

ISA 97918

BASIC AND NON-FORMAL EDUCATION SYSTEMS PROJECT
Radio Language Arts Programme - Final Report

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PREFACE

I have written this report largely in first person. But when I say I, I usually mean we or the English Division or a group of BANFES colleagues who supported the Lesotho Radio Language Arts Programme through countless anticipated challenges and unexpected difficulties. In the report I generally have referred to institutions, groups, or specific titles or roles rather than to a person by name. I do not mean to take away from the enormous individual contributions to the LRLA by this impersonal convention, but rather to emphasize the processes we went through together. Whatever value there is in this report is in its documentation of the steps we took on the way to a successful educational experience that is sure to have a lasting effect on the children of Lesotho. I can give only my thanks to those nameless people who contributed so much to the LRLA and to me personally.

MI
Maseru, 1991

BASIC AND NON-FORMAL EDUCATION SYSTEMS PROJECT

Lesotho Radio Language Arts Programme

PROJECT SUMMARY

The Lesotho Radio Language Arts Programme was one of several educational strategies to improve the quality of basic education under the BANFES Project. The Programme tested whether the instructional radio methodology and lessons developed elsewhere could be adapted in Lesotho and show the same advantages. The Programme adapted 525 thirty-minute radio lessons for use in the first three primary standards (grades). The lessons, originally developed and tested in Kenya, are now broadcast daily to more than 95% of the schools in Lesotho.

Radio methodology

The English lessons make use of a type of instructional radio that has proven successful. Research carried out in several countries shows that pupils studying mathematics or English by radio achieve greater gains than other pupils.

Radio instruction of this type is highly intensive, most often providing daily broadcasts of 20 to 30 minutes. It is also closely integrated with the regular syllabus and textbooks if any are normally used. As in any good instructional program, it is systematic in its selection of content to be taught and in the sequencing of skills to be developed. Radio of this type--sometimes referred to as interactive radio instruction--encourages active participation by the learner and the teacher. Children, helped by the classroom teacher, respond to the radio every few seconds by speaking, acting out, singing, reading, and writing.

Adaptation

Although the radio methodology had been tested in other subjects and locations, the adaptation and implementation process had never been tested on such a large scale. The Programme took an approach which minimized outside technical assistance and maximized local participation. It first pilot tested a small number of lessons with selected teachers and schools. Based on the positive feedback from the pilot, the Programme then adapted the entire series of lessons for national implementation.

The adaptation, similar to the regular curriculum development process in Lesotho, was carried out in the English Division at the National Curriculum Development Centre and at the Instructional Materials Resource Centre, collaborating

institutions within the Ministry of Education. One technical advisor, an English language and radio education specialist, worked with one local primary teacher on the review and rewriting of all scripts. The English Division officer for primary English assisted in the review of the radio curriculum and its match with the Lesotho curriculum, and provided part-time support in implementation and evaluation of the Programme.

Adaptations necessary consisted mainly of names of the radio characters, place names, and life styles that differed because of culture and geography. For example, Lesotho is rural and mountainous, with cold winters. Kenya is large and populous, with a hot equatorial area and a long coastal region.

The adapted scripts were produced by the Instructional Materials Resource Centre which has modest studio facilities. The lessons were recorded by four local actors and one musician supported by a full-time producer, a part-time studio technician, and a part-time technical advisor.

The pilot test of 20 lessons was carried out in early 1987. The adaptation process was simple and straightforward so that Standard 1 lessons went on the air in February 1988, Standard 2 in 1989, and Standard 3 in 1990.

Few unanticipated problems were faced in adapting the radio English lessons. Implementing the lessons nationwide presented more hurdles than expected, however, and questions of sustainability are yet unanswered.

Implementation

Radio Lesotho provided the air time for the broadcasts. It scheduled programs so that all three standards within a school could share radios. There have been few problems with broadcasting other than the occasional breakdown of equipment. Radios were purchased by the BANFES Project and sold to schools at a highly subsidized price. Other aspects of implementation were more challenging.

The Programme developed a system for the timely printing and distribution of print materials for pupils and teachers to nearly 1200 primary schools. As no efficient system was in place, this required the assistance of three part-time technical advisors, additional local staff, and vehicles to deliver materials. Subsequent to placement in all schools of these materials, replenishment should be possible through normal distribution of school textbooks and supplies.

Sustainability

Unlike many other interventions, such as textbooks and laboratories, sustaining radio instruction is inexpensive. The major costs are in the development of the programs, but good

lessons can be used for many years without additional writing or production costs.

The continued use of the radio lessons can be achieved through existing institutions and infrastructures, provided there is a will to do so. It is expected that replenishment of print support materials on a 3 to 5 year cycle will be undertaken by the School Supply Unit of the Ministry of Education. The repair and replacement of school radios will occur through the same mechanism. Modest school fees of only a few cents each year will provide the funds that will support this. This supply scheme has been approved but is as yet untested.

Acceptance

Teachers and headteachers like the radio English lessons. In a sample of schools throughout the country, more than 95% of teachers using the radio lessons were pleased with the lessons and felt children were learning more by radio than they did through conventional teaching.

The Radio Language Arts Programme is not without problems. Due to the rapid implementation of the Programme, not all teachers have yet received inservice training on the use of instructional radio and some problems with the use of the lessons have been observed. A training-of-trainers program and a guide to conducting local workshops has been completed. It is expected that local workshops will overcome some of the uncertainty of using the radio lessons.

Some teachers were on strike during the 1990 school year. In a follow-up sample of teachers questioned earlier, teachers indicated that they had successfully picked up instruction by radio after the strike and 100% of the teachers expected to continue radio instruction in 1991.

