



# Preserving Mayan Culture with Technology

# LearnLink

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*Here is the story of the beginning,  
when there was not one bird,  
not one fish,  
not one mountain.*

*Here is the sky, all alone,  
Here is the sea, all alone.*

*There is nothing more  
—no sound, no movement.*

*Only the sky and the sea.  
Only Heart-of-Sky, alone.*

*And these are his names:  
Maker and Modeler,  
Kukuklan,  
and Hurricane.*

*But there is no one to speak his names.  
There is no one to praise his glory.  
There is no one to nurture his greatness.*

*From Popol Vuh,  
the Mayan Book of Creation*

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## MAYAN CULTURE

### Early History

The Mayas were primarily traders with the Teotihuacán city-state in central Mexico. With the collapse of Teotihuacán society in the sixth century, Mayan socioeconomic development faltered. The absence of one governing body, such as existed among the Aztecs, also contributed to the decline. While many Mayan city-states flourished between 600-800 AD, and though the people had common traits and beliefs, the

great Mayan centers in the central lowlands fell into ruin, abandoned and reclaimed by the rainforest. The northern lowlands continued to prosper, however. By the time of the Spanish Conquest, Mayan civilization was in a struggle for survival that lasted more than 500 years. Today, there are over six million Mayas living in Guatemala, Mexico, and Belize.

### Modern Times

Civil war in Guatemala began in 1954, when a military coup unseated the country's popularly elected president. Under the military rule that lasted until the mid-1980s, plantation development



escalated, especially on lands formerly held by Mayas. The land and human rights abuses that occurred remain problematic today.

Determination of land rights among Mayas is hampered by their inability to speak or read Spanish, which is the language of law and government. Many Mayas are also illiterate in their own language. As reported by Nobel Peace laureate Rigoberta Mench'u Tum of her own K'iche'-speaking father, land evictions have been commonplace even among village elders. In addition, Mayas resist cultural assimilation into mainstream Guatemalan society because of a deep commitment to preserving their own traditions. Some Mayan parents, for example, refuse to send their children to school to learn Spanish.

### Peace Accord

Recently, a Guatemalan Peace Accord that affirms the importance of including Mayas in the development process was signed. The Accord attempts to reverse trends in the under-investment in education and to promote economic opportunity, democratic participation, social inclusion, and multicultural understanding. For example, the Accord on the Identity and Rights of Indigenous Peoples mandates the teaching of all indigenous languages and expansion of bilingual and multicultural education at all levels. It also stipulates the inclusion of

## Zoom in on Guatemala

### Geography

**Location:** bordering the Caribbean Sea and Pacific Ocean, Honduras, Belize, El Salvador, and Mexico

**Area:** 108,890 sq km

**Environmental issues:** deforestation; soil erosion; water pollution; subject to hurricanes and other tropical storms

### People

**Population:** 12,335,580

**Age structure:** 43% <14; 54% 15-64; 3% >65

**Population growth rate:** 2.68%

**Total fertility rate:** 4.74 children born/woman

**Infant mortality:** 46.15 deaths/1000 live births

**Life expectancy at birth:** total population: 66.45 years; male: 63.78 years; female: 69.24 years

**Ethnic groups:** Mestizo/Ladino 56%, Amerindian 44%

**Religions:** Roman Catholic, Protestant, and Mayan

**Languages:** Spanish 60%, Amerindian languages 40% (23 indigenous languages)

**Literacy:** total 55.6%; male: 62.5%; female: 48.6%

### Economy

**GDP per capita:** \$3,800

**Inflation rate:** 6.4%

**Labor force:** 3.32 million

**Unemployment rate:** 5.2%

**External debt:** \$3.38 billion

**Economic aid:** \$211.9 million

### Communications

**Telephones:** 41 per 1000 persons

**Radio broadcast stations:** AM 91, shortwave 15

**Radios:** 400,000 (1993 est.)

**Television broadcast stations:** 6

**Televisions:** 475,000

**Internet hosts:** 1.26 per 10,000 persons

**Personal computers:** 8 per 1000 persons

*The World Factbook 1999*

<http://www.odci.gov/cia/publications/factbook/index.html> and

[www.worldbank.org/data/countrydata/countrydata.html](http://www.worldbank.org/data/countrydata/countrydata.html)

indigenous representation in educational decision making and, specifically, the obligation to contract, train, and place bilingual teachers and administrators, as needed, to increase student learning outcomes.

## EDUCATIONAL REFORM

As a result of the Peace Accord, citizens initiated countrywide dialogues on

educational reform. Recognizing that Guatemala is a multiethnic, multicultural, and multilingual society, these discussions concluded that specific steps must be taken to ensure that the vision of multilingualism and cultural pluralism is consolidated in educational planning and policy. In those areas most affected by armed conflict and social exclusion, the challenge is determining how to strengthen bilingual education and to best serve the interests of students in accordance with the needs and views of the constituent population.

