NSS ICT Curriculum Management, Planning and Leadership

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School's Basic Information

- established in 1991
- a CMI school in Tuen Mun
- school timetable:
  - 5 days/week with 8 periods/day
  - 40 minutes/period

Computer Education

- CL: S1-S3 (2 periods/week)
- ICT: S4-S5 (5 periods/week)
- CA: S6-S7 (4 periods/week)
- computer room: 3 large computer rooms (can accommodate 41 to 44 students)

Computer Education

- school-based curriculum at S1 to S3 level
- teacher-to-students ratio: 1:20
- adopts co-teaching for enhancing professional exchange among teachers

Resource management

- Manpower and professional development
  - Professional exchange among teachers
  - Allocation of teaching period
  - Split class arrangement
  - Specialised teaching
  - Common lesson preparation period
  - Promote teachers' self-reflection

Resource management

- Tools
  - subject folder for sharing of teaching materials
  - subject web site
  - web server for students' homepage
  - blog – easily maintained and dissemination of links and videos
  - learning and teaching platform
  - intranet – an integrated platform for daily tasks
  - single logon – one password for all systems
  - "single storage"

Computer Curriculum in Junior Secondary

- introduced school-based curriculum since 1995
- reviewed and restructured curriculum in 2007 and 2009 for creating a better interface between junior secondary and NSS ICT
- focusing more on programming and networking
- changed from 2 single periods to 1 double period at S2 and S3 starting from 2009-10 school year
- maintain a good balance between teaching of computer theory and software application

NSS ICT

- no. of students
  - a group of 22 students in the first cohort
  - a group of 18 students in the second cohort
- selection of elective part
  - C. Multimedia Production and Web Site Development
- add-drop policy
  - drop 1 elective subject in S6

The teaching sequence for ICT

- The Compulsory Part
  - B. Computer System Fundamentals
  - C. Internet and its Applications
  - D. Basic Programming Concepts
  - E. Social Implications
  - A. Information Processing
- The Elective Part
  - C. Multimedia Production and Web Site Development

Challenges under the implementation of NSS

- decreasing in the number of ICT students
- lack of subject specialist teachers
- diversified students

Strategies for enhancing student learning

- Reading to learn: arrange reading exercises through e-learning platform
- Self-learning software: including office application, photo editing, animation and chang-jie input method
- enhance students' intrinsic motivation by organising outdoor learning activities and visits
- encourage students participation in different internal and external competitions

Strategies for enhancing student learning

- Multimedia content attract the attention of students
  - YouTube videos
    - A day made of glass
    - Google container data center tour
  - Image Galleries
    - computers (1980-1983)
    - Motorola XOOM

Strategies for enhancing student learning

- develop students' independent learning attitude by promoting pre-lesson preparation, e.g.: collecting information on a given topic
- create an enjoyable learning environment by organising interesting class activities such as role play, classroom debate, group discussion and oral presentation

School-based Support Measures

- Whole-school IT policy
  - software policy (free software, freeware, site-licensed software, single license software)
  - unified software version
  - choice of software (different OS, web browser, office software, media player)
- software training provided by external organisations/companies to discover students' interests and strengths
- extend the opening hours of computer rooms to 7 p.m.

Concept of Users' Freedom

- instill the concept of free software
- promote open standards and better compatibility
- advocate open ecosystem

Follows-up to the recommendations in the Focus Inspection Report (June 2010)

- improve communication and collaboration in technology education KLA
- promote generic skills especially communication and problem-solving skills
- cater for students' different learning needs by designing worksheets with different levels of difficulty
- enhance students' self-motivation through promoting peer interaction