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THE RADIO LANGUAGE ARTS PROJECT
RESULTS FROM THE FIRST YEAR OF BROADCASTING

A PRELIMINARY REPORT

by Greg Owino and Philip R. Christensen

May 1983

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EXECUTIVE SUMMARY

This document summarizes The Radio Language Arts Project - Results from the First Year of Broadcasting: A Preliminary Report, written by Greg Owino and Philip R. Christensen (May, 1983). Technical details about the methodology and conclusions reported here are found in the full report.

Project Overview. The Radio Language Arts Project (RLAP), a five-year research and development project, is a joint venture between Kenya and the United States. Its purpose is to develop, implement and test the effectiveness of an instructional system that uses radio intensively to teach English as a foreign language at the lower primary-school level (standards one to three) in rural Kenyan schools.

The project broadcasts daily, thirty-minute lessons during regular English periods in the school timetable. Radio is the major medium of instruction, but teachers have an important role during the broadcasts, in pre- and post-broadcast activities, and in teacher-led complementary lessons. The radio lessons are designed to assist teachers in the classroom, enhancing their effectiveness in teaching a difficult and important skill.

As of May, 1983, the RLAP is in its third year of operation in Kenya. Regular broadcasts to thirty-one project schools in seven districts began with standard one in 1982. Standard two lessons are being broadcast to the same group of children in 1983, and standard three is scheduled for 1984. A final analysis of the achievements and costs of this method will be completed after the conclusion of the 1984 school year.

Research Design. Twenty-one of the project schools are used solely for determining the success of teaching English with intensive radio lessons. This success is measured by achievement tests based directly on the Kenyan English syllabus (not on the radio lessons themselves.)

The project is following the same two groups of children over three years. The achievement test for each standard is given at the end of the year to children who have learned English without using intensive radio. The same test is given at the end of the next year to children who have learned English with the help of radio lessons. Comparing the results between the two groups of children shows the effectiveness of intensive instructional radio as opposed to conventional teaching methods.

Other methods of evaluating the project are also being used. For example, questionnaires distributed to teachers and headmasters at the end of each broadcast year measure attitudes towards the radio method on the part of school staff. Information about each school (such as repeater and drop-out rates) is being gathered for future analysis. The costs of the project will be analysed at the end of three years and compared with its achievements.

First Year Results. The standard one achievement test consisted of forty questions measuring listening comprehension and forty measuring reading

comprehension, based on the standard one English vocabulary and structures specified by the Kenyan syllabus. The test was developed by project staff with the help of outside consultants. It was administered at the end of 1981 to children in twenty-one project schools who had not heard the RLAP radio lessons. Exactly the same test was given to children in the same twenty-one project schools at the end of 1982. These children had used the radio method to learn English.

Reading was not introduced in the standard one radio lessons until term three. Nevertheless, average scores for the forty reading comprehension items rose from 10.7 (26.7%) for children without the radio lessons to 13.1 (32.7%) for children with the radio lessons. This is a 22.5% improvement.

The results for listening comprehension were even stronger. On the forty listening items, average scores rose from 15.5 (38.8%) to 23.3 (58.2%), a 50.0% improvement. In other words, the intensive radio method of teaching English produced substantial gains in pupil performance after only one year of broadcasts. There is less than one chance in ten thousand that these results could have occurred by chance. Improvement was found in every district and every vernacular language group represented in the project, and for high, medium and low CPE-score schools.

The questionnaires completed by teachers and headmasters show that the radio English lessons have been very well received.

- 89% of those expressing an opinion rated the radio lessons as "good" or "excellent." No one rated them "poor."

- Daily teacher's notes, pupil worksheets and the initial inservice training day were received favourably by more than 90% of the staff.

- 99% of those responding felt that the radio pupils spoke better English after one year than pupils who had not had the radio lessons. 90% felt that the radio pupils would be ready to use English as the sole medium of instruction after standard three.

- Of the two-thirds of the school staff who felt they knew how parents were reacting to the radio lessons, 98% said that the reaction was favourable.

- When asked whether the radio lessons should be continued at their schools, only one teacher said "no" (because of problems with radio reception and materials distribution). The other 99% said "yes."

These first year results strongly suggest that intensive instructional radio will prove to be an effective tool for teaching English to rural primary school children. Pupils have already demonstrated significant gains in listening and reading comprehension. Teachers, headmasters and parents are convinced that this method works. They see improvement in their children's English, and they want to continue with the project.