The Ministry of Education has also endorsed the Lesotho Radio Language Arts Programme. It has indicated it's intent to continue the Programme and through its School Supply Unit to support the replenishment of materials and radios.

For additional information, including research studies on the use of instructional radio, write to:

RADIO
Academy for Educational Development
1255 23rd Street, NW
Washington, DC 20037

BANFES was funded by the United States Agency for International Development.

INTRODUCTION

This report documents the activities and assistance carried out by the Instructional Radio and English Education Specialist through the Lesotho Radio Language Arts Programme (LRLA). It also makes recommendations for the implementation and continuation of what, by most measures, is a successful program for improving the standards of English language education in the primary standards (grades).

Purpose

The LRLA was designed to test whether the instructional radio methodology and lessons developed in Kenya could be adapted for use in Lesotho and still show the same advantages to learners and teachers. Its ultimate goal, of course, was to improve the standards of English in primary schools.

Context for Program Identification and Development

The LRLA was one of several educational strategies to improve the quality of basic education under the BANFES Project. Specifically, it was "implemented to teach mastery of essential language . . . literacies in Standards 1 to 3" (Logical Framework, A1).*

The impetus for the LRLA came from the English Division, National Curriculum Development Center (NCDC). The LRLA was seen as a way of providing badly needed support to English teaching in the primary schools. In fact, radio instruction was one of the activities suggested to enhance English teaching as far back as the 1981 Syllabus (English Division, NCDC). The goal to improve English language teaching was congruent, therefore, with BANFES's larger objective to improve the teaching of basic skills, including languages.

At the request of the English Division, the BANFES Instructional Systems Designer developed a plan for using interactive radio instruction (the type of instructional radio referred to throughout this report) as the strategy for helping lower primary school classroom teachers in the difficult task of raising the standards of English language instruction.

*The Logical Framework (LF) is a BANFES Project - U.S. Agency for International Development document. It specifies activities to be completed under the contract between U.S.A.I.D. and the Academy for Educational Development, the contract manager. The general reader should ignore Logical Framework notations throughout.

Pilot Test

The English Division, in close collaboration with the Instructional Materials Resource Centre (IMRC) and assisted by the Instructional Systems Designer, pilot tested 20 lessons from the Kenya Radio Language Arts Project to determine the suitability of the materials for Lesotho schools and teachers. The pilot test was carried out in early 1987. Based on the positive feedback from the pilot, the Primary English Panel (a working advisory group to the English Division) recommended that the entire body of lessons originally developed in Kenya be adapted for use in Lesotho.

Program Start-up

This full-fledged activity was approved by the BANFES Project Work Group and U.S.A.I.D. The timeline for the BANFES Project dictated that the first broadcasts begin in 1988 in order that nationwide implementation of the lessons should occur by the end of the project. The activity, then named the Lesotho Radio Language Arts Programme, began intensive activity in July 1987. At that time I arrived as a short-term consultant as Instructional Radio and English Education Specialist. A primary teacher (hereafter referred to as the Counterpart) from a Maseru school, who was also a Panel member and a participant in the pilot test, was borrowed from her school to work with the English Division in the adaptation of the Kenya lessons.

BANFES Midterm Evaluation

The midterm evaluation of the BANFES Project made a series of recommendations related to the LRLA; in summary it recommended "that greater effort, including the expenditure of more monetary and human resources, be directed at maximizing its potential" (Recommendation 3, Evaluation report, 1987).

As a result of this evaluation, I was contracted to join the BANFES Project on a full-time basis beginning in August 1988 in order to implement specific recommendations. These recommendations were incorporated into my workplan. The primary teacher continued her assignment to the English Division to work directly on the radio English lessons.

ACTIVITIES

The major areas of activity under the LRLA were curriculum analysis, script adaptation and writing, teacher orientation and training, evaluation, radio production, and various kind of logistical support. Public information became an increasingly important activity as the LRLA continued. In what follows, each activity is listed, dated, discussed briefly, and then recommendations on sustainability and follow on are given.

Curriculum Analysis

Activity 1. Determine fit or match between Kenya and Lesotho syllabuses

Dates. September - October 1987 Logical Framework (LF) Alb

Discussion. A preliminary analysis by the English Division determined that the Kenya and Lesotho English syllabuses for lower primary were very similar. Objectives for teaching English and its place in the curriculum were also very similar. Specifically, both educational systems teach English as a subject in the lower standards and then use English as the medium of instruction later on. Kenya switches to English in Standard 4, Lesotho in 5.

The methodology of teaching the language was also similar. Oral English is emphasized during the first year, with prereading activities introduced late in Standard 1. Reading is introduced in Standard 2 and emphasized in Standard 3. Children are expected to know basic grammatical patterns by the end of Standard 3 and to understand oral English to a degree that gradually permits teachers to use English as a medium. Lesotho uses Standard 4 as a transition year as teachers make the switch. In practice, in both countries the transition is probably more gradual than policy suggests, with some insecure teachers hardly ever using English as a medium. In summary, there was a very good match between the policy and the practice of English teaching in both educational systems.

The Kenya syllabus, particularly for Standard 1, is a richer syllabus. Expectations for achievement in English are considerably higher than those reflected in the Lesotho syllabus or Standard 1 textbook. This was noted by the English Division and viewed as a positive aspect of the radio lessons. It was felt that teachers in Standard 1 do not teach enough English.

Teachers, however, were initially surprised at the quantity and pace of instruction. The comment "The radio teaches too much" is still heard from teachers who have received too little training about the radio lessons.

