

Creating Access to Quality Education in Two Fragile States: EDC's Radio Projects in Somalia and Southern Sudan

Said Yasin

Chief of Party

Somali Interactive Radio Instruction Program (SIRIP)

Education Development Center

Thomas D. Tilson

Chief of Party

Southern Sudan Interactive Radio Instruction (SSIRI) Project

Education Development Center

Somalia and Southern Sudan, both located in eastern Africa, qualify as fragile states. Somalia, perhaps, meets the criteria of a failed state. In both locations, educational radio is being used to provide quality education under difficult and challenging circumstances. This paper summarizes the current political situation in each country and the implications for basic education. The paper then describes similar interventions in both countries – interventions that use educational radio programs to expand access and improve the quality of primary level education and teacher training. The paper explains why high quality radio programs are especially appropriate in fragile states. The achievements and targets for each project are presented. In the section on Southern Sudan, there are descriptions of low-cost digital technologies that deliver audio programs where radio broadcasts are not possible and computer centers with Internet and video production at teacher training institutes.
Key terms: *Somalia, Southern Sudan, Interactive Radio Instruction, IRI, basic education, digital technology*

Somalia

Introduction

Depending on the region/zone, Somalia is considered either a failed or fragile state. Decades of civil war, chronic food and water shortages and economic mismanagement have taken a serious toll on the education system. The decline of educational quality and standards began in the early 1980s and culminated in the disintegration of the state and subsequent breakout of civil war in 1991. Throughout the 1980s the number of primary schools and pupil enrolment dropped dramatically, textbooks and supplies disappeared, teacher attrition soared, classrooms deteriorated, and the overall quality of education declined. Public allocations for education declined from 2.2% of GDP in 1975 to 0.3% in 1989.

Today, Somalia has one the lowest student enrollment rates in the world with an estimated 20-30 percent gross enrollment and among the lowest public financing of any country. Girls continue to be underrepresented at all levels of education, especially in rural areas. Girls' enrollment rates have remained consistently low over the past five years at approximately 35%. By the 8th grade, girls make up a mere 25 percent of all students and their numbers continue to decrease thereafter.

The situation is exacerbated by the quality of the teaching pool. There is a limited supply of qualified primary school teachers in Somalia. Of the 11,000 practicing primary school teachers in the country, only 30 percent have had pre-service training, and only 11 percent have a teacher training diploma. Furthermore, only 14 percent of the teachers are women.

Administratively, the division of the country into three zones after 1991 gave rise to three separate ministries of education that have operated independently with little coordination and planning among themselves. The Ministries of Education (MoE) in Somaliland and Puntland are responsible for the management and administration of primary, secondary, vocational, technical, and non-formal education as well as teacher training. The Ministries have a central staff, Regional Education Officers, District Education Officers, and school principals and teachers. The third administrative region, South Central Somalia, is the region with the least institutional and administrative capacity and, as such, is most in need.

In the absence of a central government and strong institutions to support education, parents, communities, NGOs and international development agencies have stepped in to provide basic education services. International organizations such as UNICEF and UNESCO, working through the Somalia Aid Coordination Body, have provided substantial support for revising the curriculum, printing and distributing textbooks, and training teachers. Parents and communities recognize the value of education and, where possible, have stepped in to pay school fees and/or formed community education committees. Unfortunately, the vast majority of poor Somalis cannot afford to privately fund education.

Religious organizations also play a significant role in providing education throughout Somalia. Reliable statistics on the number and types of religious schools in Somalia are difficult to come by. There are a growing number of religious schools that focus on Islamic education. Religious schools are privately run and often receive support from local or international Islamic organizations. Another distinguishing characteristic of religious schools in Somalia is that they often use Arabic rather than Somali as the language of instruction, and substantial numbers of these are supported by religious institutions often deemed radical in the west.

The emergence of the Transitional Federal Government in Somalia (TFG) gave hope and an opportunity to resuscitate the education system, particularly in South Central Somalia. Unfortunately, the TFG became mired in political infighting and has failed to bring in institutions that produce tangible results, particularly after it sought the help of neighboring Ethiopia, which resulted in a two-year Ethiopian invasion. As the TFG is gradually sidelined by an alliance of Islamic groups, there is once again hope that there will be a credible political reconciliation in Somalia, which will lead to the rebuilding of educational institutions.

