Sukon Kanchanaraksa, PhD

Director
Center for Teaching and Learning with Technology

Suggested Topics

1. What does recent research tell us about which DE tools work best in terms of formal graduate education programs -- under what circumstances, and for what kinds of students?

2. What are some new/emerging technologies that we should be thinking about incorporating into our teaching tool boxes? What is being done with podcast, web boards, and so forth? What might be done?

3. Are there special considerations in regard to #1 and #2 above in relation to DE in the context of continuing education programs for professionals in practice (i.e., people not in formal graduate degree programs)?
Objectives

- Discuss effectiveness and timeliness of distance education
- Describe educational tools/use of educational technology in distance education
- Recognize factors that influence success of a distance education program
- List new/emerging technologies and describe possible application in distance education
- Compare the differences between distance education models used in academic and continuing education

Effectiveness of Distance Education

- Many educators ask if distant students learn as much as students receiving traditional face-to-face instruction. “Research comparing distance education to traditional face-to-face instruction indicates that teaching and studying at a distance can be as effective as traditional instruction, when the method and technologies used are appropriate to the instructional tasks, there is student-to-student interaction, and when there is timely teacher-to-student feedback.”

http://www.uidaho.edu/eo/dist9.html
Barry Willis (bwillis@uidaho.edu), Associate Dean-Engineering, University of Idaho, Distance Education–Strategies and Tools and Distance Education–A Practical Guide.
Reservation

- Study of effectiveness of DE is difficult
  - Confounding is not adequately controlled
  - Subjects are not randomly chosen or not representative
  - Outcomes are difficult to measure/define (course grade, exam scores, standardized test scores, work performance/satisfaction after graduation)

On-site versus Online
Comparison of Final Exam Scores

- N=42
  - Mean=68.2
- N=28
  - Mean=69.2

36 questions max score=90

Feb 2000
Example of Studies of Effectiveness

- This study concurs with the general body of knowledge that distance education can be just as good as traditional face-to-face education. No significant differences were found between pre-test scores, homework grades, research paper grades and final course grades. However, there were significant differences between the two groups with regard to age, post-test scores, and final exam scores. Distance education students scored higher in all three categories. Yet, this is not sufficient evidence to conclude that distance education is superior to traditional education. Other factors may have contributed to these results.

Shelia Tucker, East Carolina University
Distance Education: Better, Worse, Or As Good As Traditional Education?
http://www.westga.edu/~distance/ojdla/winter44/tucker44.html

Meta-Analysis of the Literature

- Even though the overall difference (of the effectiveness or achievement) between distance education and traditional classroom education does not differ, there is a wide variability in the outcome measures. (Distance education works extremely well sometimes and extremely poorly other times.)

Seven Principles For Good Practice in Undergraduate Education

- Encourages contact between students and faculty,
- Develops reciprocity and cooperation among students,
- Encourages active learning,
- Gives prompt feedback,
- Emphasizes time on task,
- Communicates high expectations, and
- Respects diverse talents and ways of learning.

Chickering and Gamson
http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/7princip.htm

Sloan-C’s Pillars of Quality

- **Learning Effectiveness**: The provider demonstrates that the quality of learning online is comparable to the quality of its traditional programs.
- **Cost Effectiveness and Institutional Commitment**: Institutions continuously improve services while reducing cost.
- **Access**: All learners who wish to learn online have the opportunity and can achieve success.
- **Faculty Satisfaction**: Faculty achieve success with teaching online, citing appreciation and happiness.
- **Student Satisfaction**: Students are successful in learning online and are pleased with their experience.

Synthesis of Sloan-C Effective Practices
http://www.sloan-c.org/publications/books/v9n3_moore.pdf
Is Distance Education Effective?

- DE (and hybrid design) can be effective if properly 'managed'.
- DE is good for certain people; it is not for everyone. For certain disciplines/markets, DE will have potential growth opportunities.

AACN Position Statement on DE in Response to IOM’s Report

- Superior distance education programs require substantial institutional financial investment in equipment, infrastructure, and faculty development.
- Local, regional, and national planning for multi-site communications need to consider coordination of services, compatibility and progressive upgrading of hardware, as well as policies that lower transmission costs within and across state lines.
- The use of distance technology and in particular, Web-based media, has raised questions regarding intellectual property and copyrights, privacy of educational dialogue, and other related legal and ethical issues that require continued clarification.

(cont.)
AACN Position Statement on DE in Response to IOM’s Report (cont.)

- Technology-mediated teaching strategies can change dramatically the way teaching and learning occurs, challenging the traditional relationship of students to academic institutions. These strategies may change conventional thinking about how quality of educational programs is assessed and what is required to support student learning (e.g., library access, counseling services, computing equipment, tuition, and financial aid).
- Distance education technology has provided some nursing schools an advantage in recruiting students and is increasing competition among institutions.