ABSTRACT

The Radio Language Arts Project is investigating the use of daily radio lessons to teach English in rural primary schools. To evaluate its first year of broadcasts (1982), an English achievement test was given to children in twenty-one project schools. Children who had used the radio lessons scored 22.5% higher in reading and 50.0% higher in listening skills than children who had not used these lessons. A survey of teachers and headmasters in all project schools showed very positive attitudes towards the lessons. Of those expressing an opinion, 99% wanted the project to continue at their schools.

Although the ultimate goal of the project is to evaluate the effectiveness of intensive instructional radio after three years of broadcasting, it is clear that after one year children have already demonstrated significant improvement in English skills, while school staff have developed confidence in the methodolgy.

AN OVERVIEW OF THE RADIO LANGUAGE ARTS PROJECT

The Radio Language Arts Project (RLAP) is a five-year research and development project. Its purpose is to develop, implement and test the effectiveness of an instructional system which uses radio intensively to teach English as a foreign language at the lower primary-school level (standards one to three) in rural Kenyan schools.

The project is a joint venture between Kenya and the United States. The Kenyan executing agency is the Kenya Institute of Education, as authorized by the Ministry of Basic Education. The American executing agency is the Academy for Educational Development, under contract to the United States Agency for International Development.

The project staff in Kenya is located at the Kenya Institute of Education. It includes four Kenyan professional employees of the Teachers Service Commission: two language arts specialists, an educational broadcast specialist and a research specialist. It also includes four American professional employees of the Academy for Educational Development: two language arts specialists, an educational broadcast specialist and an instructional systems designer.

Both qualitative and cost aspects of effectiveness are being examined by the RLAP. The project's end product will be a radio-based English-language series for standards one to three, complete with taped lessons (approximately 195 lessons of 30 minutes each for each school year,) appropriate tests, teacher training materials, and classroom observation and data-gathering procedures. If the methodology proves successful, these lessons can be used to serve all schools in the nation through the Schools Broadcasts service. The same techniques can also be applied to other subject areas and academic levels. Finally, it is expected that the model which emerges can be replicated, with modifcation, in other Third World educational systems.

The general project design builds on Kenya's extensive experience with formal educational broadcasts to schools. It also draws on the results of several relevant projects in other countries, most particularly a radio-based

primary-school mathematics project conducted between 1973 and 1978 in Nicaragua, Central America.

The RLAP envisions radio as an appropriate, cost-effective technology to reach the disadvantaged rural population for whom educational opportunities are frequently limited because of poor educational resources. For this reason, among others, English-language arts programmes are broadcast as part of the normal school curriculum during school hours. The daily thirty-minute lessons fit into regular English periods in the school timetable. Radio is the major medium of instruction, but teachers have an important role during the broadcasts, in pre- and post-broadcast activities, and in teacher-led complementary lessons. The radio lessons are designed to assist teachers in the classroom, enhancing their effectiveness in teaching a difficult and important skill.

As of May 1983, the RLAP is in its third year of operation in Kenya. The initial year was spent establishing the project (including assembling the professional team, selecting schools, and finalizing the research design), analysing the Kenyan English curriculum, and field testing a variety of methodologies for teaching English by radio. Regular broadcasts to thirty-one project schools in seven districts began with standard one in 1982. Standard two lessons are being broadcast to the same cohort of children in 1983, and standard three is scheduled for 1984. The achievements and costs of this method will be analysed after the conclusion of the 1984 school year, based on the results of three years of broadcasting.

RESEARCH DESIGN

The RLAP research design uses a sample of thirty-one rural primary schools drawn from seven Kenyan districts. These districts (Kajiado, Kakemega, Kericho, Kiambu, Kilifi, Kisumu and Machakos) represent major language groups spoken by about seventy percent of the Kenyan population.

Twenty-one of these schools, designated as pilot schools, are used solely for summative evaluation purposes. They are visited only once a year by professional staff, when post-tests are administered, to minimize the possibility of any Hawthorne effect artificially improving the results. Given the importance of academic quality, the schools were chosen by means of a stratified random sample on the basis of their performance on the Certificate of Primary Education (CPE) examination. This ensured that equal attention was paid to high, medium and low scoring schools.

