Anguilla

Summary

Despite limited resources, the Government of Anguilla and the MOE have been successful in ensuring that all schoolchildren have the opportunity to gain basic ICT skills and that all secondary students have the opportunity to reinforce and develop those skills. Lack of hardware and the poor quality of hardware at the primary level, in combination with other challenges, have created barriers to access of ICT by teachers and students. Although teachers tend to have basic ICT skills and enthusiasm for the use of computers, and the MOE has adequate knowledge and technical capacity, access limitations render integration of technology into the curriculum or EMIS implementation infeasible at present.

Anguilla is not among the Caribbean's high-income or high-growth economies. Expansion of the tourism sector has led to growth in construction, but has reduced the labor pool for agriculture. Despite economic and other limitations, however, the school system has been able to provide all students with the opportunity to develop ICT skills. The need to meet a minimum standard of hardware quality and computer and Internet access remains a substantial and unmet challenge.

Basic Data

Category	Date	Value
Population	2006	13,477
Per capita GDP (PPP)	2005	$8,800
Economy, composition	2006	Tourism, construction, fishing (lobster), financial services
Literacy, total population 15 and over	1985	95%
Literacy rate (women)	1985	95%
Gross enrollment ratio, primary	2002/3	99.9
Gross enrollment ratio, primary (girls)	2002/3	100.6
Gross enrollment ratio, secondary	2002/3	108.3
Gross enrollment ratio, secondary (girls)	2002/3	108.2
Number of primary schools	2007	6
Number of secondary schools	2007	1
Language of instruction	—	English

Sources: World Factbook, UNESCO, MOE

Relevant Policies

Document	Status	Date	Key points and objectives
Policy on ICT in Education	Adopted	2003	■ Unknown (Similar to OERU template)
Five-Year Education Development Plan 2005–2010	Draft	2004	■ Increased use of ICT for teaching, learning and communication as a means of curriculum renewal ■ Improved computer maintenance in schools as a means of increasing use of ICT
The Establishment of a Tertiary Education College in Anguilla	In process	2003	■ Students wishing to acquire ICT-focused certification and degrees will form part of the enrolled population ■ The community college may offer non-credit computer literacy courses
Anguilla Telecommunications Policy	Adopted	2004	■ ICT can provide access to higher-quality education to students in remote areas ■ ICT facilitates lifelong learning

Sources: MOE, The Natoma Group

Policy and planning

The ICT Policy for education in Anguilla was developed in collaboration with OERU, using the OERU policy template. The impact of that policy has primarily been in supporting increased acquisition of educational software. Respondents within the MOE have suggested that as circumstances have changed both in Anguilla and with regard to developments in technology, the ICT policy should be revisited.

With DFID support, the MOE prepared a draft five-year plan in 2004. That plan does not emphasize use of ICT in relation to goals outside the IT curriculum or to system enhancements. However, ICT is cited generally as an engine for enhancing the curriculum and as a means of improving teaching, learning, and communication.

The MOE's IT Unit in addition has developed policies guiding procurement, ergonomically sound installation, and other activities critical to the use of ICT in schools.

ICT in schools

The Government of Anguilla has been able to provide access to ICT across the school system, and to ensure that all students starting at ages 9 to 10 years old develop basic computing skills.

Challenges center on hardware maintenance and the age of computers, which combine to limit computer access by teachers and students. Eighty computers (over 50 percent of the total number of computers in schools) were received in 2003 as refurbished donations from the Mount Sinai School District, New York. (Mount Sinai is a residential community on the north shore of Long Island.) The MOE and the IT Unit have established strict quality-assurance protocols for donated and refurbished hardware, and

ICT Resources in Schools

School type	Number	Enrollment	ICT profile
Public primary schools	6	~100–400 students	■ One lab per school ■ 12–15 computers per lab ■ 512 kbps ADSL Internet
Public secondary school	1 school, with junior and senior campuses	~800 students	■ Junior campus has 1 lab with 26 computers ■ Senior campus has 4 labs of roughly 30 computers ■ 512 kbps ADSL Internet

Source: MOE

the computers were in reasonable condition when they were received. Nonetheless, it has become increasingly difficult to maintain these machines in useable condition.

Primary schools

Primary-school classes of 25 to 30 students use school labs of 12 to 15 computers, creating a student-to-computer ratio of approximately 2:1. Students typically learn basic computing skills and use educational software to address subjects such as math, language arts, and science. Internet connectivity (512 kbps via ADSL) is adequate for current needs.

As more children have computers in their homes, the need to ensure equitable access to ICT for all children in Anguilla has become more pressing. In schools, knowledgeable students being paired with those with less understanding has emerged as one method for supporting broad-based skills development.