Historically, there is no precedent for teaching bilingual education, and many teachers located in predominately ethnic enclaves possess limited written second language skills.

In addition, neither pre-service nor in-service training adequately prepares teachers for intercultural understanding. Teacher training institutes need to provide training in Mayan language literacy, first and second language learning and bilingual pedagogy, multigrade teaching methods, and/or outreach methods for attracting



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indigenous students to schools. In addition, there is a need to encourage pedagogical understanding of Mayan culture and to translate teaching materials into Mayan languages for educators in indigenous regions.

## LEARNLINK'S ROLE

LearnLink is working in Santa Cruz del Quiché, the capital city of Quiché department, where teachers receive training in the local Mayan languages of K'iche' and Ixil. Plus, culturally and linguistically appropriate learning information is collected, organized, and digitized in a CD-ROM format, and training



### LearnLink's Proyecto "Enlace Quiché" (Quiché Networking Project) aims to:

- develop culturally appropriate Mayan language learning materials;
- build skills in computer hardware maintenance and product use;
- strengthen teachers' proficiency in Mayan languages;
- enhance student learning with early childhood activities; and
- build capacity within the larger community.

materials are developed for use in the four teacher training schools in the region. LearnLink will install a computer center in each training school that will use information, education, and communication technologies (IECTs) for training bilingual teachers.

### Mayan Language Resources

To develop a core set of materials, local staff are setting up a network of people and institutions—schools, NGOs, government institutions, and other USAID projects—for sharing and exchanging resources. LearnLink also

is developing methods for collecting information, cataloguing collections of K'iche' and Ixil language materials, adapting materials, and formatting in a digital information. The main office in Santa Cruz will offer a library of books, magazines, and other items that will serve as the main reference resource for teachers and administrators. As part of the preparatory process, LearnLink is exploring potential partnerships with private computer training schools, such as Colegio Utatlán, Academia Go Computación, and Academia Tecnología Viva. The capacity



building effort will include provision of workshops and training sessions on hardware maintenance and product use.

### Teacher Training

To help upgrade teacher training, LearnLink will review and refocus the existing national curriculum to reflect the new mandate for bilingualism and multiculturalism. A collaboration with Guatemala's Departmental Directorate of Education (DDE) of the Ministry of Education will work toward creating a new teacher credential called Bilingual Primary Teacher with a Specialty in Educational Technology.

New materials will include the development of five multi-media, interactive CD-ROMs for teaching K'iche' and Ixil spoken languages, numbers, reading skills, songs, vocabulary drills, and grammar. These CD-ROMs, as well as audiovisual presentations, will concentrate on fluency in reading and writing and will include self-examination exercises. In addition to culturally relevant topics, content will include innovative ways of addressing issues, such as girls' education, teaching techniques, and whole language learning.

In Juan de León and Cunén, where existing facilities already include computers, staff is conducting a needs assessment to determine whether to upgrade equipment and facilities or add new computers and peripherals. LearnLink will install a new

lab with approximately eight computers and supporting peripherals and software in each of the other two training centers, Nebaj and Joyabaj.

### Early Learning Activities

Outreach includes the development of a special series of radio programs for pre-schoolers, which will include short Mayan songs and stories in K'iche' and Ixil. Other materials may include coloring books, eye-catching posters, and puzzles.

Teacher training schools will assume responsibility for creating their own set of culturally appropriate, illustrated print materials for young children. To this end, project staff will train student teachers in desktop publishing applications and audiovisual production. After product development, materials will be given to Santa Cruz staff to distribute more widely.

### Expanded Computer Services and Community Outreach

On the drawing table are plans to provide Internet access for the Departmental Directorate of Education (DDE), the Directorate for Bilingual, Intercultural Education (DIGBI), project offices in Santa Cruz, and the teacher training schools. Provision of Internet access and network exchange among facilities will depend upon physical, logistical, and economic viability. Plans currently include management training for both DDE and DIGBI staff.





## Future Plans

At a recent conference on bilingual and intercultural education in Guatemala City, new plans for improvements in this area were proposed by Vice-Minister of Education Demetrio Cojtí. The plans included goals such as the formation of cadres of translators, interpreters, linguists, and, most importantly, an increase from

6,500 to 100,000 trained bilingual teachers. Cojtí described the current bilingual system as transitional and emphasized the need for a completely integrated multilingual system for all formal schooling. LearnLink expects that its project schools will be pioneers in actualizing part of the new plans.

