



USAID
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STEP/ATEC Madagascar Final Report

Volume 1: Technical Report



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2009

STEP/ATEC Madagascar Final Report

Volume 1: Technical Report

Associate Cooperative Agreement Number 687-A-00-06-00002-00

Under Leader with Associate Award No. GDG-A-00-01-00011-00

TABLE OF CONTENTS

	Page
I. EXECUTIVE SUMMARY.....	2
A. PROGRAM DESCRIPTION.....	2
B. STEP/ATEC MADAGASCAR'S CONTRIBUTION TO USAID STRATEGIC PROGRAMMING.....	5
II. SUMMARY OF PROJECT ACTIVITIES AND PERFORMANCE BY COMPONENTS	
A. COMPONENT 1: RADIO-SUPPORTED TEACHER TRAINING	
1. OVERVIEW.....	7
2. INDICATOR STATUS.....	32
3. SUCCESS STORIES.....	35
B. COMPONENT 2: PARENT TEACHER ASSOCIATIONS	
1. OVERVIEW.....	38
2. INDICATOR STATUS.....	50
3. SUCCESS STORIES.....	52
C. COMPONENT 3: DECENTRALIZATION OF TEACHER EDUCATION	
1. OVERVIEW.....	55
2. INDICATOR STATUS.....	67
3. SUCCESS STORIES.....	69
	70
III. OVERALL IMPACT ON TEACHERS, SCHOOLS AND COMMUNITIES.....	73
IV. LESSONS LEARNED AND RECOMMENDATIONS.....	

I. EXECUTIVE SUMMARY

A. PROGRAM DESCRIPTION

The **S**upporting **T**echnology for **E**ducations and **P**arents Program (**A**ppui **T**echnologique aux **E**ducateurs et **C**ommunautés) (STEP/A TEC) was implemented in Madagascar by the Education Development Center, in partnership with the Ministry of Education. The program began in November 2005, with funding obtained through the pre-competed dot-EDU Leader with Associates (LWA) award, and was scheduled to end in March, 2008. A no-cost extension approved by USAID Madagascar in February 2008 enabled the program to continue its activities until September 30, 2008. New funds were added to the Leader Award at that time, enabling the program to extend its activities until November of 2010. In July of 2009, USAID requested that the program suspend all activities, due to the non resolution of the 2009 political crisis in the country.

When the program began in 2005, Madagascar was just emerging from its 2002 political crisis, which reversed most of the economic gains of previous years. In 2003, the Malagasy government initiated an Education for All (EFA) program with the view to provide equal access to quality basic education to all Malagasy children and to produce an educated work force capable of contributing to the realization of the country's economic goals. The objectives of that initial education reform program were to develop strong teacher training, community outreach, and local planning capacities so that every child in the public system could have access to high-quality basic education.

Goals - The goals of the STEP/A TEC program, as defined in 2005, aligned with the 2005 EFA priorities as defined by the Malagasy Ministry of Education. Specifically, the goals were to: 1) strengthen in-service teacher training; 2) increase community support to local primary schools, and 3) strengthen local capacity to plan and deliver pertinent teacher professional development programs. In 2008, a review of the progress achieved since 2005 revealed that Madagascar, like many countries involved in the Education for All initiative, was well on its way to meeting the targets with respect to increased access to elementary schooling. However, the high student dropout rate and low primary completion rates suggested that the rapid expansion of the primary school system had come at the expense of significant compromises in quality.

In an attempt to redress the situation, and at the same time to better prepare students to participate in an increasingly global economy, the Ministry of Education decided to expand the educational reform program. Critical elements of the expanded program included: 1) introducing “official” Malagasy as the language of instruction for the first 5 years of schooling; 2) introducing French as a second language starting in grade 1 and as a language of instruction for some subjects beginning in grade 6; 3) introducing English as a second language beginning in grade 6, and eventually in grade ; 4) expanding efforts to decentralize the management of the educational system, and to involve parents in school governance; 5) institutionalizing a decentralized and self-directed teacher education program nationwide that would recognize and respond to teachers’ professional development needs and priorities.

For that reason, and with the full support and encouragement of the Ministry and USAID Madagascar, in September of 2008 the goals of the STEP/ATEC program were expanded to include:

- The identification of reliable and affordable interactive audio delivery mechanism(s), over the short, medium and long term, to allow all primary teachers in the country, regardless of their degree of geographic isolation, to access interactive audio programming;
- The completion of studies to determine the impact of interactive audio programming on students’ achievement levels;
- The development of self-directed multi-media learning materials for teacher networks interested in developing basic English language skills.

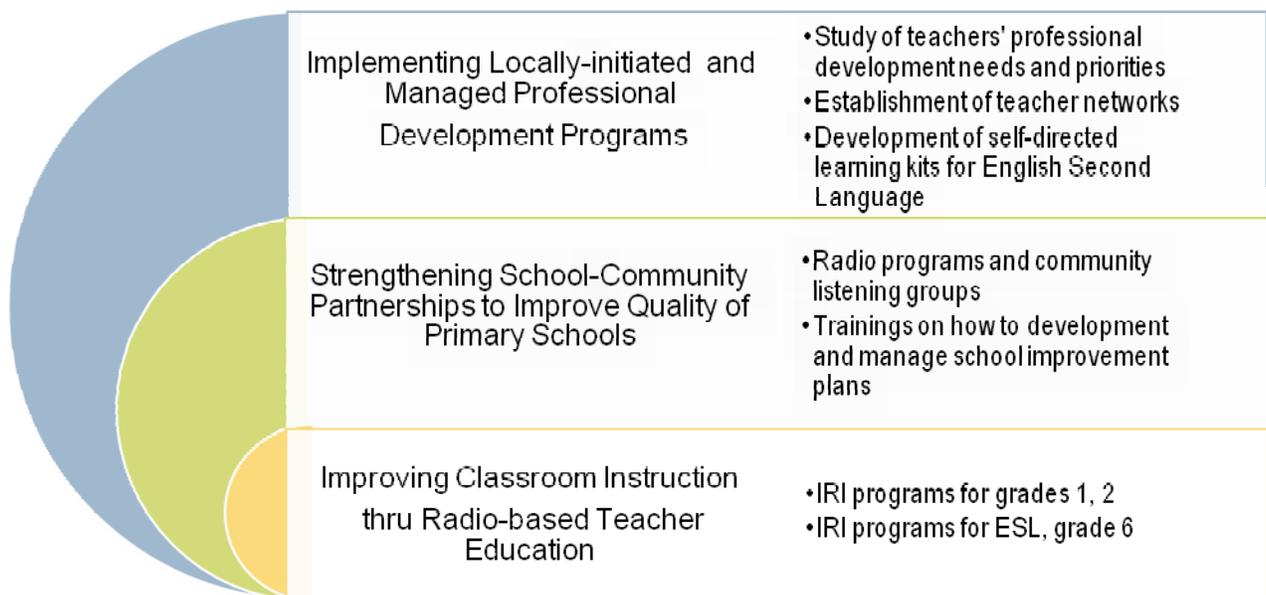
Approach - The overall approach throughout the three and a half years of the STEP/ATEC program was to use a combination of context-appropriate technology—interactive radio instruction, community radio programs and digital applications—and face to face trainings as a catalyst for action and a mechanism by which to build Ministry personnel’s capacity at both the central and decentralized levels. The program would leverage the Ministry’s prior experience with radio and its interest in the use of computer and digital technologies, to assist it in developing:

- a set of renewable, radio-based in-service teacher training resources (Interactive Radio Instruction, or IRI) to provide ongoing, on-the-job training to grades 1 and 2 teachers and to English Second Language teachers in grade 6;

- a set of radio programs (accompanied in some cases by additional face-to-face training) to inform and educate parents, community members and members of Parent Teacher Associations on what they can do to support the delivery of quality basic education in their communities and how to involve all members of the community in school improvement projects;
- central and regional capacity to utilize available digital and computer technologies to identify teachers' professional development needs and develop and implement locally initiated training programs to meet those needs.

The result would be more transparent and participatory school management, a radio-based teacher training programs delivered directly to teachers' classrooms and integrated into their teaching week, and a more responsive and pertinent face-to-face professional development program.

Graphic 1: Areas of focus and Related Deliverables



Collaboration - A critical element of the program, and one of the key contributors to its success, was the recognition of the need to embed all activities in the Ministry of Educations' Education Reform work plan, as outlined in its Education for All Program. All activities were designed in close collaboration with appropriate departments of the Ministry of Education at the national or regional level, and carried out by Ministry technicians. The close partnership established with Ministry

technicians at all levels of the system was one of the primary contributors to the success of the program.

Geographic focus - Between 2005 and 2008, all program activities were carried out in six school districts (CISCOs) in three regions (DRENS): Vatomandry and Toamasina II in the Atsinanana Region; Ambohimasoana and Fianarantsoa II in the Haute Matsiatra Region; Betioky Sud and Toliara II in the Atsimo Andrefana Region. Regional STEP/ATEC offices were established in each of the regional directorates of education and a small local team recruited jointly by EDC and the Regional Direction of Education to facilitate the implementation of activities in targeted school. In addition, a national office was established in the National Institute for Professional Development (INFP) in Mahamasina, Antananarivo, to coordinate all program activities, and to assist the Ministry to develop interactive audio materials for primary classrooms.

With the launch of the second phase of the STEP/ATEC program on October 1st, 2008, and in keeping with the Ministry's expressed request to move away from a project-based approach to a programmatic one, all STEP/ATEC activities were integrated into the Ministry's overall implementation plan. A co-financing arrangement was set up whereby USAID funds would finance implementation activities in a limited number of school districts, many of which were the same school districts targeted during Phase 1, and the Ministry would finance a parallel implementation in the other school districts and regions of the country. As the technical activities planned for 2008-2010 focused primarily on the development, in collaboration with the National Institute for Professional Development (INFP) and the Direction of Curriculum and Instructional Materials (DDC), of curriculum and teacher education materials to support the implementation of the new reform program, the regional offices were closed and all technical activities consolidated in the STEP/ATEC office located in the INFP in Antananarivo.

B. STEP/ATEC MADAGASCAR'S CONTRIBUTION TO USAID STRATEGIC PROGRAMMING

USAID Madagascar's has three primary objectives: 1) Improve the Environment for Private Initiative; 2) Promote Smaller, Healthier Families; and 3) Conserve Biologically Diverse Ecosystems in Priority Conservation Zones . It does not have a strategic objective for the education sector. However, USAID Madagascar does recognize that access to quality education, and in particular to quality basic education, is key to reducing poverty in the country, nurturing a legal, policy, and

institutional environment that promotes private initiative and contributes to sustainable economic development and ensuring Madagascar's effective integration into the global economy.

Although USAID's resources for the education sector have been modest compared to other partners and donors, its impact has been significant. Through the STEP/ATEC program, and as a result of the close partnership that program enjoyed with the Ministry of Education, USAID created a premier lab for piloting new models of teacher education programs –programs that produced impressive results and consequently were fully integrated into the Ministry's Education Reform Program. Over the past 3 and a half years USAID has become a valued and trusted contributor to the Ministry-Partner dialogues and to the development of a comprehensive and thoughtful reform program that, if implemented, has the potential to significantly improve the quality of teaching and learning throughout the country, and in particular in the most vulnerable, rural areas.

II. SUMMARY OF PROJECT ACTIVITIES BY COMPONENT

STEP/ATEC program activities were focused on three complementary components of quality schools: 1) Improved Teacher Instruction Practices, 2) Strong School-Community Partnerships and 3) Decentralized Teacher Education Programs. The activities undertaken with respect to each of these components are described below. Each description is followed by a review of the performance indicator results, and the accompanying success stories.

A. COMPONENT 1: RADIO-SUPPORTED TEACHER TRAINING

1. Overview

Interactive Radio Instruction (IRI) was one of the principal tools used by the STEP/ATEC program to improve teachers' instructional practices.

At the time the decision was made, the Minister of Education was concerned that a significant percentage of teachers were unable to apply the student-centered instructional techniques and strategies called for in the new primary competency-based curriculum (APC).

Unfortunately, the Ministry did not have the financial or human resources to provide extensive, high-quality face-to-face trainings to these teachers. The success of the implemented of the new curriculum rested in large part on the Ministry's ability identify a cost-effective training mechanism that would assist all primary teachers, and in particular community-based or FRAM teachers who had not attended a pre-service training program, to implement competency-based methodologies more consistently and successfully.

Interactive Audio Instruction, provided directly to classrooms, is an innovative and highly successful means of encouraging teachers to adopt new instructional practices. The audio programs that teachers use with their students provide them with a broader familiarity with the tenets of the new situated learning approach outlined in the curriculum, as well as with intensive practice in the application of the active pedagogies that support it. During an audio program, teachers are asked to follow an instructional model that accomplishes three purposes: students learn; teachers learn to teach better through hands-on practice under controlled conditions (as opposed to more abstract training that happens outside of the classroom); and teachers come to see how good classroom practice leads to improved learning.

For the Ministry of Education, IRI seemed a viable and cost effective solution. By broadcasting directly into classrooms interactive programs that modeled for teachers the new strategies and approaches outlined in the curriculum, the Ministry would be able to provide teachers in the most isolated and rural regions the scaffolding and guidance needed to help them adopt new, innovate teaching practices.

While Madagascar had had some experience with the medium of IRI (the country used a version of IRI programming for student audiences decades earlier), current Ministry technicians had never received training in how to develop interactive radio programs that focused primarily on introducing teachers to new instructional practices. Designing programs that would do that effectively, given the broad and unique training needs of the Malagasy primary teaching population, constituted a formidable challenge for the Ministry.

Development of a first generation of *Izaho Koa Mba Te Hahay!* IRI Programs for Grades 1 and 2 (May 06 to April 08)

In May of 2006, the Ministry of Education named 4 Ministry technicians to a scriptwriting/production team. The technicians were trained by the Chief of Party and other EDC IRI specialists on how to design and produce interactive radio programs for grades 1 and 2 and for a competency-based approach

In November of that year, the Ministry recruited three Malagasy interns with degrees in communication, as well as an American intern, to support the work of the Ministry team. Between May 2006 and April 2008, the 7 member team produced 150 twenty-five minute interactive radio programs: 75 for grade 1, and 75 for grade 2, as well as an accompanying teacher's guide for each grade level.

The Ministry decided to focus on grades 1 and 2 because of the recognition of the importance of improving the quality of teaching and learning at these grade levels. At the time, some 50% of students were dropping out of school before completing grade 5, and the vast majority of those who dropped out did so by the end of grade 2. If Madagascar was to improve its retention and success rate, it needed to provide young children with a better learning experience and a reason for staying in school.

The teacher's guides contained a forward signed by the Minister of Education, as well as: 1) an introduction explaining the purpose of the interactive radio programs; 2) an explanation of the formats of each of the three types of

programs (Malagasy, French and Mathematics); 3) an introduction to the main radio characters; 4) an overview of the various teaching strategies presented and 5) an explanation of how to use the wind up radio. Each of the 75 programs was described so that teachers could prepare themselves before the day of the actual broadcast. The description included information about the learning objectives covered in the program, the different activities teachers would be asked to carry out with their students and suggestions of activities teachers could do after the radio programs, or that students could do at home that evening with the parents.

Production of the programs - The programs were produced in the newly-installed Ministry recording studio at INFP. UNICEF and the Kingdom of Norway financed the physical installation of the studio, as well the purchase of the initial equipment. STEP/ATEC financed the rehabilitation of the scriptwriting rooms, as well as the purchase of additional equipment to bring the studio up to the technical standards required to produce high quality, digital productions. The Ministry recruited, with its EFA funds, a sound engineer to record and mix the initial programs. When the production schedule reached the point where one technician was no longer able to keep up with the scriptwriters' output, the STEP/ATEC programs recruited a second sound engineer whose salary was covered by USAID funds.

The original work plan called for the programs to be developed in local dialect, and broadcast to schools in the three target regions. At the request of the Ministry, and in keeping with Ministry policy to use "official" Malagasy as the language of instruction, a single version of the programs was developed, in Official Malagasy, and the programs broadcast nationwide, to provide all children equal access to the learning resource.

The Ministry and the STEP/ATEC program co-recruited recording artists to interpret the two primary characters, Mr. Lemazoto and Madame Maeva. Three children from schools in the neighborhood of the INFP were recruited to interpret the voices of the child characters: Vavaroa, Faly and Mendrike. Authorization was obtained from the Work Inspector to have the children to work on the radio programs. The three children came faithfully once a week between November of 2006 and March of 2008 to the INFP studio to record their characters' parts.

