Overall Study on Reviewing the Progress and Evaluating the Information Technology in Education (ITEd) Projects 1998/2003

Fact Sheet

Background

To enhance the use of information technology (IT) in school education, the HKSAR Government has allocated significant resources for implementing a variety of relevant initiatives in public sector schools. In order to know whether the financial resources invested are value-for-money and whether and how we should further invest in IT in education (ITEd), there is a need to review and evaluate the overall effectiveness of the efforts made so far. In addition, given the rapid advancement in IT, there is a need to chart the course for the next stage of development in the use of IT in Hong Kong's school education.

The former Education Department (ED) [now Education and Manpower Bureau (EMB)] of the HKSAR Government has already commissioned the Centre for Information Technology in School and Teacher Education (CITE), Faculty of Education, the University of Hong Kong to conduct a Preliminary Study between December 2000 and August 2001 in order to capture a snapshot of the implementation of ITEd initiatives at 2000/01 school year and to pave the way for an overall evaluation study. In September 2002, the service tender of the Overall Study has been awarded to the Hong Kong Polytechnic University (PolyU Technology and Consultancy Co., Ltd.).

Objectives

In view of the numerous dynamic variables of learning organisations, e.g. different curriculum and developmental needs of students, diversified teacher capabilities, pedagogical practices, as well as leadership styles at the various types of schools (namely primary, secondary and special schools), the Service Provider is requested to develop a methodology in light of the Preliminary Study and against the different characteristics of the various types of public sector schools. Thus, the CORE methodology proposed provides specific measures for tackling unique characteristics of various school types. The Service Provider is also required to complete the review of progress and the evaluation of the overall results of ITEd initiatives based on the stratified samples by 2004 with details listed below:

(a)   To review the progress of the ITEd projects and to recommend necessary adjustments to future implementation of ITEd projects, with specific focus on each type of schools (i.e. primary, secondary and special) as well as the community as a whole.

(b)   To establish a theoretical framework for supporting the design of an overall evaluation (core methodology) with specific measures for each type of schools (i.e. primary, secondary and special) as well as the community as a whole.

(c)   To develop specific evaluative model(s) / tools and conduct a pilot study to testify the research methodology and instruments designed.

(d)   To evaluate the application and effectiveness of ITEd in the light of the extent

    (i)   to which schools / teachers have adopted and implemented pedagogical practices that use technology; and

    (ii)   to which the vision of promoting ITEd has been met as reflected by teachers' and students' empowerment in their teaching / learning processes.

(e)   To conclude the overall effectiveness (including the resources management perspective regarding manpower and budgeting; the student learning outcomes; the pedagogical and cultural impacts) of ITEd projects and to recommend strategies and plans for future investment and implementation in ITEd.

Scope of Study

In the light of the findings and recommendations of the Preliminary Study, the research results of other IT-related studies, and objectives mentioned above; and having examined the IT provisions (including the hardware, software, infrastructure, training and resource support services), the goals of ITEd in the Hong Kong context, the objectives of individual ITEd initiatives, and the impacts of other IT-related projects, the Service Provider is required to:

(a)   chart the progress of ITEd projects and gather information on the situation of IT provisions and applications of IT in each type of schools (i.e. primary, secondary and special) as well as in the community by 2003/04 school year; and compare it with the situation in November 1998 so as to review the overall progress of ITEd initiatives from 1998 to 2003 and to recommend improvement measures when implementing future ITEd projects / the IT strategy in the light of its key components:

(i)   Access and Connectivity;
(ii)   Teacher Enablement;
(iii)   Curriculum and Resource Support; and
(iv)   Community-wide Culture.

(b)   formulate a conceptual framework and to design the core methodology for reviewing the progress and evaluating the overall effectiveness of ITEd initiatives with specific measures for each type of schools (i.e. primary, secondary and special) as well as the community as a whole.

(c)   devise the instruments such as indicators / descriptors with reference to evaluative models / tools developed for / from other IT-related studies and to produce implementation schedules for evaluating the impacts (including but not limited to operational, pedagogical and cultural aspects) of IT on each type of schools / teachers / students as well as on the community as a whole. Some of the areas of concerns are listed below:

(i)   Teachers' IT competence;
(ii)   Integration of IT into the curriculum;
(iii)   Usage patterns of IT facilities;
(iv)   Innovative pedagogical practices;
(v)   Students' learning outcomes;
(vi)   Changes in approach in school education and management;
(vii)   Sharing of effective use of IT in teaching among schools and other learning organisations;

(viii)   Community collaboration;

(ix)   Cultivation of community-wide culture; and

(x)   Comparison with ITEd initiatives in other places.

(d)   select representative stratified samples of each type of schools (i.e. primary, secondary and special) as well as other community groups / organisations and to conduct:

(i)   a pilot study within 2002/03 school year in order to testify and refine (b) and (c); and

(ii)   an overall study in accordance with (b), (c) and any other necessary refinements

(e)   determine the extent to which the vision of promoting ITEd as stated in the 'Information Technology for Learning in a New Era: Five-Year Strategy 1998/99 to 2002/03' document has been achieved. Details of the vision are:

(i)   to turn our schools into dynamic and innovative learning institutions where students can become more motivated, inquisitive and creative;

(ii)   to link our students up with the vast network world of knowledge and information to enable them to acquire a broad knowledge base and a global outlook;

(iii)   to develop in our students capabilities to process information effectively and efficiently; and

(iv)   to develop in our students the attitude and capability for independent life-long learning.

(f)   provide forward-looking suggestions for formulating IT policies and strategies for better education. The Service Provider is required:

(i)   to propose specific effectiveness evaluative models / tools for charting the progress and denoting results of ITEd projects;

(ii)   to suggest ways of allocating funds and the should-be roles and responsibilities of the Government, schools and the community in order to bring our school education into the new IT world;

(iii)   to suggest both short- and long-term implementation strategies with proposed plans and related ITEd projects. The strategies should cover areas including but not limited to IT provisions, curriculum development, professional and technical management of IT resources for enhancing teaching / learning processes as well as cultivation of community-wide culture; and

(iv)   to address the issues arising from the management and further development of IT in school education.

Timeline for the Study

Phase	Duration	Description
I. Initial Survey	November 2002 – January 2003	With a view to collecting basic data and developing sampling stratification strategy, the PolyU initiated the School IT Survey for all public sectors schools. The collected data are also used by EMB for tracking IT progress in relevant schools and record purpose.
II. Pilot Study	February 2003 – August 2003	To pave way for the Overall Study, the Pilot Study serves to testify and refine Conceptual Framework, Core Methodology and Implementation Schedules. In addition, rehearsal of logistics and trial running of instruments are significant to the uncovering of any possible areas for improvement.
III. Overall Study (Main Study)	September 2003 – December 2004	The full-scale study aims to gather data and then to perform analyses for reviewing the progress and evaluating the application and effectiveness of ITEd as well as recommending strategies and plans for future investment and implementation in ITEd.