

Academy for
Educational
Development

AED
International Division

PD AAR-466

40650

RADIO LANGUAGE
ARTS - KENYA

Rural Primary Schools Extension Project

Radio Language Arts

Fifth Annual Report

September 26, 1983, to October 31, 1984

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The following report was prepared by the Academy for Educational Development under Contract No. AID/DSPE-C-0051, Rural Primary Schools Extension Project: Radio Language Arts, with the U.S. Agency for International Development.

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RADIO LANGUAGE ARTS PROJECT

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FIFTH ANNUAL REPORT

RADIO LANGUAGE ARTS PROJECT

SEPTEMBER 26, 1983, to October 31, 1984

I. INTRODUCTION

The Rural Primary Schools Extension Project: Radio Language Arts is a five-year research and development project funded by the Office of Education, Bureau for Science and Technology, U.S. Agency for International Development (USAID). Although this project has been designed specifically for application in Kenya, it is expected that the model which emerges from the research will be applicable, with appropriate modifications, to other educational systems in developing nations. The principal Kenyan entity in the implementation of the project is the Kenya Institute of Education (KIE) representing the Ministry of Education, Science and Technology and the principal U.S. entity is the Academy for Educational Development, Inc. (the Academy).

The Radio Language Arts Project is designed to develop, implement, and test the effectiveness of an instructional system which uses radio to teach English as a second language in the first three primary grades. The end product will be a radio-based English-language series complete with 585 taped lessons, appropriate student worksheets and tests, teacher orientation materials, and classroom observation and data-gathering procedures.

This report covers the substantive technical activities carried out during the major portion of the third broadcast year and the beginning of revision activities for the lessons used in the first and second years of broadcasting. During this period, Standard 2 broadcasts were completed, three-fourths of the radio lessons for Standard 3 were broadcast, and revision of the lessons previously broadcast in Standards 1 and 2 were begun. The posttests for Standard 2 radio pupils and Standard 3 control pupils were administered and data analysis for all standards was continued.

This report covers an extended period of 13 months in order to include important project activities that extended into October 1984 and were an integral part of the fifth project year.

II. HIGHLIGHTS OF 1983 - 1984

Each year of the project brings special challenges. The team has continued to meet the daily requirements of writing, producing, and evaluating radio lessons in a timely fashion. **They have been able to keep up the rigorous daily assignments as well as host both a major radio conference and a crew to film various project sites and activities.** But with the completion of regular writing and production of new lessons for Standard 3 in October 1984, the team had to face the special challenge of keeping up the energy and enthusiasm to begin the task of lesson revision.

Support for the radio lessons by teachers and headmasters remains high. Both formal assessment of their response to the programs and informal discussions with teachers and headmasters show very high acceptance of the broadcasts. **The most frequently voiced judgement of the broadcasts is that Standard 3 pupils can use English better than Standard 4 pupils.** The final report on the cumulative results from the project will quantify some of these attitudes and opinions as well as provide the analysis of pupil performance for the three years of the project.

The third-year broadcasts have continued to evolve into more innovative English language teaching and effective radio lessons. The Standard 3 syllabus presented difficult challenges for radio lessons. The sophistication of the linguistic content and the expected level of performance for reading and writing skills combined to test the limits of the broadcast medium. Weekly formative evaluation tests indicated that all language skills continued to develop effectively, but final summative testing to be conducted in late November 1984 will provide more reliable evidence.

Utilization of the interactive instructional radio methodology received an important boost as a result of the radio conference held in Nairobi. The Radio Language Arts Project served as a laboratory for the conference participants to help them understand the principles of interactive instructional radio and to enable them to observe the effect of radio in the classroom. Participation by Kenyan educators has influenced their ongoing discussions about implementation of the project in Kenya, although final decisions have not been made as to the extent of the implementation. **Participation by other African and Nepali educational broadcasters resulted in strong interest in using radio to solve some of the educational problems facing developing countries over the next decade.**

A 20-minute documentary film to describe the project activities and results was initiated. **The film is designed to stimulate interest in interactive instructional radio and to briefly introduce the Radio Language Arts Project in Kenya as one example of this radio methodology.** Location filming took place in October-November 1984. The completed film will be available near the end of April 1985.

III. PRINCIPAL OBJECTIVES FOR THE YEAR (1983-1984)

- A. Develop 195 radio lessons for Standard 3.
- B. Develop a Teacher's Manual, daily Teacher's Notes, and pupil worksheets to accompany Standard 3 broadcast and nonbroadcast lessons.
- C. Orient teachers and headmasters in project schools.
- D. Orient and train observers to aid in posttest administration.
- E. Administer Standard 2 posttest in radio classrooms.
- F. Administer Standard 3 posttest in control classrooms.
- G. Analyze and report on posttest data, Standard 2.
- H. Finalize cost-effectiveness procedures and initiate study.

- I. Conduct formative evaluation on a weekly basis throughout the school year.
- J. Develop a strategy and guidelines for revision of all radio lessons.
- K. Plan additional dissemination strategies and activities.
- L. Disseminate project activities and results through papers, presentations, and discussions.
- M. Conduct Regional Seminar on Instructional Radio.
- N. Project Administration.

IV. TEACHING THE ENGLISH LANGUAGE VIA RADIO

The primary purpose of the Radio Language Arts Project is to demonstrate that radio can be an effective medium for teaching English as a second language in the primary grades. A better understanding of the project's activities described in the following sections of this report can be gained through a brief description of what occurs in the classrooms and how the instructional radio programs are developed.

A. The Radio Language Arts Project in the Classroom



In our typical Kenyan classroom, 37 eight-year-old children sit crowded three and four to a desk. The simple room is lighted only by side windows without glass. It is 9:30 in the morning. The children have been in class since 8 o'clock. Margaret, the teacher, has taught in this school for only three years and she comes from a different village. This is her first experience with radio teaching. Up to this moment, the children have been quietly listening to the teacher give a lesson on geography. But at exactly 9:30, Margaret turns on a battery powered radio, placed carefully at the front of the class, and almost instantly the children's faces come alive as they sing the "Good Morning" song along with the radio.



The Radio Language Arts Project's radio programs are entitled "English in Action." They are broadcast each school day, five days per week over the Voice of Kenya (VOK).

Before the broadcasts, teachers receive Teacher's Notes and Pupil Worksheets for the week's lessons. Along with the Teacher's Manual distributed at an orientation for teachers and headmasters held prior to the school year, these materials provide the teachers with the necessary information for effectively using the radio lessons. The Teacher's Notes provide any necessary prebroadcast preparation, such as information to prepare on the blackboard, any objects to bring to class, etc.

The broadcasts begin at 9:30 A.M. Teachers have the radio turned on and tuned to the schools' broadcasting frequency. Each broadcast begins with an introduction to the program and an opening "Good Morning" song. Throughout the 30-minute program, pupils participate with oral and physical responses, and writing activities on the Pupil Worksheets. The teacher aids the children by modeling behavior for the class. She responds to the radio along with the children or directs the children in whatever activity the radio suggests (e.g., going to the front of the class, standing up, sitting down, etc.). In certain instances, the radio will ask the teacher to explain something to the children in mother-tongue.

At the end of the broadcast period, most classes have additional time remaining for postbroadcast activities. These activities are outlined for the teacher in the Teacher's Notes. They include additional drills, particularly individualized practice, that are difficult to direct on the radio. In Standard 3 these activities emphasize further development of reading and writing skills. The amount of postbroadcast time varied during the year both by policy and in practice. Some schools devoted 45 minutes, others 90 minutes, to follow-up activities.

Each lesson is self-contained and self-sufficient, although a part of a carefully controlled sequence. Lessons can be enhanced, however, by additional practice under the direction of a skilled teacher. Reading skills, in particular, require extra practice. Thus, postbroadcast reading activities making use of whatever classroom materials are available are often suggested in the Teacher's Notes.

B. Lesson Development

Each radio lesson is divided into 15 to 20 short segments of instruction, practice, and enhancement. Lessons are written by at least three project team members following the Scheme of Work developed for each standard. Each writer develops a sequence of segments which cover an instructional objective and/or one linguistic item. These segments usually are spread over several days of instruction. A typical radio lesson will then include some initial teaching segments, some maintenance segments, some review segments, and so on.

A final radio script is put together by the senior instructional media specialist on the team. After review for congruence by the language specialist who serves as methodologist, the script is reviewed by the producer and the instructional systems designer. Upon final approval, the script is prepared for production by the producer and the studio engineer.

Lessons were previously recorded in the studio facilities belonging to VOK. Since new studios have been completed at KIE, the project has made use of these facilities for the past few months. The project staff have access to the studio for two and one-half days during which rehearsals and recordings for five lessons take place. The lessons are produced simply and quickly, with a minimum of post-production editing. The lessons are essentially recorded in one take.