The studio technicians received an initial training in October-November 2006 from Max Graef, Founder of RadioActive, a British-based NGO, on how to use the new Mac-based systems (Pro tools 7). In August 2007 Jhonny Celicourt, a production specialist from Haiti, spent 2 and a half weeks working with the recording artists and the production team to improve the artistic quality of their work. His

interventions focused on how to use voice to dramatic effect, as well as how to mix voice, sound effects, and music effectively and efficiently, during both the recording and post production phases.

Draft scripts were reviewed by the Chief of Party to ensure that the instructional strategies aligned with the principles of competency-based instruction and modified before being sent to the studio for recording and mixing. Once studio technicians completed an initial audio version of a program, it was submitted to scriptwriters on CD or MP3 format for field testing.

Field testing of the programs – At the request of the Ministry, the programs were field tested in rural schools in a variety of regions and settings, to ensure that they could be easily understood by speakers of different regional varieties of Malagasy. Although “Official Malagasy” is supposed to be the language of instruction in Malagasy primary schools, in reality teachers resort to the local variety of Malagasy in order to ensure that students understand the learning activities. Since the radio programs used Official Malagasy, it was important to test them in a variety of settings to ensure that teachers would be able to understand the instructions provided and where necessary, interpret them correctly for the students.

Each of the programs was field tested twice in rural schools selected from the 6 partner school districts. During field tests script writers observed teachers’ and students’ reactions to the different learning activities proposed and used the data to identify less effective segments. They also noted any technical irregularities in the recordings (volume of segments, missing sound effects, missing lines in the script, repeated lines, etc.). At the end of the observation teachers were interviewed to solicit their ideas on changes that would increase the quality and effectiveness of the program. The field testing contributed significantly to the improvement of scriptwriters’ competencies, and in particular their understanding of what ‘active learning’ looks and sounds like.

The data collected during the field tests were used to produce a final version of the script, as well as a list of changes. The two documents were then submitted to studio technicians and voice artists and a new audio version of the program produced. The final, revised program was then submitted to an internal validation committee charged with the responsibility of ensuring that all requested changes

had been incorporated into the program and that the technical quality was of the standard required.

Training of teachers – Two different approaches were used to train grades 1 and 2 teachers: Radio programs and face-to-face trainings delivered by local facilitators.

Via radio programs – Although the Ministry was committed to broadcasting the programs nationwide beginning with the 2007-2008 school year, in May they realized that they would not be able to train all grades 1 and 2 teachers on how to use the new radio programs prior to the start of the broadcasts, due to an over charged professional development calendar. As a temporary measure, they requested that the STEP/ATEC scriptwriters develop a series of five twenty-minute radio programs that would introduce parents and teachers to the new interactive radio programs and how they are used in the classroom. The first two programs examined the nature of interactive radio programs and introduced the primary radio characters. Programs 3, 4 and 5 examined in greater detail the particular structure of each of the Malagasy, Mathematics and French programs, as well as the types of learning activities included in each of the different programs. The five programs were broadcast once a week (with the same program being rebroadcast later on during the same week) on the national public radio station (RNM) beginning in July, 2007, and rebroadcast again in mid August.

Via face to face trainings - Segments of the five radio programs were integrated into a multi media facilitator's kits developed for local area supervisors (Chef ZAPs) and CISCO personnel to assist them in training teachers on how to use the programs effectively in the classroom. Each kit contained 7 different audio cassettes, an audio-cassette player, 8 batteries and a facilitator's manual outlining how to organize an initial three-day training as well as 13 follow-up sessions. The manual also provided Chef ZAPs with data collection tools to use during classroom observations of how teachers are using the radio programs in the classrooms. The tools were designed to help local supervisors pinpoint what teachers are doing well, with respect to the usage of the programs, as well as things that they might consider doing differently.

CISCO, DREN and CRINFP representatives were trained in how to use kits in late July/early August 2007. They in turn trained the local area supervisors in their school district/region. A total of 140 Ministry representatives participated in the trainer of trainers' sessions.

Table 1: Training of DREN, CRINFP and CISCO representatives in how to use IRI facilitator's kit

DREN	CISCO	Number of Teacher's College Instructors personnel who participated in the training		Number of DREN representatives who participated in the training		Number of CISCO personnel who participated in the training ¹	
		Male	Female	Male	Female	Male	Female
Atsinanana	Toamasina II	1	0	1	0	18	1
	Vatomandry					17	0
Haute Matsiatra	Ambohimahaso	0	0	1	0	21	0
	Fianarantsoa II					39	1
Atsimo Andrefana	Toliara II	1	0	0	0	23	0
	Bétioky					19	0
TOTAL		2	0	2	0	134	2

In mid-August 2007, approximately one month before the start of the broadcasts, Chef ZAPs then used the kits to lead an initial 3-day training of all grade 1 and 2 teachers (CP1 and CP2) in their school district. Although the work plan called for the STEP/A TEC program to train only the grades 1 and 2 teachers in the 600 partner schools, at the request of the Ministry training was offered to all grades 1 and 2 teachers in the 6 school districts. As a result, a total of 2797 (1352 females) teachers benefited from the initial trainings.

Table 2: Initial Three-Day Training of Grades 1 and 2 Teachers

DREN	CISCO	Number of Grade 1 teachers who participated in the training		Number of Grade 2 teachers who participated in the training		Number of Multigrade (grade 1 and 2 teacher) who participated in the training	
		Male	Female	Male	Female	Male	Female
Atsinanana	Toamasina II	39	82	47	89	40	63
	Vatomandry	44	91	60	71	25	36
Haute Matsiatra	Ambohimahaso	108	48	104	71	60	44
	Fianarantsoa II	239	96	208	135	130	164
Atsimo Andrefana	Toliara II	103	124	97	102	25	17
	Betioky	53	55	24	38	39	26

¹ Includes Chef ZAPs and CISCO pedagogical advisors

TOTAL		586	496	540	506	319	350
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Throughout the 2007-2008 school year local area supervisors facilitated follow-up or reinforcement trainings on how to use interactive radio in the classroom, using the materials provided in facilitator's kits. In all, some 2511 teachers benefited from follow-up trainings organized in December 07 - January 08; a slightly smaller number, 2287, participated in trainings organized during the March 08 school holiday.

TABLE 3: Follow –up Training of Grades 1 and 2 Teachers

DREN	CISCO	Number of Grades 1 and 2 teachers who participated in trainings in December 07- Jan 08		Number of Grades 1 and 2 teachers who participated in trainings in March 08	
		Male	Female	Male	Female
Atsinanana	Toamasina II	146	201	106	232
	Vatomandry	121	245	135	266
Haute Matsiatra	Ambohimahasoa	116	194	99	203
	Fianarantsoa II	313	629	224	559
Atsimo Andrefana	Toliara II	162	165	105	165
	Betioky	107	112	82	111
TOTAL		965	1546	751	1536

The vast majority (85%) of local area supervisors took the initiative to organize follow-up trainings, a figure that exceeds the indicator established for locally-initiated follow-up trainings.

Distribution of Izaho koa mba te hahay! instructional support materials – Some 587 wind up radios were distributed to ATEC pilot schools during the three-day training. In addition, the Ministry purchased some 20 000 wind-up radios with EFA funds for distribution to primary schools throughout the country to ensure that they could access the programs.

The STEP/ATEC program distributed 1706 grade 1 and 1203 grade 2 teacher's guides to grades 1 and 2 teachers in the 6 partner school districts. The Ministry supported this initiative by printing another 20 000 grade 1 teacher's guides for distribution to other school districts.

Table 4: Distribution of STEP/ATEC wind-up radios and teacher's guides

DREN	CISCO	Number of Radios distributed	No Grade 1 guides distributed	No. Grade 2 guides distributed
Atsinanana	Toamasina II	100	254	174
	Vatomandry	87	194	190
Haute Matsiatra	Ambohimahasoa	100	278	135
	Fianarantsoa II	100	508	480
Atsimo Andrefana	Toliara II	100	284	181
	Bétioky	100	188	43
TOTAL		587	1706	1203

The number of guides printed and distributed by the STEP/ATEC program exceeds the numbers outlined in the original work plan. This is because guides were distributed to all grades 1 and 2 teachers in the 6 partner schools districts, not just those in STEP/ATEC pilot schools.

Broadcast of the programs - The broadcast of the grades 1 and 2 programs began on Monday, September 24th, 2007, two weeks after the official start of the school year, and a day after the legislative elections.

A launch ceremony organized by the Ministry was held at the Hotel Colbert on Monday, September 17, 2007. Print, radio and television journalists were in attendance, as were the US Ambassador, the Ambassador for the Kingdom of Norway, the acting Director of USAID, the UNICEF country Director, the Minister of Education, the Secretary General and various national directors. The Ministry printed posters and pamphlets advertising the radio programs, and produced a two-minute promotional video that was unveiled during the launch ceremony, and rebroadcast on national television during the weeks following the launch.

The Ministry negotiated radio broadcast times for the programs with the two national radio frequencies (RNM and MBS). Unfortunately, they were not always able to get optimal times, due to already saturated broadcast schedules. In order to accommodate the 150 25-minute programs, the grade 1 programs had to be broadcast on RNM and the grade 2 on MBS. STEP/ATEC covered the costs of the RNM broadcast; the Ministry paid for the MBS broadcast costs with EFA funding.

Unfortunately, although both RNM and MBS bill themselves as ‘national’ frequencies, in reality neither covers the entire country. In order to ensure maximum, reliable coverage, the STEP/A TEC program established additional contracts with regional radio stations in all three target regions. The contracts were established in the names of the three Regional Directions of National Education, with STEP/A TEC identified as the payment agency.

Table 5: Partner Regional Radio Stations for IRI broadcasts

School District	Radio Station
Fianarantsoa II	RADIO MAMPITA
Ambohimaso	RADIO MAMPITA
Toamasina II	RADIO VOANIO
Vatomandry	RNM VATOMANDRY
Toliara II	RADIO FEON'NY ATSIMO
Betioky Sud	RADIO MAZAVA ANKILOKA

In addition, the programs were broadcast by community and local radio stations throughout the country who accepted to broadcast the programs free of charge and according to an agreed-upon broadcast schedule. Over a dozen local radio stations participated in the program.

Negotiating specific dates and times for the broadcasts with each of the stations allowed the STEP/A TEC program, where possible, to stagger broadcast times in each region. Grade 1 programs, for example, were broadcast at 9 am on one station, and at 9:30 pm on another. This enabled schools that had 2 grade one classes, but only 1 radio, to allow each class to listen to the programs.

Impact of the programs – STEP/A TEC program staff recruited Monitoring and Evaluation agents in each of the 3 target regions to collect data on:

- The degree to which the student-centered instructional practices highlighted in the *Izaho koa mba te hahay!* radio programs are present in grade 1 and 2 teacher’s mathematics, French and Malagasy lessons
- The degree to which teachers ask higher level thinking questions
- The degree to which teachers provide students with pertinent and positive feedback on their learning.
- The level of teacher and student listenership of the radio programs

- Teachers' perceptions of the quality and pertinence of the programs
- The quality of the radio reception at the time of the broadcasts

The Ministry Statistics and Planning Department established a representative sample of 30 schools in each of the 6 school districts for data collection purposes. In late September 2008, shortly after the start of the broadcasts, the agents visited the schools to collect baseline data. Additional visits were conducted in Jan/Feb 08 and again in May/June.

TABLE 6: Data collection sites

REGION	CISCO	Baseline (Sept. - Oct. '07)		January-February '08		Final (April-May '08)	
		No. schools observed	% of sample	No. schools observed	% of sample	No. schools observed	% of sample
Atsinanana	Tamatave II	30	18%	27	15%	27	15%
Atsinanana	Vatomandry	28	16%	29	17%	29	16%
Matsiatra Ambony	Fianarantsoa II	28	16%	29	17%	30	17%
Matsiatra Ambony	Ambohimahasoa	29	17%	30	17%	30	17%
Atsimo Adrefana	Toliara II	30	18%	30	17%	30	17%
Atsimo Adrefana	Betioky Sud	26	15%	30	17%	30	17%
TOTAL		171		175		176	

In total, 534 classroom observations were carried out during the school year, 226 (42%) in grade 1, 218 (41%) in grade 2, and a significantly smaller number, 90 (17%), in multi grade settings.

Data collection procedures - Data collectors visited the schools in teams of two and administered the principal questionnaires during one-on-one interviews. Interviews were conducted in local language and participants' answers recorded directly on the questionnaires.

Data collectors also visited each of the grades 1 and 2 classes in the school and interviewed teachers and students to determine whether or not they listened to the programs. Students were asked to sing a song they had learned recently on the radio programs. Students who were able to do so were deemed to be listening to the programs on a regular basis. Those who could not, were deemed not be listening to the programs. The class questionnaires were administered orally, in

local language, by one of the two data collectors and the responses recorded directly on the data collection forms.

Classroom observations - Data collectors conducted follow-up classroom observations of grade 1 and one grade 2 teachers who were deemed to be using the programs on a regular basis, as per the assessment described above. Observations were carried out during Malagasy, Mathematics and French lessons, at times when the radio programs were not playing.² During the observations, one data collector noted the teacher's questioning and feedback techniques, while the other completed the instructional practices inventory. This instrument asked data collectors to note whether 27 practices generally associated with competency-based instruction – and modeled during the radio programs - were present in the lesson, and if so, to what degree. Observations were recorded directly in the various forms in the data collection notebook.

Follow up interviews were then conducted with the teachers observed to determine their perceptions of the radio programs and the degree to which they thought the programs had had an impact on student learning. As was the case with principals, the interviews were conducted orally, in local language, and the answers recorded on the questionnaire itself.

Listenership levels - At the beginning of 2007-2009 school year, listenership averaged 79%. At the end of year listenership increased by a full 17% to 96%, with grade 1 teachers being slightly more inclined to use the program than grade 2 or multi grade teachers. The listenership level surpassed the target of 80% established at the start of the STEP/ATEC program.

²The decision to focus on these three subject areas was based on the rationale that if teachers were to integrate into their daily instructional practices the new student-centered teaching strategies and activities modeled in the programs, the transfer would most likely occur first in the subject areas treated in the *Izaho koa mba te hahay* programs.

TABLE 6: Evolution of IRI listenership, 2007-2008

Group	Beginning of school year			End of school year			% Increase
	No. classes & teachers observed	No. teachers/c lasses listening to programs	% listenership	No. classes & teachers observed	No. teachers/c lasses listening to programs	% listenership	
CP1	136	119	88%	152	156	97%	9%
CP2	120	83	69%	135	145	93%	24%
Multi-grade	43	35	81%	41	42	98%	17%
Total	299	237	79%	328	343	96%	17%
Male	85	67	79%	97	102	95%	16%
Female	214	170	79%	231	241	96%	17%
Total	299	237	79%	328	343	96%	17%

Listenership was remarkably high across the six partner school districts. In three of the six school districts, every single teacher visited was a regular IRI listener. There was no significant different in teacher listenership with respect to gender. Both male and female teachers listened to the program consistently.

The level of listenership was high and increased throughout the nine-month broadcast period. This may have been due to the novelty of the programs as an instructional tool, or the fact that the teachers in the sample had been trained in how to use the programs. Teacher interviews revealed that 86% had attended a three-day training on the effective use of the radio programs three to four weeks prior to the first broadcast, and that 67% had attended a training between February and the third data collection period in March and April.

Perceptions of quality - The high listenership levels may have been a result of teachers' perceptions of the quality of the programs. During the first round of data collection, nine out of 10 of the teachers interviewed rated the programs as being either excellent or good. The level of satisfaction was highest for the Malagasy programs (90% of teachers rated them as excellent or good) and lowest for the

French programs (85% excellent or good rating). The mathematics programs were judged to be excellent or good by 88% of grades 1 and 2 teachers.

Teachers were also overwhelming enthusiastic about the quality of the accompanying teacher's guide (95% rated it as either excellent or good) and virtually all (99%) felt that the guide helped them use of the programs more effectively. Two out of three teachers interviewed described the guide as 'indispensable'.

In October 2008, Reuters International broadcasted, as part of the program Africa Journal, a 5 -minute documentary on the production and broadcast of the 'Izaho koa mba te hahay!' programs. The documentary is part of a series by Reuters highlighting the potential of technology to support social change in Africa.

In the April-May interviews, 96% of teachers said that the Ministry should develop IRI programs for other levels. Additionally, most teachers felt that the programs had helped them: 1) to learn new games (83%) or songs (82%) to use with their students, 2) to reinforce *their own* French (91%) and Malagasy (91%), 3) to involve students in their own learning to a greater degree (91%), 4) to use group or pair work with their students (91%), 5) to make learning more interesting for students (85%), and 6) to generally learn new teaching techniques or strategies (90%). Teachers also reported that

the programs help them to reinforce *students'* knowledge of French (97%), Malagasy (93%), and mathematics (99%).

