teacher education.

II. DESIGN, FURNISHING AND EQUIPMENT CONSIDERATIONS

Overall Environment

A number of important considerations should be noted with respect to both the interior and exterior environment. Priority should be given to functional effectiveness and efficient utilization of space. User-/programme needs should be emphasized without sacrificing comfort and aesthetic considerations. Landscaping should harmonize with the physical structure of the building; and, taking into account the lack of grounds staff, require minimal maintenance.

The site currently proposed takes into consideration plans for future physical development of the College. It is also conveniently situated with respect to the location of key departments such as Agriculture, Arts and Crafts, Home Economics and Social and Development Studies.

Materials and construction should be of high quality and durability, with consideration to ease of maintenance. In selection of ceiling treatments, floor and wall coverings, consideration should be given to the activities which will take place in each area, and the consequent acoustical requirements.

Windows should be operational, supplied with blinds to permit the use of a-v materials and designed to take greatest advantage of natural lighting. Artificial lighting, as required by the activities, should complement natural lighting. Ventilation and heating should be zoned to permit independent control and use of various instructional areas.

Provision and location of water taps and electrical outlets should be determined through careful study of the instructional purposes and requirements for each area. Communications capability (telephone) must also be built into the Centre.

Safety should also be a consideration in the building design, in the selection of lighting, materials, furnishings and equipment. Attention should be given to location of exits and fire extinguishers with reference to the activities which will be conducted in each area. Adequate security must also be provided through the installation of burglar bars and adequate outside lighting.

Consideration should be given to accessibility of the facilities for physically handicapped students. The elimination of barriers such as steps and/or the provisions of ramp alternatives would also facilitate the use of carts in transporting teaching equipment and materials.

Users and Activities

The principal users of this facility will be the faculty and students of the NTTC. This will include both pre-service and in-service students. However, in-so-far as the Centre is planned to include demonstration primary methods facilities and appropriate technology resources, it could easily serve as an educational resource to the larger community.

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The major activities will be teaching and the development and testing of innovative practical primary education methods and materials. For demonstration lessons, it is envisaged that primary school children from nearby schools can be brought into the Centre.

Building and Furnishings

The building, associated furnishings, equipment and commodities described in detail in the following section are being proposed for the NTTC to enable the implementation of programme changes designed to improve primary teacher education through increasing programme integration, inter-departmental cooperation and emphasis on agriculture and practical skills.

Building - The building will consist of six rooms (classrooms for primary methodology and arts and crafts, a room for the design and production of instructional materials, a workshop for agriculture and elementary technology, a storage area for appropriate technology materials, and a small office for the Centre coordinator), a covered porch for outdoor instruction involving appropriate technology and the related yard containing other appropriate technology equipment. Each area in the proposed centre has a specific purpose and a particular group of users. It is important that the architectural plans be carefully developed in consultation with the prospective users to insure that each area does, in fact, fulfil its purpose and meet the needs of the users.

PRIMARY METHODS/LINK SCHOOL CLASSROOM

This classroom will be designed as a demonstration primary classroom, in which both NTTC tutors and students can learn and practice primary methods and innovations for testing in link schools. Currently, all learning space in the College is designed with the teacher trainees, not their future pupils in mind. Instructional materials developed in the materials production area can also be tested here. A typical student group at NTTC currently numbers 20-25 students.

Furnishings in this room should be small (pupil-sized), but strong enough to permit adults to use them. They should be easily moved to demonstrate a variety of instructional arrangements and groupings. One important goal is maximum flexibility in the use of instructional space. There should be provision for active areas (games and music), as well as for quiet areas (reading and story corner). The room will need to provide adequate storage facilities for instructional materials and teaching aids such as books, pictures, puzzles, blocks, games, musical instruments, tape player/recorder, radio, etc. A water tap and sink will also be required. The room should have sufficient wall space for and be equipped with a variety of visual display alternatives, e.g. chalkboard, notice board, flannel board, peg board, hook and loop board. The room should be well-lighted with low windows, at a height appropriate to small children, and to take maximum advantage of natural lighting. However, provision should also be made for darkening the room, as necessary.

INSTRUCTIONAL MATERIALS DEVELOPMENT ROOM

Although NTTC tutors are expected to develop their own teaching materials and use them in training their students, current office areas are crowded and do not provide suitable space even for lettering simple charts. Furthermore, during their course at the College, teacher trainees are expected to learn to design and produce their own teaching aids. This work space and related equipment in this area will be used by both teachers and students to develop and produce a variety of instructional materials, e.g. charts, paper mache, models, wood and metal objects.

