Blended Learning: 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

Blended Learning: Two Parts
1. Models and Frameworks
2. Problems and Solutions (i.e., examples)

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

Poll #2. What are you???
A. Tutor, professor, trainer, instructor, lecturer, adjunct, visiting scholar
B. Director or staff in a learning center, instructional designer, etc.
C. Policy maker, government official
D. Administrator, Dean, President, etc.
E. Graduate student, informal learner
G. Other
Poll #3: Burning Blended Learning Q’s
(Pick any that interest you)
A. What does blended learning mean?
B. What is typically being blended?
C. How much to blend?
D. Why blend (advantages and disadvantages)?
E. Where is this all headed?

Chris Dede, Campus Technology, June 2006: Changing the Gold Standard for Instruction
• “There is a widespread misconception that, for everyone, face-to-face is the "gold standard" in education, and that any kind of mediated interaction is second best. But we know from research, that’s not true.”

Blended Learning Defined and Explained

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)

Future Directions of Blended Learning
(Bonk, Kim, & Zeng, 2006, Chapter 39)

Blended Learning Survey: China, Taiwan, UK, US, and Korea
(Bonk et al., 2006)

More than 70 Million Adults Want to Head Back to School
August 22, 2006, Yahoo News
Report: "Degrees of Opportunity" from Capella University

- Degrees of Opportunity, a new national study of the attitudes of adult Americans toward continuing their education, indicates that more than half of American adults age 25 to 60 would like to pursue additional education -- the equivalent of more than 70 million adult Americans.
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

Student Satisfaction in Canada for Blended Learning (Owston, Garrison, & Cook 2006)
**Fully Online and Blended Learning Disadvantages**

1. Procrastination (trouble managing time and requirements)
2. Problems with technology at the beginning (instructor tries too much)
3. Can be overwhelming or too novel
4. Poor integration or planning
5. Resistance to change
6. Faculty skepticism, increased workload, and reduced productivity

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**Frameworks and Models of Blended Learning...**

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**Harvey Singh (2006)**

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**Historical Emergence of Fully Online and Blended Learning (Graham, 2006)**

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**AMA Special Report, Blended Learning Opportunities**

Alison Rossett (2006)

1. Anchor Blend: Start FTF, then online
2. Bookend Blend: Three part: e.g., online preassessments, then FTF, and then online post assessments
3. Field Blend: Assets, resources, and choices including perhaps FTF
AMA Special Report, Effectively Implementing a Blended Learning Approach
(Steven Shaw & Nicholas Igneri, 2006)

Range of Blends in Pew Cases

Insung Jung & Katsuaki Suzuki,
Blended Learning in Japan, 2006

- Open Interaction: create small group debate, assign online facilitators & wrappers
- Knowledge Creation: inviting external experts, combine async and sync
- Information Distribution: posting materials to review or read
- Efficient Management: allow electronic submission; list of standard feedback

Models of Blending
Blending occurs at the following four levels:

1. Activity- and Course-Level Blends
Blended learning systems: Definitions and directions (Osagbuge & Graham, 2003)

2. Course-Level Blend: Using CMS to blend distance and F2F learners
(Rogers, Graham, et al., 2003)

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

3. Program-level blending

<table>
<thead>
<tr>
<th>Teleconferencing</th>
<th>Online</th>
<th>Seminar 1</th>
<th>Seminar 2</th>
<th>Mentoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRM</td>
<td>Technology, Finance, Strategy Concepts</td>
<td>Executive Process Reengineering, Executive Role Plays</td>
<td>Business, CRM Qualification, CRM Club</td>
<td></td>
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</tbody>
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2.5 Months

Figure 1: Avaya’s ESSBa program schedule

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)

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)

The OUM
(Abtar Kaur, 2005, Ed Media)

- Started August 2001: approx. 800 students
- Total students (2005): approx. 33,000
- Total full-time academic staff: 60
- Total part-time academic staff (tutors): approx 3,000
- 33 Learning Centres (7 Regional Centres)
- Pedagogical approach: Blended Learning

4. Institutional-level Blending
(Brian Linquist, 2006)

Example 2: University of Phoenix
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4. Blended Learning Form Factors

<table>
<thead>
<tr>
<th>Live instructor-led</th>
<th>Self-paced learning</th>
<th>Tools for learning communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional classroom</td>
<td>Instructor-led classroom via e-mail</td>
<td>Chat</td>
</tr>
<tr>
<td>Online engagement</td>
<td>Online or computer-based training (CBT)</td>
<td>Instant messaging (IM)</td>
</tr>
<tr>
<td>Virtual online classroom</td>
<td>Self-study guides, manuals, texts</td>
<td>News groups and forums</td>
</tr>
<tr>
<td>Live video via satellite or videoconferencing</td>
<td>Online resources and databases</td>
<td>Collaboration</td>
</tr>
<tr>
<td>Online coaching/mentoring</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Categories of Blends**

A. Enabling Blends

- Authentic tasks
- Make/Play
- Projects
- Case Studies
- Peer Discussions
- Discussion Forums

B. Enhancing Blends

- Enhancing blends allow for incremental changes to the pedagogy; additional or supplementary online resources.

C. Transforming Blends

- Transforming blends are blends that allow for a radical transformation of the pedagogy and learner construction of knowledge.

