Blended Learning Situations, Solutions, and Several Stunning Surprises
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This the talk will cover:
1. Definitions of blended learning
2. Advantages and disadvantages
3. Models of blended learning
4. Examples of blended learning
5. Implications for blended learning

Part 1. Handbook of Blended Learning (HOBLe)
- University of Phoenix, Capella University, JIU, National University
- Microsoft, IBM, Sun, Cisco, Macromedia, Oracle, WebCT
- The World Bank, the DOD in USA
- In Canada: York University and the University of Calgary
- Other universities in Japan, Korea, Malaysia, Singapore, China, NZ, South Africa, Israel, Mexico, Australia, Wales, England, USA

Poll #1. Have you taught, taken, or designed a blended learning course?
A = yes
B = no
C = not sure, I am here to find out what blended means

Blended Learning Defined and Explained

<table>
<thead>
<tr>
<th>Proportion of content delivered online</th>
<th>Type of Course</th>
<th>Normal Description</th>
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<tbody>
<tr>
<td>0% Traditional</td>
<td>Course with no online technology used - course is delivered in a traditional format.</td>
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<tr>
<td>1 to 29% Web Infrared</td>
<td>Course which uses web-based learning to deliver content, essentially a face-to-face course. Students may be enrolled in MIST to pass the syllabus and assignments, for example.</td>
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<tr>
<td>30 to 79% Blended/Physical</td>
<td>Course that contains elements of both online and face-to-face components. The course is delivered online, but students may attend classes or interact with instructors or peers in a face-to-face setting.</td>
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<tr>
<td>80% Online</td>
<td>A course where the majority of the course is delivered online. Typically has no face-to-face components.</td>
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Range of Blends in Pew Cases

1. Blending Delivery Media
   - "Blended learning means the combination of a wide range of learning media (instructor led, web based courseware, simulations, job aids, webinars, documents) into a total training program designed to solve a specific business problem."
   (Bersin & Associates, 2003, p. 3)

2. Blending Instructional Methods
   - "Blended learning: to combine various pedagogical approaches (e.g., constructivism, behaviorism, cognitivism) to produce an optimal learning outcome with or without instructional technology."
   (Driscoll, 2002, p. 54)

3. Blending Online and F2F Instruction
   - "Blended learning refers to events that combine aspects of online and face-to-face instruction" (Rooney, 2003, p. 26; Ward & LaBranche, 2003, p. 22)
Who is demanding fully online and blended learning?

Why Blend and Advantages and Disadvantages of BL...

Why Teaching Fully Online or Blended? Three Key Reasons
1. Improved Pedagogy
   - Interactive vs. Transmissive environments
   - Authenticity integration into work
2. Increased Access/Flexibility
   - Reduced seat time courses – UCF M courses
3. Increased Cost Effectiveness
   - Corporate: ROI – IBM 47:1, Avaya, Microsoft
   - Higher Ed: PEW Grants

Where is Blended Beneficial?
http://www.center.rpi.edu/PewGrant/ProjDesc.html
- Large Classes (Spanish, intro psych, algebra, elementary statistics, biology)
- Classes with working students
- Students spread over a distance
- Classes with certification
- Classes with need for standardization
- New requirements for a profession
- Writing intensive classes
- Theory classes

Examples of Blended Learning, Margaret Driscoll, e-Learning, March 2002
- Put assessments/reviews online
- Follow-up in community of practice
- Put reference materials on Web
- Deliver pre-work online
- Provide office hours online
- Use mentoring/coaching tool
- Access experts live online
- Use e-mail and instant messaging

Fully Online and Blended Learning Advantages
1. Increased Learning (better papers, higher scores)
2. More effective pedagogy and interaction
3. Course access at one’s convenience and flexible completion (e.g., multiple ways to meet course objectives)
4. Reduction in physical class or space needs, commuting, parking
5. Increased opportunities for human interaction, communication, & contact among students
6. Introverts participate more
Frameworks and Models of Blended Learning...

