

## Chapter Seven - Implementation Strategies

### System-wide approach

- 7.1 A number of ICT initiatives are being implemented across the length and breadth of the country. However, these initiatives have not yet reached every institution and district. Teacher access to ICTs is limited, even though, as evidence suggests, personal access has a strong influence on the quality of ICT integration into teaching and learning.
- 7.2 Government has the responsibility to ensure that the benefits of e-learning are enjoyed by all. An implementation strategy based on the principle of universal excellence for learners, teachers, managers and institutions should inform and direct all efforts. e-learning should be the mainstream activity of every institution and classroom.
- 7.3 The Department of Education, working with the private sector and social partners in the deployment of ICTs, will drive a system-wide campaign to maximise the benefits of e-learning to institutions, classrooms, learners, teachers, managers and communities.
- 7.4 From the initial provision of ICTs in education, sufficient enthusiasm, understanding and expertise has been generated to justify the move to a system-wide approach that will embed e-learning in ways that will benefit all learners and teachers across the education system.
- 7.5 The Department of Education will adopt a multi-pronged strategy for the gradual integration of ICTs at all levels of the education and training system. National targets will guide the implementation of the e-Education policy. Benchmarks and annual targets will be set for the following:
  - number of e-schools and their level of e-readiness;
  - number of teachers trained at various levels of ICT proficiency;
  - type of content available to learners;
  - ratio of learners to computers;
  - range of technologies used in classrooms; and
  - Internet connectivity.

### Co-ordination and collaboration

- 7.6 This White Paper provides a policy framework within which government departments and other stakeholders will collaborate to ensure that institutions are supported to meet the needs and interests of learners and communities.
- 7.7 The e-Education policy provides a strategic framework for national co-ordination with the Presidential National Commission on Information Society and Development, the provincial education departments, other governmental departments, business and industry, non-profit organisations, higher education institutions, general and further education and training institutions, and local communities to implement e-Education.

- 7.8 The policy directs the establishment of a Ministerial e-Education Advisory Council consisting of ICT champions from the public sector, academia, and private and civil society. The Advisory Council will deliver annual reports on the status of e-Education in South Africa and advise the Department of Education on implementation. The annual reports will track and monitor progress on investments in ICTs, as well as compare improvements in educational outcomes. The reports will reflect on issues such as the impact of ICTs upon the operation of educational institutions, the relationship between quality and effectiveness of teachers and ICTs and the impact of ICTs on learner achievement and the development of skills for the 21st century. The Advisory Council will provide advice on future directions involving ICTs in education.
- 7.9 An e-Education inter-departmental team will monitor and manage the implementation of the e-Education policy and foster inter-governmental collaboration. The composition of this team will include senior officials from all the government departments that have key responsibilities in the implementation of the e-Education policy.
- 7.10 Crucial to co-ordination is the development, implementation and monitoring of targets. This will be reflected in national and provincial ICT plans.

### Monitoring and evaluation

- 7.11 Regular reviews and periodic evaluations will be conducted to inform the implementation process. The direction and focus will benefit from insights gained and lessons learned from the reviews.
- 7.12 Evidence of success will be captured against nationally agreed indicators and targets. The data collected will guide decisions and inform continuous improvement of the implementation of the e-Education policy.
- 7.13 Each general and further education and training institution will report data on e-school technology assessment readiness and targets (e-START). Data sets will include baseline data, and set targets to become an e-school.
- 7.14 The data sets will include information on infrastructure, connectivity, management, teacher development, learner achievement, assessment and educational benefits to be gained from ICT applications in e-schools.
- 7.15 The information will be aggregated at district, provincial and national levels.

### Planning cycles

- 7.16 The achievement of the e-Education policy goal, that every learner in the general and further education and training bands will be ICT capable by 2013, calls for a long-term strategy that will provide a framework for specific priorities and actions to be implemented over a period of time. The implementation strategy set out a

multiyear programme of action, namely; Phase I - 2004/07; Phase II - 2007/10 and Phase III - 2010/13.

- 7.17 The targets set out in the implementation strategy will guide the initial medium-term process of integrating ICTs into e-learning, and will identify key national goals, initiative and strategic resource allocation.
- 7.18 A modest, sustained and systematic growth plan is preferred. During this time, realistic targets should be set and communicated upfront to the Department of Education, public and private sector. The Department of Education recognises that provinces are at different levels of ICT development and that each province will set its own targets within the broader framework. Such an approach will allow the provinces time to set in place the required basics, to develop, identified capacities and to develop effective growth management strategies within different timeframes.

## **PHASE I**

### **ENHANCE SYSTEM-WIDE AND INSTITUTIONAL READINESS TO USE ICTs FOR LEARNING, TEACHING AND ADMINISTRATION**

#### **BUILD AN EDUCATION AND TRAINING SYSTEM TO SUPPORT ICT INTEGRATION IN TEACHING AND LEARNING**

- Dedicated expertise is appointed and developed at different levels of the system for the planning, management, support, monitoring and evaluation of ICTs.
- Ongoing support to managers is provided at different levels of the system.
- Provinces are collaborating and pool ICT resources where appropriate.