The production cycle maintains a lead time of six weeks over the broadcast date. This enables classroom observation and feedback evaluation to influence upcoming lessons during writing and production. If instructional objectives are not being met according to the observers, lesson segments can be repeated, rewritten, or omitted, with new segments inserted with a minimum of rewriting and editing.

V. ACTIVITIES UNDERTAKEN

In the following section the activities undertaken for the Radio Language Arts Project during its fifth year are discussed in relation to the objectives listed in Section III.

A. Develop 195 Radio Lessons for Standard 3

The Scheme of Work for Standard 3 was completed in the late fall of 1983. Lesson formats were developed by the team in Kenya using the Scheme as a guide. Of particular concern this year was a way in which to improve the quality of the language instruction for the final year of broadcasts.

Brainstorming sessions were held at the Academy and at the Center for Applied Linguistics on improving the radio scripts and production procedures. Constraints were also identified. The discussions proved useful in providing some general and specific suggestions for improvement that were later passed on to the team for their discussion and implementation. (See Section N.2. for additional discussion of the Center for Applied Linguistics' consultations.)

B. Develop a Teacher's Manual, Daily Teacher's Notes, and Pupil Worksheets to Accompany Standard 3 Broadcast and Nonbroadcast Lessons

The support materials developed for the teachers and pupils on the project are a very important part of the radio lessons. Teachers receive a minimal amount of orientation--usually consisting of a one-day session before each school year begins. Keeping the teachers involved in the daily broadcasts, however, is an essential aspect of the project. Their involvement assures understanding and support of the project, and provides the added benefit of improving their performance. It is necessary for the teachers to pay attention and participate in the broadcasts if they are to increase their own English language ability and teaching skills.

The major support materials consist of the Teacher's Manual and the Teacher's Notes. The Manual is developed as a supplement to the orientation session, while the Teacher's Notes are distributed to the teachers on a bi-weekly basis.

Generally, the Teacher's Manual outlines general procedures for using the radio lessons effectively. The Notes are used as daily lesson guides which provide the teacher with instructions for prebroadcast preparation. This usually consists of preparing the blackboard with sentences, vocabulary, or simple drawings. Teachers choose specific children to participate in special roles during the broadcasts. Teachers are expected to provide classroom management, and, on occasion, to demonstrate linguistic material in the children's mother-tongue that is otherwise difficult to present in an aural medium.

C. Orient Teachers and Headmasters in Project Schools

Teachers working with project schools, whether part of the summative or the formative research design, were oriented during a one day session with project staff. Two separate sessions were held, one in Western Kenya for all districts in that area, another in Nairobi for remaining teachers and headmasters.

Teacher orientation, as modest as it is, will remain an important task during implementation of the project. Teacher and headmaster turnover is very high in Kenya. Other, and perhaps less expensive, methods of orienting teachers can perhaps be devised. One suggestion is to use radio for the orientation of larger numbers of teachers.

D. Orient and Train Observers Who Will Aid in Posttest Administration

The posttests administered at the end of each school year provide the major basis for the summative evaluation of the project. In a procedure developed by John Clark, a language testing and evaluation consultant with the Center for Applied Linguistics, the observers helped to write test items which were later incorporated in the posttest for Standard 2 and again this year in the posttest for Standard 3. These were then pilot-tested on a sample of pupils similar to those in the project. An item analysis was performed for CAL by John Hermansen, Language Processing Center, School of Languages and Linguistics, Georgetown University. On the basis of this analysis, test items were selected for inclusion in the Standard 3 posttest.

In addition to this involvement in the item-writing process, classroom observers also serve as the test administrators. Near the time of test administration toward the end of November, the test administrators are brought to KIE for orientation on test administration and given all the testing materials and other data-gathering instruments for use at the end of the school year.

Project staff feel this level of professional involvement by the observers will strengthen their roles as resource persons in the educational districts in which they work with teachers. Their contribution to the test development and administration has been substantial throughout the project.

E. Administer Standard 2 Posttest in Radio Classrooms

In late November 1983, the Standard 2 posttest was administered to approximately 2,000 pupils who had received English lessons by radio during 1983. This was the same test administered the previous year to the control classrooms. Results from the two tests will provide additional quantifiable data for evaluation of the effectiveness of the radio lessons.

Test administration had few problems this year. Previous experience, of course, made the operation run more smoothly. There were few problems in getting the observers released to carry out the testing schedule. Most District Education Officers are now familiar with the Radio Language Arts Project and scheduling conflicts were resolved efficiently.

F. Administer Standard 3 Posttest in Control Classrooms

The pilot test for the Standard 3 posttest was developed in June 1983 with the aid of John Clark. He worked in Nairobi for one week with the project team and observers as described above. Following his visit, the project team conducted a field-test and returned the coding sheets with raw data to CAL for data analysis. CAL then helped to identify the items that would be used on the posttest, and this test was administered to approximately 2,000 control pupils near the end of November 1983. This test will be administered to the radio pupils in November 1984.

The speaking portion of the test, developed again with John Clark's help, was administered to a random sample of 10 percent of the pupils, with no fewer than four pupils per stream. (The average classroom size is 40 pupils.) This was also the procedure followed in Standard 2.

G. Analyze and Report on Posttest Data, Standard 2

Coding of the Standard 2 posttest administered to the radio pupils began in January 1984. The same coding procedures were used as in the previous test of the control pupils.

Coding sheets were then sent to the Language Processing Center for analysis. The special program for analyzing language tests developed by John Clark for Standard 1 was used again for the Standard 2 data. In the preliminary analysis, results were based on a comparison of all radio pupils and all control pupils in the project schools. These preliminary results

showed modest gains by radio pupils but direct observation in the classroom seemed to indicate that radio pupils were performing better with the radio curriculum than test results indicated.

Direct observation also identified what was a potential problem with the results. The project research design uses a lapped-year scheme which makes it possible to compare control students of one year with experimental students of the next year in the same school. That is, control students in Standard 2 are tested at the end of the year and the students move on to Standard 3. The next year, Standard 2 students are in the radio (i.e. experimental) group. Students who are retained at grade level, because of the lapped-year design, become a part of the radio cohort since all streams of Standard 2 become radio classes. During the current year, this meant that repeaters were receiving radio instruction for the first time in Standard 2 without benefit of the previous year's experience with radio instruction. They were also the students with the most academic problems. We hypothesized that repeaters in the radio classes were pulling down the gains of the other pupils.

It should have been a simple process of identifying the repeaters and sorting them out of the experimental cohort. However, tracking of individual pupils has continued to be a problem. Difficulty with pupils' names has plagued the project data from the very beginning. Up to the administration of the Standard 2 posttests for radio classes, it was impossible to achieve an absolutely correct class list for many of the streams in the project. Attempts were made again with the administration of the Standard 2 radio classes to get corrected class lists and track individual pupils. Errors were still evident in the returned examinations and class lists. It has been impossible so far to isolate the repeaters in the Standard 2 data. But a further check of classlists at each individual project school and for each stream is now being completed.

Typically, names are not used consistently or recorded accurately so that the data analysis personnel at the Language Processing Center have been unable with certainty to track more than a handful of students. Test administrations after the first year have cleared up some of the confusion, but problem cases remained until Standard 3 tests were administered this year.

Problem cases are pupils who appear to have taken an examination only once. It is not immediately clear whether the problem is one of mismatched names or whether the students transferred into the schools, missed the exam, or repeated. Each student identification number on an examination booklet must be cross-checked with the evolving master class lists, confusing names must be double-checked with teachers or headmasters.

We have known from the beginning of the project that we needed to track individual students for various data analyses. Preliminary data for each standard, however, has been at the total group level, that is, all radio pupils compared with all control pupils. The problems with repeaters were not anticipated. When we realized the importance of sorting out the repeaters before the third year cumulative results were analyzed, the enormity of the task became evident. Data for each test administration of approximately 2000 students had to be cross-checked with every other test administration and names from each compared.

Although the task is formidable, it is important. Classroom teachers in the observation schools, which we visit regularly, feel that the repeaters have problems with the radio lessons in the beginning but that by the end of the year they have caught up with the other pupils. We do not have any documentation of this, however, but we should be able to judge this when we have achieved the individual tracking that is necessary to isolate children who do not fit the experimental design.

Further analysis of the Standard 2 tests will be carried out subsequent to the revision of class lists and the identification of the repeaters. We expect to complete the class list revision by early February 1985. Reanalysis of the data should be completed very quickly after that. The schedule for completion of the data analysis is included in the Management Plan and Schedule in part Section VII.

H. Finalize Cost-Effectiveness Procedures and Initiate Study

Preliminary work on a cost analysis for the project was begun this year. Dr. Frances Kemmerer (Center for Education Research and Policy Studies, State University of New York, Albany) was selected to conduct the study. Discussions were held with Kemmerer, Clifford Block and Peter Spain of USAID, as well as Douglas Goldschmidt and Maurice Imhoof of the Academy, to decide what the intended use of a cost analysis is from S&T/ED's point of view.

