Blended Learning: Models, Cases, Stories, and Examples
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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. Cases, Stories, and 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. Trainer, instructor
B. Instructional designer or developer
C. Supervisor, administrator
D. E-Learning staff
E. Human Resources
F. Marketing
H. 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?

"E-learning proponents promised just-in-time, just-for-me, anytime, anywhere, 24X7, interactive, streaming, real-time, asynchronous, pervasive, motivational, emotional, collaborative, multimedia, blended, adaptive, personalized, intuitive, rich, engaging, strategic, empowering, scalable, consistent, efficient, and cost-effective learning."

Learning in Cafes and Pubs
USA Today, October 5, 2006

George Siemens
(Sept 30, 2002, eLearnSpace.org)
Instructional Design in E-Learning
"In general, ID theory needs to move in the direction of flexibility and learner-empowerment if it is to allow ID to keep up with technological and institutional changes...."

Emergence of Blended Learning Systems in a Corporate Context
The American Society for Training and Development (ASTD) identified BL as one of the top ten trends identified in the knowledge delivery industry

**Blended Learning Defined and Explained**

**Blended Learning Definitions**

The three most commonly cited definitions include:
1. BL = combining instructional modalities (or delivery media)
2. BL = combining instructional methods
3. BL = combining online and F2F instruction

**The Sloan Consortium**

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Only</td>
<td>&gt; 80%</td>
<td>A course where the vast bulk of the content is delivered online, typically lacks the face-to-face interaction</td>
</tr>
<tr>
<td>Blended/Media</td>
<td>30 to 70%</td>
<td>A course that uses a blend of the online and face-to-face medium. Instructed proportions of the online and blended medium, typically lacks the face-to-face interaction</td>
</tr>
<tr>
<td>Web Facilitated</td>
<td>10 to 30%</td>
<td>Courses which use web-based technology to facilitate, essentially a face-to-face course which sees students in WBTs and see the syllabus and assignments, for example</td>
</tr>
<tr>
<td>Traditional</td>
<td>&lt; 10%</td>
<td>Courses with no online technology used; content is delivered in a face-to-face setting</td>
</tr>
</tbody>
</table>

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)

Jared Carman (2002); blended learning design

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)

Common Blended Ingredients
Jared Carman (2002), KnowledgedNet, Blended learning design
1. Live Events (face-to-face) or synchronous online (live events get attention)
2. Self-paced learning and reflection (own time)
3. Collaboration and teamwork (peer-to-peer and peer-to-mentor)
4. Assessment and evaluation (test out)
5. Performance on the job and associated performance support (job aids, PDAs, etc.)

BLENDED LEARNING DESIGN:
FIVE KEY INGREDIENTS
Jared M. Carman
Director, Product Development
KnowledgedNet
October 2002

Blended Learning Models
By Purnima Vialiathan (2002), Learning Circuits, ASTD (Skill-Driven BL Plan)

<table>
<thead>
<tr>
<th></th>
<th>Technology-based techniques</th>
<th>Non-technology based techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Announcement</td>
<td>LMS, email push</td>
<td>Flyer, mail, phone</td>
</tr>
<tr>
<td>Overview session</td>
<td>Email, Webinar</td>
<td>Traditional classroom</td>
</tr>
<tr>
<td>Self-paced learning</td>
<td>Web-based tutorial, e-books, EPSS, simulations</td>
<td>Articles, books, job-aids, on-the-job training</td>
</tr>
<tr>
<td>Query resolution</td>
<td>Email, FAQ, instant messenger</td>
<td>Face-to-face meeting</td>
</tr>
<tr>
<td>Demonstration</td>
<td>Web meeting, simulations</td>
<td>Traditional classroom</td>
</tr>
<tr>
<td>Practice</td>
<td>simulation</td>
<td>Workbook assignment</td>
</tr>
<tr>
<td>Feedback</td>
<td>email</td>
<td>Face-to-face meeting, print report</td>
</tr>
<tr>
<td>Closing session</td>
<td>Email, Webinar</td>
<td>Traditional classroom</td>
</tr>
<tr>
<td>Certification</td>
<td>Web-based test</td>
<td>Print test</td>
</tr>
</tbody>
</table>
Types of Delivery Technology
(Option Six)

The type of media can include but is not limited to:
- Online or Web-Based Delivery
- CD-ROM
- Video/Audio Conference
- Analog or Digital Video including Pod Casts
- Live or Virtual Simulations
- Classroom (ILT)
- Communities of Practice
- OJT or Mentoring
- Performance Labs
- Job Aids

Analysis & Design Considerations

How can target audience characteristics flavor the blend?

