

Quarterly Report

April 1 – June 30, 2001



LearnLink
Linking people to learning technologies for
sustainable development



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LearnLink

Global Communications and Learning Systems
USAID Contract No. HNE-I-00-96-00018-00

Quarterly Report April 1 – June 30, 2001

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Project Background

The Global Communications and Learning Systems Project (LearnLink) is funded by the Human Capacity Development Center in USAID's Bureau for Global Programs, Field Support and Research; the Africa Bureau; and other USAID Bureaus, Offices, and Missions. LearnLink was initiated in 1996 to develop strategies, guidelines, models, and tools for strengthening learning systems in developing countries through the application of communication and educational technologies. A sub-goal is to create sustainable communication and educational technology programs in developing-country institutions.

Expected Results of the Project

The results of this contract relate directly to the implementation of field services performed under Task Orders. These results include:

- Assessment tools for defining the appropriate application of educational and communication technologies within learning systems
- Intervention models and tools based on state-of-the-art strategies to increase the impact of educational and communication technologies within learning systems
- Institutionalization strategies and guidelines for establishing the sustainable use of educational and communication technologies within learning systems
- Monitoring and evaluation strategies and tools for observing the impact of educational and communication technologies within learning systems
- A system for the collection, demonstration, and exchange of information and innovations on the use of educational and communication technologies within learning systems.

Task Order 1

Administration of the Core Contract

A. Core Deliverables

Publications

- Completion of "Digital Tools for Development," a CD-ROM that surveys IT applications for development, produced for widespread distribution to USAID and development partners
- Publication of two chapters describing LearnLink's Task Orders in Ghana and Paraguay in a Commonwealth of Learning book entitled "Telecentres: Case Studies and Key Issues," a "Perspectives on Distance Education" series
- Preparation of manuscript copy of the "Gender, IT, and Developing Countries: An Analytical Study" paper
- Drafting of Spring 2001 Newline newsletter
- Drafting of Gender Study One-Sheet
- Drafting of Gender Study Country Paper
- Drafting of Brazil One-Sheet
- Drafting of Namibia One-Sheet
- PageMaker layout of French and Spanish translations of LearnLink publications and formatting copy for posting on the LearnLink web site
- Collection into a single electronic folder of all publications and text produced to date by LearnLink and burning copies onto CD-ROMs

Monitoring and Evaluation Guidelines

- Ongoing: continued last quarter's work on adapting monitoring and evaluation guidelines both for our fieldwork and for the models of use. The result: the guidelines are now more focused on the actual tasks underway. This quarter's focus was on technology-supported training and professional development, as well as on telecenters.
- Prepared selected annotated resources on evaluation for ICTs and development for posting on LearnLink's new website.

TO1 - Presentations, Conferences:

- Gave the keynote presentation for the panel on "Telecenters, Communication and Evaluation; The Forgotten Lessons and Challenges," at the International Communication Association's session on "Telecenters: Does Research Matter?" May 26, 2001, Washington,

D.C. Prof. Royal D. Colle of Cornell University chaired the panel, which included Francisco Proenza, FAO/BID, George Scharffenberger, the president of VITA, and Raul Cantin, also from Cornell.

- Delivered the key plenary presentation at the Interamerican Development Bank's Workshop on "Las Tecnologias de Informacion y el Desarrollo Local en Centroamerica y el Caribe," held in Managua, Nicaragua, June 14-17, 2001. This presentation, "Aspects of Infrastructure," was part of a Telecenter Strategies roundtable, and outlined an integrated vision for telecenter success, including social, economic, cultural, and technological elements. Subsequently, the Bank asked that this presentation be transformed into a working document. This document will be completed and posted on our web site in the coming quarter.
- Also served a liaison for staff members from the LearnLink/Guatemala program, whose presentation on local and indigenous content production had remarkable impact on participants. Participants included members of diverse telecenter initiatives and constituencies (government, business, community telecenters, NGOs, and donors).
- As the LearnLink representative at the workshop, displayed and distributed project materials to participants.

Romania Project involvement:

This involved intensive work on final development of the evaluation instruments, to be applied (in translation) to all the Social Workers who participated in the Distance Education Course. We designed a set of four self-administered questionnaires, along with instructions for their use.

Uganda Project involvement:

- Worked in Uganda, May 10-21, with Project staff at ITEK, developing an assessment/evaluation of project progress.
- Held discussions with the USAID with Mission, the ITEK Principal, the Ministry of Education project supervisor, and project staff to review the status of project deliverables and options available for future expansion.
- Took part in and assessed a pretest of the project's web-site development.
- Reviewed the "raw" curricular materials that would be provided online, interviewed the three partners-in-training, and reviewed their 'products.'
- Worked with LearnLink Resident Advisor Fred Wamala on strategy issues.
- Worked with Cissy Segujja on the evaluation work done so far – she did an excellent job on teachers' focus groups about curricular needs –

and on next steps, including the question of the indicators sought by USAID.

- Prepared a detailed document dealing with project challenges, status, and evaluation guidelines for project staff.

Namibia Project involvement:

- Worked in Namibia, April 25-May 10, with project coordinator, staff, and partners at NIED, National Institute for Educational Development at Okahandja.
- Part of stay coincided with Gini Wilderson's STTA for training. Worked with her on training evaluation and her assessment of the project and the trainees.
- Held extensive conversations with the project coordinator on project rationale, status, processes, and challenges.
- Developed draft of general and specific guidelines for project evaluation, then continued this effort in Washington D.C., to be completed in the coming quarter.
- Mapped project components and critical paths to deliverables and impact.
- Observed and assessed two training groups – NIED's Multimedia Working Group and the Education Technology Trainees – in terms of learning and interim products produced.
- Worked on evaluation design with the project coordinator, staff, and counterparts.
- Reviewed progress in ED&S web site; this site will have the project deliverables.
- Participated in two meetings of Digital Content, a Namibian group involving several organizations and dealing with such matters as Namibia's Open and Distance Learning consortia.
- Debriefing with USAID Project Officer.
- Follow-up in Washington, D.C., involves several tasks for next quarter.

Summary

The original focus of this task order was to be the creation of an electronic network and a learning system to support the functions of the Federation of Central American Municipalities (FEMICA), based in El Salvador, and the Latin American Center for Urban Managers (LACUM), based in Ecuador. In the more than two years since the signing of this three-year activity, full implementation has been held back by the relocation of both FEMICA and LACUM to Guatemala. Difficulties with recruiting suitable technical staff have also contributed to this lack of progress. Most original tasks with FEMICA have been completed. Just a few more tasks remain in cooperation with FEMICA, including the amplification of their web site and the hosting of a few online events.

Major Events this Quarter

The much-anticipated modification of this task order went through this quarter. Extending the activity through June 30, 2002, and revising the scope of work to reflect internal changes to both the FEMICA and LACUM organizations, this modification gives the green light to a feasible set of objectives.

By the conclusion of this task order, FEMICA will have a new web site. Both FEMICA and LACUM staff members will have appropriate Internet training. LearnLink, working with FEMICA and LACUM, will have developed six Internet-based training courses for Latin American urban managers and have facilitated six Internet chat discussions dealing with urban management issues. In addition, FEMICA and LACUM staff will have access to an online Spanish-language urban-management resource library. LearnLink will provide to FEMICA a strategy for the creation of a municipal learning network involving at least thirty municipalities, and through FEMICA and LACUM more than five hundred people will have received Internet-based course and taken part in online conferences.

Introduction

The Education and Human Resource Development Subcommittee (Subcommittee IV/SCIV) provides a framework for the joint development and implementation of educational policies, programs, and projects that support the goals of the U.S.-Egypt Partnership for Economic Growth and Development (Partnership) and the USAID strategy of promoting equitable economic development in Egypt.

Since its inception in 1996, SCIV has concentrated on strengthening the public-public partnership between the Egyptian Ministry of Education (MOE) and two U.S. counterpart institutions, USAID and the United States Department of Education (ED). This broad, bilateral collaboration encompasses the following: a) policy dialogue at the highest levels of U.S.-Egypt relations; b) USAID's comprehensive financial and technical-assistance programs; and c) peer-to-peer exchanges among educational professionals in the MOE and ED.

SCIV is striving to enable the Egyptian private sector to have a sustained, positive influence on the nation's education system. This objective has been pursued through a variety of means, including extensive private-sector participation as active members of the Subcommittee and school-to-work pilot projects that seek to identify the specific conditions to maximize private-sector impact on educational services. These partnerships are teaching USAID and the Government of Egypt (GOE) valuable lessons about institutional arrangements needed to sustain a private-sector-oriented, demand-based workforce-development strategy.

- Official SCIV meetings are held twice a year, once in the U.S. and once in Egypt. These high-level exchanges among senior government officials and private-sector Subcommittee members provide opportunities not only to review progress and share views, but also enable the parties to establish specific education protocols.

Major Events this Quarter

This quarter saw the conclusion of this task order. Final reporting activities are underway.



Summary

Through a pilot effort in Romania, this Task Order explores ways in which distance learning information and telecommunications technologies can increase the quality and impact of existing USAID Participant Training Programs. (Originally LearnLink anticipated activity in two pilot sites, but USAID eliminated the second site when its feasibility faded.) The overarching goal of the

Romania pilot is to determine whether the use of IECTs and distance learning tools can increase the effectiveness and efficiency of participant training programs. The basic question is: Can USAID-funded participant training get more for their money by using IECTs and distance learning, thereby providing more training at less cost and improve current face-to-face training with follow-on activities that use IECT for professional networking and information sharing?

World Learning's Transit/Romania Project administers this pilot effort. CRIPS (the Information Resource Center for Social Welfare Professionals), a local NGO with some previous experience in traditional Distance Learning methods, which is also involved with the Romanian Social Work movement, is the implementing agent for the pilot. What LearnLink provides is technical support and guidance as well as oversight of the evaluation component.

Major Events this Quarter

- **U.S./Brazil Learning Technologies Network
LearnLink Task Order #12
USAID #: HNE-I-00-96-00018-00 T.O. 07**

Summary

The Governments of the United States and Brazil initiated a series of bilateral activities and projects as part of the U.S./Brazil Education Partnership. The overarching goal of these efforts is to foster greater cooperation and exchange of ideas and information in the education sector. The U.S. Department of Education is the lead agency on the U.S. side of the partnership. USAID's Latin America and Caribbean Bureau, via the Human Capacity Development Center/Global Bureau, is funding LearnLink to create and manage the U.S./Brazil Learning Technologies Network (LTNet). The Ministry of Education is the lead agency on the Brazilian side of the partnership, and the Ministry's national school computerization effort, ProInfo, is LTNet's collaborating partner in Brazil.

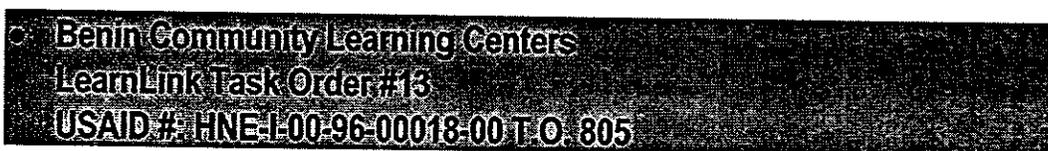
LTNet's program has two parts. One part focuses on supporting study tours and conferences for Brazilian educators visiting the United States. The second part consists of a bilingual web site that provides U.S. and Brazilian educators, researchers, policy makers, and business people access to information, educational technologies, and networking support and services.

The LTNet web site offers:

- A variety of online tools for communicating and collaborating with other LTNet users.

- A “virtual library” of quality resources on educational technologies, many with abstracts.
- Five interactive online learning environments focusing on critical educational issues facing Brazil and the United States.
- A “What’s New” section providing information about new and interesting reports, web sites, activities, and events related to learning technologies.
- Volunteer and internship opportunities for those interested in contributing to the development of the LTNet web site.
- Periodic updates to listserv members about LTNet and learning technologies and about projects in Brazil and the United States.
- Background information about LTNet and the participants in the U.S./Brazil Education Partnership
- Technologies and about projects in Brazil and the United States.
- Background information about LTNet and the participants in the U.S./Brazil Education Partnership.

This task order is in the process of a no-cost extension. Once that is in place, an update will follow.