Kemmerer was sent to Nairobi in September for the conference as an orientation to and familiarization with the project. She spent an additional week there with the project staff and other data resource institutions and individuals. Much of her work is being coordinated with Jamesine Friend's analysis of dissemination strategies. Kemmerer will prepare a draft cost analysis for review by the Academy and S&T/ED in late December 1984.

I. Conduct Formative Evaluation on a Weekly Basis Throughout the School Year

The formative evaluation procedure has continued along the same lines as last year. This process continues to be beneficial in the sense that it can reveal areas of weakness in the instructional materials and in technical areas. These problems are subsequently corrected in upcoming lessons or in revision of the lessons scheduled for late 1984 - 1985.

For the evaluation, 20 classroom observers visit classrooms on a regular basis. The observers normally serve as resource persons in the educational districts where they live. Being present in the schools is part of their normal routine, thus their responsibilities to the project are easily worked in with the rest of their duties.

Each radio lesson is observed by at least two observers in each of the seven districts where the project lessons are broadcast. While observing, observers complete a form for each lesson. The form is promptly returned to the project office in Nairobi where the feedback coordinator reads and summarizes the observers' comments. This information is conveyed to the entire production team via weekly team meetings. Any problems that are observed in the classroom, along with the formative evaluation tests administered to selected radio pupils, are discussed. These discussions later

form the basis of revision for lessons currently being written or produced. Notes are also made on further revisions required for lessons already broadcast.

J. Develop Strategy and Guidelines for Revision of all Radio Lessons

Initial planning for the revision of Standards 1 and 2 began early this year. The normal workload precluded any revision of lessons except Standard 3 in which the changes were generally simple and straightforward. The Producer and the Technical Operator were able to keep pace with revision suggested by the formative evaluation process during the regular production of Standard 3 lessons. Very little cleanup will be necessary for Standard 3 lessons, although the Teacher's Notes may require more substantial work. No revision of Standards 1 and 2 was possible during the regular production schedule.

Revision of Standard 1 began in September 1984. During the Project Director's visit to the project after the radio conference, a procedure and schedule for revision were implemented and work on the first lessons was accomplished. Major revision in methodology will not be attempted since this revision would itself be untested. Segments that were totally ineffective according to the formative evaluation reports and tests will be rewritten. Other corrections in the writing and production will be carried out where smaller problems have been detected but which do not change the basic methodology. The most common strategy for revision will be to provide clearer Teacher's Notes for some of the exercises that caused minor difficulty for students so that teachers will be aware of the problems and be able to give guidance.

The revision process is essentially a modification of the production process established by Christensen, the Field Coordinator.

- Each script is reviewed along with the formative evaluation reports for that script.
- Suggested revision in writing and/or production are indicated and passed along to the appropriate staff members.
- Revision is carried out and scripts are routed to the next appropriate staff members and finally to the producer.
- Production changes are made and final editing is done by the Technical Operator.

The revision schedule requires that 5 lessons per day be completed. During the first few weeks of the revision process, this schedule was not maintained due partially to the pressure of other activities and to the newness of the process. It is expected that as the writing and production staff become more familiar with the process that the deadlines for Standard 1 revision can be met. Since the revision load is less for Standards 2 and 3, it should be possible to make up lost time after Standard 1 is completed.

K. Plan Additional Dissemination Strategies and Activities

1. Film

A major dissemination vehicle was initiated this year. It was agreed that a film or video-tape would be made to inform and stimulate educational policy makers, planners, and practitioners about the value of instructional radio, using the Radio Language Arts Project as a specific example. Additional short segments or modules were planned for practitioners who might implement the Radio Language Arts model in other educational environments. These modules would be used primarily for training purposes and demonstrate strategy and techniques for application of the model. The project would exemplify the process model which could be adapted in other circumstances such as a different country, a different subject, a different age group, and so on. The impact of the film or video would be to stimulate and encourage policy makers and others to see the value of the radio methodology and to feel that it is applicable and achievable in a variety of circumstances--not just in Kenya. The potential audience identified for the video presentation included: AID contractors in education, especially contractors for the African Initiative; participants in AID-sponsored programs; academic programs in communications; and national television in developing countries where instructional radio projects are being implemented.

Consultation with the team in Kenya resulted in a treatment that reflected what project staff thought should be covered in the film or tape, e.g. that the major purpose should be to promote the use of radio with an audience that does not know much about radio. The information would stress the process for developing and evaluating a radio project, but would not attempt to be exhaustive. It would demonstrate that radio works, that it is enjoyable, and that it does not threaten teachers.

Film and video makers were contacted for proposals and bids. Discussions with filmmakers and subsequently with S&T/ED resulted in a decision to use film to more effectively meet all the criteria listed above. A film, although more costly, would result in finer quality and more durability. It was also decided to produce the more didactic modules as slide-tape presentations to be transferred to video-tape for distribution. Iris Film & Video of Seattle, Washington, was selected to produce the film. Production began in October 1984, and completion is scheduled for late spring 1985.

2. External Evaluation

In an effort to achieve implementation of the RLAP in Kenya, Ruth Zagorin, Director of Human Resources, USAID, and David Sprague, Acting Director, S&T/ED, USAID, agreed with Gilbert Olouch, Director of Primary Education, Science and Technology that an external (i.e., non-project, Kenyan) evaluation should be carried out. The purpose of the evaluation would be for Kenyan educational evaluators to validate the project evaluation scheme or to point out areas of concern to Kenyan educational authorities not addressed by the project research and evaluation design.

The concern underlying Olouch's request stem from the failures of some projects implemented on the basis of successful pilot projects which

nevertheless were unacceptable. It is hypothesized that research goals may be divergent enough from implementation goals to account for some of these failures. Olouch felt an external evaluation might point out potential problems in national implementation.

Technical and Contracts Office approval was given for Dr. George Eshiwani, Director, Bureau of Educational Research, Nairobi University, to carry out an evaluation for the Ministry of Education in November 1984.

3. Regional Conference on Instructional Radio

On the basis of interest expressed in the project at the AID/Africa Education and Human Resources Workshop held in Nairobi in January 1984, it was decided to hold a conference on AID-funded interactive radio projects with particular attention to the ongoing Radio Language Arts Project. The conference was very effective in generating interest in radio education. Participants from Nepal, Kenya, and eight other African countries interacted with instructional radio specialists from the Radio Language Arts, Radio Mathematics, Radio Assisted Community Basic Education, and Radio Science Projects as well as S&T/ED in Washington. By all accounts the conference successfully informed participants about the S&T/ED-funded projects and stimulated interest in applying interactive instructional radio. This major dissemination activity is described in detail in Section M.

L. Disseminate Project Activities and Results Through Papers, Presentations, and Discussions

1. Education and Human Resources Workshop

Philip Christensen made a presentation on the project at the workshop. The workshop agenda also included school visits by the participants, including AID personnel and other donor agency representatives.

2. Seminars

As a result of the workshop, invitations were received by S&T/ED to provide seminars in Lesotho and Swaziland. Philip Christensen, the Project Field Coordinator, and Margaret Ojuando, a Kenyan team member with varied experience as a writer-producer, made presentations in the two countries May 2 - 10, 1984.

3. Papers

Project papers produced during the year included:

Field Notes #4

"Important Considerations in Planning a Radio Project" -- By Maurice Imhoof

Published in Development Communications Report, No. 45, March 1984, as "Planning an Instructional Radio Project: An Overview and Guide" -- November 1985

"English by Radio: Implications for Non-Formal Language Education"
-- By Maurice Imhoof, Philip Christensen, Kurt Hein
Published as Occasional Paper #12, by the Non-Formal Education
Information Center, Institute for International Studies in Education,
Michigan State University, East Lansing, Michigan, 48824 -- December
1983

"An Introduction to the Instructional Materials of the Radio Language
Arts Project"
(Audio tape script and Audio tape) -- January 1984

"Radio Language Arts Project Status Report" -- January 1984

"Instructional Radio in Kenya: The Radio Language Arts Project" --
By Philip R. Christensen. A presentation to the United States Agency
for International Development Education and Human Resources Workshop
in Nairobi, Kenya, on January 26, 1984 -- January 1984

"Teaching English By Radio" -- By Maurice Imhoof
(Forthcoming in English Teaching Forum) -- February 1984

"English by Radio" -- By Maurice Imhoof.
Published in TESOL Newsletter, Volume XVIII, No. 3, June 1984, as
"Kenyans Tune In" -- February 1984

"Radio as an Effective Technology" -- By Maurice Imhoof and Jo Ann
Crandall. Paper presented to the Seventh World Congress of Applied
Linguistics in Brussels, Belgium, August 5 - 10, 1984 -- March 1984

"Radio Language Teaching in Kenyan Schools" -- By Maurice Imhoof
(Forthcoming in "Man and "Media" conference proceedings) -- April
1984

Field Notes #5

"A Look at Methodology" -- by David Edgerton and Philip A.S. Sedlak
-- August 1984

All project documents are available from the Academy.

