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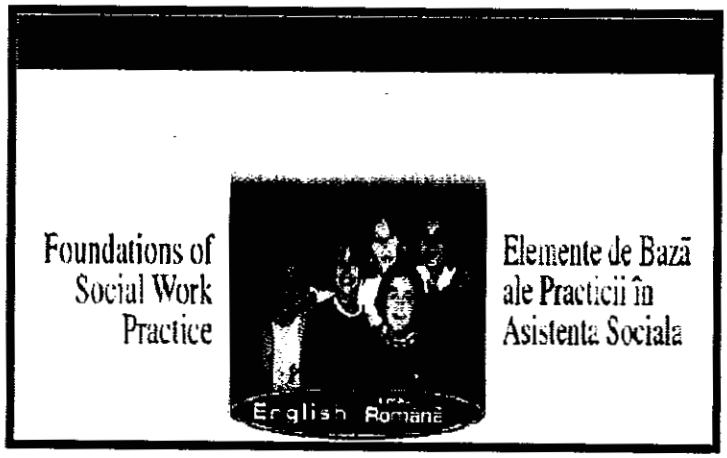
Using ICTs to Strengthen Romania's Social Work Participant Training Program

A Report on Impact and Lessons Learned



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Introduction

As a computer-mediated professional development activity, the objective of this pilot program was to explore how information and communication technologies (ICTs) could "increase the quality and impact" of USAID Participant Training Programs. After USAID/Romania expressed interest in USAID's HCD/Global Bureau and AED's LearnLink Project becoming the first implementers for this pilot program, [1] the activity commenced.

Consequently, LearnLink proceeded to conduct a Rapid Needs Assessment in January 1999 to gather information about current efforts, perceived needs, and future priorities relating to the Romanian Mission's Participant Training Program. The assessment included meetings with mission staff, extensive discussions with various contractors, and a half-day information-gathering meeting with various Romanian government officials, public sector groups, and NGOs. The needs assessment concluded that USAID's participant training efforts in the area of Child Welfare Reform had been well received but reached only a limited number of participants. The reasons were the relatively high unit cost of training. Thus, there was a marked need and interest in testing the use of ICTs to strengthen and increase access to the Mission's Child Welfare Participant Training Program.

The Mission contracted with World Learning to administer the pilot program through its Transit Romania Project together with the Information Resource Center for Social Welfare Professionals (CRIPS).[2] CRIPS, a Romanian NGO with previous experience in traditional distance learning methods, is involved with the Romanian social work movement. LearnLink was called in to provide overall technical support to the program as well as oversight of the evaluation component.

At the end of the program, LearnLink undertook an evaluation of the training process. This evaluation sought to answer two questions:

1. Can computer-mediated learning (CMT, see below for exact definition) provide quality training to additional students without compromising learning outcomes?

2. To what degree is mediated professional networking and information sharing actually being used now that the opportunity for these activities has been provided?

[1] Originally LearnLink anticipated activity in two pilot sites, but USAID eliminated the second site when its feasibility faded.

[2] Special thanks to Aurora Toea, President, CRIPS, her staff, and Cristian Andriciuc, World Learning, for their professional dedication, patience, and commitment to getting the pilot off the ground and running.

These questions address the essential issues of quality of instruction and actual ICT use. If evidence indicated that ICTs had a positive impact in terms of quality of instruction and actual use on the pilot participant training program, then it could be inferred that applying ICTs on a larger scale to an entire participant training program could strengthen it in terms of quality and use as well.

Findings indicate that

- Participant training programs can be strengthened with ICTS in terms of increasing actual use and maintaining quality through distance learning.
- Conducting training with ICTs yields positive by-products, such as the acquisition of participant skills in use of technology for training and participant exposure to hands-on, interactive training approaches.
- Professional social workers as the participant group do not need previous experience in technology to participate in computer-mediated training activities.

This report describes the pilot activity, the implementation process, and the evaluation component. The findings are derived from focus groups, questionnaires, observation, and discussions with project personnel.

Pilot Activities

Based on an initial needs assessment, the USAID Mission in Bucharest contracted with World Learning to implement, with LearnLink's technical guidance, electronic networking, and computer-mediated training (CMT) to improve the practice of social work. This section describes each component and their respective implementation processes.

