CONVERTING A REGULAR LEARNING COURSE INTO DISTANCE COURSE

Peter L. Stanchev

Kettering University, Flint, Michigan 48504, USA IMI, BAS,acad. G. Bonchev 8, Sofia, Bulgaria pstanche@kettering.edu

A methodology for converting a regular course into distance course is presented. The structure, design issues and examples from the distance education course "Web technology" are discussed.

Keywords: distance education

1. Distance courses cultural consideration

- Frederic Turner, 1800, University of Wisconsin
- University of Phoenix, Columbia University
- Immediate Feedback
- Intellectual property
- Faculty workload / faculty development
- Motivation
- Reward

2. Distance education theories

- Theories of independence and autonomy. According to these, the essence of distance education is the independence of the student. It takes in consideration the amount of learner autonomy and the distance between teacher and learner
- Theories of industrialization of teaching. They share a view of the distance education as an industrialized form of teaching and learning. Mechanization, assembly line, mass production, and standardization are some of the characteristics it possesses

 Theories of interaction and communication. Holmberg (1985) states, "Distance teaching will support student motivation, promote learning pleasure and make the study relevant to the individual learner."

3. Distance courses definitions

- Separation of learner and teacher geographically and in time
- Technical media joins learner, teacher, and content
- Two-way communications so learner may engage in dialogue with the teacher and/or other learners
- Learners taught as individuals due to an absence of a learning
- Group with occasional face to face meetings

4. Distance learning technologies

- Correspondence study refers to distance education based through the postal service and printed material
- Prerecorded media is instructional technology based on electronic reproduction of audio and video recordings
- Two-way audio technologies refer to audio communication from teacher to audience, and vice versa.
- Two-ways audio with graphics is the same as above with the addition of electronic displays that synchronously transmit the information stated on a display board
- One-way live video refers to communication from teacher to students through the use of video transmission systems similar to instructional television fixed services
- Two-ways audio, one way video can be understood as for in which some T.V. shows interact with the audience
- *Two-way audio/video* refers to complete interaction utilizing videoconference professional systems

 Desktop two-way audio/video are the systems based on regular microphones and cameras connected to desktop computers that utilized high-speed network connections

5. The conversion process

- Instructional System Design ADDIE Model (Assess, Design, Deliver, Implement, Evaluate)
- Develop instructional strategy
- Develop and select instructional materials
- Design and conduct formative evaluation
- Revise instruction
- Design and conduct summative evaluations

6. Distance course contents

- Course information
- Staff information
- Streaming video sessions
- Course documents
- Additional course documents
- Assignments
- Communications Tools

7. Distance course technical issues

- Proper choice of the background color and the lettering color
- Proper choice of letter type
- Organizing the text content related to the use of hyperlinks
- Proper choice of visuals, which to be included in the text
- Use of graphs and charts in the texts to visualize the content
- Observing uniform design in the making of each session
- Consistency in the content structure

- Links to other WWW sites related to the learning material
- Students evaluate all developed courses materials

8. Distance course requirements

- Clearly supportive to the learning objectives
- One that learners find attractive to learn
- Available to the learners where and when they need it
- Convenient for the learners to use and to control the timing and their own place of learning
- One for which the learners can quickly acquire the skills to use effectively
- One that the instructor have the skills and know how to use effectively
- One that relates clearly to other media
- One that both instructors and learners can afford to use

9. Distance courses tools providers

- WebCT
- Blackboard
- TopClass and WBT in training market
- Question Mark (computerized assessment)

10. Conversion steps

- Assess needs to identify goals
- Analyze learners and contexts (student-teacher, student-content, and student-student), use different learning stiles (http://www.thomasarmstrong.com/multi ple_intelligences.htm)
- Conduct instructional analysis
- Write performance objectives
- Develop assessment instruments
- Develop instructional strategy
- Develop and select instructional materials
- Design and conduct formative evaluation
- Revise instruction

Design and conduct summative evaluation

11. The distance course "Web Technology"

- Course information
 - o Course objectives
 - o Course topics
 - o Course grading
 - o Course policies
- Staff information
- Streaming video sessions
- Course documents
 - Program examples in HTML, JavaScript, Perl, PHP, MySQL, Java applets
 - Video tutorials for Adobe Acrobat, JavaScript, Internet, HTML, Web Applications Designing, Web Pages Discover, FrontPage, Internet Graphics, Illustrator, Photoshop, Web Graphics Programming
 - o Link to a list with connections to Web sites with related to the session information
 - o Session quiz
 - o Wrap-up part
- Assignments
 - o Every week quiz, taken automatically
 - Program assignments
 - Midterm exams, containing multiple-choice questions and programming assignments
 - o Final exam, contains project programming assignment and multiple choice questions
 - Self-test questions and answers to self-test questions.
- Communications
- Design issues
- Technical issues

12. Conclusions

- Long-term process of trials and errors
- The quality of the distance education

- Distance education is an other type of education
- Changes in culture, relationships and technology

Relevant bibliographic citation on the topic

- [1.] Biner P., R. Dean, A. Mellinger, "Factors understanding distance learner satisfaction with televised college level course", The American journal of Distance education, 8(1), 1994, pp.6071.
- [2.] Harvey M., Deitel, Paul J. Deitel, Andrew B. Goldberg, Internet & World Wide Web How to Program, 3/e, Prentice Hall, 2004.
- [3.] Simonson M., S. Smaldino, M. Albright, S. Zvacek, Teaching and Learning at a Distance: Foundations of Distance Education, 2/e, Prentice Hall, 2003.
- [4.] Stanchev P., The "Web Technology" Distance Course, Conference on Information Technology in Education, Elizabettown, PA, Sep 18, 2004
- [5.] Stanchev P., Dimitrov B., WWW-based distance education course "Management Support Systems", the International Conference on Computing, Communications and Control Technologies (CCCT 2004), Austin (Texas), USA, August 1417, 2004, volume II, pp. 222226
- [6.] Stanchev P., "WWW-based distance education course methodology", Lilly Conference on College Teaching, Sept. 2001,MI, USA.
- [7.] Stanchev P., "Converting a Regular Learning Course into Distance Course", 17th Lilly Conference on College & University Teaching, West, March 1819, 2005, Pomona, California.
- [8.] Williams E., D. Lane, Web Database Applications with PHP and MySQL, 2/e, O'Reilly, 2004.