Transforming Higher Education: Reconceptualising the Instructional Design Model for the Knowledge Society

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Introductions

- Authors
- Audience?
Overview

• Paper expands on one element of a broader model on Lifelong Learning
• Starts from existing Instructional Design Models
• Add elements for lifelong learning/ knowledge society
• Financial analysis of model
• Systems and economic forces
• Limitations
• Conclusions
Model of the Dissemination of Knowledge

Systematic Learning
- Teaching Institutions
- Workplace Learning
- Social and Personal Learning
- Sleep Learning

Learning Resources and Tools
- Knowledge repositories
- Pedagogical tools
- Pedagogical tactics

Learning Relationships
- Teacher - Learner
- Independent Learner
- Learner - Learner
- Teacher - Satisfier
Instructional Design Models

- Dick, Carey and Carey (2005)
  - Identify Instructional Goals
  - Conduct Instructional Analysis
  - Analyse Learners and Contexts
  - Write Performance Objectives
  - Develop Assessment Instruments
  - Develop Instructional Strategy
  - Develop and Select Instructional Materials

- Systematic Learning (Somasundaram, Bowser & Danaher, 2006)
  - The establishment of learning objectives or outcomes
  - The design of delivery (including formative assessment)
  - Assessment

- Shambaugh and Magliaro (2006)
  - Learning Outcomes
  - Assessment
  - Teaching
  - Technology
  - Accreditation
  - Maintenance

Figure 2: Comparison of Instructional Design Models
Systematic Learning
(From Instructional Design Models)

- The establishment of learning objectives or outcomes
- The design of delivery
- Delivery (including formative assessment)
- Assessment
Systematic Learning

The establishment of learning objectives or outcomes

The design of delivery

Delivery (including formative assessment)

Assessment

Accreditation

Maintenance
Systematic Learning

(Additional Stages)

• Accreditation

• Maintenance
Power and Cost

- Objectives or outcomes
- The design of delivery
- Delivery $\leftarrow$ High cost element
- Assessment
- Accreditation $\leftarrow$ Power/ Control
- Maintenance
Case Studies

- Typical University accountancy course – London Metropolitan University (LMU)

- Association of Chartered Certified Accountants (ACCA)
COSTS

• LMU - £22,000

• ACCA - £2,400+ ~ £1,000 (home study) - £10,000 (coursework)
Economic Model

Figure 3: Systematic Learning: The ACCA
Model Limitations

• Ignores
  – student motivation - ‘encouragement of ambition’
  – Networking
  – ‘learning by osmosis’

• Rough/porous boundaries
Limitations of Models

Our purpose is not to offer clear solutions. Nor do we feel that precise global solutions can be proposed to transform...[ourselves into a knowledge society]. We do not even claim that the analysis that we present...is right. What we do claim is that it is a legitimate perception of our situation, and that it provides useful insights [for transforming ourselves into a knowledge society]. (Somasundaram, Bowser & Danaher, 2006, p. 295)
Conclusions

In this paper, we have illustrated a model of systematic learning that we contend is useful for understanding the needs of a knowledge society in the new millennium. Using a comparative case study.

Not only does this model exist, but it is becoming increasingly powerful.
Discussion

Higher education is being restructured to be “lean” – to be focused on clear outcomes.

Is this the way to go, or are we in danger of losing the essence of a higher education – of throwing the baby with the bathwater?
Many instructional design models, theories, and strategies exist, but essentially all of them employ the ADDIE model, an acronym that stands for Analysis, Design, Development, Implementation, and Evaluation. The ADDIE model is a core ID methodology that walks you from the very beginning to the very end of the instructional design process. The chart below details what each element of the ADDIE model entails. ADDIE Model.

**Analysis.** The role of the instructional designer can be hard to define as it often pulls them in many directions. Think back to the ADDIE model. The analysis phase requires extensive research in order to identify your learners’ knowledge gaps. Instructional design Message design Instructional message design Communication theory Learning theory Information-processing theory Multimedia learning Redundancy Communication noise Attention Retrieval Theoretical framework. The need for design cases: Disseminating design knowledge. International Journal of Designs for Learning, 1(1), 1–8. Google Scholar. Boyd, G. M. (2004). Constructivism: Implications for the design and delivery of instruction. In D. H. Jonassen (Ed.), Handbook of research for educational communications and technology (pp. 170–198). New York: Macmillan. Google Scholar. Reconceptualizing the instructional design process: Lessons learned from cognitive science. U S IN.PARTMENT O EDJCATION Orrice of Edkicatenal Research and imprevemeht. Educational resources information center (eric.t. Knowledge about learning is essential for instructional designers, providing support for decisions about instruction, and the basis for the models used to design instruction. Glaser (1989b) has summarized several areas of research where well-defined descriptions of cognition that address Gardner's concerns for the nature of knowledge, its components, its sources and its deployment have been established. How can such design knowledge be either easily acquired from domain experts, or otherwise automatically added to the knowledge base? Graphical interfaces. Chapter 2 (Volume III) discusses the advantages of using graphical interfaces in acquiring design knowledge from experts. In particular, the knowledge is acquired in the form of decision trees. The clothing design task consists of selecting the style, color and materials to meet specified functional requirements for the clothing. The conventional procedure of designing clothing without CAD technology is largely based on the experience and intuition of the designer, which has several disadvantages. Firstly, much reliance is placed upon individual designers but not on the knowledge-based design model.