Interactive Radio Instruction (IRI) as an Intervention

With a grant from USAID in 2006, the Education Development Center (EDC) introduced radio as an intervention to provide quality primary level education and teacher training. When EDC introduced the Somali Interactive Radio Instruction Program (SIRIP), the challenge was to quickly reach a large number of school age children who are in and outside the formal education system. The SIRIP program tapped into EDC's experience in reaching children in countries such as Zambia, Guinea, India, and Sudan where quality instruction via radio combined with facilitators or mentors has provided basic education. IRI programs for Somali speaking children had also been developed and tested in Ethiopia. Thus, the Somali Interactive Radio Instruction (SIRIP) was built on the experience in Ethiopia and other projects.

Interactive Radio Instruction (IRI) has a proven record of high impact on teaching and learning while reaching large numbers of students. IRI is a methodology that uses radio to provide a *multi-channel* learning experience for children and teachers. Multi-channel learning refers to the theory that all learners have their own learning styles – some learn by singing songs, others may be visual learners and still others may learn best through physical activity. Most learners benefit from a variety of channels as opposed to one, such as the traditional “chalk and talk” teaching method of copying and memorizing what is written on the board. Each IRI program includes a variety of segments that are based on objectives from the national or local curriculum. For example, the Somali curriculum may ask students to learn four consonants and use them when spelling a word. This objective may be reached via a drama segment, a song, a poem, an activity, or a question and answer segment. Thus, the radio can literally transform a classroom in which an untrained teacher will lead a “chalk and talk” lesson with little or no materials, to an interactive learning experience in which both the children and teacher are engaged in the process.

The classroom teacher is the key to the IRI process. After a brief preparation for the lesson, teachers turn on the radio in their classrooms at a given time, often at the insistence of eager students. The radio leads teachers through a lesson using teaching methodologies that incorporate active learning strategies. These lessons are interactive in that a dialogue is created among the classroom teacher, the students, and the radio personalities. For example, a lesson may ask teachers to please “ask a student in the back of the class what he or she thought of the drama” or “ask a girl to think of a word that begins with B” in a competitive game. Thus, teachers are required to use methods that they may have learned in teacher training, but were at a loss to use on their own in a classroom full of many children.

Access and Use of Radios in Somalia

EDC’s intervention is based on the fact that radio is the most widely used means for communication in Somalia. Radio as a communication technology is highly compatible with Somali oral culture. A 2002 socio-economic survey reported that almost 40% of rural and nomadic households listen to radios. That same survey found that radios were the second most prevalent household possession after a flashlight or lantern.

The Goals of the Project

The expected results for this program are improved reading, math, and life skills for approximately 360,000 Somali children. By the end of the three year period, the following results are expected:

- Identify and utilize a network of public, private and non-governmental education organizations through which the IRI programs will be delivered
- Develop and provide teacher/facilitator training to use IRI
- Develop, test, produce and disseminate IRI programs in Reading, Math and Life Skills for grades 1-5
- Develop and disseminate learning materials

Achieved Results

The project has achieved several milestones over the past three years. SIRIP programs are broadcast by five international and local radio stations five hours a day, five days a week, and listened to across the Horn of Africa. In the first year of the project, more than 80,000 children listened to the programs. And by the second year, the program reached over 200,000 children in Puntland,

Somaliland, and South Central Somalia. EDC trained 2,098 teachers/educators on IRI in the first year, and 2,305 and 2,831 teachers/educators on second and third years. This brought the total number of teachers/educators trained to 7,234 or 92% of its target teachers/educators. Moreover, the project distributed more than 11,000 learning materials to schools across Somaliland, Puntland, and South Central Somalia. In addition SIRIP is working with more than 39 local and international organizations to implement and institutionalize the program throughout the country. This year SIRIP has selected 11 organizations (3 in Somaliland, 4 in Puntland and 4 in South Central) to recruit and establish learning centers for out of school youth.