Electronic Professional Networking and Information Sharing (or "electronic networking")

The needs assessment pointed to a marked lack of easy *access* to publications and information relating to the social-welfare movement in Romania, especially for social workers working outside of Bucharest. Consequently, the project design included the development of a web site and a listserv to support child welfare workers in their daily professional activities of gathering, sharing, and disseminating information. The pilot program decided to use common communication tools such as a listserv and a web site because these are two of the most commonly used ways by which professional interest groups support and maintain information and communication exchanges. So, the focus of the evaluation in this component was on whether the social workers actually used ICTs to network and obtain information, once given access to ICTs that they did not have before.

Also, the pilot needs assessment concluded that the participant-training program would have a greater impact if it were able to reach a larger audience. Thus the Computer-

Mediated Training (CMT) component was developed so that USAID/Romania could train Romanian child welfare professionals who were not among their traditional trainees but who had been identified as urgently requiring training. The Mission identified a need to increase **access** to hands-on training in social work by adapting to a computer-mediated environment through both the Internet and CD-ROM an existing face-to-face training module—*Foundations of Social Work Practice* that had already been offered on numerous occasions. The evaluation asked whether *access* to training via this computer-mediated approach actually increased and whether the *quality* of learning was maintained.

CMT Technical Justification

A brief explanation of why a computer-mediated training approach was taken is in order. CMT uses the computer together with other information and communications technologies (ICT) such as the Internet and interactive multimedia as the principal modes of delivering content to the learning process and, with connectivity, enhancing discussion of content. CMT may be delivered from a distance through the Internet, if there is an Internet connection, but it may just as easily be run on a stand-alone tool using a CD-ROM.

The program chose CMT as a mode of delivery because it needed to reach a broad audience with existing telecommunications infrastructure. The program's budget did not allow for a large investment in satellite or other forms of delivery not already in place. A choice was made to take advantage of the fact that most social workers, through their places of employment, had access to PCs and that some had access to the Internet. Although access to the Internet was intermittent and PCs were shared, these were tools that the social workers might be using to a lesser or a greater degree on the job, and the computer was conveniently available for their professional training. It was reasoned that online training and access might open up other opportunities for professional exchange and development.

Moreover, in order to compensate for the social workers' intermittent access to the Internet, the program opted to make use of CD-ROM technology, which reinforces content delivery but lacks interactivity. Some educational technology experts associate CD-ROM-based training with pre-programmed computer-based training (CBT) whereby sophisticated and expensive text and audio-visual material is developed exclusively for CD-ROM delivery. Under this approach, learners interact solely with the computer and there is usually no direct contact through the computer with a tutor, instructor, other participants, or other materials.

The pilot program staff designed and digitized the learning material for delivery via the Internet as web pages in HTML. The CD-ROMs were developed only as "carriers" of the HTML files (as one might use a diskette for a smaller amount of data). In so doing, the CD-ROMs allowed participants with little to no access to telecommunications infrastructure to read material on the PC with a browser without having to go online.

In order to ensure a successful pilot completion, the Electronic Networking and CMT components were implemented in the fashion described below.

Program Implementation

A number of steps were taken in order to implement the program delivery and networking.

Implementation of the Electronic Networking Component

Program implementation included systems upgrades, training of CRIPS staff, and the design and construction of a new web site.

CRIPS' Systems Upgrade

At the start of the project, CRIPS—the implementing NGO—only had stand-alone PCs and intermittent access to the Internet. If CRIPS staff was going to be developing a listserv and a web site to support the program's professional networking activities, their systems required upgrading. Through this program, all of CRIPS PCs were linked in local-area networks and a reliable connection to the Internet was established. Today CRIPS has a stable network and reliable access to the Internet.

Learning by Doing

With its systems upgraded, CRIPS was ready to develop its listserv. However, CRIPS personnel had little to no experience in developing, launching, or maintaining a listserv. AED/LearnLink therefore developed a unique online "crash" course on "How to Start and Manage a Listserv." This course was unique in that it used a listserv medium in order to deliver content that was about listservs. The course included the following topics:

- Purpose of listservs
- Mission statements for listservs
- Constructing and housing listservs
- Recruiting for listservs
- Creating appropriate topics
- Managing responses (Netiquette)

All of CRIPS staff successfully completed the online course on managing a listserv.

Website design and construction

Although CRIPS already had a website, this small core group of social workers decided that a new site should be constructed to host the CMT on the *Foundations of Social Work Practice,* thereby providing access to any child welfare workers with access to the

Internet. Also, it would house new information and documentation on social work in Romania. A new site would give social workers greater access to relevant child welfare information and allow them to network with their professional colleagues. To find out just what information Romanian social workers needed, CRIPS staff administered 249 questionnaires to social workers in 9 Romanian counties. In addition, CRIPS conducted a needs analysis for the web site, where staff were able to determine the site's mission, target audience, and content categories. The site can now be accessed at: http://www.copii.ro, and information is currently available on child welfare and adoption policies and practices.

