

SECTION 10

EFFECTIVE PARTNERSHIPS FOR ICT-SUPPORTED TEACHER PROFESSIONAL DEVELOPMENT

GUIDING QUESTIONS

- Which private-sector, civil-sector or governmental organizations have stakes in the success of the country's educational improvement?
- Which organizations have stakes in the growth of the telecommunications and technology sectors?
- How do current regulations regarding school fees, hiring, and revenue generation, telecommunications access and costs, and other policy areas affect introduction of computers and the Internet in schools and teacher training colleges?
- Which organizations might be enlisted to help change these aspects of the regulatory environment?

SUMMARY

School systems often find that they must look outside of their own organizations for personnel and funding to build effective programs in TPD. Partnerships can enhance sustainability, augment capacities in ministries and schools, provide content and reduce costs.

Partnerships can also fortify projects against political demands, changes in government, and unexpected challenges. Relevant partnerships may involve ministries of education, other governmental agencies, the private sector, and civil-society organizations including non-governmental organizations (NGOs).

Local initiative and local partnerships are also important. As demonstrated by the rural Rwandese secondary school, *Group Scolaire Soeurs de la Assomption* (profiled in this section), determination and creativity lead to success at the local level.

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PARTNERSHIPS TO INCREASE PROGRAM STRENGTH

TPD takes time, and yet, political reality often demands instant results. In ICT-supported TPD, outcomes such as the number of computers installed or the number of teachers trained in year one may be critical to building program support—and to building a track-record of achievement.

Increasing the number and kind of project stakeholders can buy time for projects to achieve results. In addition, partnerships strengthen the ability of projects to survive changes in government, reductions in funding, and unexpected challenges such as infrastructure failure or climate-related catastrophes.

COOPERATION WITHIN GOVERNMENT

Collaboration within government—among ministries or between ministries and the executive branch—can help reduce project costs and secure funding or other resources.

Broad partnerships *within* government and across ministries should be pursued in order to reduce costs, build understanding and support for program goals, and ensure program sustainability. Effective avenues for intra-governmental support include:

- Removing import tariffs on *all* computer-related hardware for use in schools
- Establishing “e-Rates” to provide low-cost Internet connectivity
- Channeling end-of-lifecycle computers to schools

It is critical to think through the ramifications of each measure to ensure that schools are able to benefit fully. Tariff reduction, for example, is often applied to computers themselves, but schools still must cover high tariff costs on other essential items, such as Uninterrupted Power Supply (UPS) units and printers. Available funds purchase fewer computers when the cost of peripherals is high.

Many ministries of education receive used computers donated by other parts of government, foreign embassies, development agencies and multinational corporations (MNCs). However, ministries may not have funds needed to refurbish, distribute or maintain these computers. In such instances, offering teachers the opportunity to buy computers through low-cost financing plans, or micro-loans, may yield indirect benefits, in terms of enhanced educational quality, by providing teachers with access to computers and computer-based learning resources.

MULTI-SECTORAL DEMAND

Viability depends on sufficient demand for connectivity and bandwidth beyond that of teacher education, such as from e-government, e-business, e-health.

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CONNECTED UGANDA: ENSURING PROGRAM SURVIVAL

The ConnectED Project in Uganda has, in its Phase 2 (2003 – 2005), focused on ensuring the financial sustainability of its eight sponsored primary teacher training colleges. In November 2004, the prospects for long-term success of the program were improved by concerted action on the part of three different government organizations:

- The Ministry of Education and Sport (MOES) reinstated a program under which student teachers at the NTCs could be charged fees for computer-labs
- President Yoweri Museveni, immediately afterwards, authorized the payment of teachers’ fees through the Poverty Action Fund
- The Uganda Communications Commission provided a one-year grant to fund connectivity at the teacher training colleges, lowering their costs at a critical point in the implementation of their business plans

The initiatives by the MOES, the office of the president, and the communications commission establish a platform for the sustainability of ConnectED. And by bringing new stakeholders into a project run by the education ministry, ConnectED has expanded its base of support within the Ugandan government.

PRIVATE-SECTOR PARTNERSHIPS

Private-sector companies have many reasons to demonstrate “corporate good citizenship” in supporting ICT projects in TPD. They may, for example, wish to strengthen the local work force, increase potential markets for products and services, pre-empt regulatory action by prominently being seen to support ‘good works’ (such as contributing to humanitarian relief efforts). ICT companies may be especially motivated to contribute: Consumers only gain value from computers when they have the skills needed to use them, and schools may be helping to build these skills.