Most importantly, students following SIRIP programs through the radio performed better than learners in control schools. Results show that in both math and literacy tests, SIRIP students score higher.

The table below presents performance of Grade One learners in a sample of schools that participate in IRI and other schools that are not using IRI. The Grade One assessment consisted of two subtests: Somali literacy with a maximum of 34 points, and Mathematics with a maximum score of 20 points. Table 1 presents the mean scores for the overall test and for the subtests for all learners – those using IRI as well as those in control schools.

Table 1: Mean scores on Somali and Math Tests for Grade 1

Learners	Subtest	N	Maximum Score	Mean	Mean Percent
IRI	Somali Pretest	852	34.0	10.3	30.3
	Somali Posttest	681	34.0	21.7	61.8
	Math Pretest	849	20.0	10.2	51.0
	Math Posttest	683	20.0	14.2	71.0
Control	Somali Posttest	245	34.0	18.3	53.8
	Math Posttest	245	20.0	11.8	59.0

Source: Letshabo, K., Kariuki, S., & Yasin, S. (2007)

Assuming that the baseline would be similar for learners in control schools (pretest data for control schools is not available), IRI learners performed better than learners in non-IRI control schools in both subtests (61.8 percent compared to 53.8 percent in Somali Literacy, and 71.0 percent compared to 59.0 percent in Math). The comparison between IRI and control learners gives an indication of the value added by IRI programs.

In the third year of the project, the programs were followed by over a quarter million children across the Horn and 70 percent of all Grade One to Grade Three students. Programs will soon reach the majority of Grade Four and Five learners. In the fourth year extension, the project aims to reach an additional 25,000 out-of-school children.

Challenges

Insecurity, fragmented and often competing regional authorities and logistical issues presented major challenges for project implementation. Violence and insecurity in major areas of the South-Central Somalia hampered project activities including distribution, teacher trainings, and monitoring. This was partially overcome by project partners continuing to carry out project activities amidst the

uncertainty and insecurity. Teacher training and distribution targets had to be revised as activities had to be stopped. Somalia's varied and adversarial authorities also placed demands on the project that caused implementation delays. In some regions, the lack of independent radio stations also limited program reach. Finally, the lack of quality printing presses in Somalia forced SIRIP to seek alternative printing options outside Somalia. Unfortunately, this in turn resulted in significant delays in printing and transporting large numbers of materials from outside the country.

Southern Sudan

Introduction

In January 2005, the Comprehensive Peace Agreement (CPA) was signed, officially ending Africa's longest running civil war. "The interim national constitution authorized the creation of the Government of Southern Sudan (GOSS) and initiated a six-year interim period, after which Southern Sudan will hold a referendum on independence in 2011. During the 21-year conflict, fighting, famine, and disease killed more than 2 million people, forced an estimated 600,000 people to seek refuge in neighboring countries, and displaced 4 million people within Sudan—the largest internally displaced person (IDP) population in the world. The U.N. estimated that hundreds of thousands of displaced persons returned to Southern Sudan since the peace accord, taxing scarce resources and weak infrastructure." (USAID, 2007).

During the past five years, Southern Sudan has shifted from humanitarian assistance to development. In the education sector, a new Ministry of Education, Science and Technology (MoEST) has been created at both the central level and in each of the ten newly created states. A new primary school curriculum has been developed as well as a new system for teacher education. In short, there has been significant progress in creating a new system of education in the four years since the signing of the CPA.

The new MoEST is working with enthusiasm and commitment, but the challenges are great. The creation of a new system started with statistics among the worst in the world, although there has been notable progress in the last few years.

- Primary school enrollment up from about 400,000 in 2005¹ to 1,156,461 in 2008.
- 23,025 primary school teachers resulting in a pupil-teacher ratio of 50:1. When visiting schools, especially in urban areas, it is common to see class sizes of 100 or more pupils. 65% of the teachers have had no training. 31% have had minimal training and only 4% have completed pre-service teacher training or a diploma program. Only 12% of the teachers are female
- Of 13,473 classrooms, only 3,026 (22%) are a permanent structure, 5,458 (41%) are semi-permanent (e.g. roof only, mud walls, tent, etc.), and the remaining 4,989 (37%) classes are held under trees.
- In grades 1-4, there is approximately 1 child per textbook and, in grades 5-8, there are approximately 11 children for each textbook.

