Multimedia Data Analysis: How to Handle the Video Data on Innovative Classrooms with the Use of an Analytical Software

SITES M2 Research Team
SITES

- Second International Information Technology in Education Study

- An international comparative study conducted under the auspices of the International Association for the Evaluation of Educational Achievement (IEA)
3 Modules of Sites

98-00  M1 (the indicators Module);

00-02  M2 (the innovative practices Module); and

03-    M3 (the survey Module): student learning outcome
SITES M2

- M2 is an international qualitative study of innovative pedagogical practices that use information and communication technology (IPPUTs).

- This is the study we are currently working on.
Aims:

• To identify and provide rich descriptions for innovative, technology-based pedagogical practices
• To provide information to national and local policy-makers on ICT related decisions
• To provide teachers and other practitioners with new ideas on ICT usage
• To investigate the measurement quality of M1 and contribute to the development of M3
• 32 participating countries

French Belgium, Canada, Chile, Colombia, Denmark, Finland, France, Hong Kong, Hungary, Indonesia, Iran, Israel, Jordan, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Philippines, Portugal, Russia, Singapore, Slovakia, Slovenia, South Africa, Taiwan, Thailand, UK, USA.
Work Done by the Hong Kong SITES team

Nov 2000  open nomination for IPPUTs (Innovative pedagogical practices using technology)

Dec 2000  steering committee finalized on cases selected

Dec 2000

June 2001  Data collection

June 2001  Writing Case Reports

Sept 2001  Video Case report

Case Analysis

June 2002
Hong Kong Cases

- 9 cases sent for international comparison
  (Primary: 3; Lower Secondary:2; Upper Secondary:4)

- 5 extra cases for dissemination of innovation practices
  (local extension)
  (Primary:3; Lower Secondary:2)

- Total 14 cases at different educational level on various subjects:
  - Science
  - Art & Design
  - Chinese
  - Economics
  - General Studies
  - interdisciplinary / cross-curriculum
Data collected in Hong Kong cases

- School Documents
- Interviews of:
  - Principals;
  - IT coordinators;
  - IPPUT teachers;
  - Non-IPPUT teachers;
  - Students
- Videotapes of lessons
- Students’ Work
How do we handle the data?

- Transcription of all interviews and lessons
- Qualitative Analysis with the use of a newly developed software: Media Analyzer
Media Analyzer

- A powerful tool to facilitate the analysis of video data, the process of transcription and data reduction in particular

- Synchronization of video clip with its corresponding transcripts

- Organization of relevant synchronized materials into meaningful groups called “Index Trees”

- Efficient analysis with reference to the codings under different index trees.
Video data (Hong Kong Cases)

All videos are in digital video format
Total no. of video tapes:  117
Total no. of video cases:  14
## Digital Video Tapes Summary

<table>
<thead>
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<th>Cases</th>
<th>No. of DV Tapes</th>
<th>Approximate Time</th>
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<tr>
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Data Reduction
Using Media Analyzer:

Synchronization

Coding & Analysis