It should be furnished with work tables/benches and suitable storage for supplies, equipment, and projects in progress. Some cupboards and drawers should be built-in under work areas and pegboard should be provided for hanging tools. Wall space should also be available for display of instructional and sample materials. A chalkboard, water tap and sink will also be required in this room, and special attention should be given to insure adequate lighting and ventilation. Sufficient space should be provided so that users (usually 20-25 students) can move freely around the work areas, however minimal seating will be required.

ARTS AND CRAFTS CLASSROOM

There is no classroom in the College specifically designed for the teaching of Arts and Crafts, therefore, the main purpose of this classroom will be student instruction in basic arts and crafts, which will be of practical and everyday use to primary teachers. They will learn basic art elements and principles, and simple craft skills using generally available materials and tools.

Like the Instructional Materials Development Room, special attention should be given to the lighting and ventilation in this room, and a double sink with running water should be provided. It should be equipped with stools and table space which provides about 1.5 square metres each for 30 students. Storage should be built-in to accommodate tools, equipment, materials and student work. Wall shelves should be available, as well as some lockable cupboards.

NOTE: In view of the fact that, in spite of their separate functions and activities, the Instructional Materials Development Room and the Arts and Crafts Classroom have a number of common requirements (space, furnishings, equipment and materials), it will be desirable to construct a moveable partition between these two areas for maximum flexibility in the utilization of this combined space, furnishings, equipment and materials.

AGRIC/ELEM TECH WORKSHOP

This workshop will serve a dual purpose, as classroom for Elementary Technology (in which students now do only theory), and as an area for demonstration and repair of simple agricultural tools and machinery. Space must be adequate for individual students to work safely, access necessary equipment and tools, while the teacher moves about freely to supervise. Workbenches to support work with hammers, saws, vice grips, etc. must be provided. Students will learn to do simple maintenance and make repairs commonly required at school, home and farm. While the Elementary Technology skills will be more general in nature, the Agriculture Department will concentrate on specific agricultural applications. The room will also accommodate simple farm equipment and machinery for demonstration and teaching of farm machinery topics. The entrance to this room will need to accommodate relatively large farm implements.

APPROPRIATE TECHNOLOGY STORAGE

The purpose of this room is to store equipment and supplies which will be used for demonstration and teaching about energy conservation through simple, appropriate technology. In particular, the Science, Agriculture, Home Economics and Social and Development Studies Departments are expected to use this area extensively.

Most of the demonstration energy-saving, appropriate technology equipment will be permanently situated in the instructional area outside the Resource Centre, however, a number of small items, teaching materials, etc. will need to be secured indoors. Shelves should be provided, as well as a light and small window for ventilation. There should be a small file for keeping records of energy consumption/-conservation and other experiments conducted using these technologies. A notice board for display of the appropriate technology (ATS) newsletter and other relevant educational materials should be fixed outside this room. An outside chalkboard should also be provided, since it is anticipated that teaching will take place outdoors.

SHELTER/PORCH AND OUTDOOR APPROPRIATE TECHNOLOGY STRUCTURES

A roof will be joined to the building and supported by steel poles to serve as a covered outdoor instructional area. The porch should be sufficient to shelter 25-30 students from sun or rain. A noticeboard and chalkboard will be mounted on the outside wall, (as indicated in the preceding) under this porch for instructional purposes. Appropriate technology materials which can be easily moved will be stored in the storage room. More permanent structures and equipment will be located in the adjacent yard area. (See sketch for details.)

COORDINATOR'S OFFICE

The faculty member with responsibility for coordinating the use of the Centre will need an office from which to work and plan. This office will need a desk, chair, bookshelf, filing cabinet and telephone.

Equipment and Commodities

These needs will be classified in the following areas:

- 1) primary methods/link schools
- 2) instructional materials production
- 3) arts and crafts
- 4) workshop machines and tools for agriculture & elementary technology
- 5) appropriate technology
- 6) coordinator's office

PRIMARY METHODS/LINK SCHOOLS

ITEM	QUANTITY	SOURCE
chalkboard	1	
pegboard	1	
noticeboards	2	
chart file	1	
hook and loop boards	2	
sink and water tap	2	
small round tables (42")	3	
small rectangular tables (30x60")	3	
small stackable chairs	30	
wall clock	1	
globe	1	
carpets (for story corner 1 sqm)	10	
bookshelf on wheels (room divider)	1	
locking cupboard	1	
file cabinets	2	
radios (for RLAP)	2	BANFES
tape recorders	2	NCDC/Longman's
Breakthrough kit	1	
selected children's literature (Sesotho and English)		
maths perception materials (i.e. shapes, number concepts, visual fractions, abacus)		
musical instruments (e.g. rhythm sticks, tambourines, triangles)		
maps (Lesotho, Africa, world)		
Bingo/Lotto games		
first aid kit	1	

