Legislative Council Panel on Education

**INTERIM REVIEW OF THE FIVE-YEAR STRATEGY ON
INFORMATION TECHNOLOGY IN EDUCATION**

PURPOSE

This paper briefs Members on the key findings and recommendations of the interim review of the Five-Year Strategy on Information Technology (IT) in Education.

BACKGROUND

2. Following extensive public consultation, Government issued a strategy document entitled 'Information Technology for Learning in a New Era: Five-year Strategy 1998/99 to 2002/03' in November 1998. Our objective is to enhance the effectiveness of teaching and learning by harnessing the power of IT.   The four key components of our strategy on IT in education are –

(a) *access and connectivity*: to enhance our students' access to IT and the internet;

(b) *teacher enablement*: to provide training and support for all

teachers;

(c) *curriculum and resource support*: to use IT to support teaching in the school curriculum; and

(d) *community-wide culture*: to create a culture which helps promote IT in education.

The Government assumes the leadership and co-ordination role in promoting IT in education. Details and up-to-date progress of various initiatives are at Annex.

3. The Education Department (ED) commissioned a consultancy study in the 2000/01 school year to review the progress and effectiveness of various initiatives in the promotion of IT in education. The review also aimed to provide the Administration with a basis for consideration as to whether we should revise our measures or fine-tune the IT strategy in the light of the latest developments. The study was completed in end 2001.

MAJOR FINIDINGS OF THE INTERIM REVIEW

4. The study concluded that the Government had from the outset clear priorities and focus in its implementation of IT in education initiatives, viz. providing IT facilities in schools at a high computer: student ratio

with good connectivity; getting teachers to reach minimum levels of IT competency; and providing sufficient technical and curriculum resource support to schools and teachers. Specific findings on the four components of the strategy are set out below –

(a) *Access and connectivity*: Computers available for students' use outside normal school hours were often limited despite the improvement in the computer: student ratio in recent years.

(b) *Teacher enablement*: There was a noticeable improvement in teachers' IT skills. Some schools had come up with innovative practices and were able to use IT to support curriculum and pedagogical reforms. However, many teachers still perceived their role as providers of knowledge, instead of facilitators developing in students the skills to critically select and analyse information through the use of IT. Some regarded IT education as a move to replace or enhance existing teaching and learning activities with technology.

(c) *Curriculum and resource support*: Useful web-based resources and technical support services were seen to be important by teachers, who also appreciated the efforts made by the ED in these regards.

(d) *Community-wide culture*: Activities to promote a collaborative culture had mainly been local, instead of territory-wide ones.

RECOMMENDATIONS OF THE INTERIM REVIEW

5.   The study recommended fine-tuning of some of the initiatives to better promote and support the emergence of more innovative pedagogical practices.

(A) Access and connectivity

The Government should increase students' access to IT facilities in schools.   In addition, the Government has to formulate a strategy for the maintenance and continual upgrading of the IT infrastructure in schools.

(B) Teacher enablement

Professional development of teachers should focus on helping them develop better understanding of the challenges IT has brought about, the kind of curricular and pedagogical changes that are necessary in the IT era; and how IT can be used to support these changes.

(C) Curriculum and resource support

Resource support should be organized to promote the curriculum reform and changes in teaching practice.

(D) Community-wide culture

A community-wide culture should be fostered to break down the classroom walls so that students may learn outside the school.

WAY FORWARD

6.   In the light of the findings and recommendations of the interim review in paragraphs 4 and 5 above, we will fine-tune some of our initiatives.   The major ones include –

(a) ED will continue to encourage schools to open up IT facilities for students' use after normal school hours by providing incentive grants.

(b) ED will develop web-based self-learning packages for teachers. Effective pedagogical practices will continue to be explored.

(c) Fifteen schools have been enlisted as "Centre of Excellence on IT in Education" to provide support on IT in education to schools in their vicinity.   Supply teachers will be provided to these schools to release manpower for disseminating good practices to other schools and for promoting a sharing culture among schools.

(d) To help schools turn into dynamic and innovative learning institutions, ED will conduct large-scale IT in education leadership programmes for school heads so as to empower them

to take up the leading role in promoting IT in schools.

(e) ED will continue to cultivate a community-wide IT culture through collaboration with the Hong Kong Education City, e.g. organising sharing forums and hosting chat rooms.