4. Presentations

Jodi Crandall, Center for Applied Linguistics, read a paper "Radio as
an Effective Technology" at the Seventh World Congress of Applied Linguistics
in Brussels, Belgium, August 5 - 10, 1984.

Major presentations for the year were made at the conference held in
Nairobi. An informational packet, developed especially for the conference
included papers describing AID-funded interactive radio projects: Radio Math,
Radio Assisted Community Basic Education, Radio Science, as well as Radio
Language Arts. The packet also included audio tapes of sample lessons for
each project. An audio tape description of the Radio Language Arts Project
was produced for distribution in the packets and was presented with
accompanying slides at the conference in preparation for school visits.

Individual presentations on the project were made by all team members during the course of the conference. Details of the conference are given in Section M.

M. Conduct Regional Seminar on Instructional Radio

As part of the dissemination activities for the project, an international conference drawing largely on the Radio Language Arts Project experience but within the larger context of AID-supported intensive instructional radio was identified as an effective conference strategy.

In January 1984, Ruth Zagorin, Director, Human Resources, USAID, and David Sprague, Acting Director, S&T/ED, USAID, discussed with Gilbert Olouch, Director of Primary Education, Ministry of Education, Science and Technology, the possibility of holding an international conference in Nairobi. Olouch and Herbert Kanina, Director, KIE, both expressed interest in the conference. It was agreed that it should be held in September or October and that participants would be African educators in positions related to instructional radio.

It was later agreed that approximately 20 participants be invited from outside Kenya, with most from the African Initiative countries. Approval for the conference was secured from AID/Kenya and the U.S. Embassy. The Kenyan government agreed to co-host the conference through KIE.

A conference agenda was coordinated with AID and KIE. The scope of the conference was broadened to incorporate all of the S&T-designed and funded instructional radio projects, all of which have implications for educational problems faced by African countries. Conference objectives were defined by KIE, the project team, and S&T/ED, and an agenda was set.

The conference was held September 24 - 28 at the Silver Springs Hotel in Nairobi. Participants from the following countries attended: Nepal, Botswana, Swaziland, Lesotho, Liberia, The Gambia, Somalia, Tanzania, and Zimbabwe. USAID education specialists attended from Lesotho, Nepal, and Washington, D.C. Kenyan participants attended from the Ministry of Education, Science and Technology, KIE, the Institute of Mass Communication, and Voice of Kenya.

Presentations were made on the interactive instructional radio projects: Radio Mathematics in Nicaragua, Radio Language Arts in Kenya, Community Basic Education in the Dominican Republic, and Radio Science. The Radio Language Arts Project, since it was underway in Kenya, was used to illustrate the principles of interactive instructional radio used in all the projects. Detailed descriptions of the project activities and methods were presented to the groups and extensive discussions were held with the participants. All participants visited classrooms to observe lessons being broadcast. Conference objectives, the agenda, conference recommendations, and a complete list of conference participants is appended.

N. Project Administration

In addition to the technical activities carried out in the field, several administrative and technical activities were carried out by the Washington, D.C., project office and the Nairobi field office. The following, while not complete, exemplify the different kinds of activities undertaken during the year.

1. Project Extension

Due to delays in final site selection and project agreement negotiations, the project began field operations approximately one year later than originally scheduled. As a result, project objectives could not be met within the original project time-line.

Project extension negotiations were successfully carried out and an amendment to the contract signed August 17, 1984. This amendment extends the project through December 30, 1985.

2. Subcontractor Activities

a. The Center for Applied Linguistics

Major activities this year by the Center for Applied Linguistics related to posttest development and analysis are described elsewhere in this report. Quarterly discussions were held with Richard Tucker, John Clark, Jack Hermansen, and Arthur French regarding the status of data gathering and analysis. French was contracted as CAL's consulting statistician to review the project research design, data gathering instruments, and data analysis to see if they all meet the necessary statistical requirements.

Two major problems occurred during the year with respect to summative evaluation procedures. In February 1984, preliminary analysis of the coding sheets sent from the field office in Nairobi indicated that there were coding errors in excess of tolerable limits. This required that all coding for Standard 3 control students be done over. Spot checks also revealed errors in Standard 2 data and coding was done over for this standard as well.

The second problem was revealed through raw data analysis for Standard 2. This analysis seemed to reveal a strong influence on performance scores by the number of pupils who were repeating Standard 2, in some schools as many as 25% of the students in the class. Reanalysis of the data after identifying individual pupils who repeated the standard, and removing their test scores from the data, was necessary. This process placed major constraints on the subcontractors personnel and on project staff in order to correct all class lists and individual student tracking. The subcontractor gave significant time and help in establishing procedures for accomplishing this task with the help of project staff, classroom observers, teachers, and headmasters. Reconciliation of all class lists and establishment of individual student data files will be accomplished during the final phase of the project.

In addition to the summative evaluation work, CAL has also been asked from time to time to consult with the project on the language teaching

methodology employed in the radio lessons. We have tried through this procedure to incorporate the latest and best thinking about language teaching as practiced in the United States and abroad in conventional classrooms or where available in mediated instruction. Two brainstorming sessions were held with CAL staff members, particularly senior language teaching specialists Allene Grognet and Jodi Crandall. General guidelines for Standard 3 were discussed in November 1983. Specific lesson suggestions were made on the basis of a review of scripts and tapes in January 1984. Subsequent to these meetings, the Project Director conducted a Scriptwriting Workshop in Nairobi in February 1984 with the project team in Kenya.

b. Iris Film & Video

A subcontract with Iris Film & Video was negotiated in September 1984. Major film activities will conclude during the final phase of the project in 1985. Location shooting in Kenya took place in October 1985 after a film treatment and script outline were developed by the subcontractor. The film is a collaborative effort between the subcontractor, the project team, and the Technical Officers at S&T/ED.

3. Project visitors

The field office had a number of visitors during the year who had professional interest in the project activities. Most visited both the field office and production facilities as well as observing a lesson in one of the project observation schools. The following list illustrates the kind of interest shown in the project.

- a. Three African curriculum developers, also attending the ACO course at KIE.
- b. Participants in the USAID-EHR conference; this included participants from AID/Washington, AID/Africa, and other donor agencies.
- c. Two Ethiopian educational communication specialists.
- d. Kenyan Ministry of Education officials, including the Director of Primary Education and the Senior Inspector of Schools.
- e. KIE colleagues, primarily from the Audio and Language Sections.
- f. Ned Greeley, AID/Kenya.
- g. David Macharia (and assistant), Adult Literacy Program of the Kenyan Ministry of Culture and Social Services.
- h. Peter Kinyanjui (and assistant), formerly Director, College of Adult and Distance Education, now Director, Higher Education, Ministry of Education.
- i. Carla Heath, U.S. doctoral student researching school broadcasts in Africa.

- j. Mr. Mabuza, Head, Primary Curriculum Unit, Ministry of Education, Swaziland.
- k. Leslie Snyder, Stanford University and The Gambia Mass Media and Health Practices Project.
- l. Linda Mamet, Mauritius College of the Air.
- m. David Kind Dunaway, ethnomusicologist, and Nina Wallerstein, ESL text writer.
- n. Betsy Deddell, Experiment in International Living.
- o. George Dawson, Florida State University.

Visitors to the Washington office, usually to hold other discussions with the Clearinghouse on Development Communication staff and other AED communication specialists, included the following:

- a. Three Thai educators from the Center for Educational Technology who are involved in radio instruction, particularly the Radio Math Project in Thailand.
- b. Nisar Hussein, Head, Pakistan Educational Television.
- c. Mary Joy Pigozzi, Director, Non-Formal Education Information Center, for whom the Radio Language Arts Project produced an occasional paper "English by Radio: Implications for Non-Formal Language Education."
- d. Donald Taylor, Production Manager for the Sierra Leone Broadcasting Service.
- e. Marcel Tomasi, Radio Gambia.
- f. Dr. Chideya, Public Information Officer, University of Zimbabwe.
- g. Yusuf M. Haid, Director of Radio, Mogadishu.
- h. Mike Laflin, Institute for International Research, Inc.
- i. Miso Andjus, Editor in Chief, Educational Radio, Radio Zagreb.

4. **Conferences Attended**

Philip Christensen, Field Coordinator, participated in the USAID/Africa Education and Human Resources Workshop held in Nairobi in January 1984. The Radio Language Arts Project was described to the conference participants and most visited a project classroom during the week of the conference. Several participants indicated interest in the project and as a result Christensen and another field team member, Margaret Ojuando discussed the project in detail while visiting educators in Lesotho and Swaziland. Many

of the contacts made during this EHR workshop were continued through the radio conference held in Nairobi in September 1984.