INSTRUCTIONAL MATERIALS PRODUCTION

ITEM	QUANTITY	SOURCE
chalkboard	1	
pegboard	1	
noticeboard	2	
sink and water tap	2	
chart file	1	
stools	10	
laminator (12")	1	
typewriter (with varied fonts)	1	
overhead projector	1	
photocopier (to enlarge, reduce & do transparencies)	1	
spirit duplicator (manual)	1	
spirit masters		
spirits		
electric irons	2	
dry mounting tissue		
mounting board		
self-sealing acetate		
rubber cement		
rubber cement thinner		
dry transfer lettering		
peel and stick lettering		
pre-cut lettering		
stencil lettering guides		
rubber stamps (letters, numbers, pictures)		NCDC
stamp pads (assorted colours)		
heavy duty stapler	2	
staple gun	2	
fabric	20 m	
felt	10 m	
wire	1 roll	
paper cutter	1	
flip chart stand	1	
flip chart pads	10	
newsprint pads	10	
magnetic boards	2	

ARTS AND CRAFTS

ITEM	QUANTITY	SOURCE
chalkboard	1	
pegboard	1	
noticeboards	4	
sink and water tap	2	
chart file	1	
tables (1 1/2x1 m)	15	
stools	30	
teacher's desk	1	
desk chair	1	
wall shelves		
locking cupboards (with shelves)		
Paper - newsprint (450x650mm)	1 ream	
white cartridge (350x240mm)	1 ream	
sugar (assorted colours)	1 ream	
card (large)	1 ream	
Paint - tempera (500ml bottles of redimix or powder equivalent)		
black	3	
white	3	
red	2	
yellow	2	
blue	2	
green	1	
purple	1	
orange	1	
Tempera brushes - large	30	
small	30	
crayons (16 assorted colours)	30 boxes	
coloured pencils (12 assorted colours)	30 boxes	
coloured chalk (5 assorted colours)	5 boxes	
black felt-tip pens - fineline	40	
large chisel point	40	
scissors	30	
rulers (450 mm)	10	
white glue (500ml)	6	
powder paste (1 kg)	2	
whitening powder	5 kg	
cake flour	50 kg	
drawing pins		
masking tape		
cellophane tape		
plastic basins		
plastic buckets		

AGRIC/ELEM TECH WORKSHOP

ITEM	QUANTITY	SOURCE
chalkboard	1	
pegboard	1	
noticeboards	2	
sink and water tap	2	
Engines - two-stroke	1	
four-stroke	1	
Ploughs - disc	1	
harrow	1	
ox-drawn	1	
tractor	1	
ox-drawn planter	1	
Planes - jack (No. 5)	3	
smooth (No. 4)	3	
Squares - Try 150mm	10	
Try 250mm	1	
builder's	1	
engineer's	2	
steel rules (300mm)	10	
measuring tape	1	
Saws - tenon	8	
coping	2	
panel	1	
dovetail	4	
hack	2	
Chisels - 6mm firmer bevel	6	
10mm firmer bevel	6	
13mm firmer bevel	6	
25mm firmer bevel	6	
10mm mortise	2	
mallets	5	
Hammers - Warrington	3	
claw	2	
ball-pin	2	
morise guage	5	
spokeshaves - flat	1	
round	1	
ratchet brace	1	
smooth flat file	1	
straight Tinman's snips	1	
Bits - drill	1 set	
auger	1 set	
expansion	1	
bench brushes	10	

ITEM	QUANTITY	SOURCE
Clamps - 150mm G	2	
200mm G	2	
1200mm sash	2	
oil stone combination	1	
oil cans	2	
cutting guages	2	
marking knives	5	
Bradanol	5	
centre punches	5	
first aid kit	1	
fire extinguisher	1	

APPROPRIATE TECHNOLOGY

ITEM	QUANTITY	SOURCE
retained heat cookers	10	ATS
3-legged pots - No. 2	5	
No. 3	5	
baking pots - No. 3	5	
biogas digester	1	NTTC
growholes	2	ATS
stone paolas (for size 2 & 3)	5	ATS
RET metal stoves	2	ATS
solar food driers (1 1/2x1m)	5	ATS
solar ovens	3	ATS
solar collector panels		
solar water heaters	2	
VIP latrines - double	1	USIT
single	1	USIT
water tap	1	
noticeboard	1	
chalkboard	1	
small file	1	
first aid kit	1	
fire extinguisher	1	

COORDINATOR'S OFFICE

ITEM	QUANTITY	SOURCE
desk	1	
desk chair	1	
bookshelf	1	
filing cabinet	1	
telephone	1	

III. TIMELINE AND BUDGET

A detailed timeline and budget will need to be developed which can help to insure timely completion of the construction and purchase of furnishings and equipment, so that new programmes can be fully implemented as quickly as possible.