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>What if...</th>
<th>Possible Blends:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>large</td>
<td>self-paced; WBT; asynchronous; communities</td>
</tr>
<tr>
<td>Location</td>
<td>centralized</td>
<td>ILT; classroom; synchronous; mentors</td>
</tr>
<tr>
<td>Accessibility to Training</td>
<td>poor</td>
<td>facilitated; OJT</td>
</tr>
<tr>
<td>Skill Level</td>
<td>diverse</td>
<td>self-paced</td>
</tr>
<tr>
<td>Motivation</td>
<td>high</td>
<td>self-paced; asynchronous; performance labs</td>
</tr>
</tbody>
</table>

Learning TRENDS by Elliott Masie - September 5, 2006
399.5 - Updates on Learning, Business & Technology
52,716 Readers - http://www.masie.com - The MASIE Center

Average Percentage of Learning Delivery Methods (240 organizations in learning Masie consortium):
- 46% Classroom.
- 27% e-Learning.
- 19% Blended.
- 10% Other Methods.

Classroom Delivery is used for Leadership/Supervision; Sales/Customer Service; Orientation/OnBoarding.

E-Learning Delivery is used for HR Compliance; Safety; IT Systems/Software.

What's Available to Blend?

Locus of Control:
- Instructor-led
- Facilitated
- Self-Paced

Delivery Technology:
- Web-Based
- CD-ROM
- Video/Audio Conference
- Print
- Videotape
- Simulation
- Classroom

Delivery Timing:
- Synchronous
- Asynchronous

Instructional Strategies:
- Didactic Learning
- Problem Based Learning

Performance Support Strategies:
- Communities of Practice
- OJT
- Mentors
- Performance Labs
- Job Aids

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 employee population or courses
- Classes with working students
- Students spread over a distance
- Classes with certification or standards
- 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
4. Personalized access to a range of materials
5. Accommodate more learning styles
6. Connect different nationalities and cultures
7. Reduction in physical class or space needs, commuting, parking
8. Increased opportunities for human interaction, communication, & contact among students
9. Introverts participate more
10. Cost effective, time, satisfaction

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
Frameworks and Models of Blended Learning...

Harvey Singh (2006)

Dimensions of Blended Learning (Jay Cross, Foreword, 2006)

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

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 Ignieri, 2006)

AMA Special Report, Blended Learning Opportunities
Alison Rossett (2006)

Table 1: What Might Go in the Blend

<table>
<thead>
<tr>
<th>Learning Activities</th>
<th>Students</th>
<th>Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online activities</td>
<td>Student</td>
<td>Instructor</td>
</tr>
<tr>
<td>Face-to-face</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructor-led</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online/remote labs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online assessment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A Blended Model: Corporate

Soren Kaplan, Ph.D.
Managing Director, iCohere, Strategies for Collaborative Learning

Models of Blending
Blending occurs at the following four levels:

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 (Prescriptive or Choice)

Figure 1: Avaya's ESSB2 program schedule

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)

4. Blended Learning Form Factors
(copyright Microsoft, Zioib & Mosher, 2006; Handbook of Blended Learning Environments)

<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 coaching/mentoring</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>Newsgroups and forums</td>
</tr>
<tr>
<td>Live video via satellite or videoconferencing</td>
<td>Online resources and databases</td>
<td>Collaboration</td>
</tr>
</tbody>
</table>

Blended Learning Scenario
(copyright Microsoft, Zioib & Mosher, 2006; Handbook of Blended Learning Environments)