Maurice Imhoof, Project Director, attended a USIA-sponsored conference on English Language Teaching by Broadcast, February 29 - March 2. The conference recommended that USIA develop an English language teaching series for television and two series for radio, one which would parallel the television series and another which would be for beginners studying English in developing countries.

Kurt Hein, Educational Broadcaster, attended the Dag Hammarskjold Foundation Second World Conference as the development communications specialist. The conference was held October 1 - 7 in Labrador.

5. Technical Office and/or Contract Office Approvals

Contracts Amendments

- Amendment No. 12 which revises the Indirect Cost Rate for Final for 1981, and Provisional for 1982.
- Amendment No. 13 which revises the Indirect Cost Rate for Final 1982, and Provisional for 1983.
- Amendment No. 13 [sic] which increases the obligated amount under the contract by \$890,000.00. This amendment also revises the estimated completion date to December 30, 1985.

Subcontractor's Travel

- John Clark, July 5 - 21, 1984, Nairobi.
- John Clark, September 20 - 29, 1984, Nairobi.
- Kenneth and Ivory Levine, October 2 - November 5, 1984, Nairobi.
- James MacDonald, October 2 - November 5, 1984, Nairobi.

Project Staff Travel

- Maurice Imhoof, February 3 - 19, 1984, Nairobi.
- Maurice Imhoof, May 24 - June 9, 1984, Nairobi.
- Maurice Imhoof, September 18 - October 31, 1984, Nairobi.
- Margaret Ojuando, May 2 - 8, 1984, diffusion activities in Lesotho and Swaziland.

- Philip Christensen, May 2 - 8, 1984, diffusion activities in Lesotho and Swaziland.
- Kurt Hein and family, July 27 - August 29, 1984, home leave.

Consultants

- Klaus Galda, September 17, 1984 for meeting at AID.
- Klaus Galda, September 20 - October 3, Nairobi Conference.
- Frances Kemmerer, August 8, 1984, consulting at AED and AID.
- Frances Kemmerer, September 21 - October 6, Nairobi Conference and consulting.
- Douglas Wyndham, September 17, 1984 for meeting at AID.
- Jamesine Friend, September 20 - October 6, 1984, Nairobi Conference and consulting.
- George Eshiwani, March 26 - 30; October 15 - November 16, 1984, External Evaluation.

V. **OTHER ISSUES**

The following section summarizes a series of outstanding issues:

A. Kenya Implementation

The Ministry has not yet made a decision about implementation of the Radio Language Arts Project for the 1985 school year and beyond. Two evaluation strategies, in addition to the summative evaluation information collected by the project itself, are being implemented in November 1984 in order to help KIE and the Ministry to make a decision.

First, at the request of the Ministry's Director of Primary Education, an external evaluation study is being funded by the project and being carried out by Professor George Eshiwani. (See Section K.2. for a discussion of this activity.) His report should be available to the Ministry by mid to late November.

In addition, the Director of KIE has convened a panel of English language experts to conduct a review of the lessons. This procedure is similar to reviews carried out after all pilot projects are completed by KIE and before recommendations are made regarding national implementation. This review is scheduled for completion in late November.

It is anticipated, but not at all certain, that the project will be implemented next year to some degree. Discussions have proposed a staged implementation, with a modest number of schools included next year and then gradually expanding to include all of the nation's primary schools. Although this seems the most popular proposal at present, there are other alternatives being discussed at this time.

The delay in implementation decisions makes planning the final phase of the field work very difficult. As one of the project activities, lesson revision is continuing. This activity is necessary whether the project is implemented in Kenya or not. Other specific implementation activities are essentially on hold, and decisions on what activities are to be undertaken and with what personnel, must be made on an ad hoc basis until the implementation issue is resolved.

B. Kenyan English Language Curriculum

The Project Agreement between the Government of Kenya, through the Ministry, and USAID, through the Academy, specifies that the radio project follow the national English language curriculum. In terms of gaining acceptance by education authorities, teachers, and parents, this was a sound decision. The common opinion of teachers who have taught the curriculum for several years, however, and by the project staff who have worked with the curriculum for three years is that the curriculum is very full and difficult. The linguistic structures introduced during the first three years of the primary grades include not only basic spoken structures but less common written sentences incorporating considerable embedding and subordination. Perhaps more significantly, the vocabulary taught is somewhat arbitrarily selected, at times neither relevant to the local culture nor of high frequency in the English speaking world.

This full curriculum is, of course, a disadvantage to pupils in both the conventional classrooms and in the radio classrooms. The randomly selected test items on the summative evaluation achievement test--based on the full syllabus for each year--probably do not favor one group more than another. Teachers in the conventional classrooms must push ahead rapidly to cover the entire syllabus for the year. The radio lessons also cover the syllabus but as a result, provide inadequate practice time for some material and provide insufficient practice for complex linguistic items. The result may be a particular disadvantage to the radio students, for whom redundancy may be a more important teaching strategy since they receive most of their instruction aurally.

The project was not designed to test the efficacy of a particular kind of syllabus or quantity of subject matter. It can be hypothesized, however, that the rigid sequencing of material necessary for radio lessons to cover the entire syllabus may result in a lesson pace that leaves some linguistic structures and vocabulary insufficiently practiced. The nature of the material covered in Standard 3 in particular, provides a special challenge to the instructional radio writers. Reading and writing activities can be initiated by radio, but monitoring and reinforcing are cumbersome or impossible by radio alone.

We feel confident that radio pupils will achieve greater gains in English language skills than pupils in conventional classrooms. In situations where the curriculum was more appropriate, learning gains could be expected to be even higher.

C. Dissemination Activities

A number of considerations remain regarding the most effective dissemination strategies for the remainder of the project. Although specific dissemination materials and activities have been planned, and some executed, major activities remain. The issues to be addressed for the remainder of the activities and materials include:

- what countries to target
- how to maximize face-to-face contact with Missions and host governments
- what other audience or audiences to target
- what mechanisms or media to emphasize, and in what proportion.

During the final phase of the project, the priorities and emphases for dissemination may change as Kenyan officials make final decisions about their use of the project and other country personnel express interest in adapting the project for their own needs.

VI. MAJOR ACTIVITIES FOR YEAR SIX (1984 - 1985)

- A. Revision of all previously broadcast materials (scripts and tapes) for Kenyan use, future AID use, and for the archives.
- B. Revision of Teacher's Manual, Teacher's Notes, Pupil Worksheets.
- C. Implementaton strategy for Kenya.
- D. Production of supplementary material for Kenya 1985 broadcasts, if these take place.
- E. Dissemination workshops
- F. Dissemination products
 - 1. Film and slide tapes
 - 2. Film Booklet
 - 3. Process Book
 - 4. Other documents
- G. Final data analysis
- H. Final report

VII. Management Schedule

A management schedule for the final phase of the project is illustrated below with a time line for major areas of Implementation and Dissemination; Evaluation; Deliverables; and Staffing.

The schedule is based on two important considerations. First, major technical assistance would be required through June in order to complete the necessary lesson revisions, supplementary materials, documentation of results, and guidelines for implementation whether in Kenya or elsewhere. Second, reduced but sustained assistance would be necessary for the remainder of 1985 in order to provide technical expertise for further dissemination activities.

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
III. Deliverables															
A. 16mm film & booklet									X						
B. Process Book									X						
C. Final summative evaluation report								0	X						
D. Dissemination strategy report				X											
E. Cost analysis				X											
F. Scripts and Audio Tapes									X						
G. Slide tapes and/or audio tapes															
• Overview		X													
• "How to" modules															
-- Production process						X									
-- Script development							X								
-- Producing a script								X							
-- Review process									X						
H. Implementation guide								0	X						
I. Field Notes				X		X		X		X			X		
J. Journal articles/papers				X			X				X			X	

VIII. BUDGET

CONTRACT NUMBER AID/DSPE-C-0051

<u>Category</u>	<u>Project Budget</u>	<u>Amended Project Budget 9/26/84 - 12/30/85</u>	<u>Expenditures to October 31, 1984</u>
Salaries and Wages	\$1,147,851.00	\$1,311,417.00	\$930,755.00
Employee Benefits	252,528.00	295,055.00	233,129.00
Consultant Fees	33,686.00	45,623.00	33,757.00
Travel and Transportation	297,808.00	445,037.00	508,261.00
Other Direct Costs	299,900.00	394,896.00	499,129.00
Indirect Costs	446,991.00	571,260.00	573,259.00
Overseas Allowance	176,935.00	195,698.00	169,818.00
Subcontracts	548,610.00	835,323.00	278,326.00
Overhead on Subcontracts (2%)			2,518.00
Equipment	<u>66,353.00</u>	<u>66,353.00</u>	<u>84,166.00</u>
TOTAL	<u>\$3,270,662.00</u>	<u>\$4,160,662.00</u>	<u>\$3,313,118.00</u>

SCRIPT WORKSHOP AGENDA

February 9, 1984

(To be followed by 1/2 day sessions on
February 10, 13, 14, 15, 16)

1. Overview
 - A. Our expectations for the last two terms.
 - B. AID expectations for 3-year model.

2. Review of memos
 - A. Standard 2, Lesson 130.
 - B. Standard 3, Lessons 16-18 (bring memo December 7, 1983).
 - C. Listen to tape of Lesson 41.
 - D. Standard 3, Lessons 41-45.