Primary school enrollment has increased significantly as well as the number of teachers. And, for the first time, most of the teachers are being paid a salary. New textbooks are being distributed and the

¹ The population data from the recent census is not yet available, thus, enrollment rates cannot be calculated. However, the Gross Enrollment Rate is not likely to be above 30%.

SSIRI educational radio programs have been introduced in several hundred schools. Also, the number of non-formal or “alternative education” centers has risen dramatically.

Perhaps the most encouraging sign is that the peace between the North and South has held with only minor incidents, but the tensions remain high and relapse into fighting remains a possibility. To quote a recent article in the *Daily Nation*, "For nearly a year now, anger has been building up in the South Party-led (MCP) government's refusal to implement the peace agreement... By some estimates, more than half the population of southern Sudan has seen only war. Old people have never seen peace, except the lulls immediately following the signing of the peace agreements...." (Dean, Nov. 2002).

Interactive Radio Instruction as an Intervention

In spite of recent accomplishments, the reality for most schools throughout Southern Sudan is that many classes meet under trees, teachers remain unqualified, and few instructional materials are available. Given this scenario, USAID initiated a project to develop and broadcast educational radio programs in order to help improve the quality of education in primary schools, to strengthen teacher education, and to improve skills in English language, which is the new official language of the South.

Why radio? It can reach anywhere within the reach of radio transmission coverage, even in the most remote areas of the country where access is limited. Thus, it overcomes the constraints of transport and communications. Radio, especially IRI, has decades of proven success in improving the quality of education. Thus, radio programs can help to overcome the problem of low quality education. Furthermore, radio can be used successfully by inexperienced teachers. Thus, it overcomes the barrier of poorly qualified teachers. Radio programs can improve the skills of teachers and, thus, it can help to address the challenge of strengthening the teaching force. Finally, it is a relatively inexpensive medium and overcomes the constraint of limited budgets.

The Southern Sudan Interactive Radio Instruction (SSIRI) Project (2004-2009²) designs, develops, produces, and broadcasts interactive radio instruction programs. This program builds upon decades of successful experience with IRI. SSIRI is a program of the MoEST within the Department of Alternative Education Systems. It is funded by USAID and administered by EDC, which has extensive experience implementing effective programs using radio and other technologies in many developing countries. (http://main.edc.org/centers/international_education_systems_ies) The project has the following four major components:

- **Primary Education** - The *Learning Village* consists of 420 daily half-hour programs in English, local language literacy, mathematics, and life skills for grades 1 to 4.
- **English** – *Learning English* provides English language instruction to youth and adults while engaging the learners in civic education, numeracy, and health topics. There will be 240 half-hour radio programs from beginning to advanced levels of English.
- **Professional Studies for Teachers** – This is a radio-based, distance-learning course to improve teaching.
- **Other technologies** – SSIRI incorporates other technologies, especially to support teacher education including VSAT/Internet in computer centers plus video production. In addition, SSIRI is also focusing on the use of digital devices including portable media players that can be an alternative to radio for delivering programs in some locations.

² The project is expected to be extended to 2012.

Primary Education – *The Learning Village*. At the heart of SSIRI are daily half-hour radio broadcasts to primary schools throughout Southern Sudan and the Three Areas (Abyei, Southern Kordofan/Nuba Mountains, and Blue Nile), which border the North and South and have special provisions under the CPA. Each half-hour lesson is based on the Ministry's syllabus. There are 100 lessons for grades 1-3 and 120 lessons for grade 4. The programs for grades 1-3 were broadcast in 2007 and 2008 and grade 4 will be added in 2009. In addition to the core subjects of local language literacy, English, and mathematics, there are important segments covering life skills including HIV and AIDS, mine awareness, peace education, and health.