AACN white paper (1999): Distance technology in nursing education.
American Association of Colleges of Nursing.
http://www.aacn.nche.edu/Publications/positions/whitepaper.htm

Why (Must) Consider Distance Education

- Student’s Perspective
  - Distance education is better than no education (opportunity)
  - Motivated learners seek distance education programs (older, have prior degree, seek advancement with a particular program)
Why (Must) Consider Distance Education

<table>
<thead>
<tr>
<th>Institutional perspective</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Universities anticipate change in future of education</td>
<td></td>
</tr>
<tr>
<td>• Familiarity with newer technology</td>
<td></td>
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<tr>
<td>• Improved educational technology</td>
<td></td>
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<tr>
<td>Capacity of brick and mortar space is limited</td>
<td></td>
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<tr>
<td>Needs to increase revenue</td>
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<tr>
<td>Teaching online improves teaching F2F</td>
<td></td>
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<tr>
<td>Access to international and special-group markets</td>
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</table>

Why (Must) Consider Distance Education

<table>
<thead>
<tr>
<th>Faculty’s perspective</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(It is more work. Does it really save time? Is it more convenient?)</td>
<td></td>
</tr>
<tr>
<td>There is more than one way to teach.</td>
<td></td>
</tr>
</tbody>
</table>
Factors to be Considered

• Support of university administration
• Institutional IT and DE resources
• Instructional designer and effective instructional practices
  – Use the appropriate instructional tools to match the content, objectives, competencies, and the characteristics of the students
• Faculty must be properly trained both in the use of equipment and in those techniques proven effective in the distance education environment.

Elements in Online Education

• CMS (WebCT, BlackBoard, Open Source, …)
  – BlackBoard acquired WebCT
  – BlackBoard’s patent and pledge ([http://www.blackboard.com/patent](http://www.blackboard.com/patent))
  – Open source - SAKAI, Moodles
• Content (text, multi-media)
  – Faculty-generated content
  – Tools
• Interaction
  – Tools
JHSPH Online Program

- Supportive School’s administration and faculty
- IT and team of professionals (instructional designers, Web developers, technical writers,…)
- Proprietary CMS (developed in 1996) responding to the needs of faculty and students
- Multimedia-rich content (audio, animations)
  - Streaming (Real)
  - Progressive download (Adobe Presenter)
- Interaction
  - Asynchronous tools (email, BBS)
  - Synchronous tools (text chat, audio chat, video)

Preventing Infant Mortality
and Promoting the Health of Women, Infants, and Children

Welcome

Welcome to Preventing Infant Mortality and Promoting the Health of Women, Infants, and Children. This course presents both the scientific and practical aspects of issues related to preventing infant mortality and improving the outcome of pregnancy. In addition, we will discuss and critique the programmatic approaches to reducing infant mortality rates in a population.

By the end of the course we anticipate you will be able to do the following:

- Analyze the causes and consequences of high infant mortality in a population
- Discuss the epidemiology of infant mortality
- Develop a critical eye for the strategies available to reduce infant mortality

Be sure to check out the course overview video.

Best wishes for completion of the course.

Sincerely yours,
Melissa Hawkins, PhD
Course Instructor
Strategies for Reducing Low Birth Weight and Infant Mortality in the U.S.
Donna Strobino, PhD

Objectives
After listening to, viewing, and studying the lecture materials on this page, you should be able to do the following:

- Discuss the complexity of the issues of low birth weight and infant mortality
- Describe the factors that determine the infant mortality rate in a population
- Identify strategies in preventing low birth weight and reducing infant mortality in the U.S.
- Discuss the limitations of interventions to reduce LBW and IM
- Analyze the effects of each strategy in reducing infant mortality

Lecture Summary
In this lecture, we will focus on several strategies that are used in the reduction of infant mortality. We will examine a variety of interventions and discuss the scientific evidence regarding their potential for reducing infant mortality and low birth weight. We will also explore the four strategies that are used to conceptualize infant mortality reduction techniques.

Lecture Materials

<table>
<thead>
<tr>
<th>Item</th>
<th>Running Time</th>
<th>Audio</th>
<th>Print Slides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section A: Introduction and Strategies to Prevent High Risk Pregnancies</td>
<td>6:55</td>
<td>mp3</td>
<td>(2/0/0) Glossary</td>
</tr>
<tr>
<td>Section B: Strategies to Prevent LBW and Pre-term Births in a Population</td>
<td>22:18</td>
<td>mp3</td>
<td>(2/0/0) Glossary</td>
</tr>
<tr>
<td>Section C: Strategies to Improve Birth Weight-Specific Mortality</td>
<td>9:22</td>
<td>mp3</td>
<td>(2/0/0) Glossary</td>
</tr>
<tr>
<td>Section D: Strategies to Reduce Postneonatal Mortality and Lecture Conclusion</td>
<td>2:52</td>
<td>mp3</td>
<td>(2/0/0) Glossary</td>
</tr>
</tbody>
</table>

Quiz
There is a brief quiz associated with this lecture. Although your quiz will not be graded, you are required to complete it. Take Self Quiz.
Communication Center

The Communication Center is designed to promote organized and ongoing discussion among students and faculty. The Communication Center is home to the following tools:

- **BBS**: An electronic bulletin board system for communicating asynchronously
- **LiveTalk**: A Web broadcasting area for engaging in dynamic, real-time discussion
- **AudioChat**: An audio conferencing tool for small groups (maximum five participants); includes text chat, too
- **TextChat**: A text-based communication area for large- and small-group chat sessions; text is automatically archived
- **Roster**: A list of students in the course, individual email addresses, and student biographical profiles
- **Course Groups**: A tool that shows you what, if any, groups to which you are assigned in this class.
- **Class Email**: A tool for sending email messages to the whole class, small groups, or individual students
- **Class Email Archive**: A repository of all messages sent through the course Web site to the whole class
- **News Flashes**: Important messages from faculty; abbreviated alerts are posted on the course home page
- **Who's Online**: A list of people currently signed in to the course Web site

Appropriate Use of Tools?