Recommendations. Teachers need to be involved in all aspects of program development. This can be through the subject panels within NCDC or in ad hoc committees. This process was largely

successful in Lesotho, although a larger number of teachers from more representative schools might have familiarized more teachers with the radio methodology and purpose.

Activity 2. Adjust radio syllabus to fit Lesotho syllabus

Dates. September - October 1987; February - March 1988;
February - March 1989

LF Alb

Discussion. Objectives and teaching activities were specified in the Syllabus and Teacher's Guide to English (1981; 1988, English Division, NCDC). Specific linguistic items of vocabulary and structures are included in the textbooks for primary standards (Primary English for Lesotho), a series written by Longman publishers in consultation with the English Division.

The radio Scheme of Work, which specifies the content of the radio lessons, was then adjusted to match the Lesotho materials mentioned above. Vocabulary items from Lesotho were added and those from Kenya dropped. Only about 40 - 50 items at each standard were changed. On reflection this is not surprising; the topics around which vocabulary centers include school, the home, friends, family, and the immediate environment of 6-year-olds. This does not vary a great deal between Kenya and Lesotho and probably not much between countries of even greater language and social diversity.

The radio lessons are based on the teaching principle that more exposure to language use and a larger range of linguistic items is better than complete mastery of a small corpus of language. This principle is perhaps still arguable, but it was strongly felt that given the absence of native speakers of English and the lack of English-speaking environments for primary children, that a richer syllabus provided a better introduction to the second language.

Recommendation. A deemphasis on vocabulary should be encouraged by English curriculum specialists. Vocabulary should be relevant to the learner. It should reveal the rules of word formation and spelling in English. For example, there should be adequate examples of singular/plural, tense, and vowel differences. But specific vocabulary is rather arbitrary. It is useful, for example, to learn beans and maize as examples of count and non-count nouns, but it does not really matter if children in Standard 1 learn all the vegetables; they will learn them when they need those words.

Script Adaptation and Writing

Activity 3. Script preparation

Dates. January 1987 - February 1988

Discussion. The radio lesson scripts in Kenya were typewritten. In order to make the necessary adaptations efficiently, all 585 Kenya scripts were transferred to the computer by optical scanning using the Wordstar wordprocessing program. Each script was edited and typing errors or scanning problems corrected. This work was carried out under the supervision of the BANFES office at the Academy for Educational Development in Washington, DC.

The lessons were then shipped to Lesotho on computer disks.

Recommendation. All scriptwriters should learn to use a computer and largely be responsible for editing and copyediting their own scripts.

Activity 4. Adapting all scripts

Dates. October 1987 - August 1989

LF 11b

The major writing task of the LKLA was to adapt 525 of the Kenya scripts for Standards 1, 2, and 3. Adaptations were frequently a simple matter of replacing one proper name, i.e. Juma, with another name, Tefo. In other cases, lesson segments had to be substantially revised or completely rewritten to fit the situation in Lesotho.

Each lesson was accompanied by a note to the teacher, bound together in book form for each standard. These also required adaptation to be consistent with the lessons and were subsequently printed and distributed to each radio teacher in Lesotho.

Each standard also required a number of worksheets for the pupil, also bound together in book form. Standard 1 uses 19 worksheets, Standard 2, 42, and Standard 3, 50. These were also adapted, printed and distributed in sufficient numbers for each child to have a copy.

This process of adapting and writing was carried out in the following manner.

- A. All scripts were printed from the computer.
- B. Scripts were read, one by one, by the English Division Counterpart and myself.
- C. Vocabulary replacements were kept at hand and inserted at appropriate places, usually one Lesotho item replaced one Kenya item.

D. Any questions regarding changes, or conflicts over changes were referred to the entire English Division for a resolution.

E. Segments that needed to be rewritten were usually rewritten by both the Counterpart and myself as part of the Counterpart's training.

F. Adapted or rewritten lesson segments were checked with the Teacher's Notes and pupil worksheets. Appropriate adaptations were made.

G. The typist made all editorial changes in the lessons on the computer, printed the scripts, and sent them to the Instructional Materials Resource Centre (IMRC) for production.

This process continued from August 1987 through August 1989 with various other activities as outlined below interrupting the flow of scripts.

Recommendation. Time pressures did not allow the scriptwriters to collaborate very closely with the production staff at IMRC which is in a different location from the English Division at the National Curriculum Development Centre. Some difficulties encountered would have been resolved more easily had the production staff known more about scriptwriting and the scriptwriters known more about production. Although an individual may spend more time doing one job, I would recommend that all educational radio personnel have experience in more than one aspect of broadcasting.

Activity 5. Cultural analysis of the lessons

Dates. October 1987 - August 1989

LF Alb

Discussion. The cultural analysis was carried out as part of the adaptation process. Names of radio characters and the pupil participants were the major cultural changes necessary. Place names and geographical differences were also adjusted. In general, the Kenya and Lesotho materials both emphasize a rural environment as it seemed the rural schools would more likely use the radio lessons than the urban schools. The rural environment is different in Lesotho so that changes were made accordingly in vocabulary and situations in which the language was used.

Recommendations. Reviewers of diverse cultural experience can help ensure that cultural clashes are not fostered by the lessons. This could be very important in a multi-cultural setting, but was not a significant problem in Lesotho. Where cultural diversity is encouraged the lessons should reflect this.

Activity 6. Produce songbook for teachers

Dates. June - September 1989

LF Alb

Discussion. During school visits early in the LRLA, teachers often complained that they could not help children with the songs because they did not know the words themselves. In fact the children frequently knew them better than the teachers. We therefore produced a booklet, later distributed to all radio teachers, with the words to all the radio lesson songs.