Impact on pedagogical practices – To determine whether teachers' self-report data was valid, i.e., that they had in fact changed their instructional practices since the beginning of the broadcasts, during each data collection period data collectors were asked observed grades 1 and 2 French, Mathematics and Malagasy classes and recorded the types of teaching strategies used. The data were collected in 176 of the 180 schools in the sample, and from some 288 teachers. Of the teachers observed, 129 (45%) taught at the grade 1 level (CP1), 118 (41%) at the grade 2 (CP2) level, and a significantly smaller number, 41 (14%), in multi grade classes (CP1/CP2). 139 (48%) were FRAM or community-based teachers - volunteers recruited by communities and paid by the Ministry of National Education (MEN). The next largest group (86, 30%) were civil service teachers. The remaining 63 (22%) were FRAM teachers recruited and paid for by the community. Data collectors observed a total of 534 classes over the run of the school year.

Feedback offered students - Data collectors collected data on the quantity and the quality of the feedback offered to children. This was done by noting, each time a children intervened in the lesson, whether the feedback offered by the teacher was positive, negative, or neutral.

The nature of feedback offered is a critical indicator of the type of learning environment established in the classroom. Children who are encouraged and who receive positive feedback on the quality of their thinking or intervention are more apt to consider themselves successful students and to take risks with their thinking. The type of feedback offered to students can have an impact on students' level of participation in the classroom, their confidence levels, and their willingness to take risks in their learning.

During the Izaho koa mba te hahay! radio programs, the radio teachers model positive feedback for classroom teachers by complementing the students on their answers and on their participation levels. The modeling is purposeful and designed to help primary teachers adopt language that builds students' confidence levels, pride in their work, and desire to engage in class activities.

As the school year progressed, and as teachers listened to more and more radio programs, they gradually increased the percentage and number of positive feedback statements provided to students. Grade 1 teachers increased their positive statements from 22% to 35% over the data collection period and grade 2 teachers from 22% to 31%. A full 70% of teachers increased the level of positive feedback, with first-grade teachers being the most likely to make that stride. After seven months of participating in *Izaho koa mba te hahay!* programs, children in STEP/ATEC-supported classrooms were more likely to hear their ideas and responses praised.

Table 7: Number & Percentage of Teachers Increasing Positive Feedback Statements

Level	Number of teacher observations	Number of teachers who increased the percentage of positive feedback they give to children	% of Teachers who increased the percentage of positive feedback they give to children during a typical lesson
Grade 1	127	96	76%
Grade 2	118	81	69%

Multi-grade	41	24	59%
Total	286	201	70%

Questioning techniques - Data collectors were also asked to record the number of questions asked by teachers in the run of a lesson, and classify each question into one of three categories:

- *Memorization* type questions, where students merely repeat information the teacher has just transmitted;
- *Recall* questions, which require students to recall information provided or discovered in a previous lesson or earlier on in the lesson (a definition, a formula, a procedure, etc.);
- *Explaining, or solving* type questions, which require students to apply new information or understandings to solve a problem, explain a phenomenon, provide an opinion or a judgment, or discover a pattern or solution.

The type of questions asked during a typical lesson determines to some degree what children learn and is reflective of what is valued in the learning environment. Children who are asked higher level thinking questions develop deeper understandings than children who are asked predominantly memorization questions.

The weighting of question types is also indicative of what teachers feel is important. Teachers who frequently ask students to explain their thinking, to propose potential solution paths, or to apply their understandings in new, novel situations communicate to their students that these things are important. In classrooms where teachers ask predominantly repeating or memorization type questions, students come away with the understanding that it is important to accumulate facts and information and repeat them verbatim.

In the Izaho koa mba te hahay! radio programs, a conscious effort is made to model higher level thinking. Teachers ask students to solve problems, to explain their thinking, to propose potential solutions, to make and defend hypotheses. The goal is twofold: to engage students in rich learning situations and to model for teachers the types of questions that extend students' thinking.

At the beginning of the school year, prior to or immediately after the start of the radio programs, teachers asked on average 60 questions in a typical lesson. There was very little difference among grade 1, grade 2, and multi-grade classes in the number of questions asked.

The number of questions asked per class increased over the course of three data collection periods, with both grade 1 and 2 teachers asking just over 65 questions in a typical lesson by April-May 2008 and multi-grade teachers asking about 61 questions.

More importantly, however, the number and percentage of higher level thinking questions asked increased in all three grade levels. Grade 1 teachers increased the percentage of explaining or solving questions by half, going from 5.5% in the first data collection round to 8.3% in the third. Grade 2 and multi-grade teachers increased nearly as much, with each group moving from 5.6% to 8.2%. In all grades, the number and percentage of recall questions increased over time and, while the number of memorization questions remained close to the same, their percentage decreased. This suggests that the new questions teachers incorporated into their lessons were recall questions or explaining or solving questions, an important improvement in encouraging higher level thinking among their students.

Table 8: Teachers Increasing the Level of Questions Asked

Grade	Number of teachers	Number who increased the percentage of higher level thinking questions they ask in a typical class	Percentage of of teachers who increased the number of higher level thinking questions asked in a typical lesson
Grade 1	127	103	81%
Grade 2	118	89	75%
Multi-grade	41	37	90%
Total	286	229	80%

Changes in instructional practices - The 27 practices listed in the classroom observation tool were all instructional practices generally associated with active, student-centered learning and competency-based instruction. The practices focused on six areas:

- *Classroom management and organization* (the type of teacher-student interaction that is established in the classroom and the degree to which all students are involved in the learning process)

- *Communication* (the nature of the communication between the teacher and the students, and the degree to which students initiate communication with the teacher or with each other)
- *Classroom practices* (the degree to which the teachers uses practices that engage young learners in the learning process – games, songs, drawings, gestures, manipulatives, objects, physical activities – checks students' understandings though out the lesson, or provides them with opportunities to apply, in novel or original situations, the new concepts targeted during the lesson)
- *Classroom practices in language classes* (Malagasy/French) (whether or not the teacher integrates all 4 language skills during the run of a lesson)
- *Student evaluation* (whether the teacher gives children objective and specific feedback on their thinking, attempts to help them understand, or has them summarize, at the end of a lesson, what they have learned)
- *Gender equity* (whether the teacher values equally the participation of girls and boys and encourages each group to the same extent).

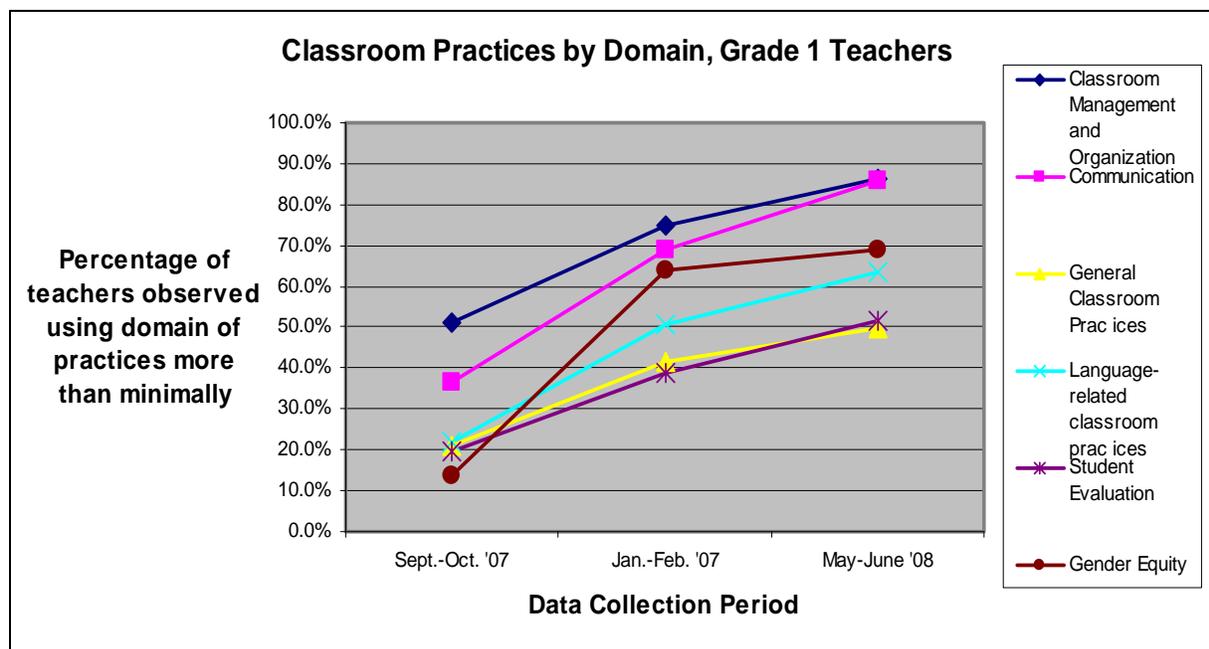
All of the practices listed were modeled by the radio teachers during the *Izaho koa mba te hahay!* programs and reinforced during face-to-face trainings.

During observations, data collectors were asked to indicate whether or not the practice was evident in the lesson and if so, the extent to which it was evident and well mastered. A rating of 1 indicated that practice that was barely present or not well mastered and 4 indicated that the practice that was used considerably throughout the lesson and/or was well implemented.



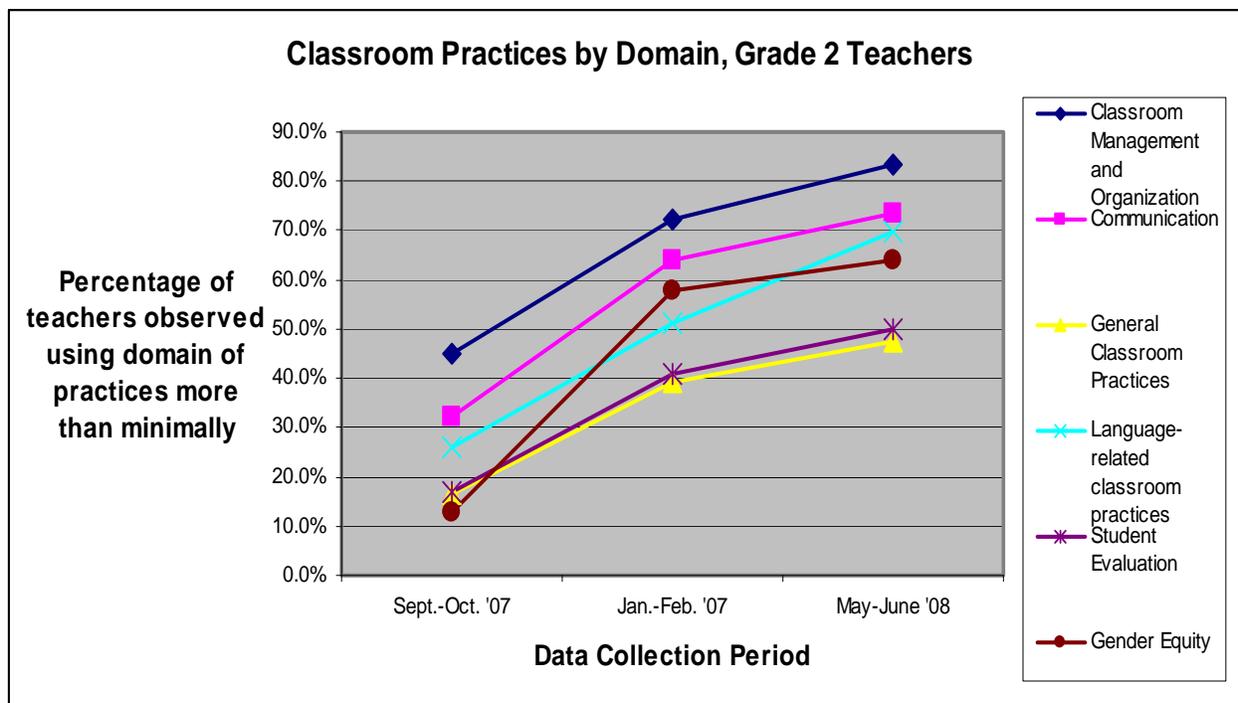
The graphs below report the percentage of teachers who were considered to have more than minimal mastery of the related practices (i.e., they received a 2, 3 or 4 on the observation scale). The graphs demonstrate a significant improvement in all six areas of teacher practice. Grade 1 teachers improved by a minimum of 31 percentage points in each of the six areas, with the most marked improvement of 51 percentage points coming in the area of gender-equitable teaching practices.

Graph 1: Percentage of Teachers Performing Student-Centered Practices More Than Minimally, Grade 1



Grade 2 teachers improved in all six areas by at least 29 percentage points. Their most dramatic improvement also came in the area of gender-equitable instructional practices. At the beginning of the school year, the five related practices were minimally evident in just 14% of lessons observed. By the end of the school year, they were evident in 69% of lessons observed.

Graph 2: Percentage of Teachers Performing Student-Centered Practices More Than Minimally, Grade 2

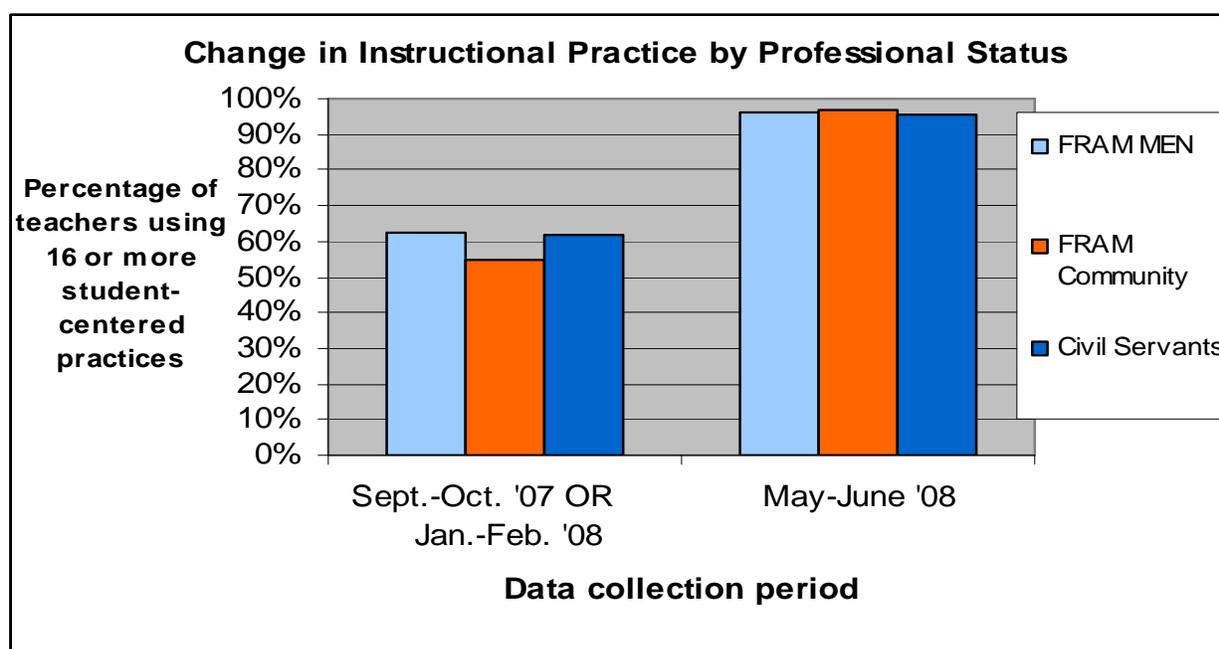


The data allowed STEP/ATEC staff to track the progress of teachers by analyzing, over time, how many demonstrated minimal mastery of at least 60% of the student-centered practices (16 of 27). Of the grade 1 teachers observed, 61% demonstrated minimal mastery of 16 or more student-centered practices at the beginning of the school year (September/October or January/February). That percentage rose to 97% by the end of the year. Among grade 2 teachers, 62% had achieved the standard of 16 student-centered practices at the beginning of the year, versus 95% at the end of the year.

Professional status had some bearing on the degree to which student-centered learning strategies were used in the classroom, although the difference between FRAM teachers and Civil service teachers was not that pronounced. Interestingly enough, where a difference did exist, it favored FRAM teachers. These teachers were more likely than their Civil service counterparts to provide opportunities for students to put into practice new understandings, using visual supports during the lesson, and have students summarize what they learned in a lesson.

At the beginning of the school year, differences in instructional practices were very pronounced between Civil Service teachers or Ministry-recruited FRAM teachers and FRAM teachers recruited by and paid for by the community. Fifteen of the 27 student-centered practices were considerably more evident in lessons led by Civil service or FRAM (Ministry) teachers. Community recruited FRAM teachers were also less likely to use student-centered teaching strategies than Ministry-recruited FRAM or Civil service teachers.