7.   We will conduct a final evaluation of the Five-year Strategy on IT in Education in 2003 (i.e. the end of the five-year period covered by the Strategy) to review the overall progress of the Strategy and assess how far we are moving towards our vision.

Education Department
Infrastructure Division
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IT in Education
Progress of Major Initiatives

Initiatives	Progress
Access and Connectivity	
Provide, on average, 40 and 82 computers for each primary and secondary school respectively. Our target is that all schools should have computers in place by August 2001.	- Site preparation works for the setting up of network and installation of computers were completed in all schools in August 2000. - The Education Department (ED) has provided all schools with cash grants to procure computers and ancillary equipment, and that all schools already have the network and minimum required number of computers^(Note) in place. - All schools have internet access. More than 90% of schools are connected to the Internet with broadband or leased lines. - About 23,000 sets of notebook computers have been procured by schools with the QEF and are on loan to needy students.
Provide an incentive grant to schools to make available their computer facilities to students after school hours from the 1999/2000 school year.	– About 1000 schools have applied for and received the incentive grant in the 2001/02 school year. Schools may submit funding

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^(Note) Depending on the number of classrooms and special rooms, each school is entitled to a certain number of computers. Minimum required number of computers is about 70% of a school's entitlement.

Initiatives	Progress
	applications anytime during the year.
Establish a multi-media learning centre *(with 21 sets of computer and peripherals; as well as audio-visual equipment)* in 103 secondary schools.	– All the multi-media learning centers are in use.
Establish an information technology learning centre in each of the 46 prevocational schools and secondary technical schools and a computer laboratory in each of the 27 prevocational schools *(with 40 sets of computer and peripherals in each of the two types of facilities).*	– All the 46 information technology learning centres and 27 computer laboratories have started operation.
Provide some 1 000 computers in about 120 community facilities to increase access to computers for students from less well-off families.	– All the computers are in place and available for students' use.
Teacher Enablement	
Provide about 85 000 IT training places at basic, intermediate, upper intermediate and advanced levels for teachers. Our targets are that by the 2000/01 school year, all teachers should reach at least the "basic" level of IT competency; and by the 2002/03 school year, about 75%, 25% and 6% of teachers should reach at least the "intermediate", "upper intermediate" and "advanced" levels respectively.	- All teachers completed the basic level training; about 9,000 teachers completed the intermediate level as in September 2001. - 1,600 primary school teachers completed the advanced level training. Advanced level training for secondary and special school teachers commenced in May 2001. - Over 400 portfolios have been collected from teachers for sharing in the Resource Corner. - A series of I-Clubs to act as a platform for subject teachers to share their ideas and resources has been launched in the Hong Kong Education City.

Initiatives	Progress
Curriculum and Resource Support	
Develop students' IT learning targets.	- Eight modules of computer awareness programmes developed in line with the "IT Learning Targets" have been distributed to primary schools. - Seminars and workshops have been held to support the implementation of these resources.
Provide IT co-ordinators to 250 schools which are more IT-ready and can progress at a faster pace.	- IT co-ordinators have been provided to 250 schools up to the 2001/02 school year. - Under the funding support of the Quality Education Fund, the remaining publicly-funded schools are each provided with an IT co-ordinator post up to the 2001/02 school year. - We will, starting from the 2002/03 school year, provide grants for all publicly-funded schools to engage IT support and co-ordination services for two years.
Provide contract technical support service from the 1999/2000 school year onwards.	– Contract technical support service has been made available to schools since January 2000. School may also choose self-arranged technical support service in which case cash grants will be provided for the purpose.

Initiatives	Progress
Community-wide Culture	
Establish the Hong Kong Education City to serve as a cyber centre to lead, to serve, and to promote Quality Education and IT Culture for life-long and life-wide learning.	– The Information Technology and Broadcasting Bureau (ITBB) and the ED have cooperated with world-renowned IT companies to provide professional IT training to secondary students during the summer in 2001. Four 9-day IT summer camps have been held between July and August 2001 for students. – Many meaningful activities, including "ITEd Monthly Meeting", "Distinguished Scholar Online Lecture", "Dinner with Outstanding Citizens", "Principals' Happy Hour", "Teen Sex Chat Room" and other online programmes have been organised. – A series of community / school IT carnivals has been staged in collaboration with other government and non-government organisations.