Prospects of Educational Innovations on e-learning

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Questions????

1. What is e-learning?
2. What's the value of using multi-media technologies?
3. Why use the internet/intranet?
4. What's the value of e-learning in educational innovation?

Answers!!!!

1.A Instruction delivered electronically using new multimedia technologies (CDROM or DVD) and the internet/intranet to improve the quality of learning

2.A Allow the use of movie, audio and text resources to enrich the contents as a tool for learning and teaching

3.A As higher bandwidth become more accessible, gives easy access to resources and services in the Web

4.A Stimulates remote exchanges and collaboration leveraging the Web's visual environment and interactive nature.

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e-learning as an educational innovation

1. understanding the psychology of learning
   - Learning requires attention
   - The neural systems of the brain that control attention and storage as memory needs to rest every 3 minutes
   - Tired neurons recover quickly
   - Other stimulation is required to overcome the boredom pattern

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e-learning as an educational innovation

2. making e-learning fun, interesting, effective and increase retention

   - vary the types of content
   - create interaction that engages attention
   - provide immediate feedback
   - encourage interaction with other e- learners/e-teachers

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e-learning as an educational innovation

3. not so obvious benefits of e-learning

   - less expensive way of delivery
   - self-paced, convenient to the learner
   - moves faster
   - standardized delivery and consistency of message,
   - can work from any location and any time
   - can be updated easily and quickly
   - lead to increased retention
   - easily managed

e-learning as an educational innovation

4. where it can be delivered

to any computer – that can access the internet/intranet

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e-learning as an educational innovation

5. evaluating e-learning (Ref. Brandon Hall of Fame Awards) in terms of

> Content – right amount and quality of information
> Instructional design – for users to actually learn
> Interactivity – engaging user for the opportunity of input
> Navigation – users determine their own way → exit option? Course map?
> Motivational components – novelty, humor, game elements, testing, adventure, unique content, surprise elements!!!

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e-learning as an educational innovation

5. evaluating e-learning (continued)

> Use of media – appropriate and effective use of graphics, animation, music, sound, video, etc.
> Types of evaluation – completion of simulation, mastery of each section's content, section quizzes, final exam
> Aesthetics –program appeal to the eyes, ears; while screen add to the program
> Record keeping – of student performance data (time to complete, question analyses, final scores)
> Tone – context of the audience

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e-learning as an educational innovation

6. Minimum expertise to develop e-learning
> team leader to deal with diverse work styles and personalities
> instructional designer
> programmer/author to use the authoring took
> a graphic artist
> a subject matter expert
> a web master
> resource mobilizer

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e-learning as an educational innovation

7. Authoring systems available for e-learning
> Authorware
> TookBook II
> IconAuthor
> Quest
> IBT Author
> CBIQUICK
> Simple programs → HTML editor or web page lay out program
>> Netscape navigator
>> Navigator Gold
>> Microsoft FrontPage
>> Clarix Home Page/Asymetrix Web Publisher

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e-learning as an educational innovation

8. Emerging technologies for e-learning

- Greater bandwidth and compression for delivering audio and video
- Multimedia use over internet and intranet
- Improved design for interactivity, discussion and access to other resources
- Conversion of existing programs to web delivery

Issues Addressing e-learning in Asia Pacific

- National Policy→ target groups, curriculum, language
- Infrastructure → need for internet connectivity, connectivity speed, reliability of electricity, cost of service→ availability in urban and rural areas
- Instruction and training →teacher's competencies/capabilities→teaching practice, teaching learning materials
- Resources → funds for infrastructure, hardware and software,

Some Opportunities

- ➢ Continuous upgrading of competencies - training of teachers, school administrators and education personnel
- ➢ Identification of relevant curriculum content – utilizing computers as a tool for learning
- ➢ Identification of models/best practices for replication
- ➢ Partnership with institutions, NGOs, private sector, etc. to support infrastructure development, training of teachers and staff, production of materials, piloting of innovations
- ➢ Resource sharing among schools

Some Opportunities

Majority of countries in Asia and Pacific are not capable of putting e-learning in place.

The Japanese Government in 2003 provided funds to support 12 ICT in education projects. The aim is to assist Member Countries in Asia and the Pacific in meeting the challenges of the rapid advances in information and communication technology.

One project under APEID is on "Training and Professional Development of Teachers/Facilitators in the Effective Use of ICT for Improved Teaching and Learning"

Rationale of the JFIT_ICT Programme (1/2)

Programme**:**
Japanese Trust Fund for the "**Promotion of the Effective Use of Information and Communication Technologies in Education**": established in October 24 2001, and started to implement in May 2002

Rationale/Background:
1. Education for All

2. EFA Framework for Action, Dakar, April 2000

3. 31C/4, 31C/5 ("Digital Divide")

Then this programme will focus on ……

Rationale of the JFIT_ICT Programme (2/2)

How to use ICT to help reduce disparities in both educational access and quality and, ultimately, bridge the digital divide.