The SSIRI programs are broadcast in English and, thus, require that the classroom teacher translate the instructions into the local language. The process works well, but only with teachers who have a sufficient level of English. This requirement is a significant challenge for the project, as many teachers have been teaching in Arabic or local languages and don't have strong English skills.

There is a high degree of interactivity within the IRI programs among the radio teachers, classroom teacher, and children. This interaction has been the hallmark of IRI programs since their inception in the mid-1970s³. Active participation of the children in the learning activities is a key factor in the success of the program. The scripts are carefully crafted to ensure that the children remain engaged and responsive.

English language – The second radio series under SSIRI is designed to strengthen English. As English is now the official language of Southern Sudan, there is an enormous demand for learning English. Formerly, Arabic was the official language. EDC is creating a series of 240 half-hour radio lessons ranging from beginning to advanced levels. The lessons are grouped into the following levels:

- *Learning English - Beginners* (120 lessons). These programs are designed for listeners to meet in groups under the direction of a facilitator who can lead the class and translate the English instructions into the local language as necessary. These lessons are highly interactive and teach basic numeracy skills as well as English.
- *Learning English - Intermediate* (60 lessons). At this level, the radio teachers transition from giving instructions to the facilitators to translate for the learners to talking more directly to the listeners. The content of these lessons will focus on the Comprehensive Peace Agreement in preparation for the referendum in 2011.
- *Learning English - Advanced* (60 lessons). These lessons are designed for independent listening - for anyone with access to a radio. The lively interaction in the broadcasts takes place within the context of a fictional market place, where ordinary Sudanese people share experiences about the pre- and post-peace agreement era in Sudan. The content of the lessons focuses on civic education - demobilisation, disarmament and reintegration (DDR), land ownership, democracy, the role of civil society organisations in development, and constitutional issues such as the Bill of Rights and the rights of women. Each program uses part of a previously broadcast Sudan Radio Service (SRS) newscast as a springboard for the lesson.⁴

³ The first IRI project was the Radio Mathematics Project in Nicaragua beginning in 1974 funded by USAID and administered by Stanford University. One of the authors of this paper Thomas Tilson was the Assistant Director of that project.

⁴ The Sudan Radio Service (SRS) is another project of EDC funded by USAID. It focuses on providing news and information and broadcasts five hours a day, seven days a week. Programming is aired in nine languages.

Professional Studies for Teachers – In addition to the direct benefits to teachers from the short IRI orientation and their actual use of the interactive programs with their pupils, EDC has developed an initial series for teacher training. This program is based on the in-service program of the Ministry. This first module, known as PS101, consists of twelve half-hour programs that focus on strengthening classroom management skills.⁵

The teachers are organized by groups under the direction of a local instructor. For the first weekly lesson, the teachers meet with the instructor to receive an orientation to the program, to listen to the first lesson, to receive a radio or MP3 player, and to obtain the workbook. Then the teachers return to their schools where they listen to a half-hour lesson each week for the following ten weeks. The teachers are asked to apply the concepts that are covered in the broadcast in their classroom during the week and to complete a written assignment in the workbook to be submitted to the instructor. The instructors are expected to visit each teacher twice during the ten-week period. For the twelfth week, the teachers again meet in a group with the instructor in order to hear the final lesson, share experiences, participate in a final assessment, and receive a certificate.

Radios and Broadcasting.

SSIRI is fortunate in having several thousand radios available to distribute to all participating schools and listening groups. USAID provides funds to the National Democratic Institute (NDI) to procure radios and EDC then receives its share of the radios from NDI for distribution.

The radios are special in that they do not need outside electrical power or batteries, which can be a major barrier to sustainability. The radios are made by Freeplay Energy plc (www.freeplayenergy.com) that has made a name for itself in developing wind-up radios. The larger radio model, Lifeline, has AM/FM/SW frequencies and provides a volume output and sound quality adequate for classroom use. It has a removable solar panel for charging the radio's internal battery as well as an integrated crank self-charging system.⁶

At the end of 2008, EDC discontinued the shortwave broadcast of programs because of inconsistent reception of the shortwave signal during daylight hours. EDC now uses only FM or AM broadcasts through partner radio stations. SSIRI is benefiting from the generosity of Radio Miraya FM, which is sponsored by the UN and the Hironnelle Foundation. It is a centralized radio system with all programming emanating from Juba, the capital of Southern Sudan, but with relay transmitters across the country so that it now reaches over 50% of the population of Southern Sudan. In addition to Miraya Radio, SSIRI programs are broadcast on approximately ten other stations providing additional coverage and broadcasting at times convenient for the listeners.

