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

Poll #2: 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 Rationale

- BL link to nontraditional and distance learning.
  - Make learning available to learners in a variety of delivery formats (Bonk & Graham, 2006).
  - Make learning adaptable to myriad styles or preferences (Bonk & Zhang, 2006).
  - Opportunities for authentic and self-directed learning avenues that have been espoused by nontraditional and distance learning experts for decades (Knowles, 1984; Wedemeyer, 1981).
  - Emerging technologies offer the options and opportunities that adult learners need (Capella, 2006).

Why Blended?

- Fully e-learning has limitations (e.g., lack of social interaction).
- Millions of learners around the planet are actually learning in this fashion of blended learning each day (Bonk & Graham, 2006).
- BL a top ten emerging trend in industry (ASTD, 2003).
- Conceivable that 80-90 percent of college and corporate training classes will be blended (Kim, Bonk, & Zeng, 2005).

Why not blended?

- Time to develop materials, deliver instructions, and enhance interactions.
- Instructors/trainers unwilling to change—skeptical of the effectiveness, fear of using the technology, peers can see them, and fear of lack of control.
- The barriers of institutional culture.
- Insufficient support from management.
- Learners need more self discipline and motivation.
- No one universal model of BL.

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)

Who is demanding fully online and blended learning?

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)

![Graph showing student satisfaction in Canada for blended learning.]

<table>
<thead>
<tr>
<th>take another Bl course?</th>
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<tbody>
<tr>
<td>yes</td>
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70%  60%  50%  40%  30%  20%  10%  0%

Frameworks and Models of Blended Learning...

Harvey Singh (2006)
Historical Emergence of Fully Online and Blended (Graham, 2006)

Range of Blends in Pew Cases

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)

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 Ottene, IBM
**Blended Learning Scenario**

(Handbook of Blended Learning Environments, copyright Microsoft, Zibb & Mosher, 2006)

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
<th>Week 5</th>
<th>Week 6</th>
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<tr>
<td><strong>Self-study prep</strong></td>
<td><strong>In classroom</strong></td>
<td><strong>Virtual class</strong></td>
<td><strong>e-Learning</strong></td>
<td><strong>Virtual class</strong></td>
<td><strong>In classroom</strong></td>
</tr>
<tr>
<td><strong>Community</strong></td>
<td><strong>newsgroups</strong></td>
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**Models of Blending**

Blending occurs at the following four levels:

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

Instructor stakeholders

Administrator stakeholders

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

(Rogers, Graham, et al., 2003)

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**4. Specific Learning Elements**

An Learning Ecology from Sun Microsystems

(Wenger & Ferguson, 2006)

**Learner Self-Navigation**

- Self-paced learning
- Authentic tasks
- Role-playing
- Projects
- Case Studies
- Free Discussion
- Discussion Forums

**Content Delivery Forces**

- Classroom Lecture
- synchronous content
- Demonstrations
- Remote Collaboration

**Practicing**

- Video

**Experiences and Practice Forces**

- Teamwork
- Activities
- Group Projects

**Training**

- Guided Navigation
- Coaching

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

Blended learning systems: Definitions and directions

(Osguthorpe & Graham, 2003)

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**2. Course-level blends: Beijing Normal University (2006)**

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

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3. Program-level Blending

- Certificate Programs
- MS
- Public MBA
- Corporate MBA

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)

**The OUM**

*Enrollment Growth at the UOM*

4. Institutional-level Blending

**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>B. Enhancing Blends</th>
<th>C. Transforming Blends</th>
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<tr>
<td>Enabling blends primarily focus on addressing issues of access and convenience; provide similar learning experiences.</td>
<td>Enhancing blends allow for incremental changes to the pedagogy; additional or supplementary online resources.</td>
<td>Transforming blends are blends that allow for a radical transformation of the pedagogy and learner construction of knowledge.</td>
</tr>
</tbody>
</table>
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

B. Enhancing Blends
(University of Waikato, New Zealand, 2006)
- 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, Harrington, & 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

What can we say about blended learning then???
- It is everywhere!!!!!!!
- Resistance is futile!!!!!!!

Best BL Model 99 Second
Stretch Break!!!
Part II: 13 Fully Online and Blended Learning Problems and 40 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 ask 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.

Blended Solution #3.
Divide Online and Class Experiences: English Classes Online

- Freshman English at BYU: Students are required to meet F2F once a week instead of three times a week. Online modules provide writing instruction and teaching assistants use online and F2F contact to provide feedback and guidance on writing (Waddoups et al., 2003).