Graph 3: Changes in Teacher Practices by Professional Status



By the end of the year, all three groups of teachers had showed a remarkable improvement in their use of student-centered instructional practices. The biggest improvement was in the practices of community-supported FRAM teachers. In September, only one out of two of these teachers (55%) was using 16 or more of these practices at a minimal (or more) level. By the end of the school year, that percentage had increased to 97%, surpassing the results of both of the other groups of teachers. The percentage of Ministry-recruited FRAM teachers achieving the same standard improved from 63% to 96%, and the percentage of Civil servant teachers from 62% to 96%. By the end of the year, community-recruited FRAM teachers using the *Izaho koa mba te hahay!* radio programs were performing on par with their Ministry-recruited FRAM and Civil service colleagues.

Rebroadcast of the programs (08-09 school year) – The programs were scheduled to be rebroadcast during the 08-09 school year, with broadcast costs paid for by the Ministry's Education for All program. Unfortunately, the Ministry encountered difficulties establishing contracts for the national broadcasts, due to the nonpayment of previous contracts. By January, the difficulties had been sorted out and a broadcast date set. In a rather unfortunate turn of events, that date, January 26, 2009, coincided with the riots in Antananarivo and the burning of both the RNM and MBS broadcast facilities. As a result, no programs were broadcast during the 08-09 school year.

Development of a new generation of *Izaho Koa Mba Te Hahay!* Programs for Grade 1 (October 08 to April 09) –

The success of *Izaho Koa Mba Te Hahay!* in encouraging teachers with little or no teacher training to adopt more effective - and more complex - instructional strategies led the Ministry to identify interactive audio instruction as a primary mechanism for the implementation of the new situated learning based curriculum beginning developed for grades 1 to 7. When the extension of the STEP/ATEC program was announced, the Ministry requested that USAID finance a second generation of the programs – one that would continue to focus on French, Malagasy and Mathematics instruction, but that would model for teachers how to implement the new situated-learning curriculum being developed for grade 1. The idea was to gradually phase out the first generation of *Izaho Koa Mba Te Hahay!* programs and gradually phase in the new programs. The phase in would be gradual and in accordance with the Ministry's planned phase-in of the new curriculum. Although the STEP/ATEC work plan only called for the development of the grade 1 program, the new Ministry EFA plan called for interactive programming for all three years of the first cycle of the new primary program (Grades 1, 2 and 3 – or in the new Ministry designation - T1, T2, T3).

Production of the programs – In December 2008, ATEC program staff and representatives of the Curriculum Division of the Ministry jointly recruited a three-member team to develop the new programs. Team members participated in a three-week workshop in December led by the EDC Senior Technical Advisor on the Ministry's new situated-based learning curriculum and on how to develop effective interactive radio programs that demonstrate the underlying principles of situated learning.

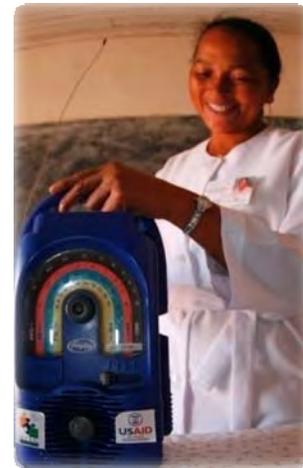
Prior to beginning the actual development of the radio programs, the team completed a comparative analysis of the approaches and content targeted in the

first generation of the grade 1 *Izaho koa mba te hahay!* programs and those articulated in the new curriculum. The results revealed considerable differences in Mathematics and Malagasy, but fewer divergences in the case of French. As a result, the decision was significantly overhaul the Mathematics and Malagasy radio programs, and to modify slightly the existing French programs.

The team developed a new design document for the programs, as well as a new scope and sequence for the first two semesters. The documents were submitted to the Director of the Curriculum Division for validation in late January.

New voice artists were recruited for all of the major adult characters, as well as the Maki, a talking lemur introduced to make the programs a little more humorous in tone. No new children's voices were needed as all three children who interpreted the voices of Faly, Mendrike and Vaviroa in the first generation of the programs eagerly agreed to reprise their roles.

Field testing of the programs – By April 16, the date of the suspension of technical activities, the team had completed the field testing of the 18 semester one programs and had drafted the accompanying pages of the new teacher's guide, and were working on the semester 2 master plans and scripts. All 18 programs were be field tested in grade 1 classes in Behenjy, Ambatolampy - one of the communities piloting the new grade 1 reform program.



Development of Grade 6 English Second Language Interactive Radio Programs – It's Time for English! (October 08 to April 09)

In 2008, the Ministry announced as part of its reform program the introduction of English as a second language beginning in grade 6. The initiative was part of the government's goal to develop a trilingual labour force (Official Malagasy, French, English) better able to compete in both the regional and global economic market.

Although the population of Madagascar applauded the decision to introduce English instruction, the Ministry was cognizant of the fact that very few primary teachers

had any knowledge of the language. The success of the *Izaho koa mba te hahay!* programs in reinforcing teachers' French and Malagasy language skills and in fundamentally changing their instructional practices convinced Ministry officials that interactive radio instruction was the most effective – and cost effective – solution to this program. Interactive radio programs could introduce teachers to the principles of communicative language teaching, with-in a situated learning framework, and at the same time allow them and their students to develop basic English communicative skills. With that in mind, the Ministry requested that USAID, as part of the extension of the STEP/ATEC program, develop English second language interactive radio programs for grade 6. The long term plan was to develop programs for grade 7, with an eventual extension to grades 4 and 5.

Production of the programs – In November 2008, the STEP/ATEC program and the Direction of Curriculum of the Ministry of Education jointly recruited three scriptwriters to develop the new “It’s time for English” programs. The team participated in a three-week training in December, 2008, led by the Senior Technical Advisor on interactive radio program development and the fundamentals of a situated learning approach. A comprehensive design document for the series was completed and submitted to the Director, Curriculum Division of the Ministry for validation. Voice actors were recruited and a scope and sequence developed for the first 4 semesters (72 programs) of the series.

The new programs provided both students and teachers with accurate pronunciation, pacing, articulation and intonation models and ensured that all students had the opportunity to communicate in English in meaningful ways. At the same time, the programs developed - through modeling - elementary teachers' English language skills, particularly the language used in classrooms to orchestrate learning.

The programs focused on speaking and oral comprehension skills, skills that present the biggest challenge for teachers with limited language proficiency. A reduced emphasis was placed on reading and writing skills, on the assumption that teachers would be more comfortable addressing these areas on their own, particularly since the Ministry planned to develop and distribute new ESL textbooks.

By April 16, 2008 half of the grade 6 programs (54 of the 108) had been produced and field tested and master plans had been developed for semester 4.

Accompanying pages of the teacher's guide for the first 54 programs had also been

developed and a desktop publisher/graphic artist hired to begin the production of the guide.

Field testing of the programs – The programs were tested in grade 6 classes in the village of Behenjy, in the Ambatolampy school district, one of the school districts selected to pilot the new grade 6 curriculum.

The students have learned so quickly. They are almost at the same level as students in the upper grade levels who have studied English much longer... And the parents are noticing the dramatic and positive evolution in their children's enthusiasm towards school!

*Heriniana Ravonihanitra
Grade 6 Teacher
Behenjy*

Results of the testing were extremely positive. Teachers and students enjoyed the programs, and students' progress in oral English was amazing. They were eager, motivated learners. The teachers made great strides with their English speaking skills and were far more willing to speak English with their students than they were at the beginning of the testing program. The program benefited from considerable media coverage (Zebulletin, television, local newspapers, BBC radio and internet), a fact that no doubt contributed to the eagerness of the students and teachers to use the programs.

Broadcast of the programs - Despite the fact that all 108 grade 6 programs and the accompanying teacher's guide had not yet been completed, and the Ministry made the decision in January 2009 to begin broadcasting the programs. The decision was based on the Ministry's recognition that many of the graduates of the first cohort of the semi specialist (grade 6) teacher training program did not have the English oral language proficiency skills required to function autonomously in the classroom. Providing them with in-class support, in the form of interactive audio programs, would ensure that their students benefited from appropriate language models and ongoing support.

I like the physical activities and the songs. The students are really active! It's very different from when I was in school. Back then, we didn't get to participate ...we were just spectators. With (the It's Time for English) programs the students move, they practice, they talk, they give ideas....!

*Mrs Raholiniana
Parent, Behenjy*

Given that only 20 school districts were piloting the new grade 6 program, the Ministry decided to broadcast the program via a network of local/regional stations. School district authorities were asked to conduct a technical analysis of the capacities of radio stations in their area and select the radio station presenting the best value in terms of coverage

and cost. The Curriculum Division of the Ministry drew up and distributed a model contract for school district authorities to use. Although contracts were issued locally, broadcast fees would be paid directly to the radio stations by the national Curriculum Division, with Education for All funding. Despite the political upheavals, some 16 of the anticipated 20 radio stations broadcast the programs between January and June of 2009.

2. INDICATOR STATUS³

The indicators for this component center on success in increasing educational quality in targeted schools, or increasing Ministry capacity to support improvements in primary learning and teaching. They include the degree to which Ministry personnel are able to develop and broadcast effective radio programs, to train teachers in how to use them, and to provide teachers with supplementary resources materials to ensure that the programs are used effectively. They also include success in actually changing teachers' practices, and providing students with a richer, more effective learning environment.

Table 9: Overview of progress with respect to Component 1 Indicators

STRENGTHENING TEACHER INSERVICE TRAINING VIA INTERACTIVE RADIO						
Result No.	Indicator	Oct 06	April 07	Oct. 07	March 08	Status
		(Target) Actual	(Target) Actual	(Target) Actual	(Target) Actual	
1	INCREASED CAPACITY OF MINISTRY TO DEVELOP RADIO PROGRAM FOR INSTRUCTIONAL PURPOSES					
1.1	Number of MENRS personnel qualified to write effective interactive teacher training via radio	(0) 0	(2) 7	(4) 5	(5) 5	Met
1.2	Number of scripts for interactive radio programs completed	(15) 0	(55) 59	(110) 107	(144) 155	Exceeded
2	EXPANDED TEACHER TRAINING PROGRAM IN IMPLEMENTATION OF COMPETENCY-BASED CURRICULUM AT GRADES 1 AND 2 LEVEL					
2.1	Percentage (and number) of primary teachers in 600 pilot schools who listen to teacher training programs	NA	NA	(70%, 840) 79% 1070	(80%, 960) 91% 1216	Exceeded
2.2	Percentage (and number) of primary students (male, female) targeted by radio programs who benefit from them	NA	NA	(70%, 840) 79% 47 883	(80%, 960) 91% 54 777	Exceeded

³ New indicators, and a new Performance Monitoring Plan, were developed in March 09 for the extension of the STEP/ATEC program. However, no data was collected or reported prior to the suspension of technical activities in April 09. For that reason, the indicators presented in this report cover the November 05 to March 08 period.

2.3	Percentage (and number) grade one teachers (male/female) in 600 pilot schools in 3 provinces who incorporate in their everyday classroom practices instructional techniques modeled in the radio programming (based on data collected from a representative sample)	NA	NA	<i>Baseline</i> 62%, 403	<i>(60%)</i> 96%, 634	Exceeded
2.4	Percentage (and number) grade two teachers (male/female) in 600 pilot schools in 3 provinces who incorporate in their everyday classroom practices instructional techniques modeled in the radio programming (based on data collected from a representative sample)	NA	NA	<i>(Baseline)</i> 55%, 357	<i>(60%, 360)</i> 93%, 607	Exceeded
2.5	Percentage (and number) of chef ZAPs responsible for overseeing pilot schools who initiate cassette-based follow-up in-service activities for teacher training programs (based on data collected from a representative sample)	NA	NA	<i>(50%, 62)</i> 64%, 79	<i>(80%, 98)</i> 85%, 101	Exceeded
2.6	Cumulative number of supplementary learning materials (teacher's guides) distributed to teachers	NA	NA	NA	<i>(2400)</i> 2909	Exceeded
2.7	Number of teachers (male, female) in pilot schools benefiting from USAID-sponsored training (via radio or in face to face trainings) in implementation of competency-based curriculum at grades 1 and 2 levels.	NA	NA	<i>(2400)</i> 2797	<i>(2400)</i> 2698	Exceeded
2.8	Number of grades 1 and 2 students (male, female) benefiting from a teacher with upgraded skills	NA	NA	<i>(Baseline)</i> 59%, 39 774	<i>(70%)</i> 95%, 64 228	Exceeded

As the table indicators, the STEP/ATEC program exceeded the targets for 9 of the ten indicators, and met the indicator established with respect to the number of Ministry personnel trained. By April of 2008, some 95% of grades 1 and 2 teachers in the 6 pilot school districts had significantly improved their teaching skills, and as

a result some 64 228 Grades 1 and 2 students were benefiting from a teacher with upgraded skills. The project distributed 587 wind-up radios and 2909 teacher's guides to partner schools in the targeted school districts to support the use of the program, and 85% of local area supervisors had initiated follow-up trainings to reinforce teachers' correct usage of the programs.

The project was able to surpass indicators related to the total number of teachers trained due to the decision to train all grade 1 and 2 teachers in the 6 target school districts, rather than limit the training to teachers in the 600 partner schools. This was possible as a result of the additional financial support provided by the Ministry of Education: the STEP/ATEC program assumed responsibility for training all the local area supervisors and grades 1 and 2 teachers and the Ministry assumed the cost of purchasing and distributing additional wind up radios and teacher's guides to teachers not in STEP/ATEC partner schools.



The ability of the radio programs to significantly change teacher practices speaks to the quality of the programs. The programs were carefully and laboriously crafted so as to model specific instructional strategies and guide teachers in how to implement the strategies with minimal resources. The programs also went through an intensive field testing process: each program was test in at least two different classrooms, in different regions of the country and modified, sometimes extensively, based on the results of the field test. The care and attention provide by the scriptwriters throughout the design and testing process, and the adherence to strict standards of quality, resulted in the production of quality programs, adapted to the specificities of Madagascar primary schools.

3. SUCCESS STORIES

IT'S TIME FOR ENGLISH – IN MADAGASCAR!

In the village of Behenjy, some 40 kilometers from the capital city of Antananarivo, fourteen year old Narindra RAHOLINIANA greets visitors with a broad smile, a hand shake and a very confident “Hello! How are you? What’s your name? Where do you live?” Narindra and her school mates are part of a pilot program sponsored by USAID to teach English at the elementary level. Since October 2008, the students have been listening to “It’s time for English!”, a half hour interactive radio program (IRI) developed by the National Ministry of Education, with technical support from the Education Development Center (EDC), an American NGO funded by USAID.

The programs, which are broadcast three times a week, use games, dramas, songs and chants teach the language structures and vocabulary outlined in the new elementary English second language curriculum. And Narindra is a huge fan. “I like the programs because they are easy to listen to. They also make it easier to learn... And the songs, games, and activities are fun! Learning French was hard, but English is easy to learn!”



Narindra – enthusiastic about learning English!

The radio programs are part of the Government of Madagascar’s commitment to developing a trilingual work force, a commitment that was formalized in April 2007 when the constitution was changed to added English as an official language, alongside Malagasy and French. The initiative recognizes that if future generations of Malagasy are to participate fully in regional and global economic markets, they need to be fluent in all three languages, something that young Narindra has already recognized. ‘I want to learn English so that when I own my own business when I’m older, I can negotiate prices with foreigners and do well!’

Ensuring that students like Narindra have access to quality English instruction is no small feat, however. Most teachers are not fluent in the language, and those who have studied English are often more comfortable with the reading and writing than with speaking and listening.

The interactive radio programs recognize that and provide both students and teachers with the ability to develop their English skills together. Daniel Razafimalala, Narindra’s principal, considers this to be one of the major strengths of the program. ‘The radio programs support the teachers and make their jobs easier... The students learn along with the teacher and they all work together to learn English.’

Heriniana Ravonihanitra, Narindra’s teacher, is convinced that the programs are a powerful learning tool. “The students have learned so quickly. They are almost at the same level as students in the upper grade levels who have studied English much longer... And the parents are noticing the dramatic and positive evolution in their children’s enthusiasm towards school!” Narindra couldn’t agree more. “I speak English at home! I teach my little sister and talk with my aunt. English is my favorite subject because I like speaking English. It’s a joy for me and it gives me pride to speak English with my aunt and my community!”

The “It’s Time for English!” programs not just teaching students like Nariandra how to speak English, they are also introducing their teachers to new teaching strategies, ones that capture students’ interest and imagination. This has helped teachers like Laurette Rahantamalala become more creative in the classroom. “I’ve learned different games that I now use in my other classes...and new teaching strategies, like dancing

and singing... On the radio, there are things you can't find in a textbook!" Her colleague Heriniana feels that the teaching strategies modeled during the programs are developing students' self confidence and autonomy, skills that are important if her students are to be successful learners. "The students act differently during the "Its time for English!" programs. They talk more, they participate more...in other classes, they are much more passive."