The remaining ten schools are designated as observation schools and used for formative evaluation. Results from weekly tests and regular classroom observation in these schools are used to determine what objectives must be given further attention or alternative instructional treatment, as well as to identify lesson segments which should be revised before being used again.

This report focuses on the summative evaluation system. The purpose of summative evaluation in the RLAP is to provide information on the effectiveness and costs of intensive instructional radio in comparison to Kenyan norms for teaching lower primary English by conventional methods. The research design is a longitudinal one, measuring the cumulative effect of the

radio lessons on a relatively stable student population as it progresses from standard one to standard three. In the interim, however, an annual evaluation exercise can suggest whether the project is likely to meet its objectives or not, and can also support the formative evaluation process by offering more information about the methodology's strengths and weaknesses.

Summative Evaluation Design

The basic choice for the summative evaluation design was between matching control and experimental schools, administering a post-test in both sets of schools simultaneously at the end of each broadcast year, and using the same set of schools for both control and experimental purposes, administering a post-test one year to children who have not been exposed to the treatment and the next year to children in the same classroom who have been exposed to the treatment. The second, lapped-year, research design was chosen.

This approach has two major advantages. The paucity of reliable data on school, teacher and pupil quality makes any attempt to construct a comparable set of control and experimental schools an uncertian one. By controlling the teacher variable as much as possible (i.e., by trying to keep the same teacher in the classroom from one year to the next), and by guarding against any untoward changes in the pupil cohort from one year to the next (for example, by avoiding schools in areas where significant changes in the socio-economic and educational profiles of entering pupils from one year to the next are likely), the lapped-year design should ensure a closer match between control and experimental groups at the same schools than would be the case if two different sets of schools were used.

Second, the lapped-year design completely avoids the problem of contamination of control schools. Control groups are tested <u>before</u> the broadcasts to their standard begin, so there is no chance that they could be exposed to the treatment unintentionally. Were a matched set of control and experimental schools used, it is possible that children in the control schools might listen to the radio lessons, too, thereby contaminating the results. Indeed, there are indications of widespread listening to <u>English in Action</u> lessons among non-project schools, and it may well have proven impossible to keep the control sample free of such interference.

The summative evaluation strategy for one classroom (the basic unit of analysis) is summarized in Figure 1.

Figure 1
Summative Evaluation Design for One Classroom

Year	Radio Classrooms (experimental)	Control Classrooms (control)
1981 (no broadcasts)		School A Classroom 1 Teacher X Pupil cohort alpha
1982 (standard 1 broadcasts)	School A Classroom 1 Teacher X Pupil cohort beta	School A Classroom 2 Teacher Y Pupil cohort alpha
1983 (standard 2 broadcasts)	School A Classroom 2 Teacher Y Pupil cohort beta	School A Classroom 3 Teacher Z Pupil cohort alpha
1984 (standard 3 broadcasts)	School A Classroom 3 Teacher Z Pupil cohort beta	

In November, 1981, pupils in the alpha cohort in classroom one (standard one) of this school (school A), having been taught for a year by teacher X without the radio English lessons, were given a post-test based on the Kenyan syllabus. Results from this test provided a pupil achievement record for the control group. In November, 1982, the same test was administered to pupils in the beta cohort. These children had spent a year in the same classroom (classroom one) with the same teacher (teacher X), but with the radio English lesson treatment. Their test results provided a pupil achievement record for the experimental group. The amount of time devoted to English each week was held constant from 1981 to 1982. A comparison of results between the control and experimental groups could then be used to evaluate the effectiveness of this use of instructional radio.

The same pattern will be followed during 1983 and 1984. The same set of scholls will continue to be used for both control and experimental puposes. Pupil achievement and other variables will be measured in one year for control purposes and in the subsequent year, after treatment, for experimental purposes. The same control and experimental cohorts of children will be followed because the RLAP is interested in cumulative results (i.e., the effects of three years of radio-based instruction versus three years of conventional instruction). Supplementary data will be collected through instruments such as surveys of teacher and headmaster attitudes.

Finally, a cost-effectiveness analysis will be undertaken to consider at least two interrelated areas. First, the costs of delivering radio-based English instruction will be compared to the costs of delivering conventional

instruction. In Kenya, this conventional instruction is at present print-oriented, with a common text and supplementary materials for each standard, including brief, supplementary radio broadcasts begining in standard two. Second, the costs of radio-based instruction will be compared to pupil performance, which could be studied in relation to student retention at the standard level, poor achievement, drop-out rates, and budget levels.