Technically, this simply required searching the lessons for all songs and duplicating the words. We included the lesson number in which the song was first introduced and provided an index of the titles or first lines of the songs along with the lesson number in which the song was first introduced.

Recommendation. The words to the songs could be included in the Teacher's Notes. Some teachers have recommended this. It does present problems though. It would make each note longer and no doubt increase the cost of producing the Teacher's Notes. Also it would be more difficult for teachers to refer to the lesson in which the songs first occur. On the other hand the songbooks get lost. I have no firm recommendation except that teachers should have the words to the songs in some easily usable format.

Radio Production

Activity 7. Production Preparation

Dates. August - October 1987

LF Alb; D2a

Discussion. Pre-production activity included auditioning actors, identifying a producer, and augmenting the existing studio equipment and facilities.

The first producer was the head of the audio visual section of IMRC. BANFES later replaced this producer with one hired by the project in order to have a producer devoted full time to recording and editing all the lessons and delivering the recorded lessons in a timely fashion to Radio Lesotho. This producer also provided liaison with Radio Lesotho on questions of scheduling and any problems involved with broadcast of the lessons.

To identify local actors to present the radio lessons, the project advertised the positions. A number of people were selected for auditions. Members of the IMRC production staff, the English Division, and BANFES Technical Assistants carried out the auditions. From the auditions, two female and two male actors were hired by the project.

In preparation for recording the lessons, a short-term production consultant gave two weeks of training on presenting interactive radio lessons.

An additional small studio was built in order to free up the larger studio. Headphones, microphones, and recording and playback equipment were purchased to augment the studios and control rooms.

Recommendation. Pre-production must be a collaborative effort between the institutions involved. A full understanding of the tasks and required support must be agreed on to prevent misunderstandings later.

Activity 8. Producing 525 lessons for standards 1, 2, and 3

Dates. October 1987 - July 1990

LF Alb; D2a

Discussion. I was not involved with producing the lessons on a day-to-day basis. There were observable and reported problems encountered by the staff at IMRC which affected the quality of productions, not always high in any case.

Using local actors with high quality English skills, though not native speakers, was a deliberate choice in Kenya and Lesotho. It has several advantages and some disadvantages.

The disadvantages include the fact that someone, usually the producer, must monitor the quality of English language spoken. The producer may not have the English skills necessary to do this effectively at all times. Another disadvantage is that experienced actors or presenters may not have their experience in English but rather in their own mother tongue.

The advantages include a wider choice of vocal types, singing ability, acting or characterization skills from English as a second language speakers than from native English speakers who might be available for a long period of recording. The overriding advantage is that children identify more strongly with people who sound like people they know. A local speaker with a slightly accented--but standard--speech seems to appeal to the listener more than a foreign speaker.

The existing studio facilities at IMRC were not adequate for daily recording of interactive radio lessons with a cast of four and a musician. Although studio space was adequate, access to the studio was often a problem.

Delays in recording were frequent. They were due to problems with the actors, limited access to the studio, limited availability of the studio technicians, and as the project continued, increasing problems with noise in the studio from street traffic. The time taken to record the lessons was excessive and therefore more costly than it should have been. It was certainly far less efficient than in Kenya.

Recommendations. I highly recommend the recruitment of more mature persons as actors and replacement of actors who are not performing adequately. Our actors were young, inexperienced in the world of work, easily bored, and continuously troublesome. We were reluctant in the beginning to replace actors as we thought it might confuse the listeners. It does not seem to do so, however. The children were not at all confused when we did replace actors later on in the broadcasts.

There was a great difference in the professionalism of the Kenyan actors and the Basotho actors. The only factor I can pinpoint was the Kenyans' maturity. It might be worth a deliberate policy to replace actors at the end of each standard unless they are enthusiastic about continuing and do quality work with a minimum of disruption.

Teacher Orientation and Training

Activity 9. Develop a classroom observation form and schedule

Dates. February 1988

Evaluation Rec. No. 3; LF Alb

Discussion. Information on the use and effectiveness of implementation of the lessons was carried out from the beginning of the LRLA. The Counterpart and I designed an observation checklist to document observations about teacher and pupil behavior before, during, and after the broadcast.

District Resource Teachers (DRTs) were also trained in the use of the observation checklist and as a part of their early assignments provided the English Division with completed observation forms for more than 10 schools each, a total of about 300 schools.

The observation checklists were used subsequently to design workshops and other training activities for radio teachers.

Recommendation. Classroom visits by members of English Division will always be limited. Continued collaboration between the Division and the DRTs is essential to monitor the use of the radio lessons. Urban areas not visited by the DRTs should be checked as much as possible by the primary Inspectorate of the Ministry of Education and members of the English Division as time allows.

Activity 10. Train standards 1, 2, and 3 radio teachers

Dates. November 1987 - November 1989

Evaluation Rec. No. 3

Discussion. The LRLA built its training activities on the emerging National Curriculum Dissemination Programme, another BANFES initiative. In this model of dissemination and training, experienced and qualified teachers are trained to go back to their own

areas to train other teachers. At present, there are 70 subdistricts throughout the country, and all now have trainers who have received training by the National Curriculum Dissemination Programme and the LRLA on how to conduct radio workshops in their own subdistricts.

National radio workshops for trainers were held in 1987 primarily for Standard 1 teachers, 1988 for Standard 2, and 1989 for Standard 3.