Summary

USAID/Cotonou has funded LearnLink to assist a local NGO, the Songhai Center, in establishing three Community Networking Services (CNS) Centers in different regions of Benin. LearnLink is working with Songhai, an agro-biological research and training center, to set up CNS Centers in each of Songhai’s three regional locations: Porto Novo, the nation’s capital; Savalou, an important commercial hub in Benin’s central region; and Parakou, Benin’s third largest city, in the northern region.

Major Activities This Quarter

This report presents a detailed analysis of the various activities undertaken in the three telecenters of Porto-Novo, Savalou and Parakou, the state of connectivity, the marketing strategies adopted, the incomes recorded and finally, the difficulties and other items.

This trimester’s highlight was the training of Songhai telecenter staff in the production of multimedia materials. Notable at Parakou was the progress in the activities of the telecenter. The Porto-Novo center enjoyed the visit of important

ICT and received new communication materials bought from the United States. At Savalou, training activities moved rapidly ahead.

Production of the distance learning packages

To assist with the production of multimedia materials, LearnLink sent Consultant RaLee Cook, May 6-25, to train telecenter staff in CD-ROM and web-site design. Mr. Cook led the staff through software such as DreamWeaver and PhotoShop. He was able to make a three-day visit to the Savalou, Parakou, and Kinwédji sites to have a comprehensive view of the telecenters and activities and to take photos for web-site use. While one telecenter team went with Mr. Cook on this journey, the other assembled information to update the web site, made corrections, and did the HTML paging of the information on the CD ROM, "Sustainable Development and Crop Production". Using Adobe PhotoShop, they were able to insert the photos on the web site and on the CD-ROM on crop production.

Mr. Cook also did an update of the English version of the Songhai web site, and one of our telecenter technicians is now updating the French version. It had been difficult to download the Songhai web site, but now it is much more operational and Mr. Cook continues to work on it from the U.S.

Time did not allow us to produce all three CD-ROMs that were programmed before Mr. Cook's arrival of Mr. Cook, but we are now in a much better position to move faster on that and on other work that remains to be done. For instance, we took one product like "Crop Production" as an example specimen to concretize what we are trying to teach.

Before his departure, Mr. Cook worked with Songhai to draw up an action plan for data collection for the rest of the CD-ROMs and their paging in HTML. On his return in July, he will continue to offer the training Songhai requires, such as Adobe Premiere video mounting software and Flash animation software. This will help us complete the various multimedia products provided for in the Songhai-LearnLink contract.

Eager to complete the ten projected multimedia products before the end of September, the section leaders of the Savalou and Parakou telecenters came to Porto-Novo in June. Together they did documentary research on the Internet and in libraries.

In addition, we launched the web site for the "Qui dit Mieux" troupe, and worked with the president of that group to get additional information needed for the site. In the same vein, we contacted the head of the GLOBE programme to collect information on their web site.

Multimedia training sessions

During this second quarter of the year, we offered multimedia-training sessions solely at Porto-Novo. Three (3) sessions were organised for the benefit of three different groups visiting Songhai:

- **Students of Wake Forest University:** In connection with their Economics major, ten WFU students came to Benin in June; they stayed at the Songhai Centre. We used this occasion to offer the students the opportunity to discover “*the raison d’être of Songhai telecenters and their objectives.*”
- **A group of 10 persons from Shell Oil of Nigeria** presented “*The role of the Telecenters in an agricultural project like that of Songhai.*”
- **Another delegation of Wake Forest University,** seven persons including deans of faculties, professors in the Arts, Theology, Biology, and Economics and a ten-member delegation from Nigeria’s Oyo State including the Governor and his Aides were here on June 11. The Songhai Director, Fr. Nzamujo, did a presentation on “*Development and Environment.*”

Computer training at Savalou is on course. This quarter we designed modular training courses in computer science – one for desktop publishing and another on introduction to computer science. The courses take place at the telecenter, in the mornings from 8 a.m. to 11 a.m. (Desktop Publishing) and in the evenings from 7 p.m. to 9.30 p.m. (Introductory Course). Participants of these training courses include teachers, NGO agents, retirees, school leavers, a businesswoman, staff of the Savalou hospital, and the Songhai Savalou staff. Of the total, 24% were women and 76% were men.

Computer training at Savalou Telecenter - April 2001				
Software	External clients		Songhai staff	TOTAL
	Number of women	Number of men	Number of men	
Windows	4	6	7	17 persons
Word	4	6	7	17 persons
Excel	1	6	7	14 persons
Total	9 persons	18 persons	21 persons	48 persons

Since the Parakou telecenter is still starting up, training has not yet started there. But from July 16-September 16, the center will offer special vacation classes in introduction to computers and word processing.

Technical Status of the Telecenters

The technical teams of the telecenters have conducted survey of prices and of the most appropriate mode of connection. Now that Parakou is connected and can

offer the same services as Porto-Novo, we will be connected at night, when traffic is lighter and more cost effective. This will allow us to cope with the growing number of e-mails we are being asked to send. This growth has led us to buy more servers; we still need hard disks for them.

But there is still only one telephone line at Parakou – used for both voice and Internet.

At Porto-Novo, to enable clients to surf more easily, we are looking into a VSAT connection. The Benin OPT is making efforts to get more bandwidth from South Africa by next December.

The Telecenter Users

Porto-Novo

At Porto-Novo, we regularly have 150 users per day. There was a slight drop in the number of students in May, due to end-of-year examinations, but the vacation will allow them to come back and we are offering special courses for them. The independent workers are always more regular. There has been an increase in the number of e-mail subscribers at Songhai, and the 60% men/ 40% women ratio has held steady.

Savalou

For all services, the Savalou telecenter has about one hundred clients per day – photocopying, word processing, production of complimentary cards, and binding.

Parakou

Demand for services progresses steadily – telephone, photocopying, production of badges, and typing of documents – as is the number of clients. Users include businessmen, farmers, teachers, students from secondary schools and colleges, trainees and group leaders of Songhai/Parakou, artists, clergymen, and women.

Demand for services breaks down as follows:

<i>Photocopy + Telephone:</i>	65%
<i>Production of complimentary cards and badges</i>	25%
<i>Other services</i>	10%

Income at Parakou totalled FCFA377, 970.

We must also mention that the rate of participation for women is low, however: we hope that the launching of training activities in computer science and the Internet services shall interest them much more.

Marketing Policy and Results Obtained

At Porto-Novo, during the second quarter of the year 2001, 728 visitors (131 in April, 252 in May and 354 in June) came to the telecenter. Most of these visitors were students from all the provinces of Benin and even from Nigeria – for example, delegations of different State Governments of Nigeria who intend to become partners with Songhai and establish similar agricultural training and production centres in their States, students from the French Language School in Nigeria, tourists, and members of NGOs. These visits normally lead to requests for more services or partnerships or both.

The telecenter has also benefited from a radio program called “*Radio Afrique Espoir*”, about ICT that aired in June on local station in Porto-Novo and advertised the center’s services.

At Savalou, contacts have been made with local businesses and NGOs, announcing introductory courses in computer science. These courses will start in July. We are also advertising on local radios.

At Parakou, center staff met with NGO officials and schools, including ENIAB (National School of Nurses) and AECGN (Association of Quarry and Granite Workers of the North), to present the telecenter and its services. The result has been an increase in clientele. Twenty-six badges and about a hundred complimentary cards with digital photos have been designed for the Director of ENIAB. For the next academic year, we will fill an order for 580 badges placed by the nurses of ENIAB.

Revenues Generated by Each Telecenter

Income receipts for the Second Quarter of the Year 2001 – Porto-Novo				
Services Offered	April	May	June	TOTAL
	Amount in Fcfa	Amount in Fcfa	Amount in Fcfa	Amount in Fcfa
Telephone	490 800	383 500	320 800	1 195 100
Netphone	900	0	0	900
Email	10 300	17 300	22 900	50 500
Fax via Internet	2 200	0	0	2 200
Subscription to Songhai email box	102 000	71 000	198 000	371 000
Surfing	261 500	287 800	335 300	884 600
Photocopying	300 910	266 850	186 640	754 400
Binding	13 000	21 800	38 250	73 050
Word processing/	57 750	50 000	36 500	144 250

Printing				
Lamination	3 400	2 400	10 900	16 700
Scan	5 500	5 000	8 000	18 500
Cards/ badges	65 200	0	0	65 200
Computer training	25 000	15 000	25 000	65 000
Others	2 250	35 000	4975	42 425
Total income received	1 340 710	1 155 850	1 187 265	3 683 825
Back payments	23 160	61 670	72 840	157 670
GRAND TOTAL	1 363 870	1 217 520	1 260 105	3 841 495

2nd quarter disbursements at Porto-Novo totalled **3,982,637 Fcfa**:

Telephone charges:	2, 078, 874 Fcfa (52%)
Provision of services:	688,706 Fcfa (17%)
Maintenance and small equipment:	657,037 Fcfa (16.5%)
Salaries:	425,000 Fcfa (11%)
Other charges:	133,020 Fcfa (3.5%)

Income receipts for the Second Quarter of the Year 2001 - Savalou

SERVICES OFFERED	APRIL	May	June	TOTAL
	Amount in Fcfa	Amount in Fcfa	Amount in Fcfa	
Photocopying	135840	259830	243820	639 490
Typing, telephone services and others	39 950	99 600	39 950	179 500
Training	0	0	31 250	31 250
GRAND TOTAL	175 790	359 430	315 020	850 240

Income receipts for the Second Quarter of the Year 2001 - Parakou

SERVICES OFFERED	APRIL	May	June	TOTAL in Fcfa
	Amount in Fcfa	Amount in Fcfa	Amount in Fcfa	
Photocopying	35 915	64 755	50 465	151 135
Telephone services	1600	0	35 900	37 500
Binding	1150	1850	5800	8800
Typing/printing	9350	24 850	18 250	52 450
Other services / cards	0	0	72 300	72 300
GRAND TOTAL	49 215	92 655	183 115	322 185

Problems and Solutions

Because of the breakdown in the high-tension transformer in Porto-Novo for six weeks, we were not able run our equipment for the whole day. So, we were using our generator at specific hours (7.30 a.m. to 10 a.m. and 4p.m. to 6 p.m.).

The narrow bandwidth problem continues; that is why we are looking into VSAT.

On the other hand, we might use services like Firstnet or CED (Centre of Distance Learning), which have direct satellite connections. But subscription to Firstnet is already saturated and cannot solve the problem.

The growth in e-mail subscribers using Songhai (152 now) makes clear that the capacities of our available servers are limited. The new servers bought by the Director will help solve this problem. But as noted above, we urgently need to have high-capacity hard disks for the servers.

Others

In early May, Songhai received the staff of Acacia (one of the IDRC programs), led by Professor Richard Fuchs, now with IDRC as Director of Information and Communication Technologies, who came to organise a training session. This gave us the opportunity to present Cybersonghai (objectives, activities and future prospects) to various officers working in the ICT field within the sub-region. At the end of their training session, they shared their experiences with the telecenter staff.

Very impressed and supportive of what we are doing, these professionals offered practical pieces of advice and established partnerships with the Songhai telecenters. As a result, the Senior Programme Specialist of IDRC shall be visiting Songhai from the 2nd to the 10th of July this year. He will be visiting the three telecenters and discussing with telecenter staff how best to install VSAT equipment.

The Ministry of Communication also sent investigators to assess the bandwidth requirements for the country.

New computer equipment arrived, including the servers. Six young trainees in computer science and electronics are now at the telecenter, being trained in Linux, computer assembly, and maintenance of computer equipment.

Conclusion

During this quarter, telecenter personnel focused on the production of multimedia materials, slowing down their other activities. During all of May, they worked with Mr. Cook to increase their production skills.

Summary

The Computer-Assisted Teacher Training (CATT) Project is to improve the quality of teacher training in primary education through the introduction of educational technology. This is a pilot or demonstration project, which will target the provincial teacher-training colleges in five provinces where girls' enrollment and retention rates lag behind the national average. With the Ministry of National Education, LearnLink is developing a program for pre-service and in-service teacher training that effectively integrates educational technology into existing academic programs. The project is also exploring the creation of a Master Information Teachers (MIT) program, which rewards teaching excellence through educational technology.