Narindra's mother, who has witnessed the radio programs in action, is equally enthusiastic about the teaching strategies modeled. 'I liked the movements and the songs. The students are really active! It's very different from when I was in school. Back then, we didn't get to participate ...we were just spectators. With these programs the students move, they practice, they talk, they give ideas.... We are going to speak to the community about this and tell them how different it is with the radio programs!'

Next year the Ministry hopes to offer the interactive radio programs to some 237 000 grade 6 students across the country. For students like Narindra and their teachers, that means an opportunity to learn a new language and to build valuable skills for the future.



FIRST PERSON

Tahina: The Voice of Educational Reform in Madagascar

Interactive radio is changing the nature of primary classrooms in Madagascar



Tahina records the part of Vavirao



Diary and Séphora

Photo by Norma Evans

I like the radio programs because they are fun, and I like the games you can play and the songs you can sing.

—Tahina Dähn Ralamboarison

U.S. Agency for International Development
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Tahina Dähn Ralamboarison may only be 3 ft 5 inches tall, and all of 9 years old, but she is already a key player in the Ministry of Education's plan to improve the quality of primary education. Tahina was selected from over sixty eager applicants to play the part of Vavirao in the new interactive radio programs being developed for grades 1 and 2.

The programs, developed with the technical assistance of EDC (Education Development Center) as part of the ATEC program, are part of the Ministry of Education's commitment to providing the 15 000 community-based teachers in the country with ongoing training in new, student-centered teaching strategies. Broadcast directly into classrooms three times a week, the programs model how games, manipulatives, stories, songs, and group work can help students learn.

Teachers testing the programs are enthusiastic about their quality and their potential to change the face of primary classes throughout the country. They are amazed to see their students carrying out the new activities proposed, particularly those that require learners to take ownership of the learning process. And teachers appreciate the segment at the end of each program that reviews one of the teaching strategies presented and explains why it is effective for teaching young children. For community-based teachers, who have never had the opportunity to attend teacher's college, the programs *'...are the first time anyone has ever talked to (us) about teaching - and in a practical, concrete way that we can easily understand and translate into classroom practice'*.

For Tahina, who comes to the Ministry of Education production studio once a week with her friends Diary Andriatiana (Faly) and Séphora Rafaliarivelo (Mendrike) to record the children's voices, the programs are just fun. She knows that eventually children all across Madagascar will get to sing along with the new songs she is recording, listen to the stories and play the games. And for her, that's just great!

B. COMPONENT 2: STRENGTHENING OF PARENT-TEACHER COMMUNITIES

A critical contributor to improved school quality is parental involvement in education, and in particular in school governance. The STEP/ATEC program was designed to foster closer ties between schools and communities via a combination of radio, face-to-face trainings on how to develop school improvement plans and small grants to support their implementation. These interventions allowed increased numbers of parents to support their children's academic progress, and help hundreds of parent teacher associations (FRAMs and FAFs) to organize themselves as effective school governance units.

1. Overview

Radio's broad popularity and proven cost-effectiveness makes it a powerful communication and social change tool, particularly for communities like those in Madagascar that have a strong tradition of oral literacy. However, if the programs are to serve as a catalyst for change, the messages need to be carefully crafted and communicated.

Development of regional radio programs on effective school-community partnerships

The STEP/ATEC work plan included the development of three different series of radio programs, one for each of the target regions. Each series would be produced in local language and reflect the socio-cultural specificities of the region. The programs were to be developed by local Ministry technicians, selected by the regional Director of Education. Each four-member regional team would be trained in scriptwriting, formative evaluation, and production processes by a local NGO with experience in radio programming for social change (Mediascope in the case of the Toamasina region; the Federation of African Women Educators or FAWE in the case of Toliara and Fianarantsoa). The programs would be produced (recorded, mixed) by a local production studio or radio station, using voice artists and musicians from the region.

In order to ensure that parents and parent teacher associations across the three regions received consistent and reliable messages about the Ministry's Education for All programs, and the rights and responsibilities of parents and local education authorities, the Ministry decided to hold an initial five-day workshop at the INFP for

the regional teams and partner NGOs. The workshop would allow Ministry authorities to set production guidelines for the programs and identify major themes that needed to be addressed. Three different national directorates (Direction of Information Technology and Communications, Direction of Supervision and Inspection, Office of Communication and Mass Education) were involved in the planning and co-facilitation of the working sessions.

The radio programs were to have dual objective: to assist all parents to play a more active role in the life of the local school and in their child's learning; and to provide Parent Teacher Association Members (FAFs and FRAMs) with practical training on how to manage their association and to work collaboratively with the community to improve school quality. Included in the latter was the development and implementation of school improvement plans.

Regional validation committees were established in each of the three regions to validate the programs and ensure that messages transmitted reflected Ministry policy. The committees were also charged with ensuring that the programs were culturally relevant and adapted to the needs and priorities of the region. Each committee was chaired by the regional Director of National Education, and included representation from regional media outlets as well as school district authorities.

During the 2006-2007 school year region produced a minimum of 25 half hour broadcasts. The programs were broadcast once a week, on local radio stations, beginning in January 2007 and rebroadcast during the 2008-2009 school year.

Establishment of community listening groups

Listening groups were established in 292 communities during the first year of the broadcast and an additional 165 communities in 2007-2008, for a total of 457 communities. Each listening group had a core membership of 18:

- 4 members of the FRAM executive board

Themes addressed included how to:

- *form more fully functional parent associations (FRAM/FAF);*
- *understand and support the various school reform strategies currently underway (e.g. APC);*
- *interact with teachers and school authorities in relation to their children's education;*
- *interact with their children to encourage the habits of mind (e.g. curiosity, questioning, and critical thinking) that best support a successful scholastic career;*
- *develop FRAM/FAF by-laws and committees;*
- *track FRAM/FAF expenditures;*
- *create fundable FRAM/FAF action-plans for community-school involvement;*
- *register the FRAM/FAF as an NGO; and how to*
- *learn from the actual experiences of other parents and FRAMS about steps the association or they as individuals can take to support their local schools.*

- 4 members of the FAF executive board
- 4 members at large, FRAM
- 4 members at large, FAF
- 2 community leaders.

The definition of a core “membership” group served two purposes. It ensured that those in leadership positions in FRAM and FAF associations benefited from the programs and it ensured that members of the two associations had a structured time dedicated to examining what they could do, collaboratively, to improve their school.



Each community nominated a listening group facilitator to lead discussions about the issues raised in the programs. Facilitators received training on how to encourage debate and discussion, as well as on how to help members set goals and identifying activities to help them meet those goals. An initial three-day training was held two-weeks prior to the start of the radio

broadcasts. A total of 457 community facilitators participated in the trainings over the two year period – 292 in 2007-2008 and 164 in 2008-2009, in addition to 111 Ministry regional and school district technicians.

Table 10: Number of people trained in how to facilitate community listening groups

CISCO	Number of participants trained			
	2006-2007			2007-2008
	DREN and CISCO Staff	Chefs ZAP	Community facilitators	Community facilitators
Toamasina II	3	10	49	27
Vatomandry	3	14	50	30
Fianarantsoa II	2	29	50	30
Ambohimaso	2	17	46	26
Bétioky Sud	4	12	48	24
Toliara II	4	11	49	28
	18	93	292	165

Three hundred wind-up radios were distributed to communities in year 1 to support the work of the listening groups. In year 2, communities were asked to use the wind up radio distributed to schools for the interactive radio programs.

Impact of radio programs and listening groups

In 2007, the STEP/ATEC program undertook a study to evaluate the impact of the radio programs and the listening groups on parents' understanding of their roles and responsibilities and on their willingness to initiate school improvement activities. The study sought to answer three fundamental questions:

- Do parents consider the programs to be interesting and pertinent?
- Does listening to the programs lead to a better understanding of the key components of the Ministry's Education for All program and of effective school-community partnerships?
- Do communities that listen to the radio programs initiate more activities to improve the quality of their school than those who do not benefit from such programs?

Regional Monitoring and Evaluation agents were recruited and trained to administer a structured multipart questionnaire.

Questionnaires were administered in 177 communities – 87 where listening groups had been established, and 90 communities located in the same regions, but outside the broadcast zone. A comparison of the performance of the two groups allowed the STEP/ATEC program to measure the value added of their initiatives. In all, some 865 individuals participated in the survey, 437 from STEP/ATEC supported communities and 428 from non STEP/ATEC supported communities.

The listening groups proved to be an effective means of engaging community members in a dialogue on school quality. In the case of Ambalafiabato Elementary in Fianar, over 50 community members met weekly to debate issues addressed in the programs and identify what they could do collaboratively to improve learning. And for Emmanuel Ramarolahy, Principal of Ambalafiabato Elementary, the results were evident.

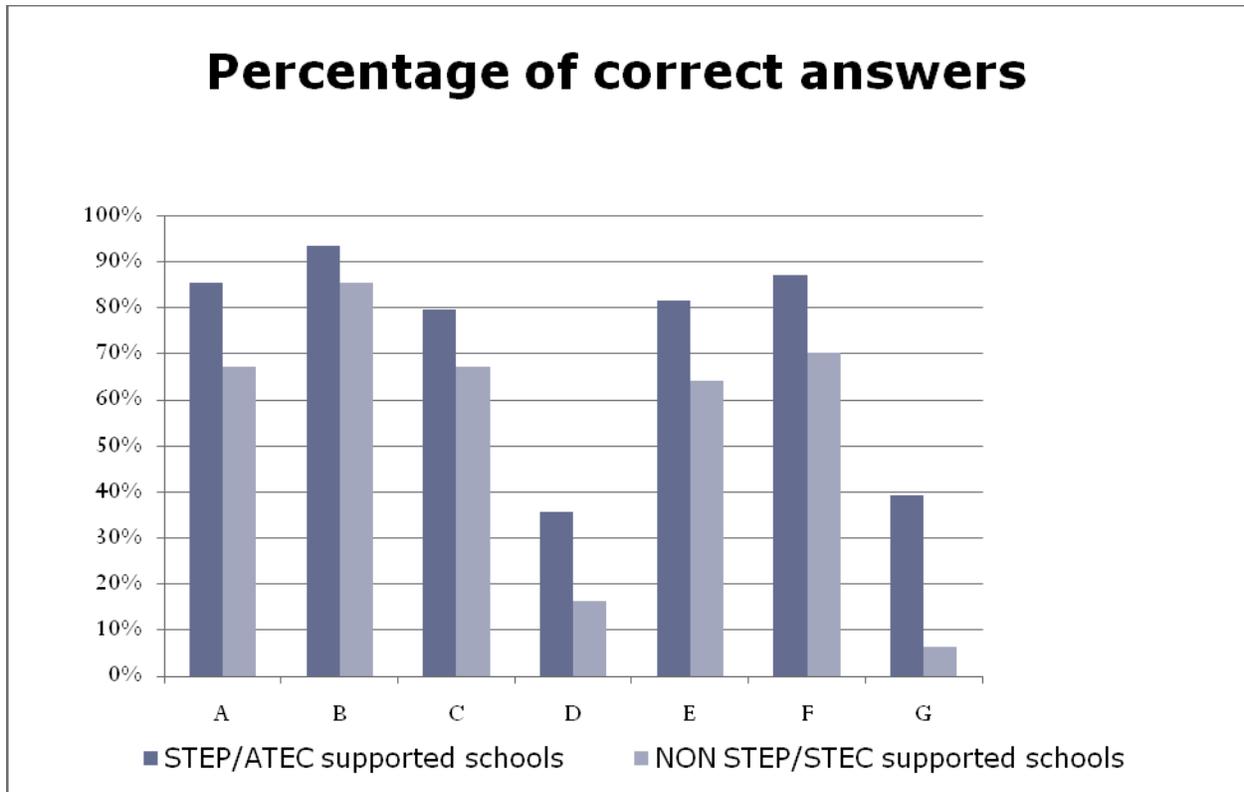
"The radio programs have been a catalyst for change in our community. After only four programs... attendance rates are up, and sending children to school has become common practice here...The popularity of the programs has spread throughout the entire community very quickly."

More students are coming to school and parents are taking greater responsibility for the state of the school - a critical first step in improving the quality of the education system nation-wide."

The results are overwhelmingly positive. As the graph below demonstrates, community members in STEP/ATEC supported schools were far more knowledgeable about every aspect of school-community partnerships addressed in the programs. The programs proved to be a powerful and effective means of

informing parents of Ministry of Education initiatives to improve school quality, and of making parents aware of the basic principles of transparent financial management and decision making.

Graph 4: Comparison of results of STEP/ATEC and non STEP/ATEC supported communities



A- Roles and responsibilities of FRAMs

B- Roles and responsibilities of FAFs

C- Differences between FRAMs and FAFs

D – Ministry initiatives to improve school quality

E – Actions schools and communities can take together to improve school quality

F- Educational policy (Rights and responsibilities of parents and teachers)

G – Developing and Implementing school improvement plans

Community members in STEP/ATEC supported regions were impressed by the quality and substance of the programs.⁴ Some 94% rated the radio programs as

good or excellent. 100 % affirmed that the themes addressed were pertinent to them and to their community and 97 % felt that the programs were an effective means of helping the community identify actions it can take to improve the quality of its schools.

The radio programs also served as a catalyst for change. 94% of community members in STEP/ATEC partner schools stated that the radio programs changed the community's attitudes about school-community partnerships. A full 86% say that they had taken action, as a result of listening to the radio programs, to improve the quality of their school. These actions include projects initiated with funds raised within the community, such as:

- Building a garbage pit
- Purchasing black boards, desks and doors
- Putting in place additional funding for FRAM teachers
- Building new classrooms and renovating old ones
- Building lodging for the teachers
- Building a fence around the school
- Building latrines
- Raising money for the school canteen

As well as no-cost initiatives:

- Insisting that parents oversee their children
- Reforesting the area around the school
- Developing a multi-year school improvement plan
- Re-instituting a parent-teacher association (FRAM)
- Planting flowers and fruit trees around the school
- Developing a plan to bring fresh drinking water to the school
- Cleaning up the area around the school
- Establishing a parent committee to identify students not in school and encourage their families to enroll them

Finally, 94% of community members stated that parents were more involved in the daily life of the school, as a result of listening to the radio programs. As evidence of this, they cited the fact that:

- The parent teacher association (FRAM) had greater confidence in the local school governance councils (FAF)



- Parents were more involved in monitoring their child's progress
- Parents were allowing their children to attend school and as a result the absenteeism rate had fallen
- Parents communicated better, and more often, with the school
- Parents were decreasing the number of household chores children had to do outside of school so that children could focus on their school work.

Training of communities in development and implementation of school improvement plans (SIPs)

The radio programs introduced community members to the importance of school improvement plans, and to how teachers and parents can work together to design and implement such plans. In addition, three members from each of 75 communities (25 per region) were trained in how to develop and implement school improvement plan. During the five-month training teams worked through a 6-step process that included four substantive face-to-face trainings.

During step 4, Regional Educational Authorities assembled an evaluation committees to identify the most thoughtful and viable plans. Committee members included the superintendent of the school districts involved, and the Regional Director of National Education, as well as ATEC regional representatives.

Each school improvement plan was evaluated using a criterion-referenced instrument that included the following criteria:

- Degree to which the entire community had been involved in the preparation of the SIP;
- Quality of the presentation, i.e. the degree to which the various components of the plan were correctly and fully completed (i.e., whether the objectives

Graphic 2: Six-part SIP development process



well formulated and addressed the three key areas of access, quality and governance, etc)

- Pertinence of the objectives selected
- Pertinence of the activities proposed (degree to which the activities listed would result in the attainment of the objectives specified in the plan)
- Degree to which the CPRS could be realistically implemented with the resources listed and within the timeline outlined
- Level of engagement of partners and degree to which responsibilities were shared among stakeholders (whether the resource mobilization strategy was well defined, whether the financial responsibility for the implementation of the plan was shared among different actors)

Communities had to include in their plans activities that required outside funding, as well as those that required little or no financial resources. This was to stress to communities that they already possessed ample human and technical resource that could and should be leveraged to improve the quality of their school. The final plans contained a variety of no-cost initiatives, including:

- the identification by community members of all children in the area 6 years or over who should be in school;
- the organization of information meeting with parents of these children to stress the importance of the schooling and encourage them to send their children to school;
- the implement of a 'fine' system, whereby parents of children who are not attending school must pay a fixed sum to the local fokotany (community association or government);
- the insistence that parents whose children are absence provide a written or oral excuse for their absence;
- the establishment of committees to monitor teacher and student daily attendance.

For community of Ambarimilambana, the process of developing a SIP proved to be been resounding success. Grade 1 enrolment increased by 81% (77% for girls), and average attendance to 98%.