Recommendation. Further training will be necessary for radio teachers, particularly as new teachers often enter the system at the lower primary level. The model for training is in place and very good trainers are now scattered throughout the country. We do not have much evidence about the quality of these local training programs, however. It is critical, therefore, that the local-level training programs for teachers be monitored by the Division and the National Dissemination Coordinator.

Activity 11. Develop inservice guide for trainers of radio teachers

Dates. April - August 1990

LF Alb

Discussion. Although the national radio workshops provided participants with a model to be used in holding local or school-level workshops, the participants had very little to take away with them for future reference and guidance. The LRLA, therefore, developed an inservice training package for trainers. The package consisted of a printed guide that included suggestions for each step of the planning and implementation of local radio workshops. It included, as well, sample letters of invitation, programs, budgets, and so on. The package also included a cassette tape recording consisting of a discussion of the instructional radio objectives and methodology, a sample lesson with children's responses, and a discussion of the sample lesson to indicate the roles of the teacher and the pupils. (See English by Radio: Inservice Trainers Guide, NCDC.)

Recommendation. Trainers need practice. Experience in conducting workshops is limited. Presenters are not used to a participatory style; participants tend to be passive and expect the voice of authority to speak at workshops. Workshops tend to be more like church, with a preacher leading the congregation, expecting them to respond to the ritual but not take charge or dominate the service.

The inservice guide prepared for trainers emphasizes participation by those who are directly involved in radio lessons. It encourages sharing of experiences and problem solving by the participants rather than lectures by one presenter speaking as an expert. This style of workshop is congruent with the trend of the Ministry to stress supervision and collaboration rather than judgment and punishment.

Workshops of this type must be exemplified and monitored to ensure that participants receive answers to their problems rather than moralistic pronouncements of little relevance.

Activity 12. Train LRLA Counterpart to use inservice training package

Dates. June - December 1990

LF Alb

Discussion. Trials of the inservice guide for trainers were carried out by the Counterpart through a series of 10 district-level training programs. Two participants from each subdistrict were invited to attend each district workshop. One trainer who had previously participated in the National Dissemination Programme workshop and one radio teacher who had attended previous radio workshops were asked to participate. Workshops were an attempt to present a model for a half-day radio workshop, making use of the training guide. Revisions to the guide were made on the basis of experience in using it to plan and present these workshops.

In collaboration with District Education Offices, participants were invited by letter and through direct contact from the District Education Officers (DEOs) as well as radio announcements. The Counterpart conducted the workshops in the major towns of the districts using the facilities of local schools, usually the subdistrict centers for that area.

Communication with individual teachers is generally difficult. Letters sent to schools do not always get into the right hands. DEOs do not have the resources to visit each school or person invited to workshops. Radio announcements are often misinterpreted or deliberately ignored. In most cases, these district-level workshops had more participants turn up than were invited. This presented a number of problems. First, the budget presented to the BANFES Training Office, which funded the workshops, was inadequate to support all participants. Second, the structure of the workshop was distorted by the larger numbers of participants. A case in point was the Maseru workshop to which 27 people were specifically invited and nearly 127 teachers attended.

Recommendation. One cannot hold a genuine workshop for 127 people with only one presenter and resources limited to a smaller number of participants. The presenter is forced to fall back on other strategies, usually lecture and demonstration rather than participation and discussion and sharing of ideas.

I recommend that workshop participation be kept to a small number. Other participants must be turned away no matter how difficult that seems at the time. Uninvited teachers should be encouraged to attend their local workshops conducted by the trainers.

Activity 13. Develop LRLA inservice radio programs

Dates. January 1988 - December 1990 Evaluation Rec. No. 3; LF B4e

Discussion. Face-to-face inservice training is of course desirable. The opportunity for questions and answers by the participants will solve many of the problems teachers have encountered in using the radio lessons. The costs for such workshops are, however, high. Radio can be an effective alternative if teachers are willing and able to listen to inservice broadcasts.

The LRLA developed a series of 20 15-minute broadcasts for teachers to be aired over Radio Lesotho. The broadcasts are in the form of dialogues between two educators discussing instructional radio in general and English in Action, the radio English series, in particular.

Recommendation. The inservice broadcasts for teachers could serve as a springboard for the further development of inservice broadcasts for teachers, either in this form or in other formats such as a magazine program for teachers.

As a first step, the inservice broadcasts should be rescheduled at a more suitable time for teachers. As they now are offered, few if any teachers can listen to them.

Activity 14. Develop an LRLA preservice training module for the National Teacher Training College English Division

Dates. April 1990 - January 1991

LF All; B1b

Discussion. Most newly trained primary teachers are given the lower primary standards on their first teaching assignment. They are ill-prepared to use innovative methodologies such as the radio lessons. In many schools headteachers and colleagues offer little help.

The module prepared for the National Teacher Training College (NTTC) included appropriate training materials, e.g. demonstration tapes, sample radio lessons on cassette, Teacher's Notes and pupil Workbooks, guidance for observing radio classrooms, and background information on interactive radio instruction. A demonstration lesson was presented to the 1990 students after which discussion by the students and staff clarified many issues regarding the use of the radio English lessons. (See English in Action: A Guide for Preservice Teacher Trainers, NCDC.)

Recommendation. Further collaboration between the English Divisions at NCDC and NTTC should be carried out.

In addition, the Ministry should be encouraged to direct schools away from the practice of making lower primary standards the dumping ground for the least qualified teacher. Teaching Stand-

ards 1 - 4 must be professionalized and rewarded if the quality of schooling is to be improved. At present it seems only a period for babysitting children until they either drop out of schooling or are mature enough for instruction.

