

Modernizing Moroccan Education

LearnLink



Moroccan teachers web site splash page

A NEW MOROCCAN VISION FOR EDUCATION

Morocco has embarked on an innovative, comprehensive program of educational reform that uses information and communication technologies (ICTs) to help improve quality, equalize disparities, decentralize administration, and build a 21st century workforce.

To meet the nation's needs, King Hassan II, father of the present King Mohammed VI who is carrying out his father's plan to modernize education, worked with key stakeholders to establish the *Royaume du Maroc Commission Speciale Education-Formation* (COSEF), an advisory group

that designed a National Charter on Education. The Ministry of National Education (MNE) then used this Charter and other resources to identify issues critical to improving education. These included:

1. Disparities by gender, urban-rural residence, and income;
2. Declines in the quality of education;
3. Mismatches between skills and jobs; and
4. An overly centralized education administration and staffing.



Moroccan King Mohammed VI visiting with primary school students

When the Commission was formed in 1996, adult literacy was only 52%, and only 25% were literate in rural areas.

Literacy among rural women was particularly low—only 11%—and only 26% of girls, nationwide, were enrolled in primary schools.

In response to these deficits, the Ministry developed a series of quality improvement plans in which primary-level teacher training featured prominently. *Plan 2008: une Classe-un Multimedia-Internet* creates multimedia centers in teacher training colleges, known as *Centres de formation des instituteurs*, or CFIs, and in primary schools. *Plan 2008* also establishes guidelines for Internet news messaging, internal staff recruitment, and training. The concept behind this MNE plan is to reform pre- and in-service teacher training to incorporate educational technology. One of its goals is to train technical assistants in information and communication technology (ICT) applications, network functions, first level maintenance, multimedia center operations, and follow-up activities.

CATT-PILOTE

USAID has supported the MNE's efforts to ensure quality primary education and has provided assistance for increasing girls' access. An agreement between USAID

Zoom in on Morocco

Geography

Location: Northern Africa
Area: total: 446,550 sq km (mountainous northern coast/interior and coastal plains)
Land use: arable land: 21%; pastures: 47% forests and woodland: 20%
Environmental issues: earthquakes, droughts, land degradation, water pollution

People

Population: 29,661,636
Age structure: 36% aged <14, 60% aged 15-64, 4% aged <65
Population growth rate: 1.84%
Infant mortality rate: 50.96 deaths/1,000 live births
Life expectancy at birth: 68.87 years
Total fertility rate: 3.24 children born/woman
Ethnicity: Arab-Berber 99.1%
Religions: Muslim 98.7%, Christian 1.1%, Jewish 0.2%
Languages: Arabic (official), Berber, French
Net primary school enrollment: 77%
Net secondary school enrollment: 38%
Literacy: 43.7%; males: 56.6%; females: 31%

Economy

Inflation rate: 2%-3%
Unemployment rate: 19%
External debt: \$20.9 billion

Communications

Telephones: 1,312,596
Radio broadcast stations: AM 22, FM 7
Radios: 5.1 million
Television broadcast stations: 26 (plus 35 repeaters)
Televisions: 1.21 million
Internet users: 17.94 per 10,000 persons
Internet access providers: 7
Internet domains: 961

www.odci.gov/cia/publications/factbook/index.html;
www.worldbank.org/data/countrydata/countrydata.html; and
www.itu.int/ti/industryoverview/at_glance/Internet99.pdf



Two student teachers learning basic computer skills

and the MNE outlines the responsibilities of each party and establishes both a steering committee and an implementation framework that includes MNE financial contributions. One of several USAID-funded education programs is the Computer Assisted Teacher Training project (CATT-PILOTE). This program contributes to the goal of fostering the use of Internet applications under the US President's Initiative on the Internet for Economic Development (IED). By attempting to improve educational quality, the CATT-PILOTE program also contributes to USAID/Morocco's Strategic Objective 8, Morocco's *Plan 2008*, and the country's National Charter. The program targets areas where girls' enrollment and retention lag behind the national average.