The task will be to harness ICT to provide greater access to relevant knowledge, learning experiences,
and materials;
1. introduce new educational content both about and through ICT;
2. improve both the professional development of teachers and teaching-learning processes; and
3. link up educators and learners to break the isolation they so often experience.

Factors to be Considered

Disparity

- Geographical development
- Economic development
- Technological development
- Educational development
- Teachers competencies
- Policy environment

Diversity

- Culture
- Languages
- Religion
- Races
- Social systems
- Educational systems

Identity
Globalization and Localization

General Objectives

To contribute to Bridging and Tapping the "digital divide" and promoting "digital inclusion":

1. By exploring and demonstrating how ICT can be used to reach those excluded from learning and to improve the quality of education for all, and

2. By developing innovative models of ICT use and of ICT-based teacher education, teaching-learning methods, and curriculum/materials development in schools and in other places of learning.

Specific Objectives

1. To help create an enabling and supportive policy environment

2. To promote the integration of ICT in both formal and non-formal education programmes

3. To strengthen the training and professional development of teachers and non-formal education facilitators

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Supporting Activities

1. To ascertain the current situation of ICT application in the Asia-Pacific region in the field of education
2. To create, collect, analyze, and provide quick access to knowledge and information
3. To develop and use a set of performance indicators

Special attention will be paid to how ICTs can promote the greater participation and achievement of girls and women in education.

All about Projects (1/2)

1. Training and Professional Development of Teachers and Other Facilitators for Effective Use of ICTs in Improving Teaching and Learning (incl. Gansu Project) (*PRFTL*) *<05/2003- 3yrs> ICT-Pedagogy Integration*
2. Establishing the Effective Use of Information and Communication Technologies (ICT) in Education for All (EFA) in Cambodia (*CMBDT*) *<10/2002 – 3yrs>…E-learning bus*
3. Training of Teachers in Information Technology (IT) to Meet the Emerging Needs of New Learning Environment (*SRLKT*) *<02/04 – 2 yrs>…Enjoyable   and responsive environment*
4. Strengthening ICT Use in Schools and SchoolNet in ASEAN Setting (*SSNET*) *<06/03 – 3 yrs>…Networking, Schoolnet toolkit and series of training*
5. Improving management and delivery of Technical and Vocational Education (TVE) through the application of ICTs (*TVEMD*) *<02/04 – 1yrs> ….management and networking, delivery system*
6. ICT Application for Non-formal Education Programmes (*NFEPI*) *<08/02 – 3yrs>… Promotion of CLC and life long learning environment*

All about Projects (2/2)

7. The Establishment of a Regional Clearing House in Support of ICT in Education Programme in Asia and the Pacific (*REACH*)

8. Performance Indicators on ICT Use in Education (*IDCTS*) *<05/2002 – 3yrs>…In Thai 12 Local Education Administration areas conducted pre-testing work to validate*

9. The Meta-survey of the Asia-Pacific Programme on Promoting the Effective Use of Information and Communications Technologies in Education (*METAS*) *<05/2002-06/2004: 1yrs>*

…*More than 30 countries experts contribute to draw the image of the utilization of ICTs in Education*

10. ICT in Education Policies (*POLIE*) *<02/2003 – 3yrs>*

Visions and Guiding Principles
- ICT-Pedagogy Integration: APEID ICT Teacher Training Project -

Vision
Mission
Principles
Activities

ICT Project

General principles of pedagogy-technology integration

1. Integrate ICT in all tasks of education: teaching learning, administration
2. Integrate ICT in all four pillars of learning, and at all phases of the learning-process
3. Use ICT for LIFE-LONG learning
4. Reduce digital-divide by using ICT for all kinds of students belonging to the total society
5. Use ICT to create a shift from transactional to transformational pedagogy

Four visions

1. First-Vision is of a new kind of learning CULTURE
2. Second- Vision is of using ICT and e-LEARNING in teacher education
3. Third- Visions is of using SYSTEMS approach for implementation
4. Fourth- Vision is of designing LOCAL guidelines

Second vision: e-learning

SECOND- VISION: Using ICT and e-learning in teacher education oriented to student learning