Activity 15. Write a video script for inservice training of radio English teachers

Dates. June 1990

Discussion. Although the use of video is limited in Lesotho, it is an acknowledged medium for demonstrating effective teaching. I, therefore, wrote two video scripts for possible production by IMRC. Due to the prolonged production period necessary to complete the radio lessons, staff was no longer available to participate in video filming near the end of the project. Production preparation was also curtailed by the teachers strike in 1990 so that filming could not take place in a timely fashion.

Recommendation. There is not an urgent need for a video demonstration of the radio methodology. There are advantages, however, to video. Foremost is the ability to document the best utilization of the methodology, making use of a master teacher working with responsive children. This can be shown in a variety of situations over a long period of time.

At an appropriate time, e.g. when video equipment is more widely available, I recommend that the Ministry produce a quality video demonstration of a radio English lesson. The scripts are on file with the English Division.

Activity 16. Support reprinting the primary English syllabus and Teachers' Guides for the English Division

Dates. October 1989 - February 1991

LF Ald; 3.2.2

Discussion. The radio lessons do not exist in isolation from the English syllabus and other support materials for teachers. The BANFES Project was to ensure that every primary teacher had copies of the Syllabus and Teacher's Guide to English. My role was to foster, as needed, the Division's editing, proofreading, and copyediting. Printing and production of the materials was supervised by other BANFES team members.

Recommendation. My advisory role in the English Division was to develop the radio lessons, not curriculum in general. As an English education specialist, however, I would recommend that the primary English syllabus be revised as soon as feasible. It is not really a syllabus, but rather a series of vague objectives that are impossible to measure and a list of activities that vary little from standard to standard. The accompanying guides to the syllabus expand on the activities but do nothing to clarify the expected level of achievement for each standard. The textbooks,

now supported by the radio lessons, provide the content for each standard, but a new syllabus could provide the framework that would be the basis for other supplementary materials and an evolving emphasis on raising the standards of English language teaching.

Evaluation

Activity 17. Develop and administer an achievement test

Dates. October 1988 - April 1990

LF Alb

Discussion. Achievement testing of pupils as one evaluation measure was a failure. In short, the test itself was not a suitable or effective instrument.

The attempt to test pupils was perhaps the most frustrating aspect of the LRLA program. Development of the test, funded in part by the Radio Learning Project, was carried out without adequate time--given the BANFES Project timeline--for trial testing and adequate validation in Lesotho. Test administration, given limited resources and time pressures, was not sufficiently supervised. The teachers' strike in 1990 prevented a new strategy for achievement testing from being designed and implemented.

Other measures of the program's success were effective. A survey of about 10% of schools using the radio lessons indicated that teachers and headteachers were pleased with the radio lessons and believed their pupils were progressing more rapidly in English than those pupils in conventional classes (Sharon Harpring, BANFES Evaluation, 1990). A follow-up survey of a small sample of schools after the teachers' strike documents the continued use of radio lessons and an overwhelming desire to continue with the lessons in 1991.

Recommendation. Most educational decision makers are not convinced by anecdotes and emotions. It is imperative, therefore, for the LRLA to collect data which demonstrates the effectiveness in raising pupils achievement in English.

A new strategy for measuring achievement should be developed as quickly as possible and initiated during the 1991 school year. To accomplish this, the technical assistance of an evaluation specialist would be necessary. This TA should design a feasible testing program that could be largely carried out by the English and Evaluation Divisions at NCDC with additional logistical support in test administration. Data analysis could be carried out by the evaluation specialist or under his or her guidance.

Logistical Support

Although not a part of my scope of work as originally outlined, logistical support to the LRLA turned out to be a large portion of the effort to ensure success of the program. Many of these activities were jointly planned and carried out with the BANFES Component 3 Coordinator. The following activities illustrate.

Activity 19. Distribute radios

Dates. November 1987 - March 1991

Discussion. Before my association with the LRLA, radios were purchased by BANFES and sold at a heavily subsidized price to schools wishing to participate in the LRLA. Radios with cassette recording and playback capability, costing approximately \$85, were sold to schools for about \$25.

Initial sales were carried out during the first national radio workshop. Subsequent sales were conducted at the BANFES office after approval by the English Division. As of this date more than 95% of all primary schools have purchased radios.

It is expected that future radio sales and repairs will be administered by the School Supply Unit, a division of the Ministry which normally purchases and distributes textbooks.

A considerable portion of my time was spent in correcting the records of sales and ensuring that schools did not purchase more than their share of radios. An additional 300 radios were ordered for the final year of the project.

Recommendation. Further exploration of solar radios should be done. With additional countries in the region considering the use of instructional radio in primary schools, a regional market is perhaps developing that would appeal to radio manufacturers. The solar panels developed for use in the Honduras radio project appear to have been successful and cost effective when compared to battery costs.

It is highly recommended that the School Supply Unit take over the administration of sales and repair of radios. This should be supported by the SSU revolving fund established through the collection of school fees. This has been approved by the Principal Secretary in a memo to BANFES, January 31, 1991.

Consideration should also be given for a Ministry-supported radio repair facility. Teachers will only continue use of the radio lessons if working radios are easily available in their schools.

Activity 20. Print and distribute Teacher's Notes and pupil Workbooks

Dates. January 1988 - February 1990

LF Alb

Discussion. Implementation on a national scale of Standard 1 broadcasts in 1988 required the adaptation of teacher's notes and pupil worksheets concurrently with the adaptation of the lessons. This necessitated the printing of these materials in four separate lots rather than in booklet form before the beginning of the school year. In similar fashion, Standard 2 teacher's notes and worksheets were adapted as the Standard 2 lessons were adapted. They too were distributed periodically throughout 1989.