The improvements were the result of a number of initiatives. To increase enrolment, the Mayor held meetings with parents to stress the importance of education and FRAM members began monitoring attendance. If a child was absent, parents had to provide a reason, which was documented in the child's file. Students in difficulty were identified and enrolled in weekend tutorial classes sponsored by the FRAM. To increase girls' attendance and provide them with vocational skills, classes on crafts and culinary skills were instituted. School infrastructure was also improved. The community refurbished a classroom and two teacher residences, thanks to free labor and materials provided by community members.

The plans judged the most thoughtful and realistic by the regional evaluation committee were nominated to receive USAID grants to support their implementation.

Awarding of grants for implementation of school improvement plans

Thirty-one of the 75 schools who participated in the school improvement plan trainings (7 in Toamasina II, 7 in Vatomandry, 8 in Ambohimaso, 7 in Fianarantsoa II, 6 in Toliara II and 6 in Betioky Sud) shared a total of \$15 000 USD in funding to implement portions of their plans. Awards ceremonies were organized in each school district to acknowledge the quality of work done by community members. The ceremonies were attended by regional and prefectural authorities, Regional and school district education authorities, representatives of partner agencies, and of USAID. The events were covered extensively by local, regional and national radio, print and television media.

Grants was awarded in increments, with access to subsequent payments dependant on the submission of receipts to justify funds distributed previously. During the school improvement plan implementation process an evaluation was carried to determine the extent to which schools implemented their plans as expected and used the funds appropriately.

As part of the data collection process, STEP/ATEC and Ministry personnel visited each school and evaluated the progress of each the activities financed with USAID grant monies with respect to two criteria: 1) the degree to which the activity had been completed as outlined and 2) the degree to which the funds had been well spent (i.e., whether there was evidence of good value for the money spent). In addition, STEP/ATEC program staff conducted an analysis of the financial records and receipts submitted to the STEP/ATEC office to determine: 1) the degree to which all of the expenses had been dutifully recorded in the monthly financial reports and 2) the degree to which all of the expenses were justified by appropriate receipts.



The data collected suggested that the vast majority of schools followed their plans and managed their funds responsibly. The only exceptions were communities that

experienced cyclone damage and as a result had to reconfigure their plans to take into account new priorities.

Development of second generation of radio programs on developing school improvement plans (October 08 to April 09)

The success of the small grants program in encouraging community members to take ownership of their schools and initiate actions to improve the quality of children's learning environment encouraged the Ministry to include, in its new education reform program, an expansion of the program nation-wide. Each community would be encouraged to develop a school improvement plan and submit it to Ministry authorities for evaluation. Communities that developed thoughtful plans would be eligible for funding, through a newly instituted Local Catalytic Fund (LCF), to support their implementation.

The new programs would address the following themes:

- *The criteria of quality schools (as defined in the recent EFA programs)*
- *What parents can do at home to help continue their children's academic growth;*
- *How to determine the extent to which a local school meets the criteria for quality;*
- *How to involve the community in examining the situation of the school with respect to the criteria for quality schools, and in identifying those areas in most need of attention;*
- *How to involve the community in setting goals for their schools and identifying actions to ensure that those goals are achieved;*
- *How to identify resources available locally to support those actions;*
- *How to capture all of these actions in a multi-year school improvement plan;*
- *How to manage the resources efficiently and transparently.*

As part of the continuation of the STEP/ATEC program, the Ministry requested that STEP/ATEC assist them in developing a new generation of regional radio programs that would ensure that all communities receive accurate information about school improvement plans. The programs would provide community members with information about the different funds available; how communities can access them; expectations in terms of grant applications, procedures, requirements and timelines; expectations in terms of transparent management of the funds, etc.

The radio programs would be developed via a national-regional partnership between the INFP (National Institute of Professional Training) and the regional teachers' colleges (CRINFPs). INFP technicians, in partnership with STEP/ATEC representatives, would

develop a "generic" version of the programs, in Official Malagasy, for broadcast in the Antananarivo region. The generic version would then be adapted by CRINFP

representatives, working in partnership with local production studio/radio stations in their home regions, to take into account the realities and priorities of the region.

For the Ministry, the INFP-CRINFP partnership represented an important first step in decentralizing the existing distance education program. As a result of the development process, all regions would receive accurate, consistent messages about effective financial and administrative management procedures. At the same time, the capacity of regional teachers' colleges to design effective distance education tools would be developed in a very guided, controlled and gradual manner.

In November 2008, a three-person team was jointly recruited by the STEP/ATEC program and the INFP to develop the new generation of radio programs for parent teacher associations. In December the team participated in a three-week training on how to design effective educational radio programs. They then developed, in collaboration with representatives from the three regional teachers' colleges, a focus group questionnaire to collect information on community members' information needs and listening preferences. The questionnaires were administered by CRINFP representatives in a sample of communities in each of the three regions. STEP-ATEC representatives also developed a questionnaire to assess the technical capacity of radio stations and production studios in the three regional capitals, with a view to identify a partner with the technical capacity to assist teachers' college representative in "localizing" the generic programs.

The information gained from the focus groups organized at the community level allowed the ATEC team to finalize a design document and scope and sequence for the 20 programs. The series follows the progress of a fictional but representative Malagasy community as it tries to identify what it can do to help its children succeed better at school.

Unfortunately funding for the LCF initiative was suspended in March 2009, due to the political coup d'état. Given that no Ministry LCF funding would be available to support the implementation of locally developed school improvement plans during the 2009-2010 school year, it was decided to restructure the content on the programs to focus less on the specificities of the LCF, and



more on the processes and procedures involved in developing and implementing a school improvement plan. That way the programs could be used by any technical partner, (USAID, UNICEF, etc.) able to redirect funds from Ministry-supported activities to community-initiated school improvement activities.

The team had just completed the final revisions of the design document and the scope and sequence when technical activities were suspended.

2. INDICATOR STATUS⁵

The indicators for this result area focused on two different aspects of community support: 1) the ability of regional directions to produce quality radio programs for parent teacher associations and communities and 2) the ability of communities to develop and implement quality school improvement plans.

Table 11: Overview of progress with respect to Component 2 Indicators

INCREASING COMMUNITY SUPPORT TO PRIMARY SCHOOLS VIA RADIO AND TRAININGS						
Result No.	Indicator	Oct 06 (Target) Actual	April 07 (Target) Actual	Oct. 07 (Target) Actual	March 08 (Target) Actual	Status
3	INCREASED CAPACITY OF MENRS TO DEVELOP RADIO PROGRAM TO ENHANCE AND EXPAND PARENT PARTICIPATION IN SCHOOLS					
3.1	Number of decentralized MENRS staff (CRINFP/DREN/CISCO) capable of writing radio training programs in support of enhanced parent-school partnerships	NA	(4) 5	(12) 12	NA	Met
4	INCREASE IN COMMUNITIES' UNDERSTANDING OF EFFECTIVE SCHOOL-COMMUNITY PARTNERSHIPS					
4.1	Percentage of communities demonstrating increased understanding of the principles presented in the radio programs based on representative sample of pilot communities having benefited from full complement of radio programs and the establishment of listening groups	NA	0%	(80%) 90%	(80%) 90%	Exceeded

⁵ New indicators, and a new Performance Monitoring Plan, were developed in March 09 for the extension of the STEP/ATEC program. However, no data was collected or reported prior to the suspension of technical activities in April 09. For that reason, the indicators presented in this report cover the November 05 to March 08 period.

5	INCREASED CAPACITY OF COMMUNITIES TO DEVELOP COMPREHENSIVE SCHOOL IMPROVEMENT PLANS AND MOBILIZE RESOURCES TO IMPLEMENT THOSE PLANS					
5.1	Percentage of pilot school communities (25 in year 1, 50 in year 2) that develop school improvement plans that meet ATEC/STEP minimal criteria for quality	NA	(50%, 13) 50%, 13	-	(70%, 35) 70%, 24	Not met
5.2	Percentage of communities awarded grants (10 in yr 1, 30 in yr 2) that are successfully implementing resource mobilization plans under the direction of the school management committees	NA	NA	(80%, 11) 86%, 12	(80%, 22) 86%, 22	Exceeded

Of the four targets established, the STEP/ATEC program exceeded expectations with respect to two. In one case the target was met, and in one case (the percentage of school communities that develop school improvement plans that meet minimum criteria for quality) the target was not met.

The latter is particularly problematic, given the emphasis in the Ministry's new Education for All plan on community involvement in education and on parental involvement in school management and governance. Although the standards set by the STEP/ATEC program were admittedly high, the results point to the need to provide community members, and in particular Parent Teacher Associations, with continued support to develop their planning and management skills. This will be a critical to having the community play a larger and pivotal role in the administration of the school and the management of school improvement funds.

During the first year, pilot schools were required to submit written documentation demonstrating efforts undertaken with respect to each criterion. Given that the majority of parent teacher association members are not heavily text literate, in 2007-2008 it was decided to allow communities to represent their ideas and their progress in multiple ways (not just on paper). Visits were organized to schools so that evaluation team members could see firsthand, a system that is more in keeping with local ways of knowing and communicating.

Despite that, the overall quality of the school improvement plans was not significantly better than those produced the previous year. Community members who had difficulty representing or organizing their thinking on paper had equal difficulty presenting a coherent plan when asked to do so orally.

On a more positive note, the radio programs proved a highly effective – and cost effective – means of informing and mobilizing parents as indicated in the following success stories.

3. SUCCESS STORIES



CASE STUDY

Parents: Key to improving schools

Parents in Ambrimilambana are working with officials and community members to improve their school



Photo by Jason Christie

"We are realizing there are things we can do to improve education...we are proud of what our community has done."

- Albert Taso, Principal

School improvement team leaders

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Challenge – One of the keys to achieving the goal of universal, quality elementary education for all is encouraging parent teacher associations (FRAMs) to take a leadership role in the improvement and governance of local elementary schools. For communities like Ambrimilambana, that means identifying what they can do collectively, with the resources they have available locally, to improve their children's education.

Initiative – USAID, with technical assistance from EDC through the ATEC program (Appui Technologique aux éducateurs et communautés), is supporting communities like Ambrimilambana by providing the local parent teacher association with the skills necessary to develop and implement three-year school improvement plans. FRAM members work with educators to set aspirations for their school and identify the human, material and financial assets available locally to realize these aspirations. In the case of Ambrimilambana, parents recognized that low enrollment and attendance rates (particularly among girls), and the decaying condition of the school and teacher residences were preventing children from reaching their potential. They also realized that their community already possessed strengths and resources to address the situation. The initial discussions led to the development of a three-year school improvement plan that has the community working with local government officials to improve their quality of education their children receive.

Results – For the FRAM of Ambarimilambana, the process has been a resounding success. Grade 1 enrolment has increased by 81% (77% for girls), and average attendance is now 98%.

The improvements are the result of a number of initiatives. To increase enrolment, the Mayor held meetings with parents to stress the importance of education and FRAM members began monitoring attendance. Now, if a child is absent, parents must provide a reason, which is documented in the child's file. Students in difficulty are identified and enrolled in weekend tutorial classes sponsored by the FRAM. To increase girls' attendance and provide them with vocational skills, classes on crafts and culinary skills have been instituted. School infrastructure has also improved. The community has refurbished a classroom and two teacher residences, thanks to free labor and materials provided by the members.

At Ambarimilambana Elementary, more students are learning, and learning more. Parental involvement spells success!



USAID | MADAGASCAR

FROM THE AMERICAN PEOPLE

FIRST PERSON

USAID-supported regional educational radio programs a first for Madagascar

Radio programs developed by educators in the Toliara region are helping to change attitudes towards education



Photo by Jean-Christophe EDC/Inham

"The radio programs are important because the school enrolment rate here is very low. Most parents in rural areas are not text literate, so the best way to communicate with them is through radio."

- Maka, Federation of African Women Educators (FAWE), Toliara, Madagascar

Clothide is part of a four member USAID-supported Ministry of Education team in the Toliara region in southwest Madagascar learning to produce radio programs for parents and communities. The 25 programs, which began broadcast in January on local radio stations, are informing parents and community members of their roles and responsibilities and encouraging them to work together with teachers and principals to improve the quality of education for their children.

The southwest region of Madagascar has the highest rates of poverty and illiteracy in the country, as well as the highest school drop out rate. If the region is to develop, parents will need to be convinced of the economic and social value of schooling. For Clothide and the other members of the regional scriptwriting team, this means using radio to communicate to them the importance of education and the critical role they play in their child's education.

Getting parents to listen to the programs is a key first step to changing behaviours and attitudes. To encourage them to tune in, and to ensure that the messages communicated are easily and widely accepted by all parents in the region, Clothide and her colleagues are having the programs recorded in local dialect, by local actors, and incorporating traditional music from the region. They are also ensuring that the programs address challenges and realities specific to the Toliara region.

For Clothide, USAID's support to the decentralisation of education radio programming is critical to improving the situation of schools in her region. As a result of this of the training she and her colleagues received in educational radio design and production through the EDC-led ATEC program (Appui technologique aux éducateurs et communautés), the region now has the capacity to develop and produce its own radio programs. This is a significant step in improving the quality of education for children in south-western Madagascar.

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CASE STUDY

Community listening groups: Catalysts for change

Community listening groups help improve the quality of elementary education.



Photo by Norma Burns, EDC

The listening groups have been a catalyst for change in our community...

-Emmanuel Ramarolahy, Principal, Ambalafabato Public Elementary School

Challenge - The success of the Madagascar Ministry of Education's educational reform package depends in large part on having parents become more involved in their children's education and take ownership of their local school. This means ensuring that parents are aware of the role they can and should play in the running of their local school, and having them identify initiatives they can take to improve the quality of teaching and learning.

Initiative - In the Fianar region of Madagascar, this challenge is being met through the establishment of community-based listening groups. Community members meet twice a week to listen to a USAID-funded radio program on dynamic school-community partnerships, including the roles and responsibilities of parent teacher associations, effective administrative and financial management practices and what parents can do at the local level to insure that students receive a quality education. After listening to the programs, members discuss the relevance of issues addressed for their particular community and identify specific actions they take in their community, with the resources available, to improve learning conditions for their children.

The community listening groups are led by a local facilitator selected unanimously by the community and trained by USAID, through the EDC-led ATEC (Appui technologique aux éducateurs et communautés) program, on how to establish and nurture effective community-based listening groups.

Results - The listening groups have proven to be an effective means of engaging community members in a dialogue on school quality. In the case of Ambalafabato Elementary, attendance has increased three-fold since the beginning of the broadcasts. Now well over 50 community members meet weekly to debate issues addressed in the programs and identify what they can do together to improve learning.

And for Emmanuel Ramarolahy, Principal of Ambalafabato Elementary, the results are evident. More students are coming to school and parents are taking greater responsibility for the state of the school - a critical first step in improving the quality of the education system nation-wide.

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C. COMPONENT 3: SUPPORT TO THE DECENTRALIZATION OF TEACHER EDUCATION

In 2005, when the STEP/ATEC program was launched, teacher professional development was delivered simultaneously to all primary teachers in the country via five annual in-service training events, each three days long, known as the “journées pédagogiques,” or “JPs.” Two of these five JPs were intended to be used for the national dispersion of centrally planned trainings, and three were reserved for regional or school-district initiated trainings, designed in response to “on-the-ground” teacher training needs.

While the model aspired to a proper balance between centrally and locally-planned training, and while it represented a good opportunity for local ministry structures to play a role in teacher training, in actuality it proved to be a relatively ineffective method of providing teachers with pertinent, meaningful inservice training. Little material was prepared and disseminated at the national level for the nationally-sponsored JP training cycles. As a result, local trainers were often left without needed training documents at the time of training and/or are obliged to fall back on documents prepared for previous trainings, the latter being billed as a sort of “refresher” course.

1. Overview

The work plan for the STEP/ATEC program called for program staff to work with national, regional and school district personnel to develop a new decentralized model of teacher inservice delivery that would be responsive to teachers’ needs and priorities at the local level. As a first step, the program organized a five-day workshop with teachers, principals, teacher supervisors, and college teacher instructors to review the strengths and limitations of current inservice delivery models and design a new model based on teachers’ expressed needs. Participants proposed a system that would have participants at each level of the system (school, ZAP or zone, school district or CISCO) complete a self evaluation checklist to identify their degree of proficiency with respect to a commonly-agreed upon list of professional competencies, as well as their professional development priorities, using a scale of 1 to 4, with 4 being complete mastery or highest priority. The information would be

At the school level, for example, principals were asked to work with teachers to identify actions that the staff could initiate at the school level to meet the needs of the teaching staff. Local area supervisors were asked to review all of the data collected in the schools in their zone on teachers’ or principals’ professional development needs and work with principals to identify specific actions that could be taken at the ZAP level to respond to those needs.

aggregated at each level of the system to identify common priorities, and the resources available locally to meet those needs. Any professional development needs not able to be met by local resources would be submitted to the next higher structure for consideration. The model would allow each structure to develop a professional development plan responsive its particular needs. As well, by aggregating the information from different zones, a school district or region would be able to obtain a comprehensive picture of professional development needs and priorities.