APPLYING EDUCATIONAL TECHNOLOGY

Based on an experiential, participatory, and student-centered approach to pre- and in-service teacher training, teachers are learning how to use computer software applications. Upon completion of the training, teachers should be able to apply educational technology in their school setting and develop their own "ed tech" programs.

Assuming that teachers start with different skills and, ultimately, will achieve different levels of expertise, the program enables participants to progress along an individual path. In the first stage, teachers enter the world of computerization at a basic level. This is followed by their adoption of computer skills, their ability to adapt those



Moroccan resident staff of CATT-PILOTE



Student teachers at Sidi Kacem training college with AED/LearnLink project manager Jeff Coupe

skills to teaching and learning, and, finally, their ability to innovate using ICTs. Beyond that, a central goal of the program is to train a core group of teacher trainers, to train CFI multimedia persons, and to produce training materials.

At the MNE's request, AED/LearnLink, implementer of the CATT-PILOTE, is developing a set of training modules that will propel learners through the different competency stages—from basic computer training, to communication and networking skill building, to administration and support of multimedia centers, and eventually to instruction, research, and

Morocco's CATT-PILOTE is

- Conducting a needs assessment of the implementation environment, organizational capacity, "ed tech" curriculum needs and support, and assistance needs;
- Building and training a virtual community of educators linked through the Internet;
- Creating an administrative framework for Master Information Teachers;
- Designing six modules for pre- and in-service teacher training; and
- Providing the impetus for a nationwide discussion of policy, and guidelines for education technology.

instructional design ability. An instrument to measure progress is an online, self-competency test that was used at start-up and will be used later at completion of the training.

In early 2001, training in Rabat and Agadir was conducted for a core group of 42 teachers, who were nominated by CFIs in selected provinces. With their newly developed technology skills, this group will work as Master Information Teachers to

help train others and, in general, to serve as champions of educational technology responsible for training and retaining ICT-savvy teachers in the educational system. Recognition and credentialing of Master Information Teachers is expected to ensure their commitment to the education sector.

Due to the enthusiasm of teachers, it is possible that the number of teachers trained in the first year may exceed the two-year target of 350 teachers by as much as four times. The first training session alone, which focused on Basic Computer Skills, included 262 participants.

The CATT-PILOTE is operating in seven provinces, selected, in part, on the basis of needed improvements in girls' enrollment and retention in school. They include Sidi Kacem, which was the first to receive Internet



Student teacher training at Sidi Kacem training college



Dr. Houcine Haichour (center), the main trainer, with core CATT-PILOTE staff preparing for a training session

connectivity, Errachidia, Al-Hoceima, Essaouira, and Ourzazate, followed by Tiznit and Taroudant. Other USAID-funded projects also operating in these provinces and are formulating collaborations with CATT-PILOTE—the flagship

project on Morocco Education for Girls (MEG) and the Girls' Education Activity (GEA).

IBTIKAR

Ibtikar, loosely translated in Arabic to mean “innovation” or “creativity,” is an underlying concept of the CATT-PILOTE.



It also serves as the identifier for a teachers' web site under construction at www.ibtikar.ac.ma, which will host information on local innovation through technology. Bilingual in Arabic and French, the site offers portals for CFIs, resources, bibliographies, and, eventually, project items such as the self-competency





Prominent members of the Moroccan regional government and education sector (from left to right foreground Governor Hadrami, CFI Director Bounaâmani, and Délégué (Superintendent) of schools in Sidi Kacem Mr. Benayad) at the inauguration of connectivity at Sidi Kacem CFI

tools, learning modules, collaborative tools, a bulletin board for messages, and help information. All project information also will be made available on CD-ROM.

APPLYING ICTS TO THE LOCAL CONTEXT

In the summer 2000, a group of Moroccan educators from the Ministry of Education and CFIs visited the US to learn about different computer-mediated teacher training tools and to observe educational technology in action. Now, through the CATT-PILOTE project, Moroccan educators are applying educational technology to their own

professional development needs and context. The computer-mediated training, which includes a face-to-face component as well, is expected to increase interactions among teachers and administrators, enhance pedagogy and curriculum reform, enrich existing educational resources, and achieve the specific educational reforms that the nation considers critical for its future.