#### **BUILD TEACHERS' AND MANAGERS' CONFIDENCE IN THE USE OF ICTs**

- Every teacher and manager has the means to obtain a personal computer for personal use, administration and preparation of lessons.
- Every teacher and manager has access to basic training in the use of ICTs.
- Technology incentives for institutions and teachers to use ICTs are installed through the "Most Improved Schools Award" programme and other schemes.
- A set of case studies and examples is available to teachers and managers on how to integrate ICTs in management, teaching and learning.

#### **BUILD A FRAMEWORK FOR COMPETENCIES FOR TEACHER DEVELOPMENT IN THE INTEGRATION OF ICTs INTO THE CURRICULUM**

- Norms and Standards for Educators are revised to include ICT use and integration.
- All pre-service teacher training in higher education institutions includes basic ICT literacy and basic ICT integration into teaching and learning.
- Teachers have access to in-service training on how to integrate ICTs into teaching and learning.
- Teachers have access to ICT technical support training.
- Institutional managers have access to in-service training on how to integrate ICTs in management and administration.
- Provincial managers are trained in ICT integration to offer support to institutions.

**ESTABLISH AN ICT PRESENCE IN INSTITUTIONS**

- Every institution has a computer and software for administrative purposes.
- 50% of all institutions have access to a networked computer facility for teaching and learning.
- All of the above institutions have legal software and use the software.
- ICT facilities are being used effectively to facilitate ICT integration into teaching and learning.
- ICT facilities are safe.

**INSTITUTIONS ARE USING EDUCATION CONTENT OF HIGH QUALITY**

- Institutions are using educational content that is developed according to set national norms and standards.
- Institutions have access to an updated database of evaluated content resources and are able to select content for their usage.
- Institutions have access to educational content on the Educational Portal "Thutong".

**INSTITUTIONS ARE CONNECTED, ACCESS THE INTERNET AND COMMUNICATE ELECTRONICALLY**

- 50% of institutions are connected to the Educational Network.
- Networks are safe and information security is monitored.
- Institutions use electronic means to communicate with provincial offices.
- All institutions have access to an e-rate.

**COMMUNITIES SUPPORT ICT FACILITIES**

- SMMEs are developed and trained to provide technical support to institutions.
- Communities have access to ICT facilities and services, and in return provide assistance in sustainability of the intervention.

***PHASE II*****SYSTEM-WIDE INTEGRATION OF ICTs INTO TEACHING AND LEARNING****TEACHERS AND MANAGERS INTEGRATE ICTs INTO MANAGEMENT AND THE CURRICULUM**

- 50% of teachers are trained in basic ICT integration into teaching and learning.
- Teachers have access to ICT technical support training.
- 80% of institution managers integrate ICTs in management and administration.
- Provinces support ICT integration into the curriculum.
- Research and evaluation inform developments and directions in ICT integration.

**ICTs ARE WIDELY PRESENT IN INSTITUTIONS**

- 80% of all institutions have access to a networked computer facility for teaching and learning.
- All of the above institutions have use legal software.

- ICT facilities are safe, effective, designed to facilitate ICT integration into teaching and learning, and in working condition.
- All institutions with ICT facilities have a dedicated teacher to manage the facility and to champion the use of ICTs in the institution.

#### **INSTITUTIONS ARE USING EDUCATION CONTENT OF HIGH QUALITY**

- The Educational Portal "Thutong" provides access to resources in all learning areas in GET and all subjects in FET.
- Institutions use the Educational Portal to communicate, collaborate and access content resources.
- Institutions have access to digital libraries.
- Teachers are producing digital content of high quality and making it available to other teachers.

#### **INSTITUTIONS ARE CONNECTED, ACCESS THE INTERNET AND COMMUNICATE ELECTRONICALLY**

- All institutions are connected to the Educational Network.
- Networks are safe and information security is monitored.
- Institutions use electronic means to communicate with provincial offices.
- All institutions have access to an e-rate.

#### **COMMUNITIES SUPPORT ICT FACILITIES**

- SMMEs provide technical support to institutions.
- Community involvement supports institutions to sustain ICT facilities.

### ***PHASE III***

#### **ICTs INTEGRATED AT ALL LEVELS OF THE EDUCATION SYSTEM - MANAGEMENT, TEACHING, LEARNING AND ADMINISTRATION**

- All departments of education use ICTs seamlessly in planning, management, communication and monitoring and evaluation.
- All learners and teachers are ICT capable.
- ICTs are integrated into teaching and learning in all institutions.
- All teachers integrate ICTs into the curriculum.
- All institutions have access to a networked computer facility for teaching and learning that is safe, effective, designed to facilitate ICT integration into teaching and learning, and in working condition.
- All institutions use educational software of high quality.
- All institutions use the Educational Portal for teaching and learning in an outcomes-based education fashion.
- Communities are integrally involved in e-institutions.
- ICT interventions are informed by research.