Implementation of the CMT

The implementation of the computed-mediated training involved reengineering or "repurposing" the training content for computer or digital readability, identifying and implementing an appropriate online course-management tool, and training of CRIPS staff as online instructors.

Repurposing of Content for CMT

One of the most challenging aspects of this pilot was the adaptation, or "repurposing," of the face-to-face "Foundations of Social Work Practice" workshop to an online environment. Program staff engaged the services of a multimedia instructional design firm, which reorganized the material into pedagogically sound segments. These subject units were then converted to the web environment. In constructing the web version, a prototype, with new basic architecture, re-designed navigation, and an innovative look and feel, was developed and then approved by project personnel. After the prototype was in place and approved, the content was inserted. In order to appropriately localize the content, the entire workshop was translated into Romanian and then updated to reflect the recent changes in child-welfare legislation. An example of the care taken in transferring information to digital format of the translation was the special attention paid to choosing an appropriate font that would support the diacritical marks used in the Romanian language. The final completed CMT consisted of 11 lessons, each with online quizzes and discussion forums. The lessons were available at http://www2.copii.ro:8900/Romania_Const1/index.htm over the course of a year in 2000/2001.

Training in "How to be an Online Instructor"

CMT "repurposing" was performed simultaneously with social work training. Since one of the staff members at CRIPS would be facilitating this process, training consisted of teaching CRIPS staff how to facilitate the online instruction process and use the various features of WebCT as instructors.

Program staff developed the content for this online course, entitled "CMT for Foundations of Social Work Practice." Its goal was to "train selected CRIPS staff in techniques and philosophies related to online instruction so that they may effectively

administer interactively the online "Foundations of Social Work Practice course." The online course was designed for and offered via WebCT, a web-based course management tool that was selected also for administering the CMT for a group of Romanian social workers. During August 28, 2000 and October 13, 2000, AED/LearnLink conducted training in the use of these management tools. The evaluation subsequently showed that learning outcomes were not compromised and that the CMT was able to maintain the *quality* of instruction in learning how to manager an online course. A large part of this accomplishment is attributed to a core CRIPS' membership group and their commitment and full participation in this hands-on online training course.

Installation of CMT

Installing the computer-mediated training required important systems preparation. After selecting an appropriate web-based course management tool, the project obtained the contract for downloading the WebCT software for managing the course online, and installed it on the server for the CRIPS web site. Unfortunately, the WebCT required some adjustments in order to be properly configured for the CMT. Finally, the CMT was installed, assigned an IP address, and went "live" on the web—an eagerly anticipated event.

CMT Launch

Pilot personnel officially launched the CMT at a workshop attended by 25 social workers from five Romanian counties – Alba, Dolj, Suceava, Botosani, and Tulcea. Participants were all university graduates, and all occupied positions of responsibility in the area of child welfare. None had previous training, formal or informal, in child welfare.

The workshop began with an overview presentation entitled: "Learning About the *Foundations of Social Work Practice* through Computer Mediated Training: Getting Started." The workshop also provided hands-on activities whereby the new learners became familiar with the CD-ROM, obtained their IDs and Passwords, learned how to log on, and carried out the first exercise online.

Twenty-two of the 25 CMT participants completed the course, which was conducted from October 23, 2000 to December 15, 2000. Three participants were not able to finish. One had serious problems of connectivity, another was reassigned to another position, and the third simply decided to drop the course.

Pilot Evaluation Plan

The evaluation asked: "Can ICTs increase [participant] program impact and quality?" The answer was understood to be that ICTs can increase *access* to training without compromising learning outcomes (quality), with the inference that ICTs can increase the impact and quality of training programs. The evaluation results suggest that this is in fact the case.

Questions

Inherent in the initial questions to be answered in the evaluation are other questions as follows.[3]

1. Can CMT provide training to additional students without compromising learning outcomes? If so, how?

    - Is CMT providing training to additional participants?
    - Are participants learning as much as they would in a face-to-face environment?

2. To what degree does mediated professional networking and information sharing actually occur after exposure and use of ICTs for any reason? Why?

    - Are listserv users engaging other users at a professional level?
    - Are they sharing and exchanging information?
    - Are web-site users gaining access to professionally useful information?