Development and Administration of the Standard One Summative Evaluation Test

The basic instrument for tapping summative evaluation data in the RLAP is an English post-test administered at each level of the lower school the year before the radio treatment and again the following year, as outlined in Figure 1. Since the project follows the existing Kenyan English curriculum, this post-test is based on the syllabus, not on the radio lessons.

Generally, the development of the post-test each year is preceded by an analysis of the grammatical structures and the oral and reading vocabulary items in the English syllabus for each standard. Then a random sample of the structures and vocabulary items is drawn directly from the syllabus. Using this list of vocabulary and structural materials, test items are generated to form the preliminary form of the post-test in each skill area (listening and reading for all standards, plus speaking and writing for standards two and three). This is normally done in a workshop by RLAP field observers (Teacher Advisory Centre tutors seconded to the project), with the help of the project staff and consultants from the Center for Applied Linguistics (CAL) in Washington, D.C.

A preliminary analysis is carried out to establish face validity of the items before they are pre-tested. The selected items are arranged according to skill areas and response option types (for example, listening stimuli with picture responses) and compiled into a test booklet for pilot testing. The selection of schools for piloting the test is done with due consideration for high, medium and low performing schools on the CPE.

The pre-test results are then subjected to a rigorous statistical analysis by computer to establish reliability and validity of the items. The results of this analysis are then reviewed and items of satisfactory technical quality are selected to form the final version of the summative test.

Test instructions are developed in mother tongue for pupils and in English for test administrators. The test administrators are trained to ensure uniform administration conditions at each testing centre. The post-test is normally administered in the last two weeks of November, just before the end of the school year.

The English post-test for standard one consisted of eighty test items in a twenty-page booklet. It was divided into two major skill areas, listening comprehension and reading comprehension, with forty questions each. The items in each skill area were further broken down into two subsections, forming a total of four parts with items arranged from easiest to most difficult within each part. Each part was preceded by two practise examples to familiarize the pupils with the item and response types. Most of the test items were multiple

choice picture responses, with a few fill-in-the-blank items. The pupils would normally respond by either putting a line across the correct word or picture in the listening section of the test, or writing a letter, number or name in the reading section. The test took an average of two and a half hours to administer, with one fifteen-minute break.

The test booklets were scored by part-time data coders under the supervision of the RLAP Feedback Coordinator. Answers were recorded on coding sheets and forwarded to CAL for computer analysis. The results of this analysis were then returned to the project staff for interpretation.

The initial analysis of the standard one results has focused on T-tests for mean raw scores of all control children compared to all radio children, and on T-tests for control and radio children grouped by district, vernacular language of instruction and school CPE category (high, medium or low).

School Staff Questionnaire

Apart from the achievement data elicited by the English post-test, information on the attitudes of staff at project schools is also obtained by means of a questionnaire distributed to all headmasters and teachers in radio classrooms after the conclusion of each year's broadcasts.

For standard one, a twenty-nine question survey was distributed to all project school teachers who had used the standard one radio lessons in 1982. All but two of these questions were also asked of every project school headmaster. Some questions were taken from the sociolinguistic survey carried out in 1981, in order to measure changes in general attitudes towards radio instruction and patterns of language use. The rest were developed especially for the 1982 questionnaire. Twelve of the questions were multiple-choice. The remainder asked for short answers or open-ended responses.

The information sought in these questionnaires can be grouped into four categories:

A. Language (including languages of instruction and English usage by pupils).

B. Content (including subject matter, quality of the methodology and appropriateness of support materials and services).

C. Effectiveness (including pupil achievement levels in English as perceived by school staff before and after treatment, and predictions about future learning).

D. Infrastructure (including quality of radio reception and delivery of support materials and services).

Completed questionnaires were returned to the RLAP offices at the Kenya Institute of Education and analysed by project staff with the help of a microcomputer. Responses to open-ended questions were coded as favourable, mixed or neutral, and unfavourable. The initial analysis concentrated on frequency distributions for all questions and crosstabulations of selected

questions. Further crosstabulation analysis and a systematic review of open-ended responses are now being carried out.

FIRST YEAR RESULTS

The summative evaluation strategy, as explained above, includes two data-gathering instruments which are used at the end of each school year: the English achievement test and the school staff questionnaire. Other summative evaluation components, such as the cost-benefit analysis, will not be completed until the end of the project.