IV. UTILIZATION PLAN

Similarly, a detailed utilization plan, in the areas outlined below, will help to insure that the College gets maximum use and benefit from the Centre.

Scope of Work for Coordinator

Timesharing by Users

Programme Development and Testing

Instructional Materials Development

Budget for Supplies and Maintenance - Once the Centre is built and initially equipped, the NTTC, through its GOL budget will plan to assume costs of facilities and equipment maintenance and recurrent supplies.

APPENDIX A

NTTC PRACTICAL SKILLS

DEFINITION AND RECOMMENDATIONS

DEFINITION

The discussions at NTTC have defined practical skills as learnings which have the following characteristics:

- * based on human needs and relevant to the lives of the learners
- * provide a basis for improvements in the standard of living, self-employment and income-generation
- * integrate theoretical with applied knowledge
- * develop logical thinking and problem-solving skills
- * develop physical and manual skills (the ability to handle and manipulate things)

RECOMMENDATIONS

NTTC staff members recognize the value of practical skills and experience in income-generating activities for teacher trainees and therefore, the importance of increasing this emphasis in NTTC programmes. They made the following recommendations:

A. Programme Development

- * analyze the PTC curriculum as a whole, breaking down departmental barriers to develop an integrated curriculum, which emphasizes common themes among departments in terms of both concepts and skills (It was suggested that this analysis be undertaken by a committee comprised of departmental specialists in primary education.)
- * review NTTC department structure
- * reorganize the College timetable to provide for practical skills and income-generating activities
- * increase student participation in planning, budgeting and marketing for various learning activities
- * restructure NTTC "elective" courses so as to equip PTC and APTC graduates with information and experience needed to teach practical skills more efficiently and effectively in the primary schools
- * revise evaluation schemes to accommodate practical skills
- * increase student participation in practical activities outside NTTC (extra-curricular)

B. Staff Development

- * utilize the expertise of field supervisors trained in practical skills
- * increase trained staff in practical skills
- * staff development programme with specific emphasis on recruiting high achievers from NTTC

C. Facilities Development

- * provide facilities for teaching practical skills, e.g. a small workshop with basic tools for ordinary household repairs, a practicing shop, sports complex

D. Primary Curriculum Development

- * investigate the attitude of the MOE, teachers and parents towards practical skills
- * draw upon the combined resources of NTTC and NCDC in reviewing the present primary syllabus and designing a "practical skills curriculum"

APPENDIX D



LESOTHO NATIONAL TEACHER TRAINING COLLEGE

PRESENTS: HOME ECONOMICS SLIDE SETS

IMPROVISED TEACHING MATERIALS

- stretch your teaching resources by making useful items from the things you usually throw away. Teach your students to be creative in finding new ways to reuse a variety of plastic and metal containers.

MANAGEMENT TIPS

- An experienced home economics teacher and former teacher trainer shares her ideas for organizing and managing the home economics classroom and teaching.

Order your own slide set and accompany script by completing and returning the form below.

RETURN TO: IMRC, Box 1307, Maseru 100, Lesotho.

Quantity	Slide Set	Cost Each		Total Cost	
_____	IMPROVISED TEACHING MATERIALS				
_____	MANAGEMENT TIPS				
_____	BOTH SETS				
TOTAL FOR SLIDE SET					
SHIPPING					
TOTAL ENCLOSED					
(No cash, bank cheques in Rand only)					

Please post to the following address:

Please add ----- for postage.



LESOTHO NATIONAL TEACHER TRAINING COLLEGE

PRESENTS: TEACHING METHODS VIDEO TAPES

Help your students to understand and analyze basic teaching methods, using these examples from HOME ECONOMICS content.

DEMONSTRATION
The demonstration teaching method is discussed and illustrated by an experienced teacher trainer conducting a simple demonstration of table setting.

ROLE PLAY
The role play teaching method video involves primary pupils in learning about their needs and wants (money management). The teachers trainer who worked with the pupils discusses the method.

LABORATORY
The laboratory teaching method is presented in taping an actual class in food and nutrition taught by an experienced home economics teacher trainer. This tape also gives tips for planning and management of successful laboratory classes.

LECTURE
An experienced teacher trainer lectures on the topic of time management. The topic and her effective use of the chalk board, charts and a few real objects combine to make this an interesting and informative example of the commonly used lecture method of teaching.

To order, please complete and return the form below.

RETURN TO: IMRC, Box 1307, Maseru 100, Lesotho.

Quantity	Tape	Cost each	Total Cost	
_____	DEMONSTRATION			
_____	ROLE PLAY			
_____	LABORATORY			
_____	LECTURE			
_____	SET OF ALL FOUR			
TOTAL FOR TAPES				
SHIPPING				
TOTAL ENCLOSED (No cash, bank cheques in Rand only)				

Please post to the following address:

Please add----- for postage