Digital Technologies including Portable Media Players

Although SSIRI is, fundamentally, a radio-based project, it is also exploring low-cost alternatives to deliver audio programs to classes or groups that cannot meet at the time of the broadcasts, or where the schedule of the radio series is out of sync with the calendar of the schools or listening groups.

⁵ The core ten radio lessons in this module were developed by another USAID supported project - the Sudan Basic Education Program (SBEP).

⁶ Freeplay Energy is currently designing an improved Lifeline radio with a louder sound, digital display, faster wind-up charging capacity and, most importantly, a SD card slot and/or USB port so that the radio can play stored audio files.

EDC has done considerable research with the assistance of a consultant⁷ on relatively low-cost devices for delivering the SSIRI programs – ranging from MP3 or MP3-like devices with small speakers to large boom boxes with rechargeable batteries and solar charging panels.

EDC has selected a few low-cost options and has begun to test them in Southern Sudan. The basic system consists of the following:

- An MP3 or MP3-like device that can hold all of the audio lessons for one primary school grade (up to 120 half-hour programs or 60 hours) or all of the lessons of one of the *English* series (60 half-hour programs or 30 hours).
- An external speaker
- A recharging system for the batteries – either a solar panel or a hand cranked charging device⁸

Beginning in late 2008, EDC began implementing one of the higher-end systems in all SSIRI schools and listening groups in Southern Kordofan – initially for about 70 teachers. The initial findings are positive – clear, loud sound in the classroom, ease of use by the teachers, and a solar panel recharging system that is working well.

For the teacher education program, no external speakers are needed because the teachers can listen to the programs individually. Thus, the system includes only the MP3 player with earphones and a simple solar unit for charging the battery.

Goals of the SSIRI Project

Programs to be developed:

- 420 half-hour radio lessons for grades 1, 2, 3, and 4 in local language literacy, English, mathematics, and life skills – *The Learning Village*
- 240 English language radio programs including civic education, CPA, health, and mathematics – *Learning English*
- One series of the *Professional Studies for Teachers* program – *PS101*.
- The introduction of digital devices for the delivery of audio programs
- Higher level technologies for teacher education including VSAT/Internet and basic video production

Target participants

- 110,000 primary school children
- 101,000 youth and adults with the English programs
- 2,600 teachers trained in Interactive Radio Instruction
- 130 education officials trained in managing SSIRI programs

⁷ Matthew York, producer of *Videomaker* magazine. Much of the work developed for EDC can be found on the website that he created www.ompt.org for One Media Player per Teacher (OMPT). Information on types of devices can be found at <http://www.ompt.org/TechProductsEquipment.html>.

⁸ In other countries, EDC is working with the Apple iPod, which is a more expensive option, but has the major advantage of storing hours of video programs as well as an almost limitless number of audio programs. <http://ies.edc.org/T4India/>, http://main.edc.org/projects/zambia_quality_education_services_through_technology_questt_project

Achievements to Date

The major accomplishments are the following:

- Primary School– The Learning Village
 - In 2008 approximately 73,000 primary school children in P1-P3 classes listened to the programs with teachers trained in IRI.
 - The findings of an achievement test for grade 1 showed that the IRI students made strong learning gains and outperformed students in traditional classes. The following excerpt is from the Executive Summary of the final report:

The first question of the evaluation was whether learners that are exposed to IRI programs achieve basic literacy and numeracy skills stipulated in the curriculum for the Primary 1 level. Significant gains were registered in all three subtests, even though learners performed poorly in Local Language Literacy. Learners registered a gain of 27.8 percent in English, from a mean pretest of 15.4 percent to a mean posttest of 43.2 percent. Learners gained 12.7 percent in local language literacy, from the mean pretest of 15.3 to 27.7 percent in the posttest, while the gain in mathematics was 21.8 percent (from 35.1 percent to 56.8 percent).