3. Establish priority areas for discussion and work
 - A. General discussion and broad guidelines.
 - B. Specific activities (these to be continued for next several days with individuals and small groups.)

Radio Language Arts Project
Professional Staff Meeting
Jacaranda Hotel, Nairobi
February 9, 1984

Participants: Philip Christensen, David Edgerton, Maurice Imhoof, Mary Karue, John Muitungu, Margaret Ojuando, Greg Owino, Philip Sedlak, and Kurt Hein as the Reporter.

1. Need to explain instructional strategies to AID audience.
2. Plans or any further revisions, improvements to the remaining two terms of Standard Three:
 - A. Looking at refinements of what we've been doing.
 - brainstorm on ideas for generating more real speech.
 - B. Revision of cues to get out of "semantic ruts" (e.g., the use of "Again" to generate reinforcement).
 - C. Look at revisions to our audio-lingual methods, because children are sufficiently grounded to attempt more "real" language. (We agree that being conservative at the outset was necessary. We needed evidence of their basic skills before demanding less structural response.)
 - D. Need to determine what an "ideal" script would look like, especially in regards to the "dramatic" content.
 - Need to determine basic principles that will guide the scriptwriting for the duration of the project.
 - Need to evaluate how to present dramatic content on the one hand and accomodate the need for pupil responses on the other.
 - How to get a team of four writers to produce a cohesive script that fulfills the principles of an "ideal" script.
 - E. Do not try to write to please AID or some other outside groups; write to please the professional team. The "bottom line" is to demonstrate that the lessons work.
 - F. The purpose now is not to develop a completely new approach, but to do some "fine tuning." Can we find ways to move into more natural language, longer response times, etc.?
 - G. Our basic goal is to serve 2500 children. We also need to recognize that the Kenyan and U.S. decision-makers will have questions about what we are doing and why. We need to be able to justify our methodology.

- Part of our answer can be "fine tuning." Another part would be to answer criticisms "head on" with documented reasons for decisions, evidence of effectiveness, proof from the classroom.

Scripts

- A. Without an editor with autonomous authority, our scripts will always be more segmented. This is due to the style which the team had adopted and ratified.
 - It's a strength. It's a realistic way to get a lot of materials written in a short time.
 - In order to accomplish the type of coherence requested, we would need another person to devote full-time to the task of cohesion.
 - We don't have the time and staff to accomplish the ideal.
 - The distributed learning principle contributes to the "disjointedness" of the scripts.
 - "We don't have Sophoclean thematic seamlessness, we have a kind of glue."

Differentiation between:

1. The Product (and its superficial qualities)
2. The Process

It's difficult for people to listen to one tape and not focus on superficialities.

Main issues to address:

- A. Longer interchanges.
- B. Difficult settings.
- C. Characterization.
- D. Interchanges with children (language teaching methods).
- E. How to convey meaning.
- F. Other content areas that children are required to work in (e.g. texts for other content areas).
- G. Writing.

Comments after listening to Lesson 41, Standard III:

- Characterizations are stronger, e.g. there is a contrast between the conversational and instructional voice of Safiri during the reading segment.
- The sound effects worked well; enhanced meaning.
- New worksheet segment involved children well with a mix of questions and narrative.
- Having children in the story reduces the length of statements, sentences; adults talk more.
- Safiri's direct questions led children well.
- Would prefer fewer words in question forms. Concern about clauses and complexity of questions introduced by subordinate clauses.
- There is good continuity between the dramatic segment and the exercise.
- The economy of such transitions is very important.
- Find alternatives to the "Again" subsequent response cues. The radio's interaction with the children will always be artificial, but whatever we can do to reduce the artificiality is good.
 - Once more. Repeat. What did she say? etc.
 - Alternations between one child and class.
 - One child...another child, as an alternative to several "one child's" consecutively. One boy, what did he say, etc.
- Like "sound effects punctuation."
- What about the door effect in the middle of Tina's sentence during the reading segment? Seemed redundant. Did it contribute to the children's understanding?
- We agree that we shouldn't have gratuitous sound effects, but that sound effects enhance the meaning.
- Simba and Taber sound effects brought children's attention into subsequent activity. Good use of radio as a means of enhancing instruction.
- Agree that we should start segments by making sure children understand important vocabulary. Are there other ways to give meaning in addition to straight definitions/translations?
- Must guard against too complex a definition in English before children understand the word (perhaps first in mother tongue).

- Issue of "build back: drills and segmented drills.
- "He can swim." "He can swim, but she can't."
Maybe model entire sentence first. Or do two independent sentences first, then model transformation. Avoid fragments.
- Issue of intonations, especially the either/or contrast, "wh" questions. Follow intonations given in the Progressive Peak series, as possible.

- Several places where music was too loud: reading music, mother tongue translation can be delayed, then faded in slowly and kept low. Look for different music for reading, "gentler," as with Kayamba music.

Summary of the mornings main issues:

- Techniques for covering reading materials.
- Open-ended responses.
- Techniques for avoiding routine cues.
- Amount of time developing context and maintaining pupil participation.
- Lesson unity through continuity.
- Characterizations.
- Language as form and meaning.
- How to make writing more effective.

Reading

- Focus on word attack and decoding skills in initial reading segment. Focus on comprehension in maintenance reading segments.
- Have the children read silently prior to comprehension questions in the maintenance worksheets.
- Concern about balance between "dry" worksheets and "superfluous" language in worksheets (idioms and colloquial expressions, tangential comments, etc.)
- We don't want comprehension inhibited by the context in which we use the prescribed structures and vocabularies. We want material understood for meaning before it is read.
- We ought to focus on the things we want to teach and minimize the unfamiliar material.

- We are doing better with our worksheets than New Friends (more faithful to the Scheme of Work).
- More expository prose on the worksheets--especially important for transference to other content areas.
- Take content for some reading out of other content areas (maths, geography, etc.)
- Shakespeare minus one = choral reading of dialogue (e.g. girls as Anna, boys as David).
- Need a variety of presentation forms and grouping of sentences during reading, rather than simply ("Read sentence 6.").
- Link pupil responses to reading comprehension, rather than separating the PPR's from the material. E.g. "Children, raise your hands every time David speaks." or "Clap when David tells us how much sugar is in the bag." Less reliance on spoken confirmations of comprehension.
- Can put cloze exercises on board and have character read sentence with children "filling in the blanks." Follow up with children writing the sentence on the board in their exercise books.
- Let children write one work answers to questions in oral or reading segments. Whole sentence can then be included.....sentence gets cut off here.
- Need for writing to be more reflective of the content of the lesson. Context for the writing must be very strong. Complimentary lessons should draw from radio context as well.
- Problem of distributed learning is that some instructional segments end without any real closure.
- Writing can be more tied in with reading comprehension. Mary is responsible for both--perhaps they can be combined more effectively, so that writing can serve to test and reinforce the reading comprehension.

Open-ended responses

- Pupils required to tell what the grow in their shamba. Very successful in Kibiku.
- Attempting same with "ladders" worksheet.
- One danger of open-ended responses is the passive teacher.
- Need to brainstorm about other devices for generating "more real" speech.

- Need to develop techniques to have children generate more than one sentence.

Dramatic material and pupil responses

- Issue of not being overly committed to one PR every 11 seconds.
- Need to make sure that any "long" sections engage children--through sound effects, "hook" questions, etc.
- "Sandwich" format, drama and "rote" responses intertwined.
- Need to guard against making children sit passively for 35 seconds (or so).
- If their listening skills are their strongest skills, we should make our longest sections in the listening/speaking areas, which are likely to be the most engaging. Also need to challenge their auditory memory a little more.
- 35 seconds seems to be the absolute limit.
- They have more skills overall. Their attention span is longer.
- If material is long and too complex, its difficult for children to retain all the information.
- Keep it simpler, focus on a single topic.
- This is the kind of thing we should pilot test.
- If the content is not dramatic and interesting, make the segment more dramatic, and vice versa.

The meeting adjourned with follow-up sessions scheduled over the next 10 days to work on specific recommendations.

NEW DIRECTIONS FOR EDUCATION BY RADIO

Sponsored by
Ministry of Education, Science and Technology
Republic of Kenya

Office of Education, Bureau for Science and Technology
United States Agency for International Development

CONFERENCE AIMS AND OBJECTIVES

1. To explore the potential of radio to meet the educational needs of Africa.
2. To share experiences gained in educational radio programmes in Africa and elsewhere, and to examine in particular the methods used by the Radio Language Arts Project in Kenya.
3. To formulate recommendations and guidelines for maximizing the effectiveness of radio as an educational tool.