Printing was difficult to accomplish under such time constraints. The small printing facility at IMRC could not meet our deadlines for distribution, and a commercial printer soon had to be contracted. The commercial printer was able to keep pace, and we missed, by only two weeks, one printing and distribution deadline during the life of the project.

Distribution was initially a nightmare. No effective system was in place and this shortcoming was unanticipated. And no one knew what ten and a half tons of booklets looked like! We first tried to distribute materials by mail. This did not work. Next we tried delivering the materials to the District Education Offices with the expectation that DEOs would see to the distribution in their districts. This was a naive assumption given the lack of transport and inability to communicate directly with schools. We then concluded that we must deliver the materials as close to the schools as possible within budget constraints.

The final method of distribution, later used for the distribution of other curriculum materials developed by the BANFES Project, was to deliver the print support materials to the subdistrict centers throughout the country. Initially this was 68 schools (now 70) identified as centers for clusters of schools that were in geographical proximity and to which transportation--often horseback or on foot--was possible even if somewhat difficult. Schools were notified on the radio when materials were ready to be picked up at the centers.

Distribution to the subdistrict centers is still evolving and is not without problems, but it has served rather well for the distribution of the radio support materials.

After the printing and distribution of Standard 1 and 2 materials in looseleaf form, we were able to get ahead with the adaptation and scriptwriting to the extent that we were then able to print the materials for teachers and pupils in booklet form. Teacher's Notes and pupil Workbooks for Standards 1 - 3 were printed, packaged, and labeled at the Morija Printing Works. Copies were distributed to every pupil and teacher in those standards. Transportation and additional labor were provided by BANFES.

Recommendation. Printing and distribution of the print support materials on a one time basis was seen as an integral part of the LRLA. Further printing and distribution should be managed by the School Supply Unit in cooperation with the English Division. We anticipate that pupil workbooks will need to be printed every three years and teachers' materials perhaps every five years. Since we have little experience in Lesotho to make these projections, the condition of materials, particularly the pupils' materials, should be monitored carefully. The SSU revolving fund should also cover the costs of printing and distribution. If necessary, a slight increase in school fees should cover these costs. This recommendation was accepted in principle by the SSU Advisory Committee, February 1990.

I recommend cooperation between the SSU and the Morija Printing Works (or another reliable printer) in future printing. A commercial printer could be invaluable in helping the SSU manage this task in much the same way commercial publishers are helpful with textbooks.

Activity 21. Seek to have SSU incorporate LRLA into revolving fund

Dates. February - April 1990

LF Alb

Discussion. The principle has been accepted by the Ministry, largely through the efforts of a number of colleagues in the Ministry, NCDC, and BANFES.

Recommendation. The replenishment of LRLA materials will need a strong advocate to follow up on contracting for printing and the distribution of materials to schools. This person should be a member of the English Division where knowledge of the situation in schools with regard to the radio English lessons is extensive.

Activity 22. Seek to have Counterpart appointed to NCDC English Division

Dates. November 1987 - March 1991

LF Alb

Discussion. The sustainability of the LRLA depends on a number of interrelated activities in support of the system already in place. Collaboration between IMRC, where the tape recordings of the lessons are housed, Radio Lesotho, where the lessons are broadcast, the SSU, where it is intended that consumables such as Teacher's Notes, pupil Workbooks, and radios will be replenished, and the English Division is essential. This cannot be done without an individual to take major responsibility.

Since 1987 we have been seeking to ensure that the LRLA Counterpart receive a regular appointment in the English Division. This appointment would augment an already overextended Division and provide the necessary, trained person to oversee the LRLA. In ..

1988, again in 1989, and again in mid-1990 new appeals were made to regularize the Counterpart's work at NCDC. The Counterpart has largely pursued this appointment on her own initiative with little administrative support from NCDC. Efforts so far have failed to accomplish this appointment.

The Counterpart's position with the LRLA was irregular from the beginning. There was no official secondment to NCDC, but rather the Counterpart was borrowed from her school. She is still on the Teacher Service Unit roles and has no official status at NCDC. This highly unorthodox situation should not be allowed to continue, both for the Counterpart's professional development and contribution as well as the survival of the LRLA.

Recommendation. All effort should be made to accomplish this appointment. The LRLA needs not only strong advocates, which it already has in the English Division, it needs an experienced radio educator to carry out the vital liaison between institutions, inservice training, and general monitoring of the program.

Activity 23. Supervise feasibility study for radio Lesotho of second channel for education and development

Dates. January - November 1990

LF Alb

Discussion. Radio Lesotho indicated to BANFES a strong interest in conducting a feasibility study to incorporate a listenership survey and a users survey. I had a very small role in this activity. Along with BANFES colleagues, I worked with the consultant who designed the survey in order to assess the extent to which teachers were using the radio lessons. While the general survey and study has been completed, the teacher questionnaire was omitted from the study due to the teachers' strike in 1990.

It is in the LRLA's interests to see the development of an educational channel as the survey has recommended. Increasing pressures on the regular radio schedule will make Radio Lesotho look closely at the amount of time required to broadcast English lessons to schools.

Recommendation. English Division staff, with the support of Ministry officials at the highest levels, need to discuss the importance of instructional radio in general and the LRLA in particular in order to ensure the continuation of broadcasts. A education committee from NCDC, IMRC, and the Ministry should meet periodically with the appropriate Radio Lesotho personnel to support the use of instructional radio.