- Graduate students
  - Motivation and opportunity
  - Learning styles
    - Not for everyone
- Graduate program
  - Knowledge versus skill
Use of PowerPoint

- Overuse of PowerPoint
- Students are accustomed to the use of PowerPoint in classroom accompanying lectures
- Different options of providing PPT files to students (doc, ppt, pdf, html, Flash, other video formats)
- Conversion of PowerPoint into Flash file synchronized with audio (see ref below)
- Bonus features - animation, video, interactive options - can be included

http://academictech.doit.wisc.edu/ORFI/avs/Modules/narrate.htm

Instructor-Student and Student-student Interaction

- Provide timely feedback from instructor/TA => more TA, shorter assignments, better tools (CMS features)!
- Combine both synchronous and asynchronous communication => text chat, audio chat, video, BBS, email
- Provide structured contacts (assignments, discussions, Q&A, news flash)
- Form small learning groups=> need tools to interact
- Add a mentor to small learning groups
New/Emerging Tools

- Blog
- Podcast
- Wiki
- YouTube (video blog)
- Facebook
- MySpace
- Second Life
- Skype

Use of Tools

- For his course “Media Technology and Cultural Change,” which began this month, Professor Mittell said he would require his students to create a Wikipedia entry as well as post a video on YouTube, create a podcast and produce a blog for the course.
Use of Blog and Facebook

- [http://frequanq.blogspot.com/](http://frequanq.blogspot.com/)

### Distance Ed on Facebook

A common complaint about distance education is the lack of a feeling of community among students (and faculty). Jennifer Macaulay feels this way, and has decided to try and do something about it. She has created a Distance Education group on the SCSU Facebook community.

Come and join us in Facebook!

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Blog

- A blog is a user-generated website where entries are made in journal style and displayed in a reverse chronological order (wikipedia).
- Blog (user-centered) and BBS (group)

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Top Ten eLearning Blogs

Podcast

• A podcast is a media file that is distributed by subscription (paid or unpaid) over the Internet using syndication feeds, for playback on mobile devices and personal computers.
• A podcast is distinguished from other digital audio formats by its ability to be downloaded automatically, using software capable of reading feed formats such as RSS or Atom.
• Example http://burkso2.blogspot.com/, iTune U

Wiki

• Mass collaborative authoring
• A wiki (IPA: [ˈwɪ.ki.] <WICK-ee> or [ˈwiː.ki:] <WEE-kee>[1]) is a website that allows the visitors themselves to easily add, remove, and otherwise edit and change available content, typically without the need for registration. This ease of interaction and operation makes a wiki an effective tool for mass collaborative authoring.
SecondLife

• "Three Ohio University units have developed a Second Life campus currently consisting of three sims, two in the Main Grid, one in the Teen Grid. The blueprint was based around how best to serve traditional college students, adult and distance learners, high school students, and middle school students in a convenient and engaging fashion that would allow for both synchronous and asynchronous learning experiences. Our goal is to provide an attractive and engaging metaphor for Ohio University's beautiful real-world campus and extend Ohio University's mission into the synthetic world in Second Life. The Ohio University Second Life campus can be found at: http://slurl.com/secondlife/ohio%20university/20/36/24/"


Thoughts ...

• Instructors use podcast (instead of/supplementing lectures)
  – Degree of difficulty - low
• Students use wiki for a group project
  – Degree of difficulty - low
• Use SecondLife …?
**Recommendations**

- For students
  - Introduce courseware (tools) and the process of being a distance student (orientation)
  - Give expectation upfront (examples)
- For institute/DE team
  - Use appropriate instructional tools (meet the goals and objectives)
- For faculty
  - Train instructors to use the tools in instruction

**Academic Versus Continuing Education**

- Content (course/term versus topic/session)
- Time (academic term versus days)
- Knowledge and skill (practice)
- Interaction with instructor
- Assessment (grade versus completion)
Distance Education Models for Continuing Education (Fee-based)

- Free cont. ed
  - Several formats (e.g. video of Grand Rounds)
  - OCW (course content)
- Fee-based cont. ed models
  - Stand-alone distance education content (no interaction)
  - Distance education content with interaction at a distance (distance ed model)
  - Distance education content with F2F interaction (hybrid)

End

Present to
Association of Teachers of Maternal and Child Health (ATMCH)
Business Meeting Spring 2007
Sunday March 4, 2007
Crystal Gateway Marriott
Room: McLean
1700 Jefferson Davis Highway
Arlington, Virginia 22202