Major Activities This Quarter

Assessment

- *Ministry of National Education/Curricular Needs Assessment.* The Department of Curricula announced the results of its curricular needs assessment at the beginning of April. USAID's Dominique Zemrag and CATT-PILOTE's Saida Abouid, Elhoucine Haichour, and Jeffrey Coupe attended the one-day event filled with presentations and working sessions.
- *Monitoring and Assessment Report.* In June, CATT-PILOTE finalized the first draft of the project's monitoring and assessment report for the 2000-2001 academic year – its first full year of operation. The report highlighted the information the project had collected to date on participation, material development, network support, and costs. A final version of the report is scheduled to be out by the end of August.
- *External Evaluation.* During the months of June and July, CATT-PILOTE conducted an external evaluation of its project. Dr. Mohamed Dahbi, a noted Moroccan scholar and prominent academic, was hired to conduct the evaluation. He accompanied the CATT-PILOTE trainers to all seven CFIs participating in the program. In addition, Dr. Dahbi interviewed key stakeholders in Rabat. His report is scheduled to be finalized in mid-August, prior to the beginning of the 2001-2002 academic year.

Training

Dr. Elhoucine Haichour and Mr. Abdesslam El-Omari conducted training on knowledge networks and communications tools in March and April. The training was held in Sidi Kacem and in Al-Hoceima. CATT and USAID waited for Internet lines and modems to arrive at the other CFIs before continuing the training. The training was subsequently rolled into the scheduled follow-on training of June-July.

Dr. Elhoucine Haichour, Mr. Abdesslam El-Omari, and Dr. Jacqueline Hess, Senior Technical Advisor to CATT-PILOTE, conducted training on the use of multi-media materials in education, on-site, during the June-July period. The participants were CATT trainers in the regions.

Trips

Jeffrey Coupe visited Morocco on his way to Namibia to attend the Ministry of National Education's one-day seminar on its curricular needs assessment and training-program development.

LearnLink Information Specialist Mary Fontaine visited Morocco in June. She journeyed to four CFIs, the majority of them located in southern Morocco. The information from her trip has now been integrated into various LearnLink publications.

Dr. Hess assisted Dr. Haichour with the design and delivery of CATT-PILOTE's fourth workshop covering multi-media evaluation and intermediate .html and multi-media.

Stephen Tournas, CATT Program Director at USAID, also visited the project and the CFIs at the end of June.

No-Cost Extension

A request for a no-cost extension was filed with AED in mid-July after Jeffrey Coupe returned from his extended work in Namibia. This request is now scheduled to go out from AED/Contracts to USAID in mid-August.

Multi-media Workstations and Connectivity Delivered

The Morocco Trade and Development Services (MTDS) assisted CATT-PILOTE in the procurement of an additional multi-media workstation for each of the seven CFIs. This group of seven workstations was co-funded by the James Lowenthal Memorial Fund. The procurement brings the total network size to eleven workstations in each CFI – five had been financed by USAID and another five by the Ministry of National Education.

The Ministry of National Education delivered lease lines to all CFIs during the spring of 2001. However, there has been a shortage of modems, which has prevented CATT-PILOTE from finishing the connection in each location. Nevertheless, despite these constraints, MTDS was able to connect the CFIs to the Internet in Al Hoceima (June), Essaouira (July), and Ouarzazate (July).

Training Manuals

Work on the training manuals continues to go forward, despite the lack of consensus with the MNE on the final design of the introductory pre-service program. Dr. Hess developed a training manual for her workshops on multimedia, and Mr. El-Omari is currently working on network support materials. Dr. Elhoucine Haichour and Jeffrey Coupe have been creating documents related to .html and to project-based learning.

Departure of Wendy Schumacher

Peace Corps volunteer Wendy Schumacher left the CATT-PILOTE project in June. She came to the end of her two-year assignment in Morocco. Wendy holds a Masters' Degree in Information Science and assisted CATT-PILOTE with web-site development and project monitoring in the CFIs.

Web Site

The Ibtikar web site has exploded with bulletin-board and CFI web-page activity. There are currently close to 200 postings on the Ibtikar discussion board, and four CFIs – are Sidi Kacem, Essaouira, Errachidia, and Tiznit – have published their web pages on the project site. Abdesslam El Omari has been assisting both CATT-PILOTE and MEG in elaborating their pages.

• **Haiti - Expanded Internet Services**
LearnLink Task Order #15
USAID # OUT-HNE-1-806-96-00018-00

Summary

The LearnLink Task Order for Haiti consists of three primary components:

- building the technical human capacity of the Internet Service Provider sector;
- procurement and technical assistance to the *Reseau de Developpement Durable d'Haiti* to build the capacity of this organization to manage

- the .ht Internet domain and serve as a neutral forum for the discussion of telecommunications issues in Haiti; and
- establishing a telecenter in each of three key secondary cities through private-sector partnerships in order to increase access to information and communication opportunities for these under-served communities.

In order to achieve the first result – building the technical capacity of the Internet Service Provide industry – LearnLink will utilize a combination of subcontractor (Moroccan Trade and Development Services) expertise through workshops, an online help-desk, and short-term technical assistance by Task Order key personnel.

To achieve the second result – support to RDDH – LearnLink will assist RDDH in the procurement of necessary hardware and software for Internet domain-name management. For capacity building, depending on the availability of subcontractor time and key-personnel level of effort, LearnLink will either employ a combination of MTDS and Task Order key-personnel assistance, or seek sponsored training opportunities for RDDH staff in relevant international training fora.

To achieve the third result – establishing three telecenters – LearnLink is issuing Requests for Quotations to the private sector in Haiti for equipment and three separate Requests for Proposals for the establishment of telecenters. LearnLink field staff and Task Order key personnel will work closely with private-sector partners to ensure efficient operations and community access.

Major Activities This Quarter

- A. LearnLink Haiti participated in the Infotel Expo 2001 Technology Fair in Port-au-Prince, April 6-8, 2001. (see <http://www.infotelhaiti.com>) LearnLink sponsored “Education Day,” which was dedicated to discussions on the role of education and IT. LearnLink’s activities were covered in the local newspapers and other marketing materials. LearnLink Resident Advisor Thony Baptiste made several presentations, including:
 - “The role of the Internet in developing countries,” along with the Ambassador of Taiwan in Haiti and Mr. Kesner Pharel, Chairman of Group Croissance,
 - “What is the Digital Economy, Where Is It Now, and Where Is It Heading?”
- B. MTDS’s consultant Franck Horlville traveled to Haiti in May.
 1. He and Thony Baptiste had several meetings with CONATEL, RDDH, HintelFocus, and Companet representatives.

2. He set up the technical infrastructure for the .ht domain.
 3. Mr. Horlaville also conducted a training session for representatives from the government, RDDH, the education sector, and the ISP community.
- C. Thony Baptiste made a presentation at the USAID Chief of Party meeting on June 20, 2001, about collaboration across USAID departments as a way to stimulate economic growth.
- D. Mr. Baptiste also had meetings with persons from several groups operating in Haiti to discuss project implementation and possible collaboration. These included:
- Allison Lee of the USAID Secondary Cities Program, to discuss informal collaboration with local private and non-profit sector in Jacmel.
 - Nadine Beaulieu of Aid-To-Artisan: ATA is interested in integrating LearnLink's telecenter activities and technical expertise some of its e-commerce activities.
 - CONATEL staff: Thony Baptiste and Franck Horlaville of MTDS described the .ht domain name technical implementation and made arrangements, with approval of CONATEL director Jean Ary Ceant, to have two staff members attend the training organized during Mr. Horlaville's stay in Haiti.
- E. The domain name www.inhaiti.org is now hosting LearnLink's website.
- F. After several months negotiating with Customs authorities, DHL, several brokers, and even lawyers, Mr. Baptiste was finally able to get the computer equipment out of Customs during the last week of June. This was an amazing feat and Thony Baptiste is to be highly commended for his unrelenting efforts!
- G. A computer training room has been prepared at LearnLink's office in Petion Ville, and is now available to any groups working in the development sector, especially USAID.
- H. Developed the following:
- "Une structure DNS pour Haiti," which presents what LearnLink and MTDS have done in setting up the .ht domain and includes analysis and suggestions for next steps. This information is being disseminated to the entire Haitian IT community and government members.
 - Telecenter Manual, version 1.0. This comprehensive manual, which Mr. Baptiste developed for use by the telecenter staff, includes discussions on how a telecenter differs from a cyber café, leadership, community outreach, and security issues. The

manual also provides step-by-step instructions on how to run a training session, how to administer the center (including finance issues), how to maintain the equipment, and even basic computer and software use. As the telecenter staff become more knowledgeable and sophisticated in their needs, updated versions of this manual will be developed and disseminated.

Problems/Challenges

Project activities have been delayed for a number of reasons, including political instability, and a clerical error on Official Customs papers sent with LearnLink's equipment.

Activities Planned for Next Quarter

- A. Seminar for telecenter staff on July 11-12, 2001.
- B. Telecenters fully functioning by mid-August 2001.
- C. The telecenters will be inaugurated by the beginning of September. The inauguration of the telecenter in Jacmel will be a big event, and will have the format of a mini Infotel
- D. An implementation plan for the durability of the telecenter will be prepared and executed.
- E. By the end of August, Karl Stanzick and Franck Horlerville of MTDS will travel to Haiti again to continue working with local ISPs and other Haitian groups on various IT issues. They will do a census of the Internet community and put together indicators about the tech market. Several partners have expressed interest on this activity including The Yankee Group, Group Croissance, Netcom, and Fima. The Yankee Group has provided a list of relevant indicators and data to be gathered.
- F. LearnLink will be offering some IT services to targeted members of the community, including USAID projects.

Guatemala - Computer-Assisted Bilingual Education
LearnLink Task Order #16
USAID #: OUY-HNE-1-807-96-00018-00

Summary

This quarter saw many advances in meeting project objectives. These can be divided into three areas: centers, in-house materials-creation projects, and others.

In general, the centers continue to function well. Their main uses are provision of computer classes to all students and the implementation of the materials-creation projects (CD and book) that are being coordinated LearnLink. These projects are

advancing nicely, although each center has its own particular weaknesses. Other goals of the centers, such as community access, have received little attention so far (except in Nebaj) despite the project's efforts to promote access. Scheduling problems and the high number of students have complicated use of the centers for the Mayan Language course, resulting in a limited and non-methodological use of the Literacy CD.

During the quarter, the project began a formal evaluation of the Literacy CD – to make corrections and improvements, gain ideas for a future version, and create alliances with supporting partners. Also, we delivered an Ixil Grammar guide on schedule with exercises that are easily adaptable to computer format. A review of the existing (now outdated) K'iche' grammar guide resulted in clear ideas of its revision. USAID suggested that we coordinate these grammar-guide-creation projects with other projects and institutions. The Mission also suggested that we coordinate the vocabulary database project with Edumaya, which is in the process of updating the picture dictionaries upon which our database is based.

In other activities, the project launched a much-requested web page, including sites created in each school. A number of people gave us feedback, ranging from web-page designers to the national DIGEBI director. We prepared for the creation of pre-school radio programs, drew up a general plan for supporting DDE and DIGEBI, and chose Edumaya/Prodesa as a private sector partner. The project received visits by UCONIME, SIMAC and other persons interested in learning more about the project's work. Project staff participated in the DIGEBI conference and an IADB telecenter conference in Managua, Nicaragua.

There was also a very productive dialogue with the mission as to the future of the project. We agreed that the project would request a five-month no-cost extension to give more time to complete current tasks. Meanwhile, the project and the Mission will continue to design a new task order, which, if granted, will carry the project into 2003 or 2004. Even before the new task order is official, however, the project will begin to work on new tasks, such as selection of new centers.