Preliminary results for the standard one test and questionnaire are reported below. These instruments and the raw data obtained with them are available in the RLAP offices. Further analysis of these data is now underway.

Standard One Achievement Test

The standard one achievement test was administered to control classrooms in November, 1981. Children in these classrooms had not been exposed to the English in Action radio lessons, which were not broadcast that year. The same test was given again in November, 1982, to children in radio classrooms, who had used the English in Action lessons for one year.

The results of these tests for all project classrooms in all districts are summarized in Tables 1 and 2. They show a substantial, statistically significant improvement in both reading and listening skills.

Table 1
Standard One Reading Test Results
All Pilot Schools

	1981 Control Classrooms	1982 Radio Classrooms
Number of cases	1548	1543
Mean Score	10.676	13.086
Standard deviation	7.567	7.567
Standard error	.192	.193

Reading T-score: -8.8553 ($p < .0001$)

Because teaching reading by radio requires different methodologies than conventional classroom instruction, the project staff decided to delay the introduction of reading somewhat. Instead of beginning to teach reading in the first or second term, as is commonly done in Kenyan classrooms, English in Action began reading work in term three. Approximately one-fifth of the initial instructional time in each radio lesson was then devoted to reading. The result was that radio children had a stronger foundation of oral English on which to build new reading skills. There was some concern, however, that

the reduction in time devoted to this component of the English curriculum would disadvantage the radio pupils in comparison with their conventional counterparts.

The achievement test results in Table 1 show that such concern was unfounded. Translating the average scores for all pupils on the 40 item reading test into a 100 point scale, the control children achieved a mean score of 26.7%, while the radio children achieved a mean score of 32.7%. This is a 22.5% improvement. There is less than one chance in 10,000 that this gain could have occured by chance.

Table 2
Standard One Listening Test Results
All Pilot Schools

	1981 Control Classrooms	1982 Radio Classrooms
Number of cases	1548	1543
Mean Score	15.498	23.267
Standard deviation	8.934	8.295
Standard error	.227	.211

Listening T-score: -25.05 ($p \leq .001$)

As has just been explained, the emphasis in the first broadcast year was on oral English. The achievement test results in Table 2 show the effects of this emphasis. Again translating the average scores for all pupils on the 40 item reading test into a 100 point scale, the control children achieved a mean score of 38.8%, while the radio children achieved a mean score of 58.2%. This is a 50.0% improvement, and there is still less than one chance in 10,000 that it could have come about by chance.

Further analysis shows gains in both reading and listening skills for every district and every vernacular language represented in the project. When project schools are grouped according to 1981 CPE results, gains in both skill areas are recorded in every group--high, medium and low.

Standard One Teacher/Headmaster Questionnaire

Questionnaires were distributed in January, 1983 to all headmasters at project schools and all teachers who had taught standard one English in 1982 in project classrooms. It should be noted that, while the achievement test results were based on pilot schools only, these questionnaires were completed by staff at both pilot and observation schools. A comparison of questionnaire results from pilot schools with those from observation schools, however, shows no significant differences between the two groups.

Of the 95 questionnaires distributed, 85 completed questionnaires had been received by the end of April 1983, an 89.5% rate of return. The results for those questions measuring attitudes about the Radio Language Arts Project

are given in Tables 3 to 7. They indicate strong support among project school staff for this approach to teaching English.

Table 3
"How would you rate the Standard 1 English in Action radio lessons?"

Response	Absolute Freq.	Relative Freq. (Pct.)	Adjusted Rel. Freq. (Pct.)
Poor	0	0.0	0.0
Fair	8	9.4	9.5
Good	52	61.2	61.9
Excellent	24	28.2	28.6
No answer	1	1.2	NULL

Table 3 shows that 89% of the respondents said that the English in Action lessons were "good" or "excellent." 11% rated them "fair," and no one rated them "poor." Although school staff see room for improvement, they feel that the quality of the lessons is generally high.