Secondary school

Secondary students in Anguilla attend a single high school, however that school has both a junior campus and a senior campus.

The junior campus has one computer lab of 26 computers. The main use of this lab is to enable students to advance their use of ICT; all students have access to the lab.

The senior campus has four labs of approximately 30 computers each. Students use three of these labs to prepare for the CXC IT exam. The fourth lab offers Computer-aided design (CAD) software and other advanced tools, and is dedicated for use by students planning to pursue careers in ICT.

Internet connectivity—again 512 kbps ADSL—has been extended to only one lab. However, usage by students in that lab is high, and the connection is not adequate.

Maintenance

As mentioned, hardware maintenance is the greatest near-term challenge faced by the MOE in terms of ICT use in schools. In combination with the government's IT Unit, MOE has established quality-assurance protocols, in which refurbished computers must meet a minimum hardware specifica-

tion and level of functionality. Those protocols notwithstanding, computers from the initial donation are increasingly difficult to maintain.

At present, maintenance-and-repair personnel in the IT Unit respond to requests on an as-needed basis, dispatching repair teams within 24 hours of calls from principals or teachers. During periods just prior to exams, requests typically increase, resulting in increased delays in response time.

Near-term plans

The MOE is in the process of procuring 70 computers to replace refurbished computers that are now well out-of-date and that present the most significant maintenance challenges.

One of the barriers to effective maintenance—in addition to lack of adequate staffing of the IT Unit's maintenance team—is lack of access to replacement parts. Given the array of heterogeneous and out-of-date hardware currently in primary schools, MOE does not keep in inventory compatible replacement hardware components. As a result, when the IT Unit receives non-functioning computers from schools, repairs then typically involve ordering replacement parts internationally, then completing repairs when those parts are available.

Teacher professional development

Anguillan teachers currently gain basic ICT skills as part of their pre-service general education. Teachers are generally enthusiastic about adopting ICT to enhance teaching and learning, and generally have adequate skills. Primary teachers have completed high school; secondary teachers are typically A-level graduates at a minimum, with many holders of B. Ed. degrees as well.

In-service TPD is offered to teachers periodically to address special topics such as PowerPoint and desktop publishing.

Access to computers in schools, however, is an initial barrier that must be addressed before curriculum development or TPD can effectively support integration of technology into the curriculum.

Teacher Professional Development Programs

TPD program type	Target population	Objectives	Scale	Barriers
In-service MOE workshops	In-service primary and secondary teachers	■ Help teachers gain additional skills (e.g., PowerPoint, desktop publishing, etc.)	■ Open to all teachers on a volunteer basis	■ Access to ICT in schools limits demand and effectiveness of TPD
In-service ICT-focused TPD (discontinued)	In-service primary and secondary teachers	■ Ensure that when computers were introduced, teachers were familiar with them	■ All in-service teachers	■ Access to ICT

Source: MOE

Tertiary education

The Government of Anguilla has launched development of a community college, which is scheduled to open in five or more years (depending on access to funding). Current plans call for the establishment of a division of natural sciences, which will house a department of IT or computer science.

EMIS and the use of technology within MOE

The Anguillan MOE has taken steps to implement EMIS, however these steps have yet to lead to implementation. Collaboration with OERU has led to development of an initial database. However, input of data has lagged.

As in many countries in the region, barriers to EMIS implementation include lack of funding and human resources, lack of access to ICT at the school level, and challenges in terms of communication and TPD. (One respondent suggested that the key missing element is "Commitment!")

Regional collaboration and technical assistance, if properly conceived, would be welcomed supplements to the Anguillan efforts to implement EMIS.

Barriers and challenges

The chief barriers and challenges confronting ICT use in education in Anguilla revolve around access. Limited funding, older hardware, and inadequate maintenance combine to render more advanced use of ICT by teachers, students, and administrators infeasible.

■ **Lack of funding and resources:** Sources of funding for education in Anguilla vary from year to year. In the 2006–2007 fiscal year, in the absence of funding for special projects, the government funded primary and secondary education. DFID has provided funding in prior years.

In any event, a large proportion of out-of-date refurbished computers coupled with limited numbers of computers overall restricts both teacher and student access to ICT. Limited access makes development of plans or curricula that take greater advantage of ICT pointless at present.

■ **Inadequate maintenance:** As described, maintenance challenges include a high percentage of older, refurbished computers, lack of inventory of spare parts, and lack of staff.

The barriers described here preclude more ambitious planning for ICT use in schools despite the presence of both human and technical capacity within MOE, and despite the acknowledged need to ensure that Anguillan students do not lag students regionally and internationally in terms of competitiveness in the global economy.