Travel

Staff/Consultants	Dates	Destination
Andy Lieberman	6, 26, 27 Apr; 23, 29 May; 1, 13–15, 17 Jun	Quiché, Guatemala, Nebaj, Cunen, Chichicastenango, Managua
Fausto Perez	3, 6, 23, 24, 26, 30 Apr; 1, 2, 4, 7, 8, 14, 16–18, 21, 22, 25, 26, 28–31 May; 1, 4–8, 13–15, 18–21, 26, 27 Jun	Guatemala, Joyabaj, Cunen, Nebaj, Tecpán, Chichicastenango, Panajachel,
Francisco Tax	2, 30 Apr; 7, 16, 22–24, 29 May; 4, 8, 13–15, 22, 25 Jun	Quiche, Guatemala, Managua
Domingo Camajá	2, 30 Apr; 7, 16, 29 May; 4, 5, 16–18,	Quiche

	22, 24, 25 Jun	
Máximo Terraza	2, 30 Apr; 3-5, 7, 15, 25, 29 May	Quiche, Tecpán
Cynthia Castillo	13-15 Jun	Guate, Managua
Esmeralda Vasquez	25, 30, 31 May	Joyabaj, Cunen, Nebaj
Dominga Pu	4, 18, 22, 31 May; 5-7, 13-15 Jun	Tecpán, Guatemala, Nebaj, Cunen, Managua
Concepcion Rosales	22-25, 31 May	Chichicastenango, Nebaj, Joyabaj
Gabriela Alpirez	19-22, 27, 28 Jun	Quiché, Cunen, Nebaj
Margarita Ramirez	4-7 Jun	Quiché, Joyabaj, Cunen, Nebaj
Sabina Béhague	20 May- 2 Jun	Guate, Quiché, Joyabaj, Cunen, Nebaj

Major Accomplishments

Results #1 and #2: Culturally appropriate Mayan language instructional materials are developed and Teachers' professional skills are improved and their proficiency in oral and written Mayan language is strengthened

1. The project purchased 10 Oceano encyclopedias with CDs or videos for each center's library and for the project library. We also purchased other educational and interactive CD-ROMs for centers. Unfortunately, despite the enthusiasm upon receiving these materials, it appears that they are getting very little use in the centers. This is one of the specific issues that will be addressed in the Curricular Visions being created by Gabriela Alpirez (see below).
2. The CD for Mayan language literacy has been in its testing phase in the four centers since April, and in June the project began a formal evaluation process. Inherent weaknesses: it is not a complete methodology and is oriented towards Mayan language speakers, though some elements cater to the non-speakers. The product is technically sound, but not surprisingly there is already a great deal of controversy about dialectal and spelling issues in the K'iche' portion. We are addressing these issues in the evaluation process. The project will apply the spelling rules being created by the Academia de Lenguas Mayas in a series of workshops finishing August 5. Unfortunately the use of the CD in the centers has been limited and informal, rather than an integrated part of the curriculum. We will address this in the curricular vision plan as well. The evaluation information will be the basis for designing a future version and/or future products, developed in coordination with other institutions, presumably as part of the new task order.
3. Creation and conversion of the K'iche' and Ixil Teaching Primer (Gramáticas Pedagógicas) is stalled. The content of the K'iche' base text needs rewriting since it is outdated. The Ixil text was contracted out and delivered on

schedule, and is ready to be turned into an interactive format. In a meeting with the Mission, we decided that the project should coordinate with other projects in the creation of print and interactive versions of these texts.

4. After realizing that the integration of the centers into each school has not been a structured activity and has had mixed results, the CTO suggested that we study this process more in detail and to provide ideas for each center on how to improve integration for current and future centers. With this in mind, we prepared a SOW for a local educational technology specialist, Gabriela Alpirez. She is now studying how the technology is being used in each center and helping each center to prepare a technology integration plan, called a Curricular Vision. Reaction from schools has been positive and Gabriela has also been positive about the progress made by the centers during their collaboration so far. The preliminary Curricular Visions will be presented in each school in early August, and will then serve as models for future centers and potentially for MINEDUC.
5. The students working on the CD-creation projects in the centers did some field research. This information has been digitized and edited, and the schools are now converting these materials into finished products. To create products with high didactical value, they will need a lot of support from project specialists and other persons whom the project will have to identify and hire. The preliminary versions should be done by mid-July, allowing August for the project to help each school with final revisions. In Joyabaj, the teachers have participated minimally, meaning that most of the work has been done directly between the Center Manager and the students. In Juan De Leon, little information has been collected. In Nebaj and Cunen the process has been more positive and the resulting products are rich in content.
6. In coordination with PAEBI and Juan De Leon, LearnLink began a course for teachers participating in principal's certificate program. There has been no contact from the other certificate programs regarding courses in the other centers, despite the project's offer to coordinate these activities.

Result #3: Early childhood activities to enhance student learning outcomes are developed

1. The schools completed their field investigation for these story books. Three schools collected oral tradition, but from our meetings with the center managers, we concluded that little thought had been given on how to create usable pre-school materials from this oral tradition. During her visit, Sabina Behague of LearnLink in Washington presented a workshop in each center on graphic design and layout principles. The project also organized workshops led by Margarita Ramirez, the project multilingual education specialist, on how to recreate oral history as a pre-school story. These workshops were very well received, although are probably insufficient to permit the schools to

complete the projects on their own. Schools continued writing, editing, illustrating, and laying out their stories. In Juan De Leon, in particular, students are creating their own stories using the techniques taught to them with very good results.

2. LearnLink also prepared a scope of work for a consultant to carry out the radio production. Project staff decided that these radio programs should be based on the pre-school books now being created in the normal schools and that the schools should produce them using the equipment they already have. Adan Martinez, a curriculum specialist who has been working with PAEBI in pre-school curriculum activities, will carry out the activity in July and August.

Result #4: Institutional capacity in computer-software use is developed and computer services are made available to the community

1. The LearnLink project director provided help to DDE by updating their anti-virus program and cleaning over 100 infected files. At the same time, he detected some training and upgrading needs. In a visit to DIGEBI, he also noted some training and upgrading needs.
2. After meeting with the Mission, LearnLink agreed that this activity should include support for the Academia de Lenguas Mayas (K'iche' and Ixil regional offices) in addition to DIGEBI and DDE. While the Academia's two offices, DIGEBI, and DDE need training, preliminary visits show that they need equipment too, so we will be making a small donation of equipment to each institution (tentatively \$3000 each, \$12,000 total). This can come out of the funds currently in the equipment line.
3. A preliminary needs analysis for ALMG-K'iche' shows they need a complete, new system because their current PC is very outdated. The ALMG-Ixil is in Cotzal and has no computer equipment at all.
4. The project director, CTO, and LearnLink Managing Director agreed that the project will provide technical assistance to the two teacher training centers being created in Ixcan by Edumaya and Prodesa. The project director provided technical assistance to Edumaya/USAID in planning the purchase and installation of the centers. The project brought five people from Ixcan to Quiché for a week of training and planning, which was highly productive.
5. After analyzing the reality of the computer-related private businesses in El Quiché, we conclude that these businesses are not that stable and that neither are the people involved profit-oriented nor do they have a community service attitude. Therefore, training them would not likely have any significant long-term benefits to the population. Both AID/Washington and the CTO have suggested that a better alternative would be to provide training to as many people as possible in computer skills and to help teachers buy their own

computers. Subsequently, we have sent lists of teachers interested in purchasing computers to FAFIDES, a USAID-supported micro-credit program, which has expressed interest in financing these computer purchases. Despite our follow-up with FAFIDES, they have not yet taken any action.

Administration and planning

1. LearnLink began weekly coordination meetings involving the director, the technical specialists, and administrative staff to review progress and obstacles from the previous week, set goals for the current week, and schedule activities (e.g., meetings) that need to be carried out between two or more of us. Staff reaction has been very positive.
2. We have put the office network server into full use for file security and Internet access from any machine (still dial-up).
3. We wrote memos regarding holiday and vacation schedules and guidelines for publication of materials.
4. We completed annual personnel reviews of all staff.
5. LearnLink provided training on use of e-mail for all staff.

Other activities

1. The office enjoyed visits from USAID, SIMAC, and UCONIME.
2. We scored the Mayan language diagnostic test given in March.
3. LearnLink launched the project web page, including pages done by each school.
4. Staff participated in the Bilingual Education Conference organized by Proyecto MEDIR/USAID.
5. Four staff participated in a telecenter conference organized by IADB in Managua. They manned a table with two computers showing the work of the project, made many valuable contacts, and got a new perspective on sustainability and other administration issues for centers.
6. We began planning project participation in the upcoming Hemispheric Indigenous Education Fair, including a project table and a workshop.

Problems/Challenges

1. The centers have a number of difficulties, which have been mentioned above. One main weakness continues to be the lack of interest by the majority of teachers in adapting technology into their teaching. Scheduling problems (few computers, many students) also limit the use of the equipment for structured classwork. We hope that Gabriela Alpirez will inspire the schools to make better use of the technology in the next school year.
2. Another weakness in the centers is their lack of interest in the community-access component. This is likely due to their desire to protect the equipment and to their feeling no need for generating income, since their current financial needs are met by the project's support and the quotas paid by the students.
3. In the Joyabaj center, the teachers have become more and more apathetic towards the center and negative towards the bilingual education focus of the project. In Juan De Leon, the project often gets lost in the shuffle of such a large school.
4. As mentioned above, the current evaluation process of the Literacy CD will permit the project to produce a polished – though still be a prototype – version that shows the possibilities rather than a complete learning system. The real need is for two complete learning systems (one for Mayan language speakers and one for non-Mayan language speakers). Under the current task order, the project can work to line up potential partners to create these systems using the current systems as a base. In the new task order, the partners can develop these systems with intensive technical (and financial?) support from the project.
5. The creation of interactive learning systems for K'iche' and Ixil grammar can still be developed under the current task order, using a simpler technology (HTML instead of VisualBasic). However, to prevent delays and wasted effort, we must coordinate these projects with other institutions, so that content has been thoroughly revised before beginning new programming.
6. The creation of a multimedia vocabulary database became much more complicated than anticipated due to delays with the artists and the difficulty in finding precise translations for many words.

Activities Planned for Next Quarter

1. Finalize materials creation projects in centers.
2. Develop sustainability plans for each center.
3. Finish the curricular vision plans for each center.

4. Hire a center coordinator who can provide constant monitoring of each center.
5. Coordinate the creation of K'iche' and Ixil grammar interactive learning systems with other institutions.
6. Create a multimedia database of approximately 1000 words. Coordinate vocabulary with Edumaya as they are currently reviewing the illustrated dictionaries upon which the database vocabulary is based.
7. Create a database of Mayan-language diagnostic test results with simple statistical analysis.
8. Add more content to project web page.
9. Continue to explore possibilities for providing Internet access to centers
10. Complete radio programs
11. Write SOW and hire consultant for Result 4.
12. Complete procurement after deciding the best way to use the remaining equipment funds.
13. Select and purchase more interactive CD-ROMs and videos for the centers.
14. Install the new center in Ixcan and supervise functioning.

Uganda – ConnectED: Connectivity for Educator Development
LearnLink Task Order #17
USAID # HNE-I-00-96-00018-00 T.O. 809

Summary

President Clinton laid the groundwork for LearnLink's new Connect-ED (Connectivity for Educator Development) program in Uganda when he launched the Education for Development and Democracy Initiative (EDDI) two years ago. Key elements of the Initiative are to increase the use of information technology for education and to promote strategic partnerships on behalf of education, democracy, and development in Africa, all of which characterize Connect-ED.

Connect-ED works in conjunction with the Institute of Teacher Education Kyambogo (ITEK) in creating computer-assisted, multimedia, teacher-training

resources for utilization in selected Primary Teacher Colleges (PTCs) in Gulu, Mukuju (Tororo), Bushenyi, and Shimoni (Kampala). By providing professional development in a democratic setting for primary-school teachers' education through the introduction of educational technology, Connect-ED seeks to meet Uganda's goal of improving telecommunication services and quality.

Major Events this Quarter

The LearnLink Uganda, Connect-ED Task Order began April 25, 2000. Among the activities undertaken during this quarter were:

1. Additional Wiring Installed at the Multimedia Development Laboratory
2. Completion of the Computer Laboratory Networking
3. Determination of Evaluation Indicators at ITEK
4. New ITEK Website Posted Online
5. Progress with Multimedia Curriculum Enhancement
6. Progress by ITEK Counterparts in Multimedia Development Training
7. Connect-ED Presentation at U.S. Peace Corps Pre-Service Training
8. Staff Travel

Additional Wiring Installed at the Multimedia Development Laboratory

ITEK has wired the multimedia development lab to provide five more sockets. The former classroom had only two wall sockets for computers. Now each workstation has its own power source and the multimedia development is functioning more efficiently. But, the staff notices now that the air conditioning turns on and off randomly – apparently the extra sockets have disrupted the power.

Completion of the Computer Laboratory Networking

LearnLink arranged networking 20 computers in the Training/User Laboratory and four computers in the Multimedia Development Laboratory, and this was completed in July.