![Diagram of frameworks and models of blended learning]

**Historical Emergence of Fully Online and Blended**

*Graham, 2006*

![Diagram of historical emergence of fully online and blended]

**Models of Blending**

Blending occurs at the following four levels:

- Activity Level
- Course Level
- Program Level
- Institutional Level

![Diagram of models of blending]

**1. Activity- and Course-Level Blends**

Blended learning systems: Definitions and directions

*Osguthorpe & Graham, 2003*

![Diagram of activity- and course-level blends]

**2. Course-Level Blend: Using CMS to blend distance and F2F learners**

*Rogers, Graham, et al., 2003*

![Diagram of course-level blend using CMS]
2. Course-level blends:
Beijing Normal University (2006)

Alternating F2F and e-learning activities in a multimedia technology course in China.

3. Program-level blending
(blend same for all participants)
Kelley Direct Online MBA (IU)

4. AMA Special Report, Effectively Implementing a Blended Learning Approach
(Steven Shaw & Nicholas Igniter, 2006)

AMA at Work: lifelong learning, lifelong growth

4. The IBM Four Tier Learning Model (2006)
Blending Learning for Business Impact – IBM's case for learning success, 2006 Handbook of Blended Learning, Nancy Lewis, VP, & Peter Orton, IBM

4. Institutional-level Blending
Example 1: University of Central Florida
- E courses are technology enhanced courses
- M courses are blended courses with reduced seat time
- W courses are web courses (completely online)

4. Institutional-level Blending
(Abtar Kaur & Ansary Ahmed, 2006, Open U Malaysia)
4. Institutional-level Blending
(Brian Linquist, 2006)

Example 2: University of Phoenix
- Completely online courses
- Residential F2F courses
- Blended Courses
  - Local Model = 5 week courses with first and last week F2F
  - Distance Model = 5 week courses with half first and half last week F2F (the last meeting of one course is coordinated to be back-to-back with the first meeting of the next 5 week course)

Categories of Blends

<table>
<thead>
<tr>
<th>A. Enabling Blends</th>
<th>Enabling blends primarily focus on addressing issues of access and convenience; provide similar learning experiences.</th>
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<tr>
<td>B. Enhancing Blends</td>
<td>Enhancing blends allow for incremental changes to the pedagogy; additional or supplementary online resources.</td>
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<tr>
<td>C. Transforming Blends</td>
<td>Transforming blends are blends that allow for a radical transformation of the pedagogy and learner construction of knowledge.</td>
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A. Enabling Blends
National University
Department of Teacher Education
(Reynolds & Greiner, 2006)

- 12,000 Enrolled Students
- Since 2004 More than 50% of Candidates Enrolling as Online rather than On-site
  - They will take a majority of classes online
- Each Candidate Takes 7 Credential Classes
- Each Class Contains 2 Field-based Exp.
- 500 Classes/Yr. & 20 Students/Class =
- 20,000 Field-based Experiences/Year

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</thead>
<tbody>
<tr>
<td>In All</td>
<td>Total</td>
<td>Count</td>
<td>% of Total</td>
<td>Count</td>
<td>% of Total</td>
<td>Count</td>
</tr>
<tr>
<td>In A Lab Online</td>
<td>4,992</td>
<td>18%</td>
<td>8,874</td>
<td>31%</td>
<td>11,420</td>
<td>45%</td>
</tr>
<tr>
<td>In A Majority Online</td>
<td>781</td>
<td>3%</td>
<td>5,713</td>
<td>21%</td>
<td>7,042</td>
<td>29%</td>
</tr>
<tr>
<td>In All Online</td>
<td>532</td>
<td>1%</td>
<td>1,747</td>
<td>6%</td>
<td>2,442</td>
<td>10%</td>
</tr>
<tr>
<td>None</td>
<td>12,000</td>
<td>100%</td>
<td>65,000</td>
<td>100%</td>
<td>56,000</td>
<td>100%</td>
</tr>
<tr>
<td>Total Active Students</td>
<td>21,436</td>
<td>100%</td>
<td>27,509</td>
<td>100%</td>
<td>27,077</td>
<td>100%</td>
</tr>
</tbody>
</table>
B. Enhancing Blends
(University of Glamorgan in Wales)

What can we say about blended learning then???