Study of teachers' professional development needs and priorities

The various self evaluation checklists that would serve as both a professional development tool as well as data collection instruments for the aggregate studies were drafted in a September 2006 workshop and revised during a subsequent 3-day working session organized in October with school district representatives. District staff distributed the finalized checklists to all teachers, principals and local area supervisors (Chef ZAPs) in their area. A total of 4777 checklists were distributed in the 6 school districts, 3524 to teachers, 1132 to principals and 121 to local area supervisors.



Staff from the six school districts participated in three four-day trainings on how to enter, clean and analyze data, as well as how to produce a summary report identifying the professional development needs and priorities of teachers, principals and Chefs ZAPs in their district. Team members from each district then produced a report summarizing the priority needs for their district and

presented them to the regional Directors of National Education for validation.⁶

⁶ The Department of Planning and Statistics of the Ministry of Education produced a national study, using the data aggregated from the 6 district-level reports. The national study provided Ministry decision makers with a complete snapshot of teachers' perceptions with respect to their teaching competencies, as well as the areas in which they would like to benefit from additional inservice.

Development and Implementation of School District and Regional Professional Development Plans

The district-level studies served as the basis for the drafting, by a joint school district and regional team, of a three-year regional professional development plan. The plans outlined trainings that would be organized during different periods, for different audiences, based on the data collected.

During the 2007-2008 school year, districts began implementing their plans, via the local area supervisors. In all, some 114 local area supervisors initiated trainings outlined in the regional plan during that period.

Table 12: Number local area supervisors who initiated trainings as part of 3-year regional professional development plan

Region and School district	No. Area Supervisors	Number who initiated trainings in October 07	Number who initiated trainings in December 07	Number who initiated trainings in February 08	Number who initiated trainings in March 08	TOTAL of Area Supervisor initiated trainings, 2007-2008
Toamasina						
Toamasina II	17	13	15	0	16	44
Vatomandry	12	12	15	0	14	41
Total	29	29	30	0	30	89
Fianar						
Fianar II	38	22	34	0	33	89
Ambohimahasoa	17	14	11	0	12	37
TOTAL	55	55	45	0	45	145
Toliara						
Toliara II	21	8	4	13	16	41
Betioky	18	6	12	5	12	35
TOTAL	39	14	16	18	28	76
Overall	123	98	91	18	103	310

An examination of the table revealed some discrepancies between the Ministry's vision of the role of area supervisors and what actually happens in the field. School

districts do organize training sessions, but only during the October, December (Christmas) and March (Easter) holidays. As well, only 77% of area supervisors actually initiated trainings during the period in question, and with the exception of Betsioky, none of the sessions were organized at the zonal or local level. Rather, area supervisors from neighboring regions grouped all their teachers in one location (and in one room) and addressed them all at the same time. In the case of Toamasina II, the teachers from across the CISCO were grouped together in a single location. As a result, teachers had to travel long distances to attend the trainings and incur travel expenses. The costs involved, as well as security and safety concerns, mitigate teacher attendance.

Although the idea of having school districts work together in regional groupings to develop regional professional development plans, based on teachers' expressed needs and priorities, was a laudable one, its implementation was compromised by the practices outlined above, as well as by the fact that area supervisors were not trained as teacher trainers, nor selected based on their pedagogical skills. Even if the trainings organized addressed priority themes, it is doubtful that they were of quality or resulted in improved instructional practices.

Establishment of teacher networks

One of the findings that emerged from the data on teachers' professional priorities was that teachers' professional development needs are highly localized. Teachers across a school district have very different needs, depending upon their professional backgrounds and grade levels taught. Although a district-wide plan can allow educational leaders to address the most common or pressing needs, it does not allow all teachers access to trainings that are meaningful or important to their particular situation.

For this reason, in 2007 the Ministry began to explore the feasibility of moving to a "bottom-up", modular teacher education system. Teachers would work together to complete the requirements laid out in a series of modules and obtain credit if they were able to demonstrate that they had put the principles into practice in their classrooms.

Given the large number of teachers involved, and the geographical realities of the country, the program would have to be largely self directed, and delivered primarily via two modes:

1. teacher 'clusters' that would bring together all elementary teachers living and working within a short distance of each other and
2. distance education.

The shift from traditional area supervisor-based trainings to cluster-based initiatives represented a step in the right direction. Teachers would no longer have to travel long distance, in less than secure environments, to get to the trainings, and once there, be grouped together in numbers too large to permit anything but lecture-style presentations. If the clusters remain relatively stable over time, teachers would become increasingly more comfortable sharing with each other the difficulties they were have in their classroom practices.

The STEP/ATEC program was instrumental in helping the Ministry clarify how the clusters might operate. In May/June 2007, the project brought together representatives from the six pilot school districts to examine the concept of teacher clusters and develop initial guidelines for their operation. A small working group was appointed to finalize the guidelines and a revised version was validated by the 6 school districts in July. Much of the Ministry thinking about how to render operational a cluster-based inservice program has been drawn from this document.

As part of a pilot program to test the guidelines, some 380 teacher clusters were established in the six school districts and a local facilitator appointed to help each cluster define a professional development plan.

Table 13: Number of teacher clusters, per school district

Region	School District	Number of clusters
Atsinanana	Toamasina II	72
	Vatomandry	43
Haute Matsiatra	Fianarantosa II	127
	Ambohimahaso	45
Atsimo Andrefana	Toliara II	48
	Betioky Sud	45

Between October 07 and March 08, cluster facilitators participated in a series of three trainings on how to facilitate cluster activities.

- *A three-day training in October* to introduce them to the concept of teacher networks, familiarize them with their roles and responsibilities and examine how an appreciative inquiry approach can be used to help teachers within a cluster develop a 'projet pédagogique' (professional development plan);

- A two-day training in December to validate the budgeted 'projets pédagogiques' developed by the clusters and remit the first half of the grant funding (a total of 30 USD per cluster)⁷;
- A two-day training in March to review progress with respect to the implementation of the professional development plan, review receipts attesting to the appropriate management of first half of the grant funding, and remit second half of the grant funding to clusters who submitted appropriate receipts;

The trainings were implemented at the school district level, by a joint school district-teachers' college team. Facilitators were introduced to the purpose of teacher clusters, and on how to help teachers in their cluster identify their common professional development needs and develop and implement a "professional development project" to meet those needs.

TABLE 14: Attendance at the network facilitator trainings

School district	October 07 Training (includes area supervisors)	Dec 07/Jan 08 training	March 08 training
Toamasina II	72	35	72
Vatomandry	58	35	40
Fianarantsoa II	167	117	127
Ambohimahaso	66	44	45
Betioky sud	42	45	37
Toliara II	45	47	46
Total	450	323	367

Teacher clusters implemented their professional development projects between November 2007 and June 2008. At the end of the school year, each cluster organized a community level "festival" to present the fruits of their labor to parents, FAF and FRAM members, and community leaders. In addition, each cluster was invited to set up a booth highlighting their work at the "Fête des réseaux" organized by each of the school districts in the district capital. The "fête" was open to the public and provided an opportunity for clusters to present their learning projects and share their successes. They were an occasion to honor the work being done at the local level, by teachers, principals and local area supervisors, to rejuvenate teacher professional development and to improve the quality of teaching and learning. The events were attended by high level representatives from the Ministry

⁷ The draft budgeted proposal were submitted to school district and teachers' college instructors in December for review and assessment, with a view to identify activities that quality for funding from the cluster professional development funds.

of Education, USAID, and regional and local education and government authorities. National and regional print, television and radio news media provided extensive coverage of the events.

Impact of Teacher Clusters or Networks

The implementation of a “cluster-based” professional development system, where teachers decide for themselves what they want to learn and receive funding to support their efforts, represented a radical departure for the Ministry. Placing decision making power in the hands of teachers had the potential to significantly change power structures and develop within the teaching profession a commitment to lifelong learning and self-directed improvement.

To measure the initial impact of the cluster system, in 2008 the STEP/ATEC undertook, in partnership with the INFP, a research project to determine teachers’, local area supervisors’, school district and teachers’ college personnel’s perceptions of the clusters as a professional development model, as well as factors that contribute to their successful implementation. The study, which was primarily descriptive, sought to answer the following two key questions:

1. What impact does the establishment of teacher clusters have on teachers’ professional culture and identity, as well as on the structures and entities whose primary function it is to support teacher professional development? Specifically:
 - What are teachers’ perceptions of the impact of clusters on their professional behaviour, their behaviour in the classroom, their identity as teachers, their collaboration with colleagues and their feeling of belonging to a professional community?
 - What impact have clusters had on the roles and responsibilities of Chef ZAPs, on CISCO-level person, and on the ZAP-CISCO-CRINFP partnership?
2. What are the conditions that foster the establishment of dynamic and successful teacher clusters? I.e.,
 - What influence do facilitators have on the activities of the cluster?
 - What are the behaviours and the characteristics of a high functioning cluster?
 - What conditions (technical, pedagogical, logistical,



material,...) are necessary in order for clusters to be successful?

Data were collected via structured questionnaires developed by a joint INFP/School District committee and administered to teachers, cluster facilitators, area supervisors, School district personnel and CRINFP instructors, as well as via focus groups discussions organised with representatives of each structure. A total of 122 facilitators, 120 teachers⁸ (117 public sector, 3 private sector), 88 local area supervisors, and 19 school district and teachers' college representatives participated in the study. Key findings from the study included the following:

Teachers

- Teachers felt the main benefit of the networks was that they *allowed them to take control of their own learning and problem solving*. Teachers said that they prefer the network model, characterized as "members choice," "free," and "teachers' problem solving" to the *journée pédagogique*, which they describe as "predetermined," "general," and "unfocused."
- A nearly equal benefit was *the chance to participate and exchange with other teachers*. 73.3% of responding teachers felt a much better spirit of mutual help and exchange as a result of the network experience. "Sharing" for them included sharing experiences and ideas, working together, and solidarity. Nearly half of responding teachers indicated that relations between colleagues and schools had improved as a consequence of network activities. Almost a third noted an improved exchange of ideas and experiences among teachers, a coming together of teachers. Even though many teachers acknowledged the challenge of communicating freely in settings where teachers represented different statuses, more agreed with the teacher who remarked, "We participated without hesitation, even if we were subordinates."
- The majority of teachers thought that their *academic knowledge had improved* "a lot" (67.5%) as well as their interest in perfecting their classroom practices (65%).
- 95.8% of responding teachers noted that they felt *they taught "much better" or "considerably better" as a result of participating in the networks*. For teachers,

⁸ Of these, 117 were public schools teachers and 3 were private school teachers. Teachers were almost equally divided among FRAM or untrained teachers (n=63) and civil service teachers (n=57). They had on average 14.5 years of experience. Nearly all teachers (97.5%) attended every network meeting or the majority of meetings. Many clusters met once every 2 months (45%), while a smaller percentage of teachers met once a month (29.2%) or twice a month (45.8%).

"teaching better" referred to the ability to teach specific subjects like Music and French better, using materials more effectively and giving a lesson more easily. Over one-third of responding teachers indicated *their classroom conduct improved as a result of the network experience*. They mentioned they were more enthusiastic, punctual and brave in their classrooms. Nearly as many (30%) maintained that their work methods improved and teaching was "easier" because of what they learned in the network. This meant, "Better preparation," more effective "gestures, lessons, chants, and instruments."

- 89% of teachers were of the impression that *their students participated more actively in class as a result of the materials and strategies discussed in network meetings*. 88.3% of teachers believe that network materials and strategies impacted student achievement "a lot" or "considerably." Teachers felt their students learned better as a result of the teachers' experience in the networks, according to their focus group responses. Student learning included more participation, better attendance, and increased enthusiasm.
- Overall, responding teachers felt the *greatest impact of the networks on their conduct and relations was observed in the increased level of understanding, creativity and success of their students (36.5%)*. Students were "more enthusiastic with the new rhythm of the class and passed more tests." Following this, they indicated increased student enthusiasm (31%) and more collegial sharing and participation (21%) as significantly changed.

Pedagogically speaking, we've benefited a lot from it, especially the FRAM teachers because they got both teaching materials and teaching methods from the network. Even senior teachers who were a bit "sleepy" are now really "awake". I think that if it continues, we'll be able to reach the objective of the government to reduce the repeating rate, only those who are not serious will repeat years.

Fideline, Facilitator of the Ilaka Est Teacher Network, Vatomandy

Area supervisors, District Staff, Teacher's College Instructors

- 75% felt that relations between Teacher's College and School district representatives had improved "a lot," as a result of the implementation of teacher clusters while 13% felt relations had improved "somewhat." These improvements were noted primarily in the areas of "a spirit of partnership and collaboration" (67%), the "implementation of trainings" (65%), and the "will to work together towards the same goal" (63%). The weakest area of improved relations was in the understanding and valuing of each others' strengths.

In addition to the diverse impacts, qualitative and quantitative data show that network participants believe multiple factors contribute to the dynamism and success of the networks:

- Over a third of teachers indicated that the most “indispensable” elements in the functioning of the network were *the financial support* and *awareness of the community*. They identified the grant as the most necessary condition for a successful network (92.5%).
- Teachers also felt overwhelmingly that *the appointment of a local facilitator* was very important or indispensable (95.9%) as well as the sharing of “all” network members in the organization and implementation of network activities (93.3%). In focus groups, teachers also emphasized the importance of the discipline, organization and management of the group.
- Facilitators identified the equal participation of all members in discussions and decisions (94%), the shared responsibility for organizing network activities (90%), and the completion by teachers of a needs analysis and action plan (89%) as the most important factors. The grant was an important element for the successful function of the network (87%).



Development of Self Directed Learning Kits for English Second Language

English was identified as one of the mandatory modules in the new modular and cluster-based teacher training program. Unfortunately, many Malagasy teachers have little to no access to English language training or even English language speakers. For that reason, as part of the proposed extension of STEP/ATEC activities, the Ministry requested that program staff work with INFP technicians to develop and pilot an innovative, audio-based self-directed learning kit that would provide all teachers, regardless of where they live, with the opportunity to develop the basic, language skills required to teach the new elementary English program.

A two-person team was recruited in November 2008 to develop the kit. Team members participated in a three-week training in December on developing effective interactive audio materials. In the weeks that followed, the team worked with INFP representatives to draft the guidelines for the kit. After much reflection, it was decided that the pilot kit would be organized by thematic units, each of which would

corresponds to one of the 'family of situations' in the new grades 6 and 7 English language curriculum. The kit would contain:

- *A self evaluation check list aligned with the corresponding level of the English Language Reference Set.* The check list would enable learners to monitor their progress and explain, in clear observable and measureable terms, what learners must be able to demonstrate in order to be deemed to have successfully met the requirements for the level in question;
- *A description of what teachers would be required to demonstrate in order to get credit for the English module of the primary or semi specialist teacher program;*
- *Interactive audio materials to develop teachers' listening comprehension and speaking skills;*
- *An accompanying learner's manual that would:*
 - a. explain how to use the self directed kits, either in an individual study format or in small groups (teacher clusters or networks);
 - b. explain what learners could do to support their learning over time (organizing a work schedule, identifying a work space, how to take and organize notes, assessing one's learning, etc...);
 - c. Contain, for each of the family of situations, situated-learning activities to develop learners' reading comprehension and writing skills;
 - d. An outline of what learners would be expected to include in their learning portfolio to demonstrate their progress with respect to the required outcomes of the English language modules.

Between December 2008 and April 09, team members drafted the master plans for the first 4 situations and the audio segments for situations 1 and 2.

Table 15: Overview of Self-Directed Learning Kit

Learning situation	Family 1	Family 2	Family 3	Family 4	Family 5
	<i>Use of language in everyday life</i>	<i>Use of language in everyday home life</i>	<i>Use of language to participate in special family events</i>	<i>Use of language in familiar surroundings outside the home</i>	<i>Use of language to organize and participate in special community events</i>
Situation 1	Meeting new people in the village for the first time	Planning my day/my week/my year	Going to a relative's house for the New Year	Going to the doctor	Organizing a guest speaker to speak to the school/class
Situation 2	Sharing personal information about me (likes, dislikes, favorite pastimes...)	Cleaning and taking care of the house	Going on a family picnic	Going to a football match in another town	Organizing a performance of English and Malagasy songs at a village concert
Situation 3	Introducing new people to my family	Planning meals (including negotiating purchases at the market)	Preparing for Independence day activities in the family	Visiting a park and going on a picnic	Putting on a play about the environment
Situation 4	Helping someone find their way around the community	Preparing family meals	Organizing a birthday party	Buying a new outfit (comparing prices, negotiating prices)	Planning a circumcision ceremony

Team members also recorded the audio for situation and have completed the accompanying segments of the user's guide for situation 1, family 1. A graphic

artist was hired to complete the illustrations and the desktop publishing of the guide. Pre and post tests were designed to measure the impact of situation 1 and testing of the first situation was scheduled to begin in April, at the time when technical activities were suspended.

