Design of Module Content

E-Learning Practice

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Overview

- Pedagogic approaches
- Practical implementation
- Appling theory
- Finding the right technology
- Adapting to learner needs
- Tried and trusted

Presentation Objectives

- Explore the potential of e-learning for promoting student-centred approaches
- Discuss the issues that arise when adapting traditional content for delivery online
- Evaluate key factors determining successful instructional design

Outcomes

By the end of this session participants will be able to:

- Analyse and evaluate models of instructional design
- Apply an appropriate framework for the creation of e-learning modules

Choice of Pedagogy

1. Encourage contacts between students and faculty;
2. Develop reciprocity and cooperation among students;
3. Use active learning techniques;
4. Give prompt feedback;
5. Emphasize time on task;
6. Communicate high expectations; and
7. Respect diverse talents and ways of learning.

Choice of Pedagogy

- A well structured knowledge base
- An appropriate motivational context
- Learner activity, including interaction with others
- Self Monitoring

Biggs J & Moore P (1993)

Choice of Model

- Supplementary
- Hybrid / Blended
- Core
- Mobile, Personalised, Simulation, GamePlay etc

Paradigm Shifts

- Knowledge Transfer, Behaviourism, Instructivism, Objectivism, Positivism, Systematic, Competency-based, Reinforcement Theory, Programmed Instruction, Performance Objectives, Linear progression, 'Treatment' orientation, Homogeneity
  - Written Exam, Tutor led, Implicit Criteria, Competition, Product assessment, Objectives, Content
- Active Learning, Constructivism, Situated Learning, Student-centredness, Cognitivism, Epistemology, Post modernism, Learning Outcomes, Process orientation, Heterogeneity
  - Coursework, Student Led, Explicit criteria, Collaboration, Process, Outcomes, Competencies

Choice of Theory / Application

- Constructivisim
  - Mental Models, Scaffolding, Activity, Information design
- Socio-Constructivism / Communities of Practice
  - Participation, Shared Meanings, Dialogue
  - Laurillard's Conversational Theory
  - Salmon's E-Moderation
- Learner Differences / Styles
  - Gardner, Honey & Mumford,

The Matter of Money

- 2002, 2% (c.350,000) of US HE engaged in fully online programmes = $1,8 billion in revenue

Gallagher, S 2002

- European e-Learning market to reach $3.9 billion by the end of 2004
- Worldwide e-Learning market is to reach $23.7 billion by 2006

IDC Report, 2004

- UMass Online, 2006 enrollment increased by 23 percent program revenue increased to by $5 million

Help and Hindrances

- Volume of information resources
- New tools emerging, evolving
  - For delivery, management and dialogue
- Personalisation of learning

Take a Moment to review the following slide

- Identify **two** methods or tools you might use in your current teaching

- How many of the methods or tools have you not heard of….

Clickers P2P LAMS WWW CMC SMS Grid-computing RLOs

OERs CAL CAA VLEs CMS SNs VOIP Googlejockeying

OSS Blogs Wikis e-journals Podcasting VidCasting

Folksonomy Streaming Virtual meetings Simulations MoBlogs

RLRs Mash-ups Collaborative docs Tag Clouds Geo-

tagging Cloud computing E-portfolios Web-trails

Social-bookmarking GLOs Presentation tools Twitter

Repositories Chalk and talk White-board CBL OHP

35mm slide Screencasting VideoTV DRM Generic software applications CATs

Analog audio iWhite-Board Open journals PRS

Internet RSS Video-blogging Augmented reality Creative

commoms Haptics Open source software Drupal Sakai

Moodle LearnWise Elgg Zoho Bodington Audacity

Future Learners

- Adaptive
- Diverse media
- Active engagement
- Group collaboration

“Good pedagogy shifts the nature of the teaching-learning enterprise, making it more active and learner-centred. The primary goal is to move the students from a passive, notetaking role to an active, learning orientation … learning is less dependent on the conveying of words by the instructor and more the reading, exploring, and problem solving by students. Students take greater responsibility for their learning in that they are expected to construct their own knowledge by working individually, with other students, and with their instructors.”

Twigg C (2002)

A Student-centred approach

- Communication and collaboration tools and environments (for interaction, negotiation, challenge, context setting)
- Support for knowledge construction not just information transfer (e.g. modelling, simulation, information and resource finding/sharing, reflection, communication)
- Choice (resources, multiple representations)
- Utilise learner's prior experiences and knowledge (relevance of learner profile to module/unit design)
- Challenging and authentic activities
- Authentic assessment
- Design for, and support, interaction (learner-system, learner-learner, learner-tutor)

Module Design Models

1. The traditional or discipline-based model
2. The technical or systems model
3. The cognitive model
4. The experiential model
5. The socially critical model

Toohey 1999

Module Design

1. Aims
2. Outcomes
3. Identification of topics / content
4. Sequencing content / materials / activities
5. Selection of teaching methods / approaches
6. Planning assessment
7. Evaluation of design