A. Enabling Blends

- Many of the for-profit institutions like Capella, Jones International University, and University of Phoenix have models that focus on making educational opportunities available to those who don’t have access due to time and location constraints.

- National University has a teacher preparation program geared towards access and flexibility.

- Many international education and training programs are also focused on providing access (e.g., World Bank, Mexico’s Red Escolar program, etc.)

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
B. Enhancing Blends
(Univ of Waikato, New Zealand, 2006)

University of Waikato, New Zealand
- Model for enhancing F2F courses includes:
  - Fully online - students can complete qualifications without coming onto the campus
  - Mostly online - there is a mix of online and some on-campus work in the qualification
  - Somewhat online - there is an online component for on-campus students
  - Supported online - courses are taught in the traditional lecture/tutorial mode, supported by material provided through the online learning or relevant university schools' document management systems

C. Transforming Blends
(Kirkley & Kirkley; Oliver, Herrington, & Reeves, HOBLe, 2006)
- Corporate/Military Training
  - Workplace learning (integrating learning into workflow)
  - Performance support and knowledge management using mobile technologies
  - Mixed-reality environments combining the virtual and real

Reality-Virtuality Training Continuum

Example of levels of mixed reality that allow a blending of the real and virtual worlds.

What can we say about blended learning then???

- It is everywhere!!!!!!!!!
- Resistance is futile!!!!!!!!!

Best BL Model Presentations and a Stretch Break!!!

Part II: 13 Fully Online and Blended Learning Problems and 33 Solutions
Problem Situation #1:  
Brief FTF Experiences  
- Face-to-face (FTF) experiences are brief, one-week journeys.  
  Need to need to build self-confidence, create social supports, teams, camaraderie, etc.

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

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.

Solution #2. Video Streamed Lectures and Expert Commenting

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.
Solution #3. Terminology Exercises Online (puzzles, games, etc.)

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.

Content Use (Tel Aviv University)
Nachmias, Ram, & Mioduser, 2006

Solution #4. Instructor Portal: e.g., self study in anatomy

Solution #5: Warm-ups Online Just-In-Time-Teaching (JITT)
http://webphysics.lupui.edu/jitt/jitt.html

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.
Solution #6. Survey Research and Market Analysis (e.g., WebSurveyor, Zoomerang, SurveyShare, SurveyKey)

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.

Solution #7. Online Synchronous Cases and Teams; Simulated Boardroom Chat; College Wales, Univ. of Glamorgan

Solution #8. Video Observations (e.g., Virtual Psychiatric Interview, Trinity College, Dublin)

Solution #9. E-Reading First Ohio (video-based scaffolding from expert instructors)

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.
Solution #10. Cross-Class Collab
(Indiana Univ and Open U of Malaysia)

Solution #11. Online Groups...

Solution #12. Team Meetings in Skype

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.

Solution #13. Learner-Self Interactions and Reflections

Solution #14. Apprenticeship:
Electronic Guests & Mentoring

Need a tutor? Call India.
By Jampeta Dus and Amanda Parent
Solution #15. 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.

Solution #16. Community of Learners: Medical and Business Cases Online (cases community)

Solution #17. Community of Practice: Online Professional Development

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 #18. Explore Virtual Worlds and Online Representations (UCLAs CVRLab)
Blended Solution #19. 3-D Visualization & Laboratory Software

Solution #20. Anchored Instruction: News Content Videos (CTGV, 1990?)

Solution #21. Use Google Maps Mashups in K-12 Education

Solution #22. Concept Mapping

Solution #23. Exploration and Demonstration: Virtual Fieldtrip and Tours

Solution #24. Virtual Timelines
Solution #25. Virtual Reality/Worlds
First Course in a Virtual World (Second Life)
Wednesday, August 30, 2006
Harvard Law School (Charles & Rebecca Nesson)
Chronicle of Higher Ed (open to the public)

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.

Solution #26. Educational Simulations
(HEALING GAMES: Computer simulations don’t have to be violent -- they can give peace a chance, Scott Duke Harris
May 21, 2006, San Fran Chronicle; and Medical Traumas from TD Magazine, August 2006)

Solution #27. Educational Simulations, Scenarios, and Manipulations

Solution #28. Real World Problems (PBL online): Real-time Cases

Solution #29.
Video Scenario Learning
(Option 6, Arjuna Multimedia, Bloomington, IN)
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.

Solution #30. Art and History Exhibits

- Personal music players: An artwork in progress

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.

Solution #31. Basic Acoustics of Musical Instruments

- Squeeze challenge

Solution #32. Instructor Presentation in Synchronous Sessions

(Breeze, Eliminate, WebEx, etc.)

Solution #33. Peer Critique in Breeze

(Table of Benefits of Peer Critique; Park & Bonk, in review)

- Providing immediate feedback
- Increasing interactions among participants
- Encouraging to exchange multiple perspectives
- Enhancing dynamic interactions
- Promoting passive to become active
- Strengthening social presence allowing to exchange of emotional supports
- Apply skills just learned
- Exchange constructive feedback on each
10 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

Sorry...it really is the end!!!

Time for a BL Competition??

Sample HOBLe chapters at: http://www.publicationshare.com/
Archived talks at: http://www.trainingshare.com/