2. INDICATOR STATUS

The indicators used to measure progress with respect to the strengthening of local support to teacher professional development focused on the ability of school district personnel to collect and analyze, using information technology tools, data on teachers' professional development needs and priorities, and to develop and implement regional and local professional development plans that cater to those needs.

STRENGTHENING LOCAL SUPPORT TO TEACHER PROFESSIONAL DEVELOPMENT						
Result No.	Indicator	Oct 06	April 07	Oct. 07	March 08	Status
		(Target) Actual	(Target) Actual	(Target) Actual	(Target) Actual	
6	INCREASED CAPACITY OF LOCAL EDUCATION STRUCTURES TO DESIGN AND DELIVER INSERVICE PROGRAMS BASED ON TEACHER NEEDS AND PRIORITIES					
6.1	Percentage of pilot CISCO capable of using pedagogical data collection instruments in a systematic, valid manner (2 CISCOS per province)	NA	(70%) 83%	(70%) 83%	(70%) 83%	Exceeded
6.2	Percentage of pilot CISCOS capable of using a computer to analyze data on teacher practice	NA	(70%) 83%	(70%) 83%	(70%) 83%	Exceeded
6.3	Percentage of pilot DRENS able to develop professional development plans based on data analysis of teachers' needs and practices	NA	(66%) NA	(100%) 100%	(100%) 100%	Met
6.4	Percentage of ZAPS where locally planned teacher professional development activities are successfully implemented (based on 6 CISCOS in year 2)	NA	0%	(70%) 55%	(80%) 93%	Exceeded

As the table above demonstrates, the STEP/ATEC program met or exceeded targets set for the four indicators. School districts were able to collect data in a reliable manner, to enter it into a computer program, to analyze it with a view to identifying common themes, and to work with regional education authorities to develop and implement locally initiated professional development plans based on the conclusions of their study. In addition, the STEP/ATEC program was able to develop and implement a very successful “teacher cluster” professional development model that served as the inspiration for the Ministry’s new decentralized teacher training program.

3. SUCCESS STORIES



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SUCCESS STORY

Teacher Empowerment in Madagascar

USAID Action Research Project gives teachers in Madagascar a voice



Allowing teachers to say what they want learn encourages them to take responsibility for their professional growth.

Madagascar, like many of its neighbors, has a critical shortage of teachers. Demand for access to education has grown faster than the Ministry of Education's ability to train teachers. To fill the gap, community members have been asked to take on teaching responsibilities. Today, one out of two elementary teachers in Madagascar is a 'community-based teacher' with no teacher training.

For educators like Madame Lalao Evangeline, providing community-based teachers with trainings adapted to their needs and interests is key to developing their classroom skills. Her school district is one of six participating in an action research on decentralized teacher education sponsored by the ATEC/EDC (Appui Technologique aux Éducateurs et Communautés) program. Over the next six months, Madame Lalao and her team will collect and analyze data on teachers' professional needs and priorities. Teachers will be asked to identify what they would like to learn about teaching and learning. The information collected will be communicated to local and national education authorities and used to develop a 3-year professional development plan for the school district.

Madame Lalao knows first hand the importance of ongoing professional development. As an elementary school teacher, she was never in a position to take time off to continue her studies in education. She did, however, take advantage of all the professional development opportunities offered in her region.

Now the coordinator of Curriculum and Instruction for the Toamasina II school district, Madame Lalao's personal journey has made her a strong advocate for allowing teachers to direct their own learning. "As an educator, I was frustrated with being told what I needed to learn. I am finally in a position to help teachers, principals and area supervisors take ownership of their learning," she asserts with fervor and a smile on her face.

"The result will empower players at all levels of the education system in Madagascar," asserts Madame Lalao. "I've been waiting for an opportunity to do this for a long, long time."

USAID's Action Research Project is one of the first education projects in Madagascar to support the move to decentralized in-service teacher education.

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III. OVERALL IMPACT ON TEACHERS, SCHOOLS AND COMMUNITIES

The STEP/ATEC program sought to improve school quality from various angles. Initiatives were implemented to strengthen school-community partnerships and encourage parents and community members to become more involved with their schools. The initiatives gave parents the information and the confidence to become equal partners with teachers and principals, instituting measures to increase students' access to schooling and to provide them with the ongoing support and monitoring necessary to become successful learners. Parents living in STEP/ATEC pilot zones demonstrated significantly better understanding of the respective rights and responsibilities of parents and educators at the local level and were far more active in instituting measures to improve the quality of education of their children than parents outside the broadcast zone.

STEP/ATEC supported initiatives also built parents' capacity to work with the community to develop and implement school improvement plans to improve the quality of teaching and learning, as well as school governance. Community participation efforts proved to be effective in increasing access to schooling, in improving students' attendance, retention and motivation, and in reducing the amount of chores students are asked to do outside of school time, allowing them sufficient time to review their lessons and prepare for the next day of school.

The initiatives piloted by the STEP/ATEC program in the area of school-community partnership have the potential to have a lasting impact on schools across the country. The idea of training parents and community members to develop a school improvement plan, and of providing grants to those who develop quality plans, has been integrated into the Ministry's most recent Education for All plan. If that plan is implemented as laid out, schools across the country will receive support to develop school improvement plans as well as funds for their implementation.

At the classroom level, the first generation *Izaho koa mba te hahay!* programs proved to be a highly effective tool for dramatically shifting teachers' instructional practices. After only 8 months of broadcast, all teachers had showed a marked increase in their use of student-centered instructional practices, with community-recruited FRAM teachers showing the most significant increase. In addition to improving dramatically their use of student-centered teaching practices, grades 1 and 2 teachers also changed the types of questions they ask students, asking fewer

recall questions and more questions that require higher-level thinking skills, as well as the amount of positive feedback and reinforcement they provide students.

In the case of grade 6 Education as a second language, the interactive radio programs developed had the potential to provide the Ministry with the means to meet its expressed commitment of making English second language instruction at the primary level a reality throughout the country. This despite the absence of a cadre of teachers with the English language skills required to be effective language mentors. Although only 50% of the programs were completed and field tested during the October 08 to April 09 period, the impact on the English language skills of the teachers and students who tested the programs was dramatic, and the programs are still being played on partner radio stations around the country. This despite the fact that only 36 programs were issued to partner stations and that the school year ended over a month ago. The desire on the part of the population to learn English as a second language, and the quality of the *It's Time for English programs*, are no doubt responsible for "It's Time for English" continuing to be broadcast.

The dramatic results of IRI in reinforcing teachers' and students' language skills, and in shifting teachers' instructional practices, were instrumental in the Ministry's decision to expand its distance education program, and in particular the production of interactive radio programs. IRI is now considered a premier vehicle for training teachers and for strengthening students' learning.

Finally, the STEP/ATEC program was successful in nurturing a shift from a highly-centralized – and not overly effective – teacher education program to a decentralized one. Regional and school district educational authorities, and regional teachers' colleges, were granted the authority and the mandate to develop and implement professional development plans based on the particular needs of teachers in their area. Teachers' access to professional development, and to trainings that acknowledged their expressed needs and interests, increased.

As part of its support to the Ministry of Education, the STEP/ATEC program coordinated the development of a concept paper on how to make English as a second language instruction a reality in primary schools across the country, as well as a comprehensive 3-year work plan. Those documents now serve as the basis for the Ministry's ESL initiatives at the primary level.

The implementation of teacher networks also contributed to improvements in the quality of training teachers receive. The vast majority of teachers (96%) reported that they taught “much better” or “considerably better” as a result of participating in the networks and a similar percentage (89%) felt that their students participated more actively in class as a result of the materials and strategies discussed in network meetings and that student achievement had improve “a lot” or “considerably” as a result of that. The Ministry’s commitment to instituting teacher networks, and self-directed professional development plans, nation-wide, as part of a new modular-based teacher training and certification program, demonstrates the success of the STEP/ATEC program in encouraging a shift to be more “bottom-up” and locally-controlled and initiated teacher training program.

STEP/ATEC program indicators, and the additional research studies conducted over the life of the program, show that the program’s interventions have been hugely successful and have contributed to the improvement of school performance at a number of levels. After 3 and a half years of technical activities, STEP/ATEC has had a positive impact on teacher performance, increased community participation and engagement in schools, and contributed significantly to the reform of the education system in Madagascar.

IV. LESSONS LEARNED AND RECOMMENDATIONS

Looking back over the successes and challenges over the past three and a half years, nine dominant themes emerge that can serve as lessons learned for future USAID-supported education projects in Madagascar.

1. The power of interactive radio programming to shift teachers' practices and strengthen teachers' and learners' language skills.

Interactive radio programming has long been proven to be an effective tool for increasing student learning. The experience of STEP/ATEC Madagascar has demonstrated that IRI is equally effective in prompting teachers to adopt new, more effective instructional practices. For countries like Madagascar, where the terrain is vast and often inaccessible, and where local area supervisors are not well versed in new instructional practices, radio-based teacher education is a viable and cost-efficient alternative to face-to-face training. In addition, in countries seeking to introduce new languages into the curriculum, or to reinforce language instruction, Interactive Radio Instruction provides an effective alternative to costly and lengthy face-to-face language training sessions.

2. The need to identify locally managed delivery channel for educational program, one that is based on the use of renewable resources

At the beginning of the STEP/ATEC program, the most significant challenge was training Ministry technicians to produce high quality radio programs that modeled instructional practices associated with competency-based or situated learning. Two years into the program, the challenge was not longer how to produce them, but rather how to ensure that teachers had access to them.

Like many other countries, Madagascar has a limited number of national radio stations – and none with the capacity to broadcast all of the educational radio programming being produced. Neither of the two stations that claim to have national coverage actually do cover the entire country, and neither is willing to broadcast more than 2 hours of educational programming per week, for fear of being viewed as an “educational station” and losing their current target audience (and the potential advertising revenues associated with that audience).

If Madagascar is to expand its audio-based distance education program, the problem of access must be resolved. A financially viable system must be identified (broadcasting through a network of local or regional “educational partner” radio stations, providing schools with audio collections and a means of listening to the materials, be it CD or MP3) and implemented, with a view to ensuring that all schools in the country have equal access to the resources. As part of its 2008-2009 work plan, the STEP/A TEC program collaborated with the Ministry and other technical partners to draft terms of reference for such a study. The initial deliverables were completed prior to the suspension of technical activities, but the study itself was not completed. Should USAID Madagascar be in a position to fund the distance education sector in the future, solving the problem of access needs to be a priority.

3. The importance of school-community partnerships in monitoring and improving educational quality

Madagascar, like many of the countries involved in the Education for All initiatives, has had a long history of highly centralized government. In the case of education, this has resulted in a serious disconnect between schools and the communities they are supposed to serve. Parents and community members have not traditionally been involved in the governance of the school, and as a result communication between parents and teachers has been minimal.

If Madagascar is to meet its goal of improving education quality, it must convince those most affected by the quality of schools – ie, parents – that they have a right to demand quality teaching and learning, and a responsibility ensure that local educators have the resources necessary to deliver quality programming. Strengthening school-community partnerships, and getting parents and community members involved in supporting teachers and learning, is by far the quickest way to improve educational quality. Future assistance to the education sector in Madagascar should be directed to supporting improved school governance and community involvement in that governance. This may mean convincing a somewhat reluctant Ministry of Education of the need to put in place clear structures to support parent teacher associations at the local and regional levels (through Federations or School/District or Regional Associations of Parent Teacher Associations), and to ensure that there are channels for parental and community voices to be heard at the national level.

4. The power of regional radio programs to mobilize communities

The radio programs produced by regional education authorities proved to be an effective, and once again cost effective, means of informing parents and parent teacher associations of their rights and responsibilities. Establishing listening groups further enhanced that initiative, by ensuring that community members and members of parent teacher associations met on a regular basis to discuss the ideals presented and identify what they might do, collaboratively, to support their school.

If parents are to become involved in the governance of schools, they need to be informed of educational issues, of Ministry initiatives, and of what they can expect from their school. And the most effective means of ensuring that all parents receive reliable, consistent messages is through regional radio programs.

5. The power of decentralized teacher education programs, and in particular, models that allow teachers to direct their own learning

The original STEP/ATEC work plan called for the program to support the implementation of nationally-initiated inservice programs by reinforcing the capacity of regional or local school districts to offer effective follow-up sessions. Although this would no doubt have improved the overall effectiveness of the nationally-initiated trainings, it would not have address teachers' recurrent concerns about the relevance and pertinence of the trainings offered.



At the request of the Ministry, the program shifted its focus to one of supporting the decentralization of teacher education through the development of local and regional professional development plans, based on a systemic analysis of teachers' expressed needs and priorities, and the implementation of self-directed teacher networks. The result was a dramatic increase in teachers' interest in professional development and in their willingness to engage in professional development activities and to take responsibility for their own learning. Future USAID Madagascar support to the education sector should build upon these initiatives and strengthen the Ministry's ability to support a strong, effective decentralized teacher education program.

6. The necessity of decentralization

During the three and a half years the STEP/A TEC program operated, the Ministry began shifting from a highly centralized administrative model, to a more decentralized system. However, the expressed commitment to decentralize was not always accompanied by a corresponding commitment of resources – or by a willingness to allow local structures to be primary decision makers. As a result, it was difficult to determine the extent to which structures were able to take responsibility for the implementation of certain activities – the broadcast of radio programs being a case in point. Although the central Ministry does not have the capacity or the resources to oversee 22 different regional or 111 different school district-level broadcast contracts, school districts and regional authorities did not have the administrative resources to draw up contracts or the financial resources to honor them.

If Madagascar is to make serious improvements to the quality of education offered to children around the country, it needs to move to a decentralized administrative mode. This means putting in place the structures and resources necessary for decentralized structures to deliver quality, responsible programming – and holding them responsible for doing so. With a fully functional decentralized administrative structure, initiatives sponsored by USAID will receive better support at the local level.

7. The importance of strong, collaborative and supportive relationships with central Ministry authorities

The impact of the STEP/A TEC program far exceeded the its. This is in large part due to the Ministry's willingness to STEP/A TEC integrate program activities into their Education For All program, and to use EFA funds to finance the implementation or extension of certain activities. The willingness of Ministry officials to do so was a result of the strong collaborative relationship built over the three and a half years of the program, of the willingness of STEP/A TEC technical advisors to allow Ministry representatives to have full input into how program results would be attained, and of consistently providing the Ministry with high quality products. Appropriate departments of the Ministry were involved as full partners in the design and implementation of all activities, and where necessary, program implementation plans were modified to take into account new Ministry priorities. This was critically important for a Ministry that was moving away from a "project"-based approach for partner support to a programmatic one.

USAID's recognition of the importance of "flexible" planning, of involving Ministry authorities in the design of activities, of responding to the Ministry's ever changing priorities, and of allowing only the Ministry's branding to appear on audio products were key contributors to the success of the program – and of the STEP/ATEC program being viewed by the Ministry as a programmatic partner and not a self-contained project.

In a context like Madagascar, where relationships are important, where trust is a key ingredient in building strong relationships, it is important that future USAID programs be as flexible and responsive as the STEP/ATEC program was able to be.

8. The importance of having a clear, coherent vision of how to improve educational quality

One of the major reasons why the STEP/ATEC program was able to have the impact it did, particularly during the last 18 months of its program, was the emergence within the Ministry of Education of a very clearly defined vision of quality education, and a clearly defined plan of action to achieve that vision. The new educational reform program, articulated in the most recent Education For All program, provided the STEP/ATEC program with a clear foundation upon which to build and extend its initiatives. The existence of that vision and the appointment of competent National Directors capable of implementing it, were significant contributors to the success of the STEP/ATEC program.

9. The fragility of that vision, and of emerging nation states

Perhaps the most powerful lesson learned from the STEP/ATEC program was the fragility of emerging democracies. Within a period of 4 months, Madagascar went from having one of the most comprehensive and well researched educational reform programs, to having an educational system in disarray, with no clear vision or leadership potential. Shortly after the political coup in March, the new educational authorities announced the suspension of the educational reform program, and the considerable efforts put into developing a new curriculum, printing new textbooks, introducing Malagasy as a language of instruction, extending the primary cycle from 5 to 7 year, introducing English as a second language beginning in grade 6,...were all put on hold. In the absence of a clear plan, and of funds to implement it, is doubtful that the Ministry of Education will be

able to meet any of its commitments to improving educational quality for young learners over the short term.