NEW DIRECTIONS FOR EDUCATION BY RADIO

REVISED PROGRAM

Sunday, 23rd September

6:00 RECEPTION

Monday, 24th September

SESSION CO-CHAIRMAN: J.D. Kimura and Maurice Imhoof

9:00 WELCOME

9:30 KEYNOTE ADDRESS: RADIO AND THE EDUCATIONAL NEEDS OF AFRICA,
Alex Quarmyne, Chief UNESCO Technical Advisor, Zimbabwe
Institute of Mass Communication

10:30 TEA AND INFORMAL DISCUSSION

11:00 INTRODUCTION OF PARTICIPANTS: Maurice Imhoof, Project
Director, Academy for Educational Development

11:30 RADIO FOR EDUCATION; THE KENYAN PERSPECTIVE, J.D. Kimura,
Director, Kenya Institute of Education

12:30 BUFFET LUNCH AT THE HOTEL

SESSION CHAIRMAN: Maurice Imhoof

1:30 PANEL: THE USAID INSTRUCTIONAL RADIO MODEL,
Clifford Block, Associate Director for Educational Technology
and Communication, S&T/ED, AID, Washington, D.C.
Jamesine Friend, Former Project Director, Nicaragua
Mathematics Project, now President, Friend Dialogues.
John F. Helwig, Project Director, Dominican Republic Radio
Assisted Community Basic Education Project.

3:30 TEA

4:00 CONFERENCE PACKET: INFORMATIONAL MATERIALS FROM THE S&T/ED
RADIO PROJECTS, Julianne Gilmore

4:15 SLIDE-TAPE: INTRODUCTION TO THE RADIO LANGUAGE ARTS PROJECT

4:45 ORIENTATION TO SCHOOL VISITS

5:00 CASH BAR

Tuesday, 25th September

- 9:00 OFFICIAL CONFERENCE OPENING: The Honourable Professor Jonathan Ng'eno, Minister of Education, Science and Technology
- 10:00 TEA
- SESSION CHAIRMAN: J.D. Kimura/Harold Ngoda
- 10:30 PANEL: TEACHING SUBJECT MATTER BY RADIO
READING, Jamesine Friend
READING IN A SECOND LANGUAGE, Maurice Imhoof
MATHEMATICS, Klaus Galda
- 11:30 DEVELOPING RADIO-BASED INSTRUCTIONAL SYSTEMS: A PROCESS
OVERVIEW: Philip Christensen, Field Coordinator, RLAP
Commentators: Jamesine Friend, John F. Helwig and
Klaus Galda
- 1:00 LUNCH
- SESSION CHAIRMAN: Maurice Imhoof
- 2:00 PANEL: DEVELOPING A RADIO CURRICULUM AND METHODOLOGY,
Margaret Ojuando and Philip Sedlak
- 3:00 TEA
- 3:30 PANEL: WRITING RADIO SCRIPTS
David Edgerton and Margaret Ojuando
- 4:30 PANEL: FORMATIVE EVALUATION AND LESSON REVISION
Greg Owino and Philip Christensen

Wednesday, 26th September

- 8:00 SCHOOL VISITS: Participants will be picked up at the hotel and will be accompanied by RLAP staff on school visits.
- LUNCH
- SESSION CHAIRMAN: J.D. Kimura/Harold Ngoda
- 1:30 PANEL: PRODUCING RADIO LESSONS
Mary Karue and Kurt Hein
- 2:15 PANEL: THE TEACHERS' ROLE IN RADIO LESSONS
John Muitungu, Philip Christensen, John F. Helwig and
Jamesine Friend

Wednesday, 26th September (cont'd)

- 3:30 TEA
- 4:00 THE COSTS OF INSTRUCTIONAL RADIO
Klaus Galda
- 4:30 DISCUSSION OF SCHOOL VISITS
- 5:00 RADIO MATH FILM

Thursday, 27th September

SESSION CHAIRMAN: J.D. Kimura/Harold Ngoda

- 9:00 EVALUATION: HOW DO WE KNOW WHEN WE SUCCEED?
Preliminary Results from the RLAP, John Clark, Center for
Applied Linguistics, Washington, D.C.
Commentators: Clifford Block, Jamesine Friend, John Helwig,
Klaus Galda, Philip Christensen
- 10:30 TEA
- 11:00 TEACHER TRAINING BY RADIO
Peter Kinyanjui, Principal, College of Adult and Continuing
Education, Nairobi University
- 12:00 STRATEGIES FOR ADAPTING A RADIO COURSE/PROBLEMS IN
DISSEMINATION: The Thailand Experience
Klaus Galda
Commentators: Jamesine Friend and Maurice Imhoof
- 1:00 LUNCH
- SESSION CHAIRMAN: Maurice Imhoof
- 2:00 WORKSHOP: KEY QUESTIONS FOR IMPLEMENTATION
Divide into small working groups to discuss educational
problems that would be addressed by using radio
instruction. Develop strategies for using radio instruction
in the participants' countries by adapting the S&T model; by
adapting to another subject-matter; by adapting to a
different standard (grade). Formulate recommendations for
using radio.
- 7:30 DINNER AT CARNIVORE RESTAURANT

Friday, 28th September

SESSION CHAIRMAN: Maurice Imhoof

8:30

WORKSHOP:

Continue discussion leading toward recommendations

10:30

TEA

11:00

PLENARY SESSION: Adoption of Conference Recommendations

12:30

CONCLUDING REMARKS: Julianne Gilmore

CONFERENCE CLOSED

NEW DIRECTIONS FOR EDUCATION BY RADIO

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NEW DIRECTIONS FOR EDUCATION BY RADIO

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NEW DIRECTIONS FOR EDUCATION BY RADIO

Sponsored by

Ministry of Education, Science and Technology
Republic of Kenya

Office of Education, Bureau for Science and Technology
United States Agency for International Development

23 - 28 September, 1984

"Radio is one of Africa's great wasted resources. . . [Yet] no other medium, channel or technology offers so feasible a promise for the democratization of education. Apart from individual capacity for learning, nothing need constrain the radio listener from benefitting from an educational program--not age, not sex, not the lack of certificates or transport or clean clothes and all the other barriers that effectively select who may benefit from traditional modes of education."

Alex T. Quarmyne
Conference Keynote Address

Conference Recommendations

1. **Radio should be more widely used as an educational tool.**

Radio has been used effectively in well-documented instances as a tool to achieve educational and development goals. Through radio, greater numbers of widely dispersed and disparate learners can be taught. Education of both high quality and equal access can be provided to achieve the requisite level of competence at lower cost than traditional forms of education.
2. **Air time for instructional radio should be increased.**

In many instances insufficient air time is available to meet the needs. Instructional air time is sometimes inefficiently used, however even with efficient use, more educational broadcast frequencies, additional repeater stations and booster transmitters should be made available by governments.
3. **Radio should be emphasized at the primary level.**

No African country in the near future is likely to be able to provide all the classrooms and trained teachers necessary to teach primary school children. Radio can compensate for these deficits in the schools and can provide basic education to adults or children in nonformal settings as well. In terms of the potential number of learners to be reached and the kinds of skills to be taught, radio has proved to be an effective medium.
4. **Radio should be used in critical curriculum areas.**

At whatever level of schooling, radio may be able to provide the best instruction in subjects or areas of the syllabus that are difficult to teach through conventional mechanisms of education. Second language instruction, for example, can be enhanced by radio's use of an effective method, by speakers who use the regional standard language in real situations. Music is another example. Most teachers are not fine musicians, nor music instructors, but the radio can provide this expertise.

5. **Radio should be integrated into the curriculum development and evaluation process.**

Without integrating instructional radio into a system which includes educational leaders, broadcasters, teachers, and learners, and without the development, testing, revision, and implementation of the educational innovations, radio instruction will fail. If programs are inadequately planned and evaluated, they are likely to fail and the development and implementation costs will have been wasted.
6. **Instructional radio at best should be a part of a mix of instructional techniques.**

In viewing radio as a cost-effective medium to solve educational problems caused by a lack of resources, we should not ignore the fact that radio combined with other media--including excellent teachers--may be even more effective. Teacher participation, print and other visual support will strengthen radio's effectiveness.
7. **Instructional radio should be intensive and interactive.**

All good education by radio should be lively, appealing, and interesting. In addition, frequent interaction between the radio characters and the learners will enhance interest. To meet the educational objectives of an entire curriculum, effective instruction should also be more intensive than conventional educational broadcasting, perhaps taking the major portion of instructional time devoted to a subject.
8. **Radio should be viewed as an aid to the teacher.**

Radio may be regarded as the subject-matter specialist, bringing uniformly high quality instruction in difficult subject areas, with the classroom teacher regarded as the instructional-management specialist. The radio lessons may indirectly add to the teachers' skills as well. Radio instruction supporting the classroom teacher has been shown to have high teacher support.
9. **Radio should be used to train teachers.**

The proportion of untrained and under-qualified teachers is likely to grow as the school population increases. Radio has proved to be an effective means of providing instruction to both untrained teachers and of providing in-service training. Special consideration should be given to training teachers in the use of instructional radio broadcasts.

