LEGCO PANEL ON EDUCATION

Implementation of the Second Information Technology in Education Strategy

Purpose

This paper informs Members of the progress of implementation of the Second Information Technology (IT) in Education Strategy (the Second Strategy), and the tasks ahead.

Background

2.   On 21 June 2004, the Administration submitted a paper to this Panel (LC Paper No. CB(2)2786/03-04(04)) on IT in education. Having regard to the views collected, it then issued a policy document entitled "Empowering Learning and Teaching with Information Technology" in July 2004. The Second Strategy as outlined in that document was launched in September 2004.

3.   In support of the Second Strategy, the Finance Committee approved in July 2004 $211.7 million for implementing the Strategy. The amount included a capital expenditure of $171.5 million for the replacement and upgrading of IT facilities in public sector schools and a non-recurrent expenditure of $40.2 million for various initiatives aiming to embed IT in learning and teaching in the 2004/05 financial year.

Progress of Implementation

4.   Most of the implementation measures for the Second Strategy have commenced in September 2004 when the 2004/05 school year began. The most significant one in terms of funding involved was the disbursement of funds to schools for replacing/upgrading their IT infrastructure. In the same period, schools had also been encouraged and facilitated to acquire digital learning

materials through the launch of the Electronic Learning Credit (ELC) scheme. Activities promoting parents' exerting positive influence on their children to alert them on the ethical, legal and health issues involved in the use IT were held.   In addition, in support of Government policy to help the poor and the needy and to reduce inter-generational poverty, we have stepped up efforts for a computer recycling project to provide recycled computers to underprivileged students in the next two school years.   The major implementation measures that have started or have been completed in the 2004-05 financial year are outlined at **Annex A**.

5.   Apart from the capital and non-recurrent expenditure highlighted in paragraph 3 above, the Education and Manpower Bureau (EMB) provides a recurrent expenditure of about $277.4 million annually for the following purposes: (a) to provide grants to schools to cover their IT-related recurrent expenditure such as Internet access, technical support service, purchase of IT-related consumables and extending the opening hours of schools' computer facilities for use by students beyond normal school hours etc.; (b) to provide maintenance for school IT equipment; and (c) to run refresher training courses to enhance teachers' knowledge and skills in integrating IT in learning and teaching.

Tasks Ahead

6.   Most of the measures in the current IT in education strategy need further development and some are planned to commence in the coming school years.   Having regard to the latest needs of students, teachers and schools as well as feedback upon the implementation of major measures since the start of the 2004/05 school year, we aim to sustain or commence in the next two school years a series of measures highlighted below

   (I)   Empowering Learners with IT

   (a)   To encourage students to go beyond textbooks to acquire knowledge, to observe and explore the world outside schools, we plan to collaborate with NGOs, the private sector and overseas communities in organizing student programmes to promote the use of IT in learning among students and cultivate students' global perspective.

(II) Empowering Teachers with IT

(b)   We plan to revamp the existing training framework for teachers on the use of IT in education and develop professional development programmes for teachers geared towards the pedagogical use of IT in the learning and teaching of different Key Learning Areas.

(c)   To enhance sharing of information and dissemination of good practices among teachers, we plan to organize a flagship conference on IT in education in early 2006.   Besides, to further strengthen the sharing of experiences among teachers, we will support incentive schemes to encourage collaboration amongst schools and relevant organizations in harnessing IT in learning and teaching.

(III) Enhancing School Leadership for the Knowledge Age

(d)   We have developed and piloted the IT leadership training for school principals programme in the 2004/05 school year to enhance principals' knowledge, skills and understanding of issues and impact of learning and teaching with IT.   In the coming two school years, we plan to roll out the programme as a core training for all heads of schools.

(IV) Enriching Digital Resources for Learning

(e)   Incentive scheme to encourage the turning of textbooks into e-learning materials and the development of quality instructional software will continue to be launched in the 2006/07 school year.

(f)   To enhance the production and adaptation of resource materials, we need to continue our strategy to strengthen the Hong Kong Education City (HKEdCity)'s role incrementally as a market facilitator in the next two school years.   Besides, to further fuel and direct the digital learning resources market, it is necessary to extend the ELC scheme in 2006/07 school year.

(V)   Improving IT infrastructure and Pioneering Pedagogy using IT

(g)   To encourage innovation and trials of new technology and equipment, we have launched a pilot scheme to identify and disseminate leading practice in the use of interactive whiteboard.   We will continue to launch other pilot schemes, such as video conferencing, using mobile technology in schools in the context of collaborative learning and cultivating students' global perspective.

(VI)   Providing Continuous Research and Development

(h)   We will continue to enrich the community database for consolidation and dissemination of good practices with good exemplars for sharing amongst the teaching community.

(i)   To monitor and evaluate the effectiveness of the implementation of the IT in Education strategy in schools, we plan to collect data from schools regularly and undertake studies with emphasis on the impact of IT on students' learning outcomes.

(VII) Promoting Community-wide Support and Community Building

(j)   We will continue to disburse funds to schools to facilitate the organization of more parent education programmes to help them handle the ethical, legal and health issues related to the use of IT by their children.

(k)   To help needy students to acquire computers for use, a large-scale campaign will be launched in the next two school years to encourage donation of old computers for a "computer recycling" project. These old computers will be refurbished, bundled with necessary software and Internet access service before allocating to the needy. We will also provide basic IT skills training to parents of the students who will receive these computers.

7.   Details of the implementation measures on the above with estimated expenditure in the coming two school years (2005/06 – 2006/07) are at **Annex B**.