- It is everywhere!!!!!!!

- Resistance is futile!!!!!!!

C. Transforming Blends
(Kirkley & Kirkley; HOBLe, 2006)

- Corporate/Military Training
  - Workplace learning (integrating learning into workflow)
  - Mixed-reality environments combining the virtual and real
    Reality-Virtuality Training Continuum

Part II: 13 Fully Online and
Blended Learning Problems and 42
Solutions
Problem Situation #1: Brief FTF Experiences

• Face-to-face (FTF) experiences are brief, one-week journeys. Need to build self-confidence, create social supports, teams, camaraderie, etc.

Ok, Million Dollar Question: What can you do in 1 week?

Blended Solution #1+. Sample Activities for Brief Meetings
1. Assign web buddies, email pals, critical friends based on interests, confidence, location, etc.
2. Ice breakers—paired introductions, corners.
3. Solve case in team competitions with awards.
4. Test technology in a lab.
5. Assign teams and exchange info for small teams using text messaging.
6. Library (digital and physical) scavenger hunt.
7. Do a podcast documenting the meeting.
8. Have everyone create a blog on the experience.
9. Open an e-portfolio for each student
10. Brainstorm how might use technology in program.

Problem Situation #2: Student Absenteeism

• Students miss class to attend a conference or event or a personal problem arises. Or students asks to watch the class a second time.

Blended Solution #2. Video Streamed and Webcast Lectures
Problem Situation #3: Facilities and Time
- Limited facilities or rooms for teaching. Or students cannot make it to class every week or are working full time.

Problem Situation #4: Web Supplemental Activities
- Fail to finish class discussion or other activity in time. Or desire to integrate the Web more in your face-to-face instruction or outside of class. Want to provide course resources and activities for students to explore.
Problem Situation #5: Student Learning Control

- Want to give students more control and ownership over their own learning. Want to foster student generative learning or being authors of their own knowledge.

Problem Situation #6: Preparedness for the Profession

- Students are not prepared for their professions when they graduate. Or want to better apprentice students into their chosen profession. What to provide opportunities to work with practitioners, experts, mentors, and coaches in authentic learning environment.

Problem Situation #7: Online Testing Center: e.g., self study in anatomy

Blended Solution #8. Online Course Portal: e.g., courses on the Civil War

Problem Situation #9: Student Podcast (in schools—kids have power)

"Just the word 'podcast' scares a lot of teachers away," Ms. Schrock said. "There are a lot of misconceptions."

"All you need is a computer, access to the Internet and a microphone that you can buy at Toys 'R' Us," Mr. Warlick said. "I listen to podcasts on my computer." (NY Times, Jan 25, 2006)

Problem Situation #10. Community of Learners: Medical and Business Cases Online (cases community)

http://optionstraining.org/login
Blended Solution #11. Real World Problems (PBL online): Real-time Cases

Blended Solution #12. Video Scenario Learning (Option 6, Bloomington, IN)

Blended Solution #13. Educational Simulations (Intel IT Manager Game)

Problem Situation #7: Collaborative Skill Deficit
- Students need collaboration and teamwork skills. Want to build virtual teaming skills in class activities or work with learners in other locales or situations.

Blended Solution #14. Collaborative Searching

Blended Solution #15. Sharing in Virtual Teams (e.g., Collanos, Groove, SharePoint)
Blended Solution #16. Wikibooks
(Web 2.0 and Emerging Learning Technologies (The WELT))

Blended Solution #17. Cross-Class Collab
(Indiana University and Open U of Malaysia; Univ of Illinois Tourism class)

Problem Situation #8:
Student Reflections and Connections
• Students are not connecting content. They are just turning pages and going through the motions. Minimal student reflection is seen.