Determination of Evaluation Indicators at ITEK

During a visit to Uganda early this quarter, LearnLink Project Management met with USAID/Kampala to respond to their requests for progress indicators. As a result, Dr. Eduardo Contreras-Budge, LearnLink Evaluation Specialist, traveled to Uganda for ten days in May to evaluate progress, set indicators, and assist in developing feedback mechanisms. He began his visit with a meeting with USAID on May 15, 2001.

On May 16, 2001, Dr. Contreras- Budge met with Principal Lutalo-Bosa at ITEK. Professor Lutalo-Bosa emphasized his desire for a) additional extensive training for all ITEK staff on basic computer literacy and adult/distance learning theories; b) a time frame for connectivity; c) an extension of the current Connect-ED endeavors, including professional staff development for our ITEK counterparts, training, and further module development.

The ITEK Principal also:

- Restated the mandate of ITEK's relationship with the PTCs. ITEK supervises all activities at the PTCs. ITEK is responsible for the curriculum taught at the PTCs and examinations and assessment of student-teachers at the facilities. Finally, ITEK awards the Grade/Teaching certificates of accreditation. In relationship to the Connect-ED project, ITEK sees their role as co-facilitating the training and teacher induction into multimedia and sees a need for as many people as possible to be exposed to the technology. Secondly, ITEK is responsible for the curricula and the syllabi followed at the PTCs and they work hand-in-hand with the Connect-ED Project as it is digitally enhanced.
- Expressed concerns regarding the project timeline constraints.
- Indicated he would like to see more learning materials for the teachers and the learners and agrees that the Connect-ED team could be strengthened by more counterpart contribution.
- Showed concerns that through selecting core PTCs for the pilot test project the non-core PTCs are being relegated to substandard. However, this is a pilot test project and at this time there are no clear results for the new core PTCs.
- Suggested that if Connect-ED is to build capacity here at ITEK, then it may be a good idea to invite two people from the National Curriculum Development Center (NCDC) to attend trainings.

Eduardo Contreras-Budge and our LearnLink staff then met with Dr. Margaret Ochen, Commissioner for Teacher Education Department at the Ministry of Education. On May 17, 2001, LearnLink demonstrated the Connect-ED curriculum modules, presented an overview and schedule of Connect-ED's February and March training of PTC personnel and other ITEK personnel, and showed indicators of the Connect-ED training's progress with ITEK counterparts. Dr. Ochen expressed her desire for technical training at the PTCs and was very interested in Connect-ED's progress at the PTCs. She plans to visit the ITEK Multimedia Development Lab and the User/Training Lab shortly and has requested additional updates by LearnLink's Local Coordinator. She is already scheduled to visit the Connect-ED project computer laboratories at ITEK.

New ITEK Website Posted Online

Additional information provided by the ITEK senior staff is now on the ITEK website. This includes statistics, ITEK outreach programs, and new course offerings. ITEK and Connect-ED staff agreed that other changes would be integrated and the website updated as events occur and new information arises. Connect-ED staff, upon attempting to upload the new site, discovered that the old site was no longer active at Africa Online, although ITEK personnel had been paying the monthly hosting fees for the old website. Questions were raised regarding the tendency of Africa Online to pull down websites at their own leisure without informing the respective site webmasters. Connect-ED staff are now resolving this problem to ensure that whatever ISP is selected as the host is a reliable and sound provider. We are also making additional editorial revisions to the ITEK website at this time. In addition, our staff are assisting ITEK to purchase a domain name for their site and are awaiting a reply from ITEK's Principal, Lutalo Bosa, as to what he wants. In the meantime, please visit the new ITEK website at www.africaonline.co.ug/itek.

Progress with Multimedia Curriculum Enhancement

Dr. Contreras-Budge worked with the Connect-ED team to finalize the framework of the overall curriculum, focusing on the design and providing video, sound, and animation to the modules within the subjects. He also worked with the staff to alpha-test three curriculum modules, then provided feedback to the Connect-ED team. Connect-ED developed a CD-ROM containing teaching best practices about Volcanoes this quarter; this now serves as the first of six digital resource library materials. The overall framework for the best-practices digital resources will retain the look and feel similar to this first CD-ROM. We distributed demonstration copies of the Vulcanicity CD-ROM and the Multimedia Curriculum to USAID, ITEK, and the MOE for their feedback.

The Connect-ED team received tutors' guides and soft copies for Mathematics, Language Education, Social Studies, and Science Education. The other two subjects, Foundation of Education, and Culture Education, have no tutors' guides as yet – the Subject Matter Expert panel is responsible for the formulation, projected to be complete in the next few years.

Progress by ITEK Counterparts in Multimedia Development Training

Three ITEK host-counterpart teachers are still working with Connect-ED/LearnLink staff as part of the curriculum transformation team. Ms. Phoebe Kigenyi, Mr. David Kawumi, Mr. Enosi Ssemanda, are voluntarily working less than their standard two hours a day on training due to obligatory field visits and supervision. Because of these duties, we have lost numerous weeks of training-time with our counterparts, a serious setback. The more hands-on time they have with the multimedia in the labs, the more they will remember, learn, and contribute to the immediate curriculum enhancement goal as well as to the

Connect-ED vision. Nevertheless, we commend them on their efforts and commitment to ITEK.

We have purchased and integrated CD-ROM Training materials into the multimedia technical training sessions to build further capacity among our ITEK counterparts. The CD-ROMs also serve as demonstrative texts and are another way to promote long-term sustainability of the project. The CD-ROM supplemental inventory includes useful examples of the following software packages: Learning Illustrator 9.0, Learning Flash 5.0, Learning Advanced Flash 5.0 (Action Scripting), Go Live 5.0, Premiere 5.1, and Director 8.0.

The three ITEK teachers have completed the introduction stages of computer training, including: Introduction to Computers, Windows 95 and Windows 98 operating systems, Microsoft Word, Using the Internet, and Search Engines. They have progressed from (in some cases) never having used computers at all to minimal exposure to now comfortably working with Microsoft Word, able to import and export files from other locations to Word. Despite the lack of connectivity at ITEK, the three ITEK counterparts can also use the Internet and search and save sites for reference. They have their own e-mail accounts and can easily send and receive mail on a restricted basis. A monthly training schedule to build ITEK's capacity internally is continually updated as staff progress. Objectives for the training of the two LearnLink assistant coordinators are dynamic and flexible so that the ITEK counterparts can apply what they are learning and begin designing the multimedia curriculum.

Most recently, our ITEK staff have had additional training sessions. The first was on editing video for filming best practices and using other video clips for the curriculum. The second technical area is Flash 5 and Action Scripting to build interactivity. The third is integrating sound, useful in streaming audio. A fourth, Course Builder, for designing online quizzes, will allow them to do pre-testing and post-testing within the modules for the curriculum. A very challenging piece of software, Macromedia Director, is useful in Web-enabled CD-ROM authoring and control of hardware and animated graphics. Our ITEK counterparts have learned how to scan images and understanding different graphic file formats, working with Fireworks 3. They have also completed typography, templates, libraries, behaviors, layouts, tables, and HTML in Dreamweaver while continuing to revise using Fireworks 3.

Connect-ED Presentation at U.S. Peace Corps Pre-Service Training

We contact the Associate Peace Corps Director for Education, Conche McGarr, in March when the first group of PCV Pre-Service Trainees arrived in country. Peace Corps is still very much interested in joining Connect-ED's teacher-training endeavors at the PTCs and wishes to remain informed of project activities including the Inauguration Ceremony at ITEK.

There are 19 PCVs in 12 Districts throughout Uganda. Volunteers are assigned to Shimoni (Kampala), Nakaseke (Luwero), Kabulasoke (Mpigi), Ndegeya (Masaka), Nyondo (Mbale), Iganga, and Mbarara. The Connect-ED team and ITEK staff all hope that these PCVs will provide their individual expertise and assistance in training and implementation of the pilot labs at the PTCs.

Martin Mayanja (USAID), Fredrick Wamala (Connect-ED), and Phoebe Kigenyi (ITEK) made a presentation at the Enro Hotel-Mityana on June 7, 2001 to inform the newly arrived PCVs about Connect-ED and to gauge their technical skills and level of interest in working with ITEK and Connect-ED on training and support at the PTC level. Increased PCV technical resources available to the regional PTCs will certainly improve training and skills reinforcement at the PTC level. This could decentralize the training initiative and localize the efforts so that individual needs of the PTC personnel and surrounding communities can be addressed more effectively from the field.

Staff Travel

- Dr. Eduardo Contreras-Budge, LearnLink Evaluation Specialist, May 10, 2001 - May 20, 2001

o **Namibia – Support to the Ministry of Basic Education and Culture
LearnLink Task Order #18
USAID # OUT-HNE-I-808-96-00018-00**

Executive Summary

In support of Task Order Objective Number 1 (*support the National Institute for Educational Development (NIED) and its designated staff in acquiring the necessary tools and skills to develop computer-assisted training courses for advisory teachers, inspectors, and others in the four education regions where USAID is assisting the MBESC*) the project:

- Delivered 32 hours of training to the NIED Multimedia Working Group. Training topics included HTML, Internet communications tools, designing web-based training, teaching and learning in a multimedia environment, incorporating video into teaching/training materials, and video planning and production.
- Brought in short term technical assistance to work with project staff and the Multimedia Working Group.
- Worked with NIED BETD/INSET Coordinator and IFESH Volunteer in planning and developing a training video for INSET teachers, principals, tutors and INSET Unit Managers discussing the requirements for School-Based Activities (SBA).

In support of Task Order Objective Number 2 (*support NIED in the development of a communications network for the training of advisory teachers, inspectors, and others involved in the lower primary phase by linking them to NIED through the Internet and other key computer-assisted delivery mechanisms to be developed*) the project:

- Successfully registered the URL *www.edsnet.na* to serve as the address for the Educational Development and Support Network website.
- Continued offline development of ED'S Net website to include a welcome section of the site, a section to explain and host information for NIED's two major comprehensive in service training programs the Instructional Skills Certificate and the BETD/INSET.
- Procured a package of communication utilities entitled Web Crossing that will provide discussion boards, listservs, chat functions, and interactive calendar functions to ED'S Net and the NIED website.
- Completed installation of all four computer centres with full complement of computer workstations, peripherals, software, and connectivity.
- Officially opened the four computer centres.
- Designed and delivered a five-day training on productivity tools and peripheral training for the three ETTs and staff from Ongwediva and Tsumeb TRCs.

In support of Task Order Objective Number 3 (*support the development of prototype curriculum-based teacher training materials for primary school*) the project:

- Retyped the remainder of all 20 *Teachers Basic Competency Manuals (TBCMs)* as needed to continue to reformat them for online and CD ROM delivery. The retyping has been necessary as the project and project partners have been unable to locate them in electronic format. Once editing is complete, the recovered electronic versions will be given to the NIED Resource Centre on CD ROM so that they may be appropriately archived and accessible in the future.
- Worked with NIED and BES II Management Advisor, Dr. Pfau, to produce an online version of the first module in the School Managers professional development series. This module can now be viewed online at <http://www.ibtikar.ac.ma/EDSManagement/Module1/mod1page1b.htm>.

In support of Task Order Objective Number 4 (support the expansion of an administrative framework at the level of the MBESC and NIED to include “Master Information Teachers,” who champion the use of teaching/learning technologies) the project:

- Worked with NIED and Regional Education Officers to propose the formation of Regional EDS Tech Teams comprised of representatives from the Teacher Training Colleges, the Inspectorate, Advisory Services, Adult and Continuing Education, and Classroom Teachers.
- Worked with NIED to make a request that each region nominate members to these teams.

In support of Task Order Objective Number 5 (contribute to discussions of national policies, strategies, and guidelines on the use of teaching/learning technologies in the basic education sector) the project:

- Developed a proposed draft addendum to the TRC Network Manual on computer centre management.
- Assisted NIED in developing its policy for the use of the new NIED computer centre including hours of operation, fee for use, and systems for reserving the centre and for procuring supplies.
- Has continued to frequently contribute to discussions covering different IECT topics relevant to the MBESC on the newly created MBESC ICT listserv.
- Had resident advisor serve as one of NIED’s representatives and a founding member of the E-Learning Development Group, an informal advisory committee representing the four primary distance learning institutes (University of Namibia, Polytechnic of Namibia, Namibian College of Open Learning, and NIED.) The advisory group, in the last quarter, have discussed issues relating to its role and formation, discussed procurement of e-learning platforms, discussed coordination of activities and resources, and served as a forum to share ideas and discuss lessons learned.

