

Teaching and Learning Computer Literacy via More Meaningful Contexts (Secondary 1 - 3)

Introduction

The S1-3 Computer Literacy curriculum stresses the importance of providing opportunities for students to

- * understand the basic operation of computers,
- * acquire fundamental knowledge about computer applications, and
- * make use of application software to carry out simple tasks.

The conventional way of achieving these goals is through discrete learning tasks from workbooks provided by publishers or worksheets designed by teachers. A number of schools have now integrated the acquisition of computer knowledge and skills with the learning of other subjects. The development of students' technological capabilities, understanding and awareness is becoming more meaningful and purposeful.

Exemplars

1. Integration across Subjects

A number of schools have integrated the learning of the following Computer Literacy topics with learning elements or learning modes in other subjects. The typical modes of operation include:

<i>Topics in Computer Literacy</i>	<i>Other Relevant Subjects</i>	<i>Learning Elements or Learning Modes</i>	<i>Remarks</i>
Internet Access	History, Geography, Social Studies	Project-based Learning (e.g. Research on the history of the local community, research on the services rendered by a local voluntary agency) Issue-based Learning (e.g. New energy sources)	Students are asked to search, retrieve and evaluate information pertaining to their selected projects on the Internet. They acquire the information processing skills as well as the knowledge specific to the topics under study.
Exchanging Information through Electronic Mails	Health Science Programmes	Issues of Sex Education/ Health Education	Students discuss with teachers issues of sex education and health education, personally or in groups, through e-mails. This facilitates their acquisition of IT skills and allows shy and introverted students to express themselves freely on sensitive issues.

Text Processing, Graphics Handling, Developing Multimedia Presentations	The Language Subjects	Language Skills and Communication Skills (e.g. Use of practical English in School's Newsletter Production, Putonghua and the Pinyin Chinese Character Input Method)	Students are asked to write stories or reports using the language being studied. They then type them into the computer using the appropriate word processing skills for presentation in the school's newsletter or other publications, or prepare for a story-telling exercise by making drawings using graphics software or presentation software. Students develop their language skills, communication skills and IT skills through these exercises.
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In all cases, the information processing tools act as instruments for students to have creative, broad and purposeful learning experiences.



Project: Use of GIS on the Internet and field study in understanding the usage of land in the urban area

Source: Pui Ching Middle School

Level: S.1



Project: Chords in popular music

Source: St. Joan of Arc Secondary School

Level: S.2



Project: *Knowing the Yuen Yuen Institute*

Source: *HKTA The Yuen Yuen Inst No. 3*

Level: *S.2*

2. Integration at System Level

School can also perform integration of the learning and teaching of Computer Literacy with other subjects in a systematic way, as in the scheme depicted below:

Year	Terms	Mode of Integration
S1	First Term Second Term	With English on basic keyboard skills and word processing skills With Chinese on Chinese character input methods
S2	First Term Second Term	With Mathematics on using spreadsheets for calculation and generating charts With the language subjects on using graphics to enhance communication
S3	First Term Second Term	With subjects incorporating project-based learning on using the Internet to search, access, send and retrieve information With subjects incorporating a presentation assignment on using the presentation software to communicate and develop ideas

The collaboration is done at the school level and the different panels can then have a reasonable estimate of the amount of curriculum time that can be saved (for instance, through students working on History projects in practical lessons offered in Computer Literacy). The learning and teaching of Computer Literacy is again put into a variety of meaningful contexts.