Questionnaires

Quantitative and qualitative data obtained from the CMT participants addressed the aforementioned questions. Four questionnaires were developed by LearnLink staff and then translated, administered, and tabulated by CRIPS staff. Three questionnaires were administered several months after participants took the CMT course in the *Foundations of Social Work Practice* in order to determine whether the training had an impact on participants' actual performance at work during the interval between CMT and questionnaire administration. Participant response to the questionnaires was high, with 19 responding out of 21 participants contacted. The questionnaires administered are described below.

- The **Pre-training questionnaire** was designed to obtain information on participants' expectations about receiving training in a technology-mediated environment as opposed to in a traditional face to face environment.

- The **Post-training questionnaire** was designed to determine to what extent expectations had been met and why. This instrument is the most important of the questionnaires.

[3] The evaluation questions were devised and refined in close cooperation with LearnLink's partners: World Learning and CRIPS.

- The **Technology skills questionnaire** was the instrument used by project personnel to understand participants' use of PCs, the Internet, the CD-ROM and other technologies since they took the CMT. Questions also included issues of frequency and impact of technology on participants' work and professional environments.

- The **Course evaluation questionnaire** provided participants' opinions on the actual content and delivery of the course. Questions of learning styles, knowledge levels and cultural appropriateness were also posed.

Unfortunately, due to budget limitations program personnel were unable to triangulate findings obtained from participants by the administration of questionnaires to learners' employers or supervisors.

Information on the extent to which the listserv and the web site were used for electronic networking and information sharing was obtained via observation and discussions with project personnel and is also presented below. Twenty-one of the 22 trainees were surveyed, and 19 responded.

Evaluation Results – ICTs' Impact on Quality

The data strongly indicate that the CMT did in fact have a positive impact. Specifically, the data show that the CMT provided additional training without compromising learning outcomes. The following section presents the evaluation results in terms of quality of learning, workplace application, and interaction with technology.

Quality of Learning

All but one respondent reported that the CMT, as compared to their initial expectations, provided the opportunity to learn ***more or as much as*** a face-to-face environment. Among the 19 persons, 13 reported that they learned *more* than they would have in a face-to-face environment on the same topic. Similarly, approximately two-thirds of participants stated that their learning experience as CMT students was better than in a face-to-face environment in terms of the experience itself, the use of technology for learning, and the process of learning. Here is a sample of what some of the participants had to say:

> *". . . this is a more pleasant form of learning, easier, and requiring less time."*
>
> *"I have learned more than initially expected."*
>
> *"Only one case [study] would have been discussed in a face-to-face course whereas [with the CMT] each student present[ed] their own experience and they all had more to learn."*

"I like communicating with my clients and I have always been curious to learn and find interviewing techniques."

Over half of the respondents indicated that their expectations about learning the social work subject matter of with the CMT had been met.

"...provides good knowledge of topics allowing for longer time to think over topics approached."

"The new knowledge approaches social work issues in an interesting way by the clients' involvement in solving their own problems and as an active part in making decisions for meeting their own needs."

Two respondents, however, made reference to the course being too general and lacking in depth.

Workplace Application

When asked if respondents had applied what they learned with the CMT to their work, sixteen respondents answered that they had applied *some* of what they had learned. Their answers fell into two general categories:

- access to information and colleagues, and
- improved performance in practicing social work.

For example, social workers said that:

"I have acquired useful information through the Internet, could get in touch faster with colleagues in the country, I could implement knowledge in my daily work"

"I have learned . . . [to] determine what issues need to be approached to take a final decision in the interest of the child."

"It has improved my approach and understanding of people in difficulty."

"It has improved my client interviewing and communication abilities."

Four out of every five respondents reported that applying what they had learned in the CMT to their jobs was either *easy* or *manageable*. For example, one participant stated:

"Manageable – as acquired knowledge could be shared with both my colleagues and part of placement center staff."

Interaction with Technology

Fifty percent of respondents reported that learning with the CMT facilitated exchange of activities with their colleagues and allowed them to learn how to use the Internet.

> *"In addition to specialized knowledge, students also acquired abilities in computer and Internet use"*
>
> *"Students have . . . been able to see their colleagues' opinions and get acquainted with their experience."*

However at the same time, the other fifty percent of respondents indicated frustration due to the *lack of access* to the Internet and consequently to other colleagues' inputs.