Major Events this Quarter

This quarter has been the project's most successful to date. After a very long process, all four computer centres were installed and connected to the Internet. In addition, the project has made substantial progress towards developing the Educational Development and Support Network website. The next three-month period should finally see the project fully involved in all activities proposed under the project work plan. It should also be a period of great learning as the computer centres become more active and more lessons are learned from their use. In addition to having more experience with the labs, the project should be successful in hiring its Network Manager and an Instructional Materials Design Specialist. These two new hires should dramatically increase the project's ability to utilize the ED'S Net website and to deliver more training and training content.

1. Progress Towards Task Order Objective Number 1

- *32 Hours of Multimedia Design Training Delivered to NIED Multimedia Working Group* – To date, the project has delivered approximately 36 hours of training to the NIED Multimedia Working Group. Training topics have included HTML, Internet communications tools, designing web-based training, teaching and learning in a multimedia environments, incorporating video into teaching/training materials, and video planning and production.
- *NIED Multimedia Working Group Commits to Developing Multimedia Version of NIED Annual Report* – This work is seen by NIED and by the project as an opportunity to have the Working Group develop a meaningful multimedia product as a method of gaining experience in multimedia planning and development.
- *Project Assists NIED in Planning and Developing Instructional Video* – Project staff worked with the NIED BETD/INSET Coordinator and their IFESH Volunteer in planning and developing a training video for INSET teachers, principals, tutors and INSET unit managers discussing the requirements for School-Based Activities.

Time Constraints of NIED Staff – For the concept behind the Working Group to succeed, the team members need time to complete assignment related to their group objectives. To date, we have had difficulty in getting staff to complete assignments in a timely manner. While it is obvious that most professionals at NIED are quite busy, the long-term sustainability of the project's input is dependent upon the individual in the group "*acquiring the necessary tools and skills to develop computer-assisted training courses for advisory teachers, inspectors, and others in the four education regions where USAID is assisting the MBESC.* Not only do the members need to complete work in a timely manner, but they also need to realize the importance of the training they are receiving.

Group Needs More Focus – Similar to the difficulty related to the individual group members' time constraints, the group needs to become more focused and begin taking on projects and seeing them as their own. While the project can continue to train and support the group, it cannot force them to become a team or to begin developing multimedia-training materials. This will require the group to become more focused and begin to work more as a professional development team and less as a group of trainees. This focus needs to be developed both within the team and be strongly encouraged by NIED management.

Lessons Learned.

- *The Remaining Project Timeline Will Limit the Level of Competency Achieved by Group Members* – Although all members of the NIED Multimedia Working Group have good computer skills, training them effectively will take time. This is particularly true given the reality that all members have very time consuming responsibilities outside those related to the Working Group. Given the members time constraints, it will take time before this group is prepared to design and create effective multimedia training products. Nevertheless, the group should be able to create basic designs by the project's end.

2. Progress Towards Task Order Objective Number 2

Work towards achieving this objective continued to be the most time consuming, although a large portion of the activities related to achieving this objective are complete. The project has succeeded in delivering the bulk of the IT equipment promised via the task order, and has come a long way towards delivering the ED'S Net website.

- *Registered www.edsn.net as URL for the Educational Development and Support Network Website* – After pushing to get the site registered for approximately three months, the URL www.edsn.net was finally registered to NIED using project funding and assistance. As mentioned in previous reports, this site is seen by NIED as an outreach site to support the ongoing professional development needs of its clients, particularly teachers and school managers. It will also serve as a discussion forum and resource site for these clients and others interested in current issues related to basic education and professional development within Namibia.
- *Continued Offline Development of ED'S Net Website* – Sections of the site that now have content include the welcome section, the in-service training section, the TRC section, and the communications section.
- *Procured a Package of Communication Utilities Entitled Web Crossing for ED'S Net website, NIED Website, and NIED Intranet* – The package will provide discussion boards, listservs, chat functions, and interactive calendar functions for the above uses.

- *Computer Centres at NIED, Ongwediva TRC, Rundu TRC, and Katima Mulilo TRC Officially Opened* – During this past quarter, the project and project partners successfully installed all four computer centres, officially opened them, and connected them to the Internet.
- *ETTs and TRC Staff from Ongwediva and Tsumeb Trained on Productivity Tools and Computer Peripherals* – In May, the project invited the ETTs for NIED, Rundu, Katima Mulilo along with staff from the Ongwediva and Tsumeb TRCs for training on Microsoft Word, Microsoft Excel, Internet Explorer, and Outlook Express. Along with this training, the group was also trained to use the peripherals in the computer centres including printers, Zip drives, CD rewriters, scanners, teleconferencing cameras, and digital cameras. Other topics included further centre management tips and searching for educational websites.

Obstacles Encountered.

- *Support Systems for the Centres Not Yet Fully Functional* – Within two weeks of the Rundu Centre being installed, its Internet connection failed. While the eventual solution to the problem necessitated having the server's operating system completely overwritten, a fairly drastic solution, this should have only taken a few days or a week at most. As the vendor is not yet highly experienced with lease line solutions and had not yet established an efficient system to respond to service requests, it took approximately four weeks to get connectivity reestablished in Rundu. Similar problems were also experienced in Katima Mulilo where the vendor was unable to establish connectivity until almost four weeks after the centre had been installed. The Katima difficulties were exacerbated by a short time frame provided to complete the initial installation, the inexperience of the Telecom staff in the region who did not have the lease line connected at the time of installation, along with the above mentioned problems with the project's consortium of vendors. The project and the vendors believe that this was a learning experience and a better protocol for dealing with centre problems has been established. This system has yet to be tested, as the centres haven't experienced additional problems since these connectivity issues were solved.
- *Difficulty of Registering Domain Names in Namibia* – While it takes only minutes to register a domain name in the United States, NIED and the project were advised that there is a strong preference among Namibians towards locally registered domains with the .na suffix. As such, the project and NIED chose to take the much more difficult route of attempting to register the ED'S Net domain locally. Unfortunately, as everyone suggested, this proved to be a difficult and timely process that took approximately three months. Fortunately, the process ended successfully with the registration of *www.edsnet.na* to NIED.

Lessons Learned.

- *Scarcity of Human Resources with IT Skills* – This is mentioned under outstanding issues as well. Nevertheless, it is worth repeating. It will take time (perhaps longer than the amount of time the project will be operating) for the TRC staff in general and the ETTs in particular to gain the skills and tech savvy needed for them to fully maintain the labs. Further, the project has found it difficult to hire more advanced IT people. In response to its advertisement for a Network Specialist, it received no responses from people with the combination of academic credentials and skills requested. The project is currently uncertain if this relates to the project's affiliation with the education sector, to the position being located in Okahandja rather than Windhoek or Oshakati/Ondangwa, to the short time frame remaining in the project, or to some combination of these and other factors.
- *Interest in Use of the Centres is High* – Thus far, hundreds of people have become registered users at the Katima, NIED, Ongwediva, and Rundu centres respectively. The Ongwediva Centre is the most popular for many reasons including its location in a more heavily populated area and on the campus of a Teacher Training College, the nearness of Advisory Teachers working from the TRC, its higher allocation of computers (13 versus 7 in the other centres), and the fact that the Internet facilities have been working there longer than in any centre other than the one at NIED. While Ongwediva is receiving a high amount of individual use, the NIED Centre has seen heavy use for group training including the training of TRC Managers done by the BES II project, training teachers to have their classes participate in environmental studies (GLOBE), training World Teach volunteers to work with schools to develop domestic violence awareness websites, training the NIED Multimedia Working Group, and the project's work to train the ETTs and TRC staff members.

3. Progress Towards Task Order Objective Number 3

The project was initially slow to move full speed ahead in this regard as it received mixed messages regarding the availability of electronic versions of the TBCMs. In addition to working to reproduce the TBCMs, the project has also worked with the BES II management advisor to develop an online version of the first module in their professional development series. This work will help in providing substantial materials for the ED'S Net website's professional development pages.

- *All Twenty TBCM Modules Retyped to Facilitate Conversion to HTML* – Along with the ETTs and project staff in DC and Okahandja even NIED staff assisted in retyping and editing the modules.

- *One Additional TBCM Developed for Online and CD ROM Delivery* – As mentioned in previous reports, this process is time consuming, particularly when it requires the module to be completely retyped. Nevertheless, now that all of the modules have been retyped, the conversion process should be substantially quickened.
- *School Manager Training Module Converted for Online and CD Rom Delivery* – Working closely with the BES II management advisor, Dr. Rich Pfau, the project converted the first NIED/BES II management module for online and CD ROM delivery. This module can be previewed online at <http://www.ibtikar.ac.ma/EDSManagement/Module1/mod1page1b.htm>

4. Progress Towards Task Order Objective Number 4

In consultation with NIED and project partners, a proposal has been sent to the partner regions to develop regional ED'S Tech Teams. In order to encourage links between the various regional education delivery groups, it was suggested that the teams be composed of representatives from several regional organizations. These organizations include the TRCs, Advisory Services, the Inspectorate, the Teacher Training Colleges, Adult and Continuing Education, and classroom teachers. It is proposed that these heterogeneous teams will encourage interaction and cross-fertilization between these education support services and provide a broader range of perspectives regarding the uses of IT in support of education and professional development. It is hoped that the eventual representatives in these groups will be highly motivated and capable of fulfilling the role of technology champion or multipliers in their organizations.

Obstacles Encountered.

- *Lack of Clarity Regarding this Objective and the Related Item 2 in the General Statement of Work* – While the project and NIED consider this objective to suggest the need to create a cadre of Master Information Teachers or Technology Champions/Ambassadors, it can also be interpreted to suggest that the project is to provide policy support for the creation of a formal or semi-formal position called “Master Information Teacher.” This interpretation was developed given seemingly clear messages from some Ministry partners that it would not be receptive to or appreciate project (CATT and other donor supported projects) efforts to develop new positions or position titles within Ministry structures. Nevertheless, NIED in particular has been supportive of plans to develop and provide training to regional tech teams assuming the teams are comprised of existing Ministry officials in existing positions. It feels that this approach is less likely to pressure the Ministry to develop additional administrative support positions or to provide greater compensation to the people associated with these

positions. While the regional partners have yet to fully comment on this proposal, initial face-to-face discussions have elicited positive responses.

5. Progress Towards Task Order Objective Number 5

- *Proposed Draft of TRC Computer Centre Manual Developed and Presented to TRC Managers from All Education Regions* -- As part of the project's preparation for Computer Centre Management training, the project developed a proposed draft addendum to the *TRC Network Manual* entitled *The TRC Computer Centre Manual*. The manual proposes policies, centre rules, uses, and management practices for Computer Centres to be located at TRCs. The project took advantage of having TRC managers from all regions attending a BES II training at NIED to distribute draft copies of the document for review and consideration by the group. Many of the managers expressed their gratitude for the project sharing this with them and promised to provide feedback regarding their recommendations for the future development of the document.
- *At request of NIED IT Committee, Staff Developed a Draft Policy for Use of the Computer Centre* – This policy is currently under review by both the NIED IT Committee and NIED Management, but appears to have general support from both groups.
- *Resident Advisor Serves as One of NIED's Representatives on Newly Created E-Learning Development Group* – This group, initially brought together to advise the NOLNET board on issues related to e-learning content, has transformed itself into an ad hoc advisory committee committed to discussing and providing advice to NOLNET constituent groups on matters related to e-learning content, delivery, platforms, and policy. The group met four times over the past quarter and has discussed issues related to the spread of the technologies needed to support e-learning initiatives, the role of the group, e-learning platforms, and advised one another on project activities and initiatives. It has also been a venue for sometimes-heated debate related to IT issues, IT strengths, weaknesses and appropriate uses, as well as a forum for sharing information, concerns and ideas. Other institutions represented on the group are the University of Namibia, the Polytechnic of Namibia, The Namibian College of Open Learning, NIED (NIED has three representatives including the CATT Resident Advisor), NOLNET, and SchoolNet.

Obstacles Encountered.

