Transforming into a Community of Connected Learning Campuses

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Outline

- Educational Challenges
- Transforming ITE
- The New Learning Environment – Key Features
- The eTutor Learning System – Design Characteristics
- Implementation
- Initial Evaluation
- Lessons Learnt
Educational Challenges

Impetus
- New Economy
- Lifelong Learning
- e-technologies

Impact
- Curriculum
- Pedagogical Approaches
- Teaching & Learning Environment

Innovation
- Institutional Transformation
Transforming ITE

Mission

Create opportunities to acquire skills, knowledge and values for lifelong learning

Transformation

A Community of Connected Learning Campuses

Outcomes

Active, Confident, Knowledgeable Graduates who are IT-smart, Independent Learners
The New Learning Environment

Mission

Create opportunities to acquire skills, knowledge and values for lifelong learning

Key Features

1. Key Competencies-based Curriculum
2. A Process-oriented Pedagogic Model
3. Faculty-led e-Courseware Development
4. Connected Campuses

Outcomes

A Community of Connected Learning Campuses

Active, Confident, Knowledgeable Graduates who are IT-smart, Independent Learners
The New Learning Environment

1. Key Competencies-based Curriculum

- 60 – 70% Technical Competency
- 10–20% Methodological Competency
- 10–20% Social Competency

Each student will have 400 curriculum hours of IT-based learning during his/her 2 years of study with ITE.
The New Learning Environment

2. A Process-oriented Pedagogic Model

Plan

Perform

Explore

Practise

Thinking Doers

Thinking Doers

Key Competencies-based Curriculum

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Lecturers trained to produce some 9000 curriculum hours of e-Courseware

Promote exploratory, self-directed learning.
The New Learning Environment

Comprehensive Staff IT Training Programme
(80 to 120 hours per Staff)

- Educational Technology (ET) Champions Development Programme (1 year)
  - Advance IT Users
  - Intermediate IT Users
  - Beginning IT Users
  - Baseline

- Powerpoint Content Dev Course (3 days) 100%
- Web Design Course (3 days) 30%
- Interactive CW Development Course (5 days) 30%
- Digital Media Development Course (3 days) Optional
- Educational Technology Appreciation (2 days) 100%
The New Learning Environment

ET Champions Development

- **Objective**
  - Sustain the IT-based learning initiative at campus level
  - 60 ET Champions (5-6 per campus) by 2005

- **Role**
  - Spearhead eLearning at campus
  - Lead e-Courseware development efforts
  - Coach/guide colleagues in embracing eLearning practices
  - Evaluate e-Courseware developed by colleagues

- **Intensive Training**
  - Undergo 12 months educational technology training and development
The New Learning Environment

4. Connected Campuses

Smart Classrooms

Self-accessed learning rooms

Campus-wide Networked Learning Infrastructure

Staff Desktop

Multimedia Development Centre
The New Learning Environment

The eTutor Learning System
– Design Characteristics

A web-based ITE-wide learning system, serving 16,000 students

Provides a personalised environment for teachers and students

Supports each student with 400 hrs of IT-based learning

Builds on ITE curriculum process

Supports the Process-oriented Pedagogic Model

Supports Faculty-led e-Courseware development

Builds on International Interoperability Standards
The New Learning Environment

A Personalised Environment

- Student
  - Progress/Performance
  - Tests/Quizzes
  - Personal/Shared Workspace
  - Discussions/Chats/Ask Experts

- Teacher
  - Modules/Learning Plans
  - Lessons/Activities
  - e-Courseware
  - External Links/FAQs

- Community

- Resources

- Reports

- Learning Plan
The New Learning Environment

Pedagogically-driven

- **Student**
  - Perform
  - Plan
  - Explore

- **Teacher**
  - Practise

- **Community**
  - Reports
  - Learning Plan
  - Resources

- **Personal/Shared Workspace**
- **Tests/Quizzes**
- **Progress/Performance**
- **Modules/Learning Plans**
- **Lessons/Activities**
- **e-Courseware**
- **External Links/FAQs**
- **Discussions/Chats/Ask Experts**
The New Learning Environment

“Learning Objects” Approach to Lesson/Module Development

Learning Plan A
Learning Plan B
Learning Plan C

Module A
Module B
Module C

Topic X
Topic Y

Topic 1
Topic ...
Topic ...
Topic 10

Lesson A
Lesson F
Lesson N
Lesson S

Learning Object 1
Learning Object 2
Learning Object...
Learning Object...
Learning Object...
Learning Object...
Learning Object...
Learning Object...

Tag
Tag
Tag
Tag
Tag
Tag
Tag
Tag
The New Learning Environment

“Learning Objects” Approach to Lesson/Module Development

Learning Objects

Metadata
The New Learning Environment

“Learning Objects” Approach to Lesson/Module Development

Module

Topic

Lesson

Learning Objects
The New Learning Environment

System Architecture

Connected Campus

Curriculum-driven

Pedagogically-facilitated

(Web Server)

Student

Teacher

Personalised Teaching & Learning Environment

Learning Management System

Digital Media Repository System

Video System

Communication System

Student Database

Class Database

Lesson Database

Content Resources Database

Test Database

Performance Database
The New Learning Environment

International Interoperability Standards

Students

Teachers

Single Sign-On Portal

e.g. Modules; Classes; Students

e.g. Test Results

IMS Enterprise

eStudent System

IMS Metadata

IMS QTI

ADL SCORM
Implementation

Campus Networked Learning Infrastructure

Jul 1999 - Jun 2004

- Change Management – Staff Conference, Seminars, Briefings, Roadshows

Jul 1999 - Dec 2001

- Staff Training and Development

Jul 2000 - Dec 2005

- ET Champions Development

Jul 1999

- Faculty-led e-Courseware Development

Mar 2001

- Contract Award

Jan 2002

- Launched

Jun 2004

- Upload Learning Objects/Setup Lessons/Module
Implementation
Initial Evaluation

Accessibility

- Easy access to system (within campus and outside campus)
  - 80% students
  - 75% teachers

Usability

- Easy to use (e.g. navigate around, find materials, pose questions, create and reuse lessons, etc)
  - 85% students
  - 80% teachers
Initial Evaluation

Effectiveness (Students)

- Control pace and sequence of learning; opportunities to share learning with others
  - 85% students

- More attentive during learning; group discussions helped learning
  - 80% students
Initial Evaluation

Effectiveness (Teachers)

- Opportunities to share resources and learn from others
  - 75% teachers

- Online tests and reports helped to identify students’ weak areas
  - 80% teachers
Lessons Learnt

- Faculty-led e-Courseware development
  - Integral part of teaching
  - More effective e-Courseware
  - Sense of ownership

- Capability development
  - Comprehensive Staff IT Training and Development
  - Develop ET Champions
    - Spearhead eLearning initiative at campus level
    - Long-term sustainability

- Learning from Best Practices
  - Pilot Project
  - Study Trips (IBM, University of Minnesota)
  - Adoption of International Interoperability Standards
  - Learning Objects to Lesson/Module Development
Thank You