10. **Instructional radio should be more widely promoted.**

New products and processes need to be "sold" to the public. Educational innovation generally needs to be explained to the public. Although parents and educators may be more comfortable with traditional methods, the values of instructional radio should be clearly and systematically presented to them. Instructional radio experts should help create a forum to explain the achievements of intensive, interactive radio.

11. **Further implementation of experimental radio projects should be effected.**

Since interactive, intensive instructional radio has been successful on an experimental basis in certain countries, it should be integrated in national curricula and its experimental application extended to other countries.

December 7, 1984

TO: Clifford Block
Julianne Gilmore ✓

FROM: Maurice Imhoof *MI*

SUBJECT: Informal Monthly Log
Radio Language Arts Project
November 1 - 30, 1984

SUMMARY

Major field activities included the test administration workshop for observers, further data gathering by the observers and project staff, and summative posttesting for Standard 3 radio pupils, Standard 3 observation school pupils, Standard 2 cassette pupils, and other evaluation activities. Major Washington activities included preparation of the Fifth Annual Report.

November 1 - 9

- Filming was completed in Nairobi.
- The test administration workshop was held in Nairobi. Observers received instructions on test administration and on further data gathering activities they need to complete before the end of the school year.

November 11 - 17

- Solicited bids for shipping David Edgerton's household effects. John Helwig agreed that Inter-America would pay half the costs of shipping. This will have to be worked out in detail later.
- Met with a group of Chinese specialists interested in satellite technology for education. Described the Radio Language Arts Project and other interactive radio projects.
- Met with Esta de Fossard and Judy Brace on the interactive radio brochure to be included in the informational packet on interactive radio developed for and distributed at the Nairobi conference. Packets will continue to be distributed at the request of S&T/ED.
- Worked on annual report.
- Met with Jack Hermansen and John Clark to review where we are on data analysis and other evaluation procedures. Discussed the possibility of holding a meeting with S&T regarding the status of the summative

evaluation to elicit their input into the analysis of Standard 3 and cumulative data. We also talked with Chris in Nairobi to coordinate final data gathering efforts and to refine our final attempts to clean up class lists.

CAL proposes using Rebecca Oxford-Carpenter as their statistics consultant to replace Art French who is currently overcommitted. We had originally worked with Oxford-Carpenter in this capacity until she got too busy to continue. The purpose of a statistician is to assure us that we have adequate data to satisfy rigorous statistical analysis on which to base our conclusions about the success of the project. To date, we are confident that we are collecting adequate data and that conclusions will stand up to scrutiny.

- Met with Julianne Gilmore to discuss a number of project issues:

Since Jodi Crandall could not travel to Kenya at a time useful for the project, we cancelled her trip. We discussed the possibility of using Jodi as part of an implementation team if countries expressing an interest in the radio method need extensive curriculum analysis or considerable restructuring of the radio lessons.

Asked for S&T review of the conference recommendations so that they can be sent out to participants. Gilmore suggested that they be sent from S&T office as a way of reminding Missions and Ministries of the interest they expressed in the instructional radio methodology and projects. Also asked for approval of the recommendations to include in a report on the conference for the Clearinghouse newsletter.

Asked S&T suggestions for a set of conference papers. I recommended the papers by Quarmyne, Kinyanjui, Clark, and Galda's on cost. Galda's would need considerable editing since he did not have a formal paper. We need to decide on a format and distribution.

Discussed slide-tape modules to accompany the project film. Will discuss this further at future meetings in order to identify specific topics to be covered in the modules.

- Talked with Chris about progress on the Project Agreement extension being carried out by AID/Kenya. Rifenberg indicates that things are moving along well. He requested some additional information from S&T, specifically, documentation that the additional funds necessary for the extension have already been obligated. Julianne Gilmore talked with him by phone and supplied all the necessary information. We expect that the extension will be effected very soon and without additional problems.
- Talked with Gilmore regarding schedule for completion of various project tasks. Sent her a copy of the draft management time line for the remainder of the project. Will discuss this next week by telephone prior to subsequent meeting with Block and Gilmore. Gilmore suggested the following schedule for evaluation components:

Early December, meet with Robert Hornik for review of data (AED, AID, CAL and Hornik).

January 1, complete revised and clean class lists (CAL).

January 15, complete raw data analysis, Standard 2 (CAL).

February 1, complete raw data analysis, Standard 3 (CAL).

February 15, have Hornik look at data.

April 15, present draft of 2nd and 3rd year data (AED).

We also discussed the possibility of finishing the film by April 30. This is contingent upon having all the final data we want to include in the film. The contracted completion date is June 30, 1985.

November 19 - 21

- Worked on annual report and budget for 1985.
- Met with Dick Tucker and John Clark regarding subcontract extension and revised budget.
- Talked with Christensen about project activities, especially a status report on the Project Agreement extension. He reported on Wednesday that it looked at the beginning of the day like the project might be cancelled at the end of the present agreement. However, by the end of the day things looked very promising. Apparently, Ray Rifenberg has been very helpful in trying to get the agreement through the Mission bureaucracy. Chris spent considerable time answering further questions about the project. These were probably as a result of questions addressed to Rifenberg in AID discussions. One question that was asked was why we're teaching English in Kenya rather than Swahili. Apparently no one at the Mission knew that English is the language of instruction in the schools. What seemed to move the whole discussion in our favor was the possibility that the project might make a "moral commitment" to help with radio messages on family planning.

Chris' assessment of the day's discussions, to be continued on Friday, was that things look good again for the extension. If all goes well, the Mission Director will sign the agreement on Tuesday upon his return to Nairobi.

- Talked with Julianne Gilmore about project activities.
- Talked with Jack Hermansen about data analysis. Jack is analyzing as carefully as possible the workload for the cleanup of class lists and providing a schedule. He should have this by the end of this week.

November 26 - 30

- Received the imprest report from the field and processed it.
- Completed collecting bids for David Edgerton's household goods shipment. Because of their extremely competitive prices, Movers International, Inc. from Lynnwood, Washington, were selected.
- Met with Julianne Gilmore on a number of project issues.
- Talked with John Clark to set up meeting with CAL and Rebecca Oxford-Carpenter before Christmas holidays.
- Talked with Chris in Nairobi. He reported a good meeting with Rifenberg and Gary Merrit at AID. They seemed satisfied with our commitment to work with them informally over the next 6-8 months advising on the potential for new applications of radio in family planning. They also agreed that this cannot involve any change to the RLAP planning or alternate uses for our extended funding. On the basis of this discussion, Chris assumes that the Mission Director will sign the ProAg extension this week.

Merrit seems interested in two possible outcomes. First would be a course or mini-course on reproductive biology for adolescents, probably at Standard 7 or 8 as part of the science curriculum. There is a clear possibility of using some RLAP professionals after our project ends in June. Second would be a non-formal radio education campaign to reach youth and males to counter anti-family planning rumors. Merrit would like to see something along these lines on the air by May or June. He thinks the Mission could reallocate existing funds for either or both approaches.

Later in the week, Rifenberg followed up on "moral commitment" by scheduling biweekly meetings with Chris.

- Chris indicated that the KIE Director would like to send conference recommendations to ministries who had participants at the conference. I will discuss this with S&T.
- Project Agreement extension signed by the Mission Director.
- Chris has received a letter from the office of the Permanent Secretary, Ministry of Education, Uganda, formally requesting information about the RLAP and its potential for Uganda. He asked for advise on what kind of response he should make. I have asked Gilmore for suggestions.
- Worked on Management Plan time line and budget for calendar year 1985 for internal AED use.
- Along with other AED staff, met with S&T staff to discuss a variety of project dissemination activities that overlap between radio projects. A number of issues were discussed and actions suggested. Judy Brace has prepared minutes and recommendations from this meeting.

- Continued work on Fifth Annual Report. We expect to submit the report next week.
- Talked with Jack Hermansen about data analysis schedule. He indicates that a January 1 date for class list cleanup is not possible for him. Both the magnitude of the work (about 240 hours, he estimates) and the Christmas break at Georgetown create a difficult situation for him. That necessitates delaying some of the other activities as well.

Also discussed a possible December meeting with Bob Hornik. He is unavailable until mid-January. Discussed the following revisions of the time line with Gilmore.

Late December, meet to discuss status of all data and data analysis (AED, CAL).

February 15, complete class list clean up (CAL).

February 15, preliminary raw data analysis, Standard 2 (CAL).

February 15, preliminary raw data analysis, Standard 3 (CAL).

February 15, have Hornik review all data and meet with S&T, CAL, and AED.

The schedule for other activities remains the same.