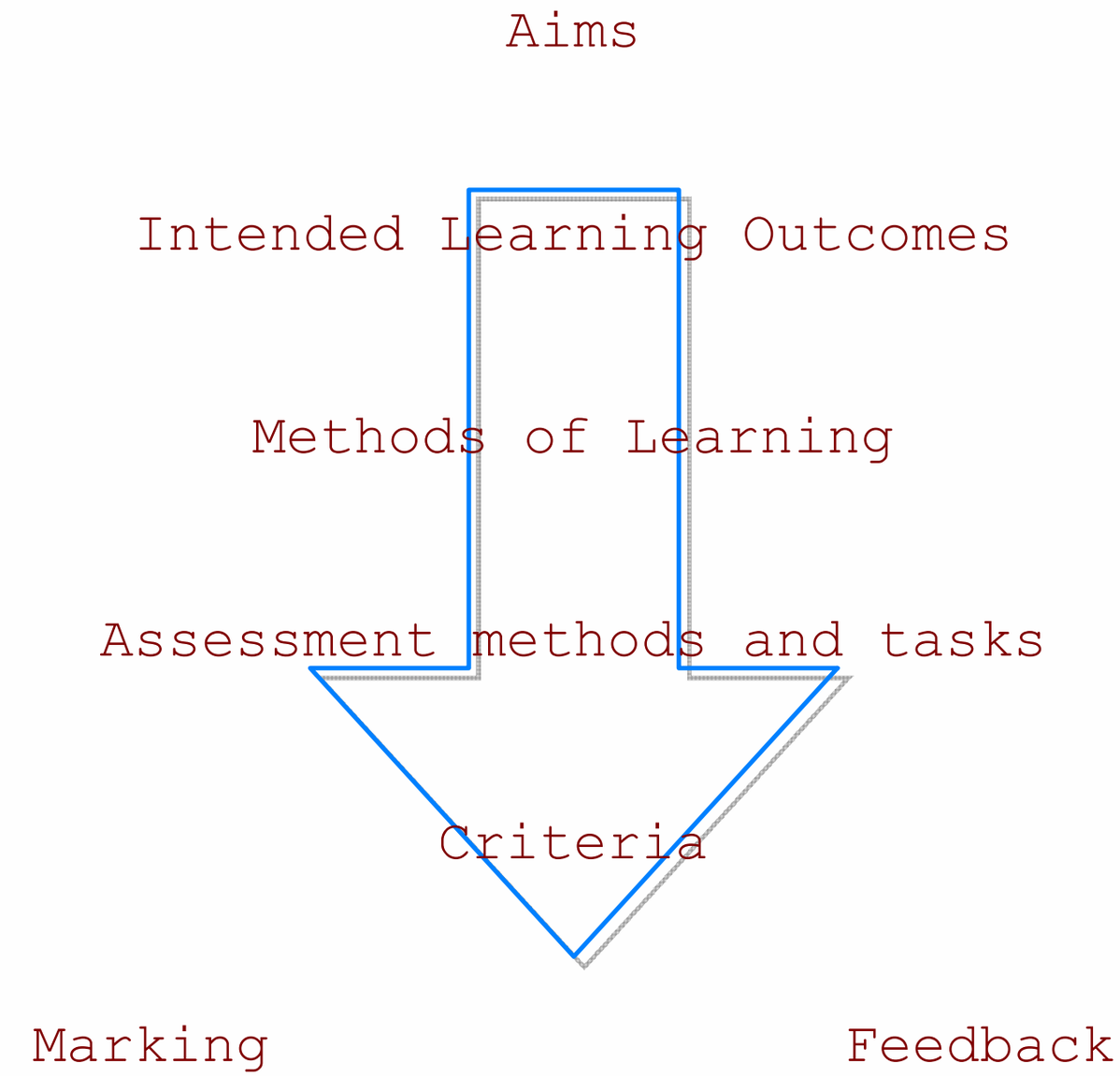
Ramsden 1992; D’Andrea 1999; Turner 2002

Using Outcomes

- Define learner's knowledge, understanding, subject skills etc
- Clarify purpose of the session, module, programme
- Identify / prioritise topic to teach and at what level
- Select appropriate T&L strategies
- Specify how learners 'demonstrate' their learning via purposeful assessment

Constructive alignment

If the aims are unclear then the system falters. Clear and realistic outcomes provide learners with a good guide of what's required to be learnt (and how this may be achieved – through suitable learning opportunities). It provides the lecturer with a direct guide and/or framework of how one may deliver and teach the programme.



Transformative Design

- Module / Programme redesign
- Developments a response to ‘real’ need
  - Analysis of course needs (Boyle 2005), longitudinally (Stubbs et al 2006)
  - Team effort (Sharpe et al 2006 b)
  - Reacting to learner needs e.g. active learning (Hinterberger et al 2004)
  - Iteratively (Trevitt 2005)

Analyse

The existing module design and student profile is analysed. This will help determine what and how it may be developed to integrate and enhance existing teaching methodologies.

Design

A storyboard / design document is developed based on the requirements highlighted in and Analysis Step. This document will outline how activities/events will be sequenced, what content (media types) are required. Finally any issues relating to implementation and the development of content will be highlighted at this phase.

Develop

Once the module has been designed on paper, the constituent elements (RLRs) can be developed using the appropriate technologies indicated in the design document.

Implement

Once RLRs are constructed they may be integrated into core teaching practices within the module. It is preferable that any issues relating to this phase will have been identified in the design document and strategies to facilitate the implementation the RLR will be in place.

Evaluate

The final phase of the module development process requires the individual RLRs to be evaluated for their effectiveness in teaching.

Student feedback may alter subsequent implementations of the RLR as it is possible that the RLR will re-enter the development phase to accommodate student feedback.

Conclusions

- Need for reflection, negotiation, re-imagination and adaptation ➔ Transformation

  - Start simply:
  - Offer a social fora (discussion pages)
  - Share information (online references/resources)
  - Allow for student presence (personal pages)
  - Encourage collaboration (group tasks)
  - Take advantage of available technical and pedagogic supports
  - Develop a ‘Hybrid /Blended’ approach first
  - Choose only appropriate technologies
  - Build over time...

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