> *"lack of Internet access obstructed frequent communication among students and their participation in the online discussions".*

When asked to list the advantages and disadvantages of having to use a PC and the Internet in order to take the CMT, respondents listed a third more advantages than disadvantages. The advantages listed fell into three categories: ability to accommodate diverse learning styles and needs, ability to re-take quizzes, and increased interaction. Some advantages listed follow:

> *"It was not necessary to travel to a training location."*
>
> *"The possibility to reflect longer on information acquired."*
>
> *"The possibility to organize one's own learning time."*
>
> *"One is not nervous and learning is not inhibited."*
>
> *"Faster and more efficient learning."*
>
> *"Students may choose their own time to study."*
>
> *"Repeated tests."*
>
> *"I was able to find the others' opinions."*

The disadvantages that the participants listed can be summarized as technical problems, lack of access, and missing face-to-face dynamics. For example:

> *"Limited Internet and computer access."*
>
> *"Excessive time to access the Internet and send the information."*

"Technical problems."

"Slower dynamics [pace]."

"The lack of the interlocutor's non-verbal communication."

"Lack of direct [face-to-face] communication."

In spite of the disadvantages listed, the responses described above strongly indicate that computer-mediated training in this program did not compromise learning outcomes, particularly since many disadvantages were related to technical and communication infrastructure capacity or access.

Evaluation Results – ICTs' Impact on Access

The issue of access takes several paths in the evaluation—whether the CMT increased access to training, the use patterns of the listserv, the use of web site tools once users had access to them, and access to technology in general.

CMT

Regarding the CMT, discussions with project personnel confirmed that participants taking the CMT were social workers who would not otherwise have been able to attend similar face-to-face workshops offered by USAID. Thus the CMT had a positive impact on access because USAID was able to broaden the reach of its training activities targeted to practicing social workers.

Electronic Networking

Feedback on the Electronic Networking component was more mixed. Discussions with program personnel indicated that the listserv and the website were not accessed by users. When asked if the use of technology has increased participants' professional networking activities, two-thirds answered "no". The reason for this, however, was not that users disliked the tools, but rather that project personnel lacked time, experience, and resources to dedicate to networking. Thus these components never actually "took off".

Program personnel's time was mostly taken up by the Implementation responsibilities of the CMT. Moreover, as described in the next section, use of the listserv and the web site was also apparently hampered. Social workers outside the course were impeded at their work locations by lack of access to the computers and the Internet. In contrast to the lack of use of networking capacity, CMT participants stated that when using WebCT they enjoyed professional networking with colleagues with whom they would not otherwise have been able to contact.

Access to Technology

The questionnaires yielded data on the access to technology in general. Almost all respondents reported difficulties in accessing the Internet on a regular basis. Specifically, some were restricted by their employer from accessing the Internet, and there was poor connectivity. Consequently, limits on access affected usage.

Lessons Learned

The evaluation and the program experience also yielded other results and conclusions, some expected, some unexpected.

Technology Skills

It became evident quite early on in the process that the CMT was not just about learning the content of the *Foundations of Social Work Practice*. Participants also very happily and willingly acquired the technology skills of becoming more adept on the PC, using the Internet, and accessing the Web. These skills were greatly appreciated by participants because they would be of use to their professional development.

Technology is not a prerequisite

Contrary to the literature that states that learners must be computer literate to undertake computer-mediated training, program personnel found that the learners with low technology skills (such as those in this program) can and do in fact learn via the computer and the Internet. Specifically, 22 Romanian social workers, many of them with very sketchy computer skills, successfully completed the CMT.

Content and Pedagogy

Considerable care was taken in the development of online content to make it pedagogically sound, user friendly, and responsive to interactive use by learners. Feedback from the social workers stressed the quality of the content and its ease of navigation, despite their newly-acquired technological skills.

Cost

Program personnel observed that program cost-effectiveness of ICT-supported training programs require a sufficient "critical mass" of trainees in order to offset the costs of CMT-type approaches, technical assistance, and training.

Context

The learners actively used the CMT discussion tool, but the listserv was never used. Evaluators concluded that communication tools require an ICT-embracing context in order to stimulate use and acceptance by users.

Conclusion

In sum, the program implementation experience and the information derived from the evaluation informs us that, in spite of difficulties in accessing technology and reliable connectivity, learning with ICTs does not compromise learning outcomes. ICTs can increase access to training and therefore can increase the quality and impact of participant-training programs. Circumstances beyond the control of this pilot program did not allow program staff to determine whether increased availability of communication tools (listserv and web site) would have increased professional networking activities among Romanian social workers.

Most importantly, providing training to participants via the CMT gave participants new technology skills and exposed them to innovative, hands-on, learner-centered instruction that is more effective than traditional training.