Although not an obstacle *per se*, the project is concerned by the perception that it is not successfully working towards meeting this objective. From the project perspective it is working quite diligently towards achieving this objective and has

made certain that it has placed staff on committees that allow it to have input into Ministry policies related to IT and education. It also has worked to be involved in most major discussions of IT and education taking place within the Ministry. If there is more expected of the project in this regard, the project is certainly willing to invest more time into these efforts, but it feels that the Ministry and its bodies should take the lead in making this request. To date, it has addressed every specific request given to it by the Ministry and project partners.

Lessons Learned.

- *While the Investment in IT Infrastructure has been High and is Continuing at a Strong Pace, More Thinking Related to What this Means and How it Will be Used Needs to be Done* – It has been now well reported that the quality of the IT infrastructure in Namibia is quite high and this project, SchoolNet Namibia, and many other donor-supported projects within Namibia are beginning to invest heavily in IT equipment for schools and Ministry support systems. Nevertheless, it is not clear whether many of these groups, or the Ministry itself have begun the process of developing plans to encourage the productive use of these inputs. There certainly appears to be a relatively strong awareness that the Ministry and its schools need to acquire IT equipment and develop IT skills, but there appears to be very little consensus regarding answers to the questions of what equipment, what skills, and, most importantly, through what means and towards what ends.

Success Stories

GLOBE Project Uses New NIED Computer Centre to Conduct Teacher Training for Environmental Monitoring Activities

From June 21 to 22, 2001 NIED, in collaboration with GLOBE (**Global Learning and Observations to Benefit the Environment**), held a workshop for GLOBE teachers in the areas of Land Cover, Soil, and Remote Sensing. The workshop was attended by participants from eight GLOBE schools from across Namibia attended the workshop. The aims of this workshop were:

- to give GLOBE teachers additional skills needed to guide their students in taking more land cover and soil measurements;
- to compare this data with the schools' satellite images that were handed out to all participating schools;
- to use the Internet for data analyses and research.

The programme was assisted by Project LearnLink through support provided by its ETT and the computer centre it recently assisted NIED in developing. The

computer centre with its computers and Internet service made it possible for the participants to make environmental observations and report their data via the Internet. Scientists use GLOBE data in their research and provide feedback to the students to enrich their science education. Global images based on GLOBE student data are displayed on the World Wide Web, enabling students and other visitors to visualize the student environmental observations.

List of Participants and Schools:

Katima Mulilo

Caprivi Senior Secondary School

GLOBE Teacher(s): Mr. Malumani F

Rehoboth

Dr Lemmer High School

GLOBE Teacher(s): Mr. D. Farmer, Mr. W Diergaardt

Oshakati

Eengedjo Senior Secondary School

GLOBE Teacher(s): Mr. J. Indongo

Gabriel Taapopi Senior Secondary School

GLOBE Teacher(s): Mrs. Ellini Eiki

Luderitz

Luderitz Secondary School

GLOBE Teacher(s): Mr. Makaula, Mrs. C. Jantjies

Katutura

Jan Jonker Afrikaner High School

GLOBE Teacher(s): Mr. Theo van der Westhuizen, Mrs. X Pietrse

Omaruru

Martin Luther High School

GLOBE Teacher(s): Mr. Raonga, Munjanu

Rundu

Noordgrens Junior Secondary School

GLOBE Teacher(s): Mrs. L Van Zyl

New NIED Computer Centre Used to Train 18 World Teach Volunteers to Work with Namibian Youth, SchoolNet, and Namibian Legal Assistance Centre to Develop Domestic Violence Awareness Website

The NIED lab was used by SchoolNet from June 25th to June 27th to train World Teach volunteers to work with schools in historically disadvantaged communities in Namibia to develop Domestic Violence awareness websites for a contest sponsored by Namibia's Legal Assistance Centre. These volunteers were given training on both content related to Domestic Violence as well as website design. Over the next few months they will work with schools to develop these sites. The schools, in return, will receive SchoolNet Futures points and winning schools will receive IT equipment as prizes. The sites, upon completion, will be hosted on SchoolNet servers and will be accessible throughout Namibia and the world. LearnLink staff assisted in bringing World Teach and SchoolNet together last

year and NIED and LearnLink has continued to assist in facilitating the use of the lab.

Peace Corps Volunteer Uses Ongwediva TRC Computer Centre to Work with Learners from Local Deaf and Blind School

As frequently cited in IT literature, the Internet opens opportunities for differently-abled people to work on a more level playing field. An example of these uses can be found at the new Ongwediva TRC Computer Centre. Peace Corps Volunteer, Leah Balowitz, is working with learners and staff at the local deaf and blind school to use the OTRC Computers to access websites and IT resources that are useful and friendly to these users. Some of these resources include websites that visually demonstrate ASL signs for the letters of the alphabet and many common words and programs that "read" websites for the visually impaired. Ms. Balowitz is also being assisted in her efforts by Tammy Hayano, a Peace Corps Volunteer working at NIED, who has worked extensively with Project LearnLink since January.

Secondary School Teacher and Her Students Use Ongwediva TRC Computer Centre to Work on Internet-Based Stock Market Competition

Recently, the OTRC Computer Centre staff member reported that a teacher from Ongandjera Senior Secondary School came in with her four students to use the computer and Intern facilities to learn about stock markets via participating in a stockbroker-sponsored, Internet-based competition. Along with learning about stock markets, the students are also excited by the possibility of winning the N\$100,000 prize for "making" the largest profit. The competition is being run from the web site *www.psgonline.com*.

MBESC Human Resource Development Project Connects Ongwediva TRC Library, Advisory Teachers, BETD/INSET Offices, and TRC Administrative Block to New Computer Centre Server

Through contacts made very early in the project's tenure in Namibia, the MBESC Human Resource Development Project moved quickly to connect several other offices and facilities at the Ongwediva TRC to take advantage of the lease line connectivity provided via the Computer Centre server. The project has already connected the computers in the library and several computers in the administrative block of the TRC. It plans to continue its work and connect the Advisory Teachers and the BETD/INSET offices also located at the OTRC. The BES II office located at the TRC will also connect its computers to the server soon. The project has worked with the OTRC Manager to help him develop policies to begin charging for these services to help maintain the network and recover costs related to providing the lease line connectivity.

Summary

USAID is assisting the Ministry of Health (MOH) in strengthening their existing Management Information System through implementing and then supporting a Patient Administration System in eleven hospitals and two clinics. The PAS was introduced to Jamaica approximately two years ago into five public hospitals. It is a multi-mode patient-tracking system with a very simple administration system with somewhat limited reporting capabilities. It is anticipated that through an upgrade and expansion of this system to additional hospitals and clinics that there will be an improvement in the amount and type of data available from various service-delivery points. USAID has requested that LearnLink assist key MOH units, review all data-collection forms, identify needed training, draft training curricula, work with the MOH to integrate their systems, conduct the first phase of training, and implement pilot applications of the future Medical Information Database System (MIDS).

Major Activities This Quarter

Deliverable #1: Assist key units within the MOH to organize and streamline their data collection processes.

This has been done, and described in earlier reports.

Deliverable #2: Review of all data-collection forms, formats, and procedures to standardize on-site data collection and the transmission of corresponding processing and analysis units.

During this final quarter, the project did an evaluation of the regionalization of the four key databases used within the MOH at the North East Regional Health Authority (NERHA), and the report on this evaluation has been completed. In addition, the three other Health Authorities requested the databases for use at the regional and, in some cases, the parish level. In response to these requests we ran a workshop in Kingston on June 7th for the Kingston and St Andrew parish medical officers of health, senior public health nurses, and medical records staff, to introduce the Monthly Clinic Summary Report database. Training focused on data-quality issues, data-edit checks, and hands-on data entry for primary care only (MCSR). Then on July 19th we ran another one-day workshop in Montego Bay for the Western Region. This workshop focused on data management and data-quality issues for the primary- and secondary-care databases (HMSR & MCSR), but did not include hands-on data entry because the Western Region

Health Authority (WRHA) MIS director indicated that he would take responsibility for data-entry training.

The Southern Region recently requested this workshop for their area too, but lack of time and funding has prevented us from providing it. However, we have notified the Planning and Evaluation Unit (P&EU) about this request and we will follow-up with them.

In each of the training workshops mentioned above, we included members of the P&EU of the MOH both as participants and as trainers, with a view to building capacity within the MOH.

The project has designed and written database user manuals for the Hospital Monthly Summary Report, Monthly Clinic Statistical Report, Community Mental Health Report, and the Expanded Programme on Immunization. In each case, the relevant persons within the MOH has approved these manuals before we had them printed, copied, bound and delivered to the Planning and Evaluation Unit for distribution. A copy of each is included with the final documentation for this project.

Deliverable #3: Identify the type of in-service training skills of MOH Medical Records personnel required to improve professional skills.

We have identified the in-service training needs of the medical-records personnel as well as the needs of the technical personnel and the project has addressed those needs by offering the training workshops described in previous reports.

Deliverable #4: The development of a draft in-service training curriculum for MOH records personnel.

As also mentioned in an earlier report, we have revised and produced the manuals for the two major primary- and secondary-care reporting systems. We used these in training during December for medical-records personnel and during February and March in data-management training for technical personnel. We have now developed case scenarios for each reporting system along with sample data-audit tools to augment the training curriculum in the future; we also submitted these to the Planning and Evaluation Unit to augment their current medical-records curriculum and training.

Deliverable #5: Integration and interconnection of networking systems and relevant database collection systems.

Deliverable #6: In-service training, which includes personnel from regional offices.

These two deliverables go together.

We have now offered five 4-day workshops offering training in Introduction to and Intermediate MS Access and Introduction to and Intermediate Crystal Report Writer in the Systems Information Technology Unit of the MOH. The trainer was Barbara Angelino from Softek Services in Virginia, USA. The following table summarizes details of those trainings.

Dates	Region	Number attending
June 12-15	MOH HQ	10
June 18-21	SERHA	11
June 26-29	NERHA	12
July 9-12	WRHA	9
July 16-19	SRHA	13
Total		55

We set up the training room to accommodate 12 trainees at a time, two persons to a computer. Despite the downsides of a cramped area and noise from the adjacent office, interest in the course content was evident and sustained. The trainer developed training files using the MOH data from the Patient Administration System and from the MOH's primary-care database to illustrate points and apply learning concepts to their own databases. This enhanced the application of learning to their specific situation. At the close of each workshop, we were able to distribute six complete sets of manuals (Introduction and Intermediate MS Access and Introduction and Intermediate CRW).

Evaluations of the training were overwhelmingly positive on every point surveyed. Comments from the evaluations centered on requests for longer training or for more time to practice concepts learned. Several persons also commented on the cramped quarters.

There were only nine participants for the training during the week of July 9-12 because of street violence in Kingston, which prevented two Medical Officers of Health from the Western Region from traveling to Kingston. We also had to shorten this training week by one day because the violence prevented anyone from traveling on Kingston streets. In addition, during the previous week there was a bomb scare in the MOH around 1:00 pm, which required evacuation of the building and a lost afternoon of training. Such was the real setting of our work.

Deliverable #7: Pilot applications that will establish a Medical Information Database

By mutual agreement with USAID/Kingston, this deliverable has been removed from the project.

Addendum:

In addition to all of the completed objectives above, we took on the responsibility for a Phase I activity involving the transition of the original five Patient Administrative Servers from SCO Runtime Unix to Linux Open Server. To this end we hired Mark Donner, an independent consultant from Kingston, Ontario, Canada. He will work a total of 20 days over a four-week period of time. As of this writing, he has completed work on one of the 5 sites.

USAID recognized that this activity should have been undertaken during the Phase I work and is very grateful for our follow-up.

Project Close Down

We are in the process of closing down the project. We asked for, and received a 30-day no-cost extension for the project. LearnLink Resident Advisor Sharon Arscott-Mills will be leaving Jamaica on or about the 14th of September 2001.

• **Bulgaria – Public Computer and Communication Centers (PC3)**
LearnLink Task Order #20
USAID #: HNE-I-10-96-00018-00

Summary

The four primary PC3 Project activities for the second quarter of 2001 were 1) selecting and subcontracting the PC3 Operators, 2) organizing and conducting the PC3 Operator Training, 3) beginning the procurement of PC3 equipment and services, and 4) designing the PC3 pre-paid access cards.