Table 4

A. "How helpful were the Teacher's Notes?"

Response	Absolute Freq.	Relative Freq. (Pct.)	Adjusted Rel. Freq. (Pct.)
Favourable	84	98.8	98.8
Mixed or neutral	1	1.2	1.2
Unfavourable	0	0	NULL

B. "How useful were the pupil worksheets?"

Favourable	79	92.9	92.9
Mixed or neutral	6	7.1	7.1
Unfavourable	0	0	NULL

C. "How well did the inservice training day prepare you to teach with the radio lessons?"

Favourable	77	90.6	91.7
Mixed or neutral	4	4.7	4.8
Unfavourable	3	3.5	3.6
No opinion	1	1.2	NULL

Table 4 gives results for questions about some of the support features for the radio lessons. 92% of the respondents said that the one-day inservice

training workshop was valuable. The most common complaint was that it was too short. (The project decided against longer training sessions because they might not be replicable on a nation-wide scale.) An equal proportion rated the pupil worksheets favourably, while 99% gave favourable comments about the daily teacher's notes. The materials and services designed to support English in Action, as well as the radio lessons themselves, are seen to be of high quality.

Table 5 shows the opinions of school staff about the quality of the radio pupils' English. When asked to rate the English language skills of radio pupils compared to their non-radio counterparts, 34% of the respondents said that it was "a little better," and 65% said that it was "much better." When asked to comment on the differences, 96% gave favourable comments. 90% felt that their children would be ready to study completely in English by standard 3. School staff have confidence in their children's English after the first year of broadcasting.

Table 5

A. "By the end of Standard 1, how good was the radio pupil's English compared with other Standard 1 pupils you have taught in previous years without the English in Action radio lessons?"

Response	Absolute Freq.	Relative Freq. (Pct.)	Adjusted Rel. Freq. (Pct.)
Much worse	0	0.0	0.0
A little worse	0	0.0	0.0
About the same	1	1.2	1.2
A little better	29	34.1	34.1
Much better	55	64.7	64.7

B. "Have you noticed any differences between the way that radio pupils use English and the way that other pupils, who have not had English in Action radio lessons, use English?"

Favourable	75	88.2	96.2
Mixed or neutral	3	3.5	3.8
Unfavourable	0	0	0
No opinion	2	2.4	NULL
No answer	5	5.9	NULL

C. "Do you think these radio pupils will be ready to use English as the sole medium of instruction after Standard 3?"

Favourable	76	89.4	90.5
Mixed or neutral	8	9.4	9.5
Unfavourable	0	0	0
No answer	1	1.2	NULL

Table 6
"What did the parents of last year's Standard 1 pupils think about the English in Action radio lessons?"

Response	Absolute Freq.	Relative Freq. (Pct.)	Adjusted Rel. Freq. (Pct.)
Favourable	55	64.7	98.2
Mixed or neutral	1	1.2	1.8
Unfavourable	0	0	0
No opinion	28	32.9	NULL
No answer	1	1.2	NULL

As Table 6 shows, only two thirds of the respondents felt that they could comment on the reaction of parents to the radio lessons. Of these, however, 98% reported that parents were positive about the project.

Table 7
"Do you think that the English in Action radio lessons should be continued at your school?"

Response	Absolute Freq.	Relative Freq. (Pct.)	Adjusted Rel. Freq. (Pct.)
Favourable	75	88.2	98.7
Mixed or neutral	0	0	0
Unfavourable	1	1.2	1.3
No opinion	5	5.9	NULL
No answer	4	4.7	NULL

Perhaps the most significant measure of the attitude of school staff towards the project was the question, "Do you think that the English in Action radio lessons should be continued at your school?" Table 7 shows that, of the 76 people expressing an opinion, one teacher said "no" because of difficulties she had experienced with radio reception and materials distribution. The remaining 99% said "yes."

Virtually all of the teachers and headmasters who have experienced this methodology want to continue with it. In fact, when schools learned that the standard one broadcasts would not be repeated in 1983 because of limited air time, they lobbied effectively to have the lessons made available on cassette tapes so that entering standard one pupils could benefit from them, too.

CONCLUSION

Summative evaluation results for the first year of Radio Language Arts Project broadcasts strongly suggest that intensive instructional radio is an effective tool for teaching English to rural primary school children. After only one year, pupils have already demonstrated significant gains in listening and reading comprehension. Teachers, headmasters and parents are convinced that the methodology works. They see the improvement in the children's English and want to continue with the project.

Standard two broadcasts are now underway, and planning has already begun for standard three. Additional tests and surveys will be administered at the end of 1983 and 1984 to measure the continuing development of English skills among children using the radio lessons. Further summative evaluation work, particularly the cost benefit analysis, will be carried out at the project's conclusion in 1984. The preliminary results reported here, however, suggest that there is a good chance that the methodology will prove successful.