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

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)

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http://www.sloan.org/resources/sizing_opportunity.pdf

<table>
<thead>
<tr>
<th>Properties</th>
<th>Content Delivery Format</th>
<th>Type of Course</th>
<th>Typical Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td>Traditional</td>
<td></td>
<td>Course with no online technology, most content delivered in real or only</td>
</tr>
<tr>
<td>1 to 25%</td>
<td>Web Facilitated</td>
<td></td>
<td>Course where some content is delivered in real or only, typically in virtual or online setting</td>
</tr>
<tr>
<td>26 to 75%</td>
<td>Blended/Flipped</td>
<td></td>
<td>Course that is blended (half and half) in face-to-face and online</td>
</tr>
<tr>
<td>76-99%</td>
<td>Online</td>
<td></td>
<td>A course where the vast majority of the content is delivered online, typically in a virtual or online setting</td>
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</tbody>
</table>

Range of Blends in Pew Cases

- 0-5% Traditional
- 6-19% Blended
- 20-29% Flipped
- 30-59% Online
- 60-100% Computer-mediated Learning Environment

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...

(Graham, 2006)
1. Activity- and Course-Level Blends
Blended learning systems: Definitions and directions (Osguthorpe & Graham, 2003)

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

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

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

Models of Blending
Blending occurs at the following four levels:
- Activity Level
- Course Level
- Program Level
- Institutional Level

Instructor stakeholders
Administrator stakeholders


Certificate Programs
MS Programs
Public MBA
Corporate MBA

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

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

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

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

A. Enabling Blends
   - Enabling blends primarily focus on addressing issues of access and convenience; provide similar learning experiences.

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
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 Glamorgan in Wales)

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

- Corporate/Military Training
  - Workplace learning (integrating learning into workflow)
  - 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!!!!!!!
Part II: 13 Fully Online and Blended Learning Problems and 39 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**

**Blended Solution #3. Post Courses in YouTube and iTunes (e.g., Berkeley)**

**Blended Solution #4. Assign Online Shared Video (SciVee, Research Channel, doFlick, UC)**

**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 #5. 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).

**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.
Blended Solution #6. Online Referenceware (e.g., Websters, Visual Thesaurus)  
http://www.visualthesaurus.com/  
($2.95/month; $19.95/year)

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

Blended Solution #8. The Complete Works of Charles Darwin

Blended Solution #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)
Blended Solution #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)

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 #13. Sharing in Virtual Teams (e.g., Collanos, Groove, SharePoint)

Blended Solution #14. Wikibooks (Web 2.0 and Emerging Learning Technologies (The WELT))

Web 2.0 and Emerging Learning Technologies
Blended Solution #15. Cross-Class Collab
(Indiana University and Open U of Malaysia; Univ of Illinois Tourism class)

Blended Solution #16. Language Lessons, Team Meetings, etc., 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.


Blended Solution #18. Vlogging (Video Blogging)
e.g., Andy Calvin's Waste of Bandwidth
Michael L. Wesch, Kansas State, The Machine is Using Us

Blended Solution #19. Expert Video Reflections and Scaffolds online (E-Reading First Ohio; reflect, share, and compare)
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 #22: Teacher Professional Development in Technology Integration (the TICKIT Program)

(Bonk, Ehman, & Yamagata-Lynch, in press, AACE Journal)
http://www.iub.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 #24: Shared Online Video Demonstrations (e.g., Monkey See)

Blended Solution #25: Wikihow
http://www.wikihow.com/

Blended Solution #26: ECPod

Blended Solution #27. Visual Resources (e.g., Periodic Table of Visualization; Visual Thesaurus

A PERIODIC TABLE OF VISUALIZATION METHODS

Blended Solution #28. Flash, 3-D Visualization, & Laboratory Software

Blended Solution #29. 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, Educator Review, March/April 2005
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.

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

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

It is the End!!!