Corporate in-kind contributions for ICT-supported TPD and student learning may include hardware, software, connectivity, or professional expertise. Several multi-national corporations have developed teacher-focused training resources for use in schools. Governments may pursue private-sector partnerships to acquire these much-needed resources. However, businesses may also be centers of innovation, not only in the development of ICTs but also in the crafting of visionary goals and approaches.

In many cases, businesses establish “corporate foundations” to serve as channels for sharing resources with governments, schools, and NGOs.

Intel Teach to the Future

A program of the Intel Foundation, Intel Teach to the Future has provided TPD focused on the integration of technology into the curriculum to over 2 million teachers in 30 countries. To develop their program in South Africa, Intel Foundation consulted with the Ministry of Education, university-based education researchers, and SchoolNet South Africa to adapt their standard program for the South African curriculum. Using the Cascade model, facilitators are trained by SchoolNet SA. They then return to their schools to deliver 10 to 20 hours of professional development on integrating computers and the Internet into the South African curriculum. Between 2003 and 2006, it was projected that 30,000 South African teachers participated in the Teach to the Future program.

TerraCom Corporation

TerraCom Corporation, a telecommunications company based in Rwanda, has been awarded the contract to construct a fiber-optic communications network that will cover the entire country. Working closely with the Ministry of Education, Science, Technology, and Scientific Research (MINEDUC), TerraCom has agreed to provide Internet connectivity for all 400 Rwandese secondary schools at a low flat rate. Additional services are to include Internet-Protocol telephony (VOIP), free email and Web hosting, and templates for building school Web sites. As of early 2005, TerraCom was providing connectivity to 30 schools in the areas surrounding Kigali and Gitarama.

Questions for Further Consideration

Intel has founded an international NGO to develop a program for teachers in many countries and situations.

- What are likely to be weaknesses in the Intel Teach to the Future approach? What are the program’s likely strengths? How might the weaknesses be addressed?
- Partnership with Intel Teach to the Future has resulted in cost savings to the South African government. In which areas were these cost-savings realized? To what extent might they offset critical costs in the provision of TPD and the roll-out of computers and the Internet in schools?

In Rwanda, the partnership between MINEDUC and TerraCom addresses infrastructure directly, and is intended to lead to both cost reduction and enhanced capacity at the school level. However, in the resource-

poor Rwandese economy the TerraCom partnership is limited by outside factors: electrical power remains unstable in most rural areas; only a few schools as yet have functioning computer hardware.

- Given the lack of ICTs in Rwandese teacher training colleges, how could the pre-service primary-teachers' curriculum be modified to prepare teachers for working with computers and the Internet?
- How might additional corporate partnerships—with multinational corporations, or with Rwandese corporations—support e-Readiness in the Rwandese teacher training colleges?

PARTNERSHIPS WITH CIVIL-SOCIETY ORGANIZATIONS

In many countries, civil-society organizations—including NGOs and faith-based organizations—have become lynchpins in the provision of TPD to support the use of ICTs in schools.

World Links

World Links is among the best-known NGOs focusing on the use of computers and the Internet for TPD and classroom change. Since 2000, World Links has developed programs to support tele-collaboration, TPD, and the integration of ICT and learning in Africa, Latin America, Asia, and the Middle East. In nearly all cases World Links projects have relied on partnerships with country governments. In many of its projects, World Links brings governments, local NGOs, charitable organizations such as the Gates Foundation, and donor agencies, such as the World Bank and JICA, into partnerships to fund and implement projects.

SchoolNet

In both developing and developed countries, SchoolNet organizations have been established to guide schools in the acquisition and effective use of computers and Internet connectivity. SchoolNets are organized in many different ways. Some are independent NGOs financed through grants and contracts, others are housed within ministries of education.

SchoolNets often fulfill vital functions that are outside the capacity or the responsibility of the government:

- SchoolNet Namibia trains students to provide on-site technical support through its Kids on the Block program
- SchoolNet South Africa is the lead implementing organization for the Intel Teach to the Future program in that country

Questions for Further Consideration

The Omar Dengo Foundation and SchoolNet Uganda are primary providers of ICT-supported TPD in their educational systems. In Costa Rica, where the government launched a system-wide implementation of ICT in schools, the Omar Dengo Foundation operated under contract to the Ministry of Primary Education. In

THE OMAR DENGO FOUNDATION, COSTA RICA: TRANSFORMING TEACHING AND LEARNING IN PRIMARY SCHOOLS

An independent NGO, the Omar Dengo Foundation has worked with the Ministry of Public Education since 1988, engineering the transformation of primary education through the establishment of Educational Informatics Labs in over 500 schools. The Foundation has targeted its TPD efforts on helping teachers:

- Focus on specific ICT-supported activities to improve student creativity, reflection, and expressiveness
- Understand and work with the ways children learn/Manage flexible and nurturing classroom environments
- Guide collaborative learning to enhance cognitive and social development
- Transform mistakes and problematic situations into opportunities for student learning

The program has been both ambitious and successful—benefiting from Costa Rica's small size and its transition from an agricultural to a service-based economy, and from strong partnerships: Omar Dengo Foundation has worked not only with the ministry, but has forged strong collaborative relationships with the renowned MIT Medialab and the international NGO World Links.

Uganda, where schools must acquire computers on their own initiative, the MOES has established an *ad hoc* arrangement for TPD with SchoolNet Uganda.

- Based on the current number of schools with computer labs in the country, which approach to partner-delivered TPD, informal or contractual, might be most appropriate?
- Is there an organization currently prepared to deliver high-quality support? If not, how might one be developed and how might the education ministry partner with it?
- How might the SchoolNet TPD curriculum, which uses computers for project-based learning, be adapted to help teachers in schools *without* computers prepare to use ICTs to enhance the quality of student learning?
- What role might the ministry take in supporting such a change?

Consider Pursuing Partnerships to Support TPD When...

The ministry or implementing organization lacks capacity to:

- Design effective ICT-supported TPD
- Sustain delivery of TPD via site-based, Cascade or online TPD

The budget allocated for TPD does not fund:

- Development of TPD courses

Multi-national, regional or national corporations have:

- Reasons to support enhanced education
- Interest in expanding use of ICT among students and teachers
- Government protection from competition in the telecommunications sector

PARTNERSHIPS WITH SCHOOLS

One of the chief benefits provided by partnerships is increased program sustainability.

However, in terms of sustaining projects in ICT and TPD, the most important partners are *local* partners—the teachers, head teachers, students, families and others who make up the school community. The fragility and complexity of computers, the scheduling challenges of IRI, and many other problems that arise in the course of ICT projects occur on the local level, the level of the school. When schools embrace the solutions that ICT provides, they address and overcome the challenges.

SCHOOLNET UGANDA: A PARTNER FOR THE MINISTRY

SchoolNet Uganda, which implemented the Uganda VSAT Project, facilitates networking and provides TPD for its membership of 54 schools. The core of the SchoolNet Uganda approach to training is the World Links TPD curriculum, using project-based learning, collaborative learning, and independent research to integrate ICTs into the curriculum. Through 2004, SchoolNet Uganda operated without significant support or recognition from the Ministry of Education and Sport (MOES).

In 2000, the MOES started taking steps to support the introduction of ICTs in schools. These measures included developing an O-level Basic Computing curriculum (2000) and examination (2002). However, MOES provides no resources to schools in this area.

In November 2004, following the successful completion of the VSAT Project by SchoolNet, MOES issued a memorandum that required schools to allocate a portion of their annual budgets for TPD addressing the use of ICTs, and informing school heads that progress reports in this area would be required. In the brief memorandum, school heads were also advised to “take advantage of SchoolNet Uganda” for advice on how to “start/improve ICT programmes in your school.” In this way, MOES helped ensure that SchoolNet would survive and grow, and that the NGO would continue to provide services that complement the ministry’s support for ICTs in schools.

G.S. SOEURS DE L'ASSOMPTION, RWANDA THE DRIVE FOR SUSTAINABILITY

The directrice of Group Scolaire Soeurs de l'Assomption, a secondary school in the remote village of Birambo in Rwanda, determined in 2000 that ICT would help her students succeed in their studies and in their lives after school. Electricity is adequate in Birambo, but no telephone lines are available. Consequently, the directrice decided to find funding for computers and satellite access to the Internet. Her independent efforts have to date yielded a lab of 16 computers and a VSAT terminal.

However, recurrent costs are high. The computers need replacement parts, the VSAT connection costs over US\$200 per month. To reduce repairs, the directrice funded technical training for the school's informatics teacher, who now teaches a class in computer repair. That class has its own workshop, and handles most of the repairs of school computers.

To offset the recurrent costs, the directrice decided to make computers available to the villagers. She put two workstations in a separate room near the entrance of the school. That room is open to community users throughout the day. Larger training sessions take place in the school's main lab during vacations. Community ICT services are run professionally, with regular hours, competitive pricing, and quarterly budgets. The school now has a steady flow of clients who use its computers to access the Internet.