Blended Solution #18.
Language Lessons, Team Meetings, etc., in Skype

Blended Solution #20. The Complete Works of Charles Darwin

Blended Solution #21. Learner-Self Interactions and Reflections

Blended Solution #22. Expert Video Reflections and Scaffolds online (E-Reading First Ohio; reflect, share, and compare)

Blended Solution #23. Blogs with Critical Friends (e.g., http://travelingman.blogspot.com/)

Blended Solution #24. Workplace and Field Reflections
1. Instructor provides reflection or prompt for job related or field observations
2. Reflect on job setting or observe in field
3. Record notes on Web and reflect on concepts from chapter
4. Respond to peers
5. Instructor summarizes posts

Blended Solution #25. Online Simulation: Financial Accounting (University of Calgary)
Problem Situation #9: Learning Community

- There is a preference for creating an online learning community in order to increase student learning and retention in the program. Such a community might be in a single class or across a series of classes.

Blended Solution #27: Asynchronous Discussion of Weekly Topics

Problem Situation #10: Need to Visualize Content

- Content is highly visual in nature and difficult to simply discuss in class. Or students have a preference for visual learning.

Blended Solution #28: Shared Online Video Demonstrations (e.g., Monkey See)

Blended Solution #29: Wikihow

http://www.wikihow.com/
**Blended Solution #30:** ECPod

**Blended Solution #31. Visual Resources (e.g., Periodic Table of Visualization; Visual Thesaurus)**

**A PERIODIC TABLE OF VISUALIZATION METHODS**

**Blended Solution #32. Flash, 3-D Visualization, & Laboratory Software**

**Blended Solution #33. Flowcharts, Diagrams, Maps, etc.**

Elements in the system for control of oxygenation in the human body (e.g., the kidney): From: Next-Generation Educational Software Why We Need It and a Research Agenda for Getting It. VanDam, Becker, & Simpson, Educational Review, March/April 2005

**Blended Solution #34. Anchored Instruction: Assign a YouTube Videos to Watch and Reflect on**

**Problem Situation #11:** Need for Hands-On Learning

- To learn the material requires that students try it out in a lab or real-world situation. Or students prefer hands-on learning activities.
Blended Solution #35. Educational Simulations
(Medical Traumas from TD Magazine, August 2006)

Problem Situation #12:
Preference for Auditory Learning
• The content is heavily verbal or words. Or students have a
preference to listen to a lecture or hear an instructor deliver a
lecture.

Blended Solution #36.
Cascaded Scenario, Virtual Crime Scene
Arjuna Multimedia, Bloomington, IN)

Problem Situation #13:
Lack of Instructor Presence
• Students need to see or hear from the instructor. They need a
sense that the instructor is supporting their learning. They prefer face-to-face but are willing to try online.

Blended Solution #37.
Basic Acoustics of Musical Instruments
2005 MERLOT Classics Award

Blended Solution #38.
Art and History Exhibits
Blended Solution #39: Teaching with Twitter

Blended Solution #40. Instructor Presentation in Synchronous Sessions (Breeze, Elluminete, WebEx, etc.)

Blended Solution #41. Peer Critique in Breeze (Table of Benefits of Peer Critique; Park & Rount, in review)

Blended Solution #42. Video Course Intros (examples from Northern Virginia Community College and Indiana University KD (online MBA) program)

Time for Convergence!!! Combining Web 2.0 and Other Online Technology Trends (Ten Examples)
8. Indexing Sounds in Cities with Google Maps

9. Cluster Maps (who is reading your blog or using your product?); Blog of Will Richardson, famous K-12 blogger (left) and Learning Theories Book of Michael Orey, Univ of Georgia (right)

10. Vlogging (Video Blogging) e.g., Andy Calvin's Waste of Bandwidth
    Michael L. Wesch, Kansas State, The Machine is Using Us

11. Serious Games Blog with video of Wikipedia and Mahalo Founders and Google scanning people in background

12. You Ustreamed my Ustream: Now that's a Twitter of an Idea

Predictions for Blended Learning

Implications and Challenges for Blended Learning

1. Faculty and students are more mobile.
2. Students more choices.
3. Student expectations rise.
6. Courses increasingly modular.
7. Less predefined schedules.
8. When teaching less clear; when learning less clear.

The End...Remember

It's Over...

Poll: Ok, then, who wants more???
A. Yes
B. No
C. Not sure

It is the End!!!