## *ICT and e-learning in teacher education: a new vision*

1. Why e-learning is part of the vision for teacher education
2. Differentiate distance learning, on-line learning and e-learning?
3. How to use ICT for e-learning
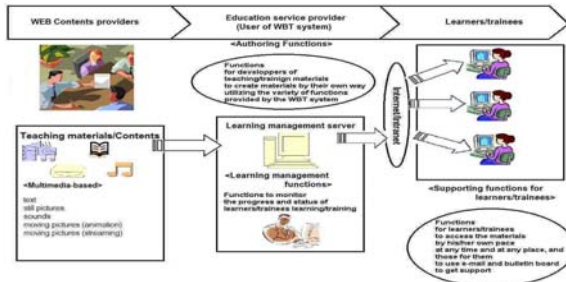
Define e-learning in General
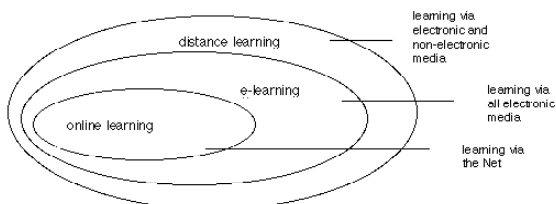
Control and ownership of contents, processes and logistics is with the learner

Define e-learning, WBT, and u-learning - interactivity and time scale -
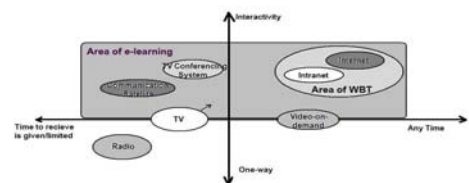
e-learning: education utilizing IT related technologies, and defined as overall distance education by network. It includes education with WBT, virtual university (VU) using communication satellite, digital broadcasting like digital TV.
WBT: education by web utilized the Internet and/or Intranet, characterised by the interactivity and the flexible time to learn (at any time learners can learn).
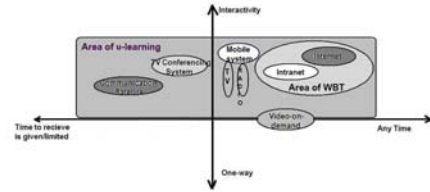
Define e-learning - WBT -

Define e-learning - u-learning -

u-learning: education utilizing mobile IT related technologies represented by mobile systems like mobile phones with digital TV, radio, camera functions and like Global Positioning Systems, and defined as overall distance education and control by network.
It includes education with WBT, virtual university (VU) using communication satellite, digital broadcasting like digital TV.
WBT: education by web utilized the Internet and/or intranet, characterised by the interactivity and the flexible time to learn (at any time learners can learn).

Vision of new culture, new education, and new learning

Paradigm-shift in education is taking place

1. Changes in students' roles
2. Changes in teachers' roles
3. Curricular changes
4. New media for learning
5. Changing need of competencies

We need to create a new vision

Vision of Inter-relationship for a new culture of learning

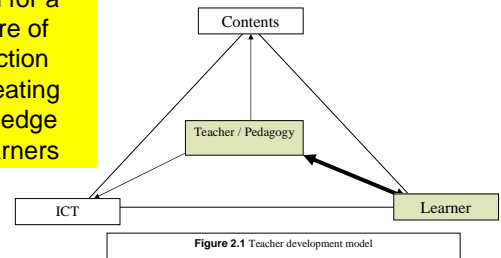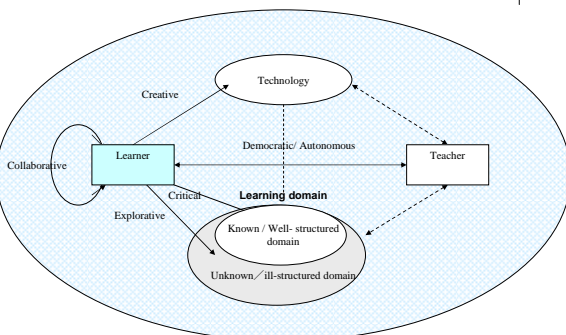Need for a culture of proaction for creating knowledge by learners

Figure 2.1 Teacher development model

Teacher, Learner, Contents, Technology

Envisioning a new kind of learning culture

Vision for strategic implementation

1. Individual vision- for using ICT for each learner, teacher, school
2. Shared vision- Continuously constructing visions for fuller commitments
3. Team learning- by a special technique called dialogue
4. Examine roots at the mental models of users of ICT
5. Use holistic approach / systems thinking is at the core of all planning and implementation

•*Leadership for the people, by the people, of the people*

Local principles of integration

1. Integrate ICT using local contents / indigenous wisdom
2. Integrate ICT by using local language and symbols for Life-long learning
3. Help users by organizing kiosk type of environments and thus reduce costs and increase socialization collectively
4. Integrate learning environments of leaps and gaps
5. Create flexible structures of ICT having partnership of family and community

Websites to Visit

- There are more than 1M websites on e-learning alone.
- Some suggestions:

  - http://www.elearningeuropa.info/doc
  - http://www.brandonhall.com/public/faqs2
  - http:// www.unescobkk.org/education/ict