Financial Implications

8.   We estimate that the non-recurrent funding required for the various measures to be implemented in the 2005-06, 2006-07 and 2007-08 financial years would be about $22.3 million, $72.7 million and $16.5 million respectively, totaling about $111.5 million. We plan to seek the Finance Committee's approval for an increase in non-recurrent commitment for this purpose.

Advice Sought

9.   Members are invited to note the progress of implementation of the IT in education strategy, and offer any views they may have on the tasks ahead.

Education and Manpower Bureau
April 2005

**Major Measures of the
Second Information Technology in Education Strategy
Implemented in the 2004-05 Financial Year**

(I)   Empowering Learners with IT

1.   A draft Information Literacy framework for students has been developed by a team of consultants to give a clearer picture on the learning targets of using IT in education.   To enable students to engage in an empowering mode of learning, funds were disbursed to schools to assist them to set up their own e-learning platforms in March 2005.

(II)   Empowering Teachers with IT

2.   Two of the existing "Centres of Excellence on IT in Education" (CoE) were turned into "Learning Centres (LCs)" in October 2004 to facilitate teachers to develop, share and disseminate innovative learning and teaching methods using IT.   The HKEdCity has developed an online training platform with instructional software for teachers.   EMB continues to organize IT-related refresher training courses as well as experience sharing workshops for teachers.

(III)   Enhancing School Leadership for the Knowledge Age

3.   A local tertiary institution was commissioned to develop an e-leadership training programme.   The pilot training programme for principals has commenced in April 2005.   A Composite Information Technology Grant which gives schools flexibility to allocate resources to support school-based IT plans by merging related recurrent IT-related grants was disbursed to schools in the 2004/05 school year.

(IV)   Enriching Digital Resources for Learning

4.   Funding under the Electronic Learning Credit (ELC) scheme was disbursed to schools in March 2005 to help them acquire relevant electronic and interactive learning materials as well as curriculum-specific computer peripherals to enhance the integration of IT in learning and teaching.

(V)   Improving IT Infrastructure and Pioneering Pedagogy Using IT

5.   Funding had been provided to public sector schools to replace/upgrade school's IT infrastructure.   Support from the Quality Education Fund in the form of matching fund will be available to schools starting in summer 2005.   Besides, 10 schools with various degrees of IT maturity were selected in November 2004 to participate in a pilot project in the use of interactive whiteboard to enhance learning and teaching.

(VI)   Providing Continuous Research and Development

6.   A pilot project on using innovative community database for consolidation and dissemination of good practices started in January 2005.

(VII)   Promoting Community-wide Support and Community Building

7.   Funds were disbursed to schools in March 2005 to allow the latter to help parents ensure students understand the ethical, legal and health issues involved in using IT.   In partnership with the Hong Kong Computer Society, a "Call Service Centre" project was launched in February 2005 to answer queries and problems from students and teachers.   Besides, in collaboration with NGOs, Hong Kong Association of Computer Education, relevant Parent-Teacher Associations and other parties, a "computer recycling" project is being planned to help needy students to bridge the digital divide.

Second Information Technology in Education Strategy
Further Measures to be Implemented
in the 2005/06 and 2006/07 School Years

Goal and Measures to be Implemented	$M (Non-Recurrent)
(I) **Empowering Learners with IT** • To enhance partnership with NGOs, the private sector and overseas communities on programmes to promote the use of IT in learning among students and to cultivate students' global perspective.	2.0
(II) **Empowering Teachers with IT** • To revamp the existing training framework for teachers on the use of IT in education. • To continue and enhance the "train the trainers" scheme. • To organize jointly with tertiary institutions, the private sector and the school sector, flagship conference on IT in education to enhance sharing of information and dissemination of good practices. • To launch incentive schemes for collaboration amongst schools and relevant organizations in harnessing IT in learning and teaching.	19.3
(III) **Enhancing School Leadership for the Knowledge Age** • To enhance training on e-leadership and application of IT in education in continuing professional development courses for school heads; to set up online communities on HKEdCity to support principals' IT training and sustain the momentum of such training. • To strengthen the role of the regional Centres of Excellence network in supporting schools on IT in education.	5.5

Goal and Measures to be Implemented	$M (Non-Recurrent)
• To enhance the assessment tools developed for an electronic platform for schools for self-evaluation.	
(IV) Enriching Digital Resources for Learning • To launch incentive scheme to encourage publishers to turn textbooks into e-learning materials and to develop quality digital instructional content and software. • HKEdCity to enhance production of digital resource materials, as well as licensing and adapting the contents of quality overseas e-learning material for local use. • To extend the pilot scheme on the "electronic learning credits" scheme to facilitate schools to acquire electronic learning materials and curriculum- specific computer peripherals to enhance the integration of IT in learning and teaching.	26.6
(V) Improving IT Infrastructure and Pioneering Pedagogy Using IT • To encourage innovation and trials of new information technologies and equipment that may enhance learning and teaching.	4.0
(VI) Providing Continuous Research and Development • To identify, develop and consolidate exemplars for more effective sharing among teachers. • To undertake studies on the effectiveness of the IT in education strategy.	8.6
(VII) Promoting Community-wide Support and Community Building • To put in place programmes for schools and Parent-Teacher Associations to help parents to ensure students understand the ethical, legal and health issues involved in using IT. • To pursue the collaborative schemes with the private sector and NGOs in support of IT in education.	45.5

Goal and Measures to be Implemented	$M (Non-Recurrent)
• To encourage "computer recycling" and donations to help needy students to bridge the digital divide; to refurbish old computers and provide them with the necessary software and connectivity for the needy. Basic IT skill training also be provided to the parents of students in receipt of the recycled computers.	
Total	**111.5**

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