Major Activities for This Quarter

A. Staffing

a. Receptionist recruiting and contracting

USAID CO approval for Tina Vesselinova Peneva as PC3 Project Receptionist was received May 23, 2001, with an effective date of May 14, 2001. Tina is now handling basic office tasks such as answering and routing phone calls, responding to general project inquiries, reception of office visitors, and undertaking a variety of necessary errands.

b. Multimedia Computer Applications Development Specialist recruitment and contracting

AED has identified Kalia Ginkulova to assist with multimedia development projects on a per-job basis, such as the development of the project web site, the creation of an informational brochure, and the design of the pre-paid access cards.

Next quarter, Kalina will likely be either employed fulltime or on a per-job basis to convert information resources identified by AED and USAID/Bulgaria.

B. AED registration in Bulgaria

As discussed in the last Quarterly Report, following a legal analysis by AED's Bulgarian attorney, we concluded that AED having "branch office" legal status in Bulgaria would facilitate the implementation of the PC3 Project. Having obtained and forwarded the necessary documentation from AED/Washington, AED/Sofia has instructed its attorney to move forward with this process.

C. Selection of PC3 Operators

Also as discussed last quarter, the evaluation process for the PC3 Operator candidate proposals was conducted in three phases. The initial evaluation ran from February 21 to March 9. The second phase of evaluations, including site visits, was completed by March 23. Then the short list of 10 final candidates was compiled by March 30. During Brian Bacon's April 11-24 visit to Bulgaria, each of these ten candidates was invited to Sofia to discuss the requirements for entering into a subcontract with AED. These meetings were followed by a series of exchanges between each candidate and AED in order to determine the specific AED and PC3 Operator contributions that would form the basis of each subcontract. The ten candidates were notified of their selection as final PC3 Operator candidates on May 18, with an invitation for two representatives from each PC3 to participate in the June 6-10 PC3 Operator training.

The towns represented by the selected PC3 Operators are Aitos, Aprilci, Biala, Madan, Omurtag, Pravetz, Tryavna, Varshets, Vetren, and Zlatograd.

D. PC3 Operator Training

PC3 Operator Training was conducted June 6-10, at Hotel Kremikovtzi, near Sofia. The objective was to provide each PC3 Operator and one member of each PC3's support staff (total of 20 trainees) with sufficient information to establish a sustainable PC3 enterprise in the proposed community, with the PC3 products and services addressing local social and economic development needs. Topics presented at this training included:

- Overview of the global telecenter experience and telecenter operations
- Information technology use for economic and social development, including education
- Small-enterprise planning and operations, including business-plan development
- Telecenter operations and business-plan development guidelines
- Technical considerations for PC3s
- IT training methodology

In addition, related PC3 Project implementation procedures were described to PC3 Operators by AED at the training.

Speakers included representatives from USAID/Bulgaria, AED/Sofia, the Bulgarian Ministry of Transport and Telecommunication, the Bulgarian Association of Telecenters, the Bulgarian Industrial Association, and two AED consultants – a Bulgarian SME expert, Vladimir Ivanov (soon to be hired as Project Administrative Specialist by AED/Sofia), and Dr. Heather Hudson, Director of the Telecommunications Management and Policy Program at the University of San Francisco's School of Business and Management. Three U.S. Peace Corps Volunteers also observed the training.

The Ministry continues to show their support for the PC3 Project, most recently by their participation in this training. Furthermore, Ministry officials requested that Dr. Hudson meet with a group from the Ministry to discuss universal access policies in the U.S., the telecenter experience, and the implementation of 911 (emergency) services in Bulgaria.

E. Subcontracts between AED and PC3 Operators

On June 10, at the PC3 Operator Training, a subcontract between AED and each PC3 Operator was presented to each PC3 Operator and all contracts were signed. The contract covers implementation procedures and reporting requirements, and contains needed forms as an annex. The Technical Annex of the each subcontract outlines the specific contributions of AED and the PC3 Operators. AED will centrally purchase the majority of the equipment described in the Technical Annex, while each PC3 Operator will procure certain specialty items locally, then be reimbursed by AED.

F. Source and origin waiver request

The PC3 Project TO received a source and origin modification, authorized by A-AA/G, Barbara Turner, on May 11, and, independently, on May 23 by Project CO, Kathleen Frascella. With this approval, AED may purchase U.S.-brand equipment of 183 and 935 source and origin. This allows for the most efficient use of project resources, and prevents what would be a significant delay in project implementation due to the need to procure in the U.S.

G. Procurement of PC3 equipment and services

AED has a July 11-deadline RFQ out to Bulgarian vendors for the equipment it intends to procure centrally. Once bids are reviewed, AED will make these purchases, probably by July 25. Then AED will coordinate distribution of this equipment to the PC3 sites, while assisting the PC3 Operators to "build-out" their respective PC3s.

The Technical Annexes of each PC3 Operator subcontract outline the specific PC3 Operator and AED obligations, in terms of equipment, connectivity subsidy, labor, and other contributions to each PC3. AED will purchase the majority of the computer and other equipment described in the Technical Annexes in Sofia. Certain pre-approved specialty items, as well as telecommunications/Internet connectivity, will be purchased locally by the PC3 Operators, who will be reimbursed by AED for these items.

H. PC3 pre-paid access card design

AED is in the final stages of the PC3 pre-paid access-card system design, and expects to submit the cards to a printer for production by mid-July. The card layout and the administration of the card system have both been designed to make use as easy as possible and to ensure the integrity of the usage and reimbursement process.

The value of each card is 10 Bulgarian leva (10 coupons, 1 leva each, per pre-paid card) (approx. US\$1:2.25 leva). The PC3 cards are valid until the end of the PC3 Operator Subcontract with AED (November 2, 2001, unless extended by mutual agreement). When using PC3 services, the cardholder can fully or partly cover the cost of the service with one or more coupons (each coupon can only be used to its full value - 1 leva per coupon, even if the service costs less than 1 leva). The PC3 Operator will enter the necessary information on each coupon and keep it as a "receipt". Each used coupon will be attached to the monthly reimbursement request voucher presented to AED. To monitor PC3 use, the data from each coupon will be recorded. At the end of each reporting period, all used coupons and the table for the period shall be submitted to the PC3 Project office in Sofia, as described in the subcontract between AED and each PC3 Operator.

A volunteer PC3 Board will be identified and formed in each PC3 community to assist AED and the PC3 Operator to identify potential recipients of PC3 pre-paid access cards. The participation of a PC3 Board will boost community involvement in the activity, ensure input on "public good" users, and broaden the effective distribution of pre-paid cards.

Travel

During this quarter, AED/Washington Bulgaria Program Manager, Brian Bacon, arrived in Sofia April 11, remaining until April 24.

During the next quarter, Brian Bacon may visit Bulgaria between late July and early August.

Activities Planned for Next Quarter

A. Staffing

AED will complete the hiring process for a new Project Administrative Specialist. Eli Vladimirova, AED/Sofia Project Administrative Specialist since early January 2001, submitted her resignation on June 1, effective June 29. (Eli has accepted a position with an American insurance company with offices in Bulgaria.) With Eli's one-month notice, AED was able to identify a qualified candidate with adequate lead-time for overlap with Eli. This candidate, Vladimir Ivanov, was the SME expert used by AED for the PC3 Operator training in June. AED submitted Vladimir's documentation to the USAID CO for approval June 20, and awaits approval for this contract (with a suggested effective date of July 1). Vladimir will play a significant financial and administrative role for the project, and serve as a small-business expert supporting the PC3 Operators.

B. PC3 pre-paid access card production and distribution

During this quarter, AED will finalize the design of the PC3 pre-paid access cards. Multimedia developer Kalina Ginkulova will assist AED in preparing the cards for final production. AED has sought preliminary estimates from printers and identified final candidates. Following production of the cards, and soon before the first PC3 opens, AED will coordinate the distribution of the cards within each community in collaboration with the PC3 Operator and the PC3 Board. Special emphasis for distribution and use of the cards will be placed upon USAID partner organizations in each community.

C. Design and implementation of follow-up computer/software applications training activity for PC3 Operators

Feedback from participants attending the June 6-10 PC3 Operator Training indicated that the PC3 Operators would like follow-on technical training focusing on computer/software application. Based on preliminary cost estimates, and upon an examination of the project budget in light of an anticipated 2-3 month project extension, it was determined that there are sufficient available funds to develop a detailed proposal for this applications training. The 7-10-day training is anticipated for late July or early August, with one representative from each PC3 attending. AED has identified various qualified trainers to conduct these sessions.

D. AED site visit to PC3s

AED Sofia staff members Tony Guerassimov and Vladimir Ivanov anticipate visiting each of the PC3 sites between July 25 and August 3. The objective of these visits will be to discuss PC3 project developments, verify subcontract implementation compliance to-date, and to troubleshoot any implementation problems with the PC3 Operators.

E. Prepare and submit to CTO budget modification request for project extension

This TO ends November 24, 2001. As the PC3 Project is a pilot activity, there has been a certain “learn as we go” approach to implementation. Some activities and administrative mechanisms have taken longer than expected to develop and implement within the ambitious schedule established for the project. Though the implementation tasks have proven to be somewhat more demanding than anticipated, the significant enthusiasm in response to the PC3 Project’s RFP indicates that this pilot approach is appropriate to the needs of Bulgarian communities and within the skill set of many Bulgarian small entrepreneurs.

This TO can be fully implemented by the November 24, 2001 project end date. However, it would be in the interest both of the PC3 Operators and USAID to extend the life of this project such that additional project support may be provided to the PC3 Operators beyond current project end date. Furthermore, as one of the objectives of this TO is to promote the adaptation of such centers within USAID programs worldwide, a TO extension of at least an additional few months would allow AED and USAID to draw additional lessons from the pilot activity. In addition, such an extension would ensure the greater likelihood of success for the Bulgarian PC3s and those established in collaboration with other USAID Missions.

As expressed in her May 8, 2001, e-mail to Tony Meyer, Nora Ovcharova of USAID/Bulgaria is supportive of a no-cost extension for the PC3 Project.

“The specific reason for this e-mail is to advise you as CTO that the Mission is strongly supportive of a non-funded extension of the PC3 project of 3+ months...”

In Tony Meyer’s May 9, 2001, response, he states that, “there should be no problem with a no-cost extension as you describe. The contractor should initiate the request...”

AED/Washington Senior Finance Officer Douglas Boudreau and Brian Bacon are currently drafting a budget modification request for CTO approval. This budget modification will solicit approval for a no-cost project extension of 2-3 months, thus extending the project to late January or February 2002 at or near current staffing levels.

F. Content availability assistance

AED will assist selected Bulgarian organizations to convert existing information resources and training materials that are broadly relevant to the economic and social development of under-served communities into Bulgarian-language computer-based and Internet-accessible formats. AED is currently working with a multimedia developer to assist with AED’s PC3 Project web site, an informational brochure, and the PC3 pre-paid access card design. This

multimedia developer will likely be either employed fulltime or on a per-job basis to convert information resources identified by AED and USAID. AED and USAID have recently conducted follow-up meetings with selected USAID partners in order to identify these materials.

G. Opening of PC3s

Though many of the ten PC3s may “unofficially” open for clients earlier, AED anticipates the first PC3 “official” opening in early September. This timing is due in part to a request by USAID/Bulgaria for an early September opening ceremony at a selected PC3.

• **Gender and Information Technology**
LearnLink Task Order #21
USAID #: HNE-I-10-96-00018-00

Summary

The Office for Women in Development within USAID’s Global Bureau has asked LearnLink to produce a document that outlines the background and steps to implement a study analyzing potential intervention strategies for USAID concerning the participation of women in the information-technology revolution in developing countries. G/WID would like this particular piece of research to focus on determining 1) what impact gender issues are having on the ability of developing countries to take advantage of IT opportunities and 2) what impact the upsurge in IT activity seems to be having on the relative roles and rights of men and women in developing countries. G/WID sees that study as a chance to develop a working theory about the two-way relationship between gender and IT in developing countries.

Specifically the proposed study will review what is known about gender and information technology in the development context and focus on feasible and desirable objectives. G/WID has not defined the purpose of the study as analyzing potential intervention strategies. Rather the study is to look at how IT opportunities are differentiated by gender in developing countries.

Major Activities This Quarter

The final paper is now in production and will be delivered to G/WID in the next quarter. The text will also be available through the LearnLink web site, at <http://www.aed.org/learnlink/>.