Blended Solution #4.
CPA Exam Review (June 14, 2003) and Web Videos in Accounting (July, 2003)

- Texas A&M University–Corpus Christi combines CPA courseware with bi-monthly class meetings to prep for CPA Exam. (Study text, proficiency questions, electronic flashcards and practice exams, scheduled assignments, goals, online grading, progress reports, tailored discussion groups, and personalized assistance from leading professors at the nation’s top accounting schools.)

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

Blended Solution #5. Online Resource Libraries

- SiteSage Forum
- Student Online Resource Libraries (ORL)
- Folders
  - Discussion for Online Resource Library (ORL)
  - Online Resources for Anonymous Tools
    - ORL-xx
    - ORL-x
    - ORL-9
    - ORL-8
    - ORL-7
    - ORL-6
    - ORL-5
    - ORL-4
    - ORL-3
    - ORL-2
    - ORL-1
Blended Solution #6. Course Portal: e.g., self study in anatomy

Blended Solution #7: Warm-ups Online Just-In-Time-Teaching (JITT)
http://webphysics.iupui.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.

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.

Blended Solution #8. Survey Research and Market Analysis
(e.g., WebSurveyor, Zoomerang, SurveyShare, SurveyKey)

Blended Solution #9. Expert Mentoring Online
(in Art and Design; CDFA Online, Omnium Project, Creative Waves—online graphics and photomedia project)
Blended Solution #10. Reuse Blogs, Forums, & Chat Transcripts

Blended Solution #11. Video Observations (e.g., Virtual Psychiatric Interview, Trinity College, Dublin and 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.

Blended Solution #12. Cross-Class Collab (Indiana Univ and Open U of Malaysia)

Blended Solution #13. Online Groups...

Blended Solution #14. Team Meetings in Skype
Blended Solution #15. Team Wik Projects
(e.g., wikibooks and the Romantic Poetry Project)

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 #16.
Learner-Self Interactions and Reflections

Blended Solution #17.
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 #18. 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 #19. Community of Learners: Medical and Business Cases Online (cases community)
http://optionstraining.org/login

Blended Solution #20: Teacher Professional Development in Technology Integration (the TICKIT Program)
(Bonk, Ehmke, & Yamagata-Lynch, in press, AACE Journal)
http://www.isb.edu/~tickit

TICKIT: Teacher Institute for Curriculum Knowledge about Integration of Technology

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 #21. 3-D Visualization & Laboratory Software

Blended Solution #22. Anchored Instruction: News Content Videos (CTGV, 19907)

Blended Solution #23. Use Google Maps Mashups in K-12 Education
By Jeffrey Bransburg, May 15, 2006
http://www.techlearning.com/story/showArticle.jhtml?articleID=187002846
Maps: Earthquakes in the last week
Blended Solution #24. Vlogging (Video Blogs)  
e.g., Andy Calvin's Waste of Bandwidth  
Michael Wesch, Kansas St, The Machine is Using Us

Blended Solution #25. Concept Mapping Tools

Blended Solution #26. 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. Van Dam, Becker, & Simpson. Educational Review. March/April 2005

Blended Solution #27. Exploration and Demonstration: Virtual Fieldtrip and Tours

Virtual Field Trip Around Southest Oceans

Blended Solution #28. Virtual Timelines

Blended Solution #29. Virtual Worlds/Virtual Reality/MMOG (e.g., Second Life)
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 #30. 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)

Blended Solution #31. Real World Problems (PBL online): Real-time Cases

Blended Solution #32. Video Scenario Learning
(Option 6, Arjuna Multimedia, Bloomington, IN)

Blended Solution #33. Videoconferencing with Hearing Impaired Students Online

- College students tutoring high schools on their homework
- Instructors observing how teacher education students are doing in field placements (practice presentation and communication skills)
- Interpret speaker via Web cam

Blended Solution #34. Digital Movie Making

Blended Solution #35. Online Portfolio Development
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 #35. Art and History Exhibits

Blended Solution #36. Basic Acoustics of Musical Instruments

Blended Solution #37. 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)

Blended Solution #38. Language Learning
(ChinesePod—learn Mandarin)

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 #39. Instructor Presentation in Synchronous Sessions**
(Breeze, Elluminate, WebEx, etc.)

**Blended Solution #40. 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 other's projects

**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**

**Questions??**

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