The results showed, also, that learners in IRI schools performed better in all three subtests than learners in non-IRI control schools. The mean difference between IRI and control learners was 14.1 percent for English, 4.3 percent Local Language Literacy and 4.3 percent for Mathematics. There were benefits in learning for learners who attended school and were present during IRI lessons, and learners whose teachers were trained in IRI performed better than those whose teachers did not receive IRI training. (Letshabo & Mola, 2008)

- Learning English Programs
 - In 2008 the Learning English programs were broadcast to over 12,000 registered listeners in groups plus a large number of individual listeners.
 - An audience survey of random households in six communities conducted in December 2008 revealed the following listenership data⁹, for Learning English – Advanced, designed for individual listening, and the Learning Village, designed for pupils in primary schools.

Table1: Findings from Listenership Survey.

Findings	<i>Learning English -Advanced</i>	<i>Learning Village</i>
Listened to the programs	30%	64%
Of those who listened, the percentage of individuals who listened to the programs daily	73%	73%
Would listen again in the future	78%	84%
Listened to the programs at home	77%	81%
Found the programs “very appealing”	76%	78%

Source: (Mollah, 2009)

⁹ The conversion of percentage of listeners to an estimate of the number of listeners will be calculated once the census data becomes available in 2009.

- Professional Studies for Teachers – PS101
 - In 2008 PS101 was launched in three counties in Western Equatoria State with 70 teachers. In 2009, the program will be part of the rollout of the in-service teacher training program of the Ministry in newly established county education centers.
- More sophisticated technologies for teacher education
 - Tutors at the Arapi and Maridi Teacher Training Institutes have made great progress using their new computer centers with Internet. They communicate regularly through email and have even begun having collaborative meetings using Skype. They are also identifying many useful materials for their classes. And, finally, they have created their first video productions that are expected to lead to the production of videos that will enhance their classes.

SSIRI is fortunate in having strong support from both the MoEST and USAID. The program has ample radios and the use of a national FM system and several local radio stations. Program development is proceeding well and implementation is expanding. Thus, the SSIRI radio programs are helping to ensure a better education for children and improved capacity of teachers. It is contributing to national development, the continuation of peace, and a reduction of the fragility of the country.

Somalia and Southern Sudan - Conclusions

This paper presents two case studies using Interactive Radio Instruction as a relatively quick and effective intervention in fragile states. Radio is particularly appropriate in these settings because high quality instruction can be delivered into classrooms or learning groups where a system of education is weak, where there is little infrastructure, and where instructional materials are limited and the teachers are not well qualified. The programs model effective pedagogy and actively engage both the learners and teachers in interactive, participatory learning experiences. The summative evaluation conducted in Somalia follows the results of previous IRI projects in showing marked achievement gains for the IRI learners, and the Southern Sudan project is working on innovative ways to incorporate low-cost technologies as an alternative means to deliver audio programs to the learners. SIRIP and SSIRI provide high quality education under difficult and challenging circumstances; together, these projects illustrate the power and promise of radio to bring good education to those who are hardest to reach.

References

- ED*ASSIST Southern Sudan Primary Application database (2008). Juba, Southern Sudan: Ministry of Education, Science and Technology
- Dyan, D. (2007). How much longer will Sudan peace deal hold? *Daily Nation*. November 2, 18-19). Nairobi, Kenya.
- Letshabo, K., Kariuki, S., & Yasin, S. (2007). SIRIP Grade One Evaluation Report. EDC. Somalia.
- Letshabo, K & Mola, J. (2008). Southern Sudan Interactive Radio Project – Grade 1 Evaluation. EDC, Nairobi, Kenya.
- Mollah, W. (2009). Southern Sudan Audience Research Report on PowerPoint. Consumer Options. Nairobi, Kenya
- USAID (2007). Sudan – Complex Emergency. *Disaster Assistance*. Retrieved February 15, 2009, from http://www.usaid.gov/our_work/humanitarian_assistance/disaster_assistance/countries/sudan/ce_index.html