Cost Analysis

Activity 24. Conduct cost analysis of the LRLA

Dates. November - December 1989

Discussion. In collaboration with the Radio Learning Project, I collected cost data on the LRLA. Costs were divided between developmental costs and recurrent costs. Recurrent costs are of course the most important for Lesotho since funds will have to be found to cover these costs if the program is to be sustained.

Recurrent costs per pupil are approximately \$.50 with more than half this amount for batteries. Other significant costs are radios, repairs, and print materials. (Additional information may be found in "The Economics of Radio Education" by Thomas D. Tilson, Report of Conference Proceedings, African Conference on Radio Education, Harare, Zimbabwe, 22 - 26 January, 1990.)

Recommendation. In keeping with Lesotho's educational budget practices, parents support the costs for instructional materials. As recommended earlier, these should be incorporated in the School Supply Unit through fee increases when necessary.

Public Information

Activity 25. LRLA visitors

Dates. Throughout the project

Discussion. A number of international educators visited the LRLA to observe the radio lessons in action. Several of these visits were sponsored by the Radio Learning Project or its follow on the LearnTech Project. Several were interested in applying the use of interactive radio instruction to their own educational challenges.

Delegations from Swaziland, Uganda, and Zimbabwe have expressed serious interest in making use of the Lesotho experience and materials in proposing their own radio projects. Representatives from UNESCO and the United States Information Agency have also drawn on visits to the project for discussions with other African educators on the possible use of radio to solve some of the problems with primary education.

Other visitors were from the U.S., South Africa, and the South African homelands of Qwa Qwa and Bophuthatswana.

Activity 26. Radio conference

Dates. November 1988 - January 1990

LF Alb

Discussion. The Radio Learning Project in cooperation with the BANFES-supported LRLA hosted an African Conference on Radio Education. I helped plan the conference, held in Harare, and was one of the Lesotho presenters. Three Basotho colleagues--one from the English Division, one from IMRC, and the Deputy Principal Secretary--also attended the conference and made presentations and participated in conference activities.

The initial plan was to hold the conference in Maseru, where participants would have been able to see the English in Action radio lessons in use in classrooms. The Ministry of Education appeared reluctant to hold an international conference on radio. After several preliminary meetings and a decision to host a regional conference, the next stage--forming a planning committee--was never achieved.

The objective for holding the conference in Lesotho was somewhat different from the conference in Zimbabwe. The Lesotho conference was to have involved policy makers in serious discussion of the potential of instructional radio to address critical educational needs within Lesotho and, by extension, in the region. This objective has still not been met.

Recommendation. A regional radio conference should be held for Southern Africa, including South Africa at the appropriate time, with Lesotho's experience as the focal point of the discussions. The potential for radio is enormous and the needs still great.

ADDITIONAL GENERAL RECOMMENDATIONS

Not all educational problems can be solved by radio. Many of the hurdles we faced in the race to implement the LRLA were not specific to radio instruction but were barriers common to any educational endeavor in Lesotho. Radio still has enormous potential, however. Its use should be fostered and strengthened through the following.

1. There should be more radio English. Teachers have requested taking the radio lessons further in the curriculum, up to Standard 7. Development of aural-oral radio lessons in support of the English textbooks--perhaps only through Standard 4 but even further if it appears that children are losing their oral language skills through poor teaching at the upper standards--would be desirable. This endeavor would strengthen the instructional radio infrastructure and further encourage effective use.

2. Radio should be used for more and better teacher training. The education and training of primary teachers is weak, the number of underqualified teachers still high. There is not a good radio model for teacher training as yet, but one could be designed and tested that would serve to strengthen the training of teachers in the field.

3. There should be more testing of radio's effectiveness and effect. A number of testing activities could help determine the effect of radio instruction on children and teachers. Certainly, there should be careful study of what makes some radio schools effective and others not.

4. There should be widespread discussion about the potential of radio for instructional purposes. These discussions should be initiated by the Ministry of Education. This ministry should take the leadership on educational radio, rather than leaving it in the hands of Radio Lesotho. Such a forum should include more than basic education. Support might be sought from existing U.S.A.I.D. projects such as LearnTech and ABEL in order to fund a local or regional discussion of the application of instructional radio to educational challenges.

CONCLUSION

I am a biased, enthusiastic supporter of instructional radio. The most compelling evidence for me comes from observing teachers and children using the radio lessons to create a lively English language environment.

But the lessons are not just busily active and engaging; learning is clearly taking place. Children are answering questions with real information. They are reading with understanding and are able to communicate this understanding. They are practicing the English skills emphasized and rewarded in school:

- acquiring knowledge through listening and reading
- demonstrating knowledge by speaking, writing, and test-taking
- sharing information and feelings
- asking for materials, help, or information.

The radio English lessons are legitimately called English in Action. One only needs to visit a school where radio is being used effectively to be convinced by the radio methodology, not because it is radio, but because the methodology incorporates so many sound learning principles.

The children learning English by radio have high expectations of schooling. They expect to

- study English everyday
- actively participate in learning
- master all four language skills
- be kept busy with serious learning activities.

Responsive and caring teachers have demonstrated an ability to change their teaching styles and consequently the lives of their children. Teachers appreciate the help they have received through radio workshops and school visits. They have expressed a desire for more--more guidance, more workshops, more radio lessons.

There are many talented teachers and dedicated trainers throughout the country. Whatever growing pains the Lesotho Radio Language Arts Programme has experienced in its early years, the elements of an effective educational strategy are in place. Where there is a will to solve problems, skilled radio teachers and trainers can find appropriate solutions, improve or correct the strategy, and contribute to an improved educational system. Only then will the obligations to Lesotho's children be met.