Framework for organizational development through training
Assess, Learn, and Apply
(Copyright Microsoft, Zioib & Mosher, in press; Handbook of Blended Learning)

Microsoft Products and Services for Lifelong Learning
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

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. Specific Learning Elements
An Learning Ecology from Sun Microsystems
(Wenger & Ferguson, 2006)

Current Learning Elements
An Learning Ecology from Sun Microsystems

Present and Future State of Online and Blended Learning

Longitudinal Study on the Practice of Online and Blended Learning

**Table S.1: Improved Behavior Effect on the Business**

<table>
<thead>
<tr>
<th>Attribute Emphasized in Training</th>
<th>Correlation with Financial Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in leadership competencies</td>
<td>0.20*</td>
</tr>
<tr>
<td>Improvement in managerial style behaviors</td>
<td>0.33*</td>
</tr>
<tr>
<td>Improved emphasis on agility</td>
<td>0.37*</td>
</tr>
<tr>
<td>Significant improvement in organizational climate</td>
<td>0.32*</td>
</tr>
<tr>
<td>Improvement in managing selling behaviors</td>
<td>0.29</td>
</tr>
<tr>
<td>Better diagnosing and managing resistance to change</td>
<td>0.24</td>
</tr>
<tr>
<td>Practical learning approach adopted in programs</td>
<td>0.33</td>
</tr>
<tr>
<td>Facilitated learning culture and leadership behaviors</td>
<td>0.27</td>
</tr>
<tr>
<td>Improved efficiency and effectiveness in managerial ability</td>
<td>0.26</td>
</tr>
<tr>
<td>Increased speed and reduced barriers to behavioral change</td>
<td>0.18*</td>
</tr>
</tbody>
</table>

*p < 0.05, *p < 0.01, **p < 0.001
2006 Study: Blended Learning in China, Taiwan, Korea, US, and UK
- Studying the current situation and future directions of blended learning in corporate training different countries.

16. Strategic Planning for BL (all)
164. If you have a plan, does it address blended learning?

3-4 Skills Most Taught Through Blended
- UK: Computer Apps, Job, Communication, Personal Dev Skills
- US: Computer Apps, Job, New Hire Orientation, Leadership
- Korea: Job Related, Leadership, New Hire Orientation, Basic Skills
- Taiwan: Job Related, New Hire Orientation, Communication Skills
3-4 Skills Least Taught
Through Blended
• UK: Ethics, New Hire Orient, Basic Skills, Exec Ed
• US: Basic Skills, Sales/Marketing, Programming, Product Specific, Professional
• Korea: Product Specific, Diversity, Customer Product Training, Compliance
• Taiwan: Diversity, Exec Education, Programming, Leadership, Product Specific, Business Practices

Methods: Survey Respondents
• Target:
  - Training/HRD (human resource development) professionals who belonged to professional organizations, discussion forums, or listservs on HRD, e-learning, or blended learning.

What about in Taiwan???

Gender of Respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>52%</td>
</tr>
<tr>
<td>Female</td>
<td>48%</td>
</tr>
</tbody>
</table>

What about in Taiwan???

Are you using blended? (Taiwan)

- No, it is not something that we have considered.
- No, but we are considering using it.
- Yes, we have recently started using it.
- Yes, we have been using it for more than 2 years now.
- Not sure. What is blended learning?

45% is far lower than UK (73%), US (75%), and Korea (63%) (Bonk, Kim, Zeng, Son, Teng, & Oh, 2006)

What about in Taiwan???

Skills taught through BL (Taiwan)

- General: 38%
- Management: 38%
- Compliance: 36%
- Computer Apps: 32%
- Computer: 30%
- Vendor: 29%
- Job-Related: 28%

Strategic Planning for Training and Development

Organization have a strategic plan for training and development?

- Yes: 9%
- No: 9%
- Do not know: 72%
If have a Strategic Plan...

- 60 percent share with employees
- 24 percent put on website for anyone to download
- 37 percent say it is working; another 27 percent say it is not working
- 70 percent say it is addresses online learning
- 47 percent say it addresses BL; 37 percent say it does not
- 32 percent say organization has a specific model or framework for BL; 48 percent say no

Importance of BL to Future Strategic Planning

How important is BL for strategic planning for T&D for next few years?
- Not important at all
- Not important
- Neutral
- Important
- Very Important

Advice and Consulting Needed on Blended

Does organization need strategic advice regarding BL?

- Yes
- No
- Do not know

Which will promote blended learning the most?

- Increasing use of real world cases stories and examples in training: 34.58
- Increased collaboration, community building, and global connectedness: 26.17
- Increasingly individualized or personalized e-learning: 11.21
- Increasing focus related to on-demand learning: 9.35
- Learners/employees making their own learning decisions: 8.41
- The blurring of the lines between work and learning: 8.41
- Increased use of hand-held and mobile devices: 1.87

Which instructional strategies will become more widely used?

- Authentic cases and scenario learning: 70.01
- Virtual team collaboration and problem solving: 41.82
- Problem-based learning: 37.27
- Coaching and mentoring: 36.98
- Guided learning: 34.55
- Simulations or gaming: 27.27
- Modeling of the solution process: 23.64
- Self-paced learning: 15.19

Which emerging technologies will most greatly impact the delivery of blended learning in the future?

- Knowledge Management Tools: 71.49
- Cell Phones and Other Mobile and Handheld Technologies: 63.68
- Electronic Books: 29.29
- Weblogs (i.e., blogs) and Online Diaries: 6.61
- Webcasting and Video Streaming: 4.42
- Online Simulations: 4.42
- Wireless Technologies: 4.42
Conclusions

- Although e-learning has been widely promoted in workplace learning in Taiwan, there are still considerable opportunities to develop blended learning initiatives.
- Many organizations maintain a wait and see posture regarding the development of blended learning.
- Only 15 percent of respondents indicated that Taiwanese government was highly supportive of blended learning as seen in specific policies.

What can we say about blended learning then???

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

Whose Learning Is It, Anyway?
Learning & Training Innovations, Clay & Mindrum, July/August, 2003, p.33

"Companies need rich, compelling, targeted content that prompts learners to seize their responsibility to learn."

Best BL Model Presentations and a Stretch Break!!!

Part II: 20 Case Situations from Training Environments
Ok, Million Dollar Question: What do you do for blending?

Case Example #1: Microsoft: Real-time plus Optional FTF Experiences

- Microsoft Official Distance Learning (MODL) is an exciting line of new learning products that blends classroom training, live discussion, real-world scenarios, and self-directed study into one rich and easy-to-use educational experience. MODL courses are exclusively available through Microsoft Certified Partners for Learning Solutions.

1. Microsoft
http://www.microsoft.com/learning/modl/default.mspx

- This course combines five days of instructor-led training with additional e-Learning content to provide students with the knowledge and skills that are required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data in a Microsoft Windows Server 2003 environment.

Microsoft
http://www.microsoft.com/learning/modl/default.mspx

- This is the first course in the Systems Administrator and Systems Engineer tracks for Windows Server 2003 and serves as the entry point for other courses in the Windows Server 2003 curriculum.
- This course is also offered as 8 days of instructor-led training (as two courses) for students who prefer a complete classroom training experience:
  - 2274: Managing a Microsoft Windows Server 2003 Environment (five days)
  - 2275, Maintaining a Microsoft Windows Server 2003 Environment (three days)

Microsoft
http://www.microsoft.com/learning/modl/default.mspx

- What customers are saying
- "I enjoyed it more than classroom based training. You are able to review previous lessons, scenarios, etc. at your own time and pace. No need to take a week off work to accomplish it."
- "I found this much more enjoyable and effective than an average classroom environment. Being busy with many things on my plate, I found it very easy to simply log on to the site and start the course from my desk."

Microsoft Official Distance Learning (MODL)
Case Example #2:
Emmis Communications: Online followed up by classroom

- Harassment training: Learners work through online scenarios and cases; followed up by a 1.5 hour face-to-face training with HR generalists. Uses cases studies to discuss major issues and summarize key points.

Case Example #3:
K-Smarts Academy: Blended Leadership Training

- Combined online and offline training for areas such as coaching, accounting, etc.

K-Smarts Academy
(Jieun Lee, November 30, 2006)

Purpose of This Study

- To systematically identify design factors that work at a specific point of learning toward transfer by using an adapted Holton and Baldwin’s Transfer Distance Model.
Research Methods

**Online Survey**

- By integrating literature review with the results from focus group and one-on-one interviews, the questionnaire was developed.
- 723 Trainees who completed the case program in 2005 were recruited.
- Launched online in May 2006 for 8 days, and received 282 responses.
- 100 items including demographic questions

---

**Case Situation**

- "Coaching for Performance Improvement", one of the 5 topics in a 6-week mandatory management leadership development program offered by a corporate university (hereafter K-Smarts Academy) in Korea. The K-Smarts has 140,000 employees and its revenue reached $94 billion in 2004.

<table>
<thead>
<tr>
<th>Components of the Entrepreneurship</th>
<th>Training Topics</th>
<th>Delivery Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Thinking</td>
<td>Competition strategies and decision-making</td>
<td>Blended</td>
</tr>
<tr>
<td>Corporate Values</td>
<td>Accounting*</td>
<td>Online only</td>
</tr>
<tr>
<td>Leadership</td>
<td>Coaching for Performance Improvement*</td>
<td>Blended</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>Innovation in decision-making</td>
<td>Blended</td>
</tr>
<tr>
<td>Market &amp; Customers</td>
<td>Marketing</td>
<td>Online only</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online knowledge acquisition learning</td>
</tr>
<tr>
<td>Offline performance capability building learning</td>
</tr>
<tr>
<td>Job application through action plan implementation</td>
</tr>
</tbody>
</table>

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**Results**

- Demographic Descriptive Results
  49.6% had previous blended training experience.
- Participants Gender Distribution
  1.8% of female and the rest are males, represents the ratio in population

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**Case Situation**

- The K-Smarts Academy offers the program 13 times a year for about 1,000 target employees in blended learning format: web-based online learning and face-to-face (hereafter, F2F) learning.
- The program consists of a 40 hour (5 week) online self-paced learning to acquire prerequisite knowledge and a 72 hour (7 nights and 8 days) F2F residential learning session focusing on performance capability building through team-based learning.
Summary: Best Predictors for transfer on each learning node

<table>
<thead>
<tr>
<th>Facilitating Design Factors</th>
<th>Online Knowledge Acquiring</th>
<th>Offline Performance Capability Building</th>
<th>Data Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of case scenario at every step of coaching</td>
<td>Distance 1</td>
<td>Distance 2</td>
<td></td>
</tr>
<tr>
<td>Activation of learned knowledge in the previous unit at the very beginning of each unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inappropriateness of online against the topic (**Negative relationship)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hindering Design Factors</th>
<th>No significant predictors identified</th>
</tr>
</thead>
</table>

Discussion: Comparison of Online Only Training with Blended Training:
Predicting Design Factors for Degree of Transfer

<table>
<thead>
<tr>
<th>Facilitating Factors</th>
<th>Hindering Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Coaching</td>
<td>C1F1. Use of scenario at every step of coaching</td>
</tr>
<tr>
<td>Blended offline</td>
<td>C1F3. Activation of learned knowledge in the previous unit</td>
</tr>
<tr>
<td>Coaching</td>
<td>C1N7. Lack of interaction with instructor</td>
</tr>
</tbody>
</table>

Conclusion: Suggested Guidelines

**For the online knowledge acquiring module**
1. Do not try to cram all the 'nice-to-know' information in the online module.
2. Use work-based authentic scenarios for teaching skill concepts.
3. Activate the prior knowledge before moving on the new unit.
4. Provide feedback and Q&A channel for learners to interact with instructors.
5. Inform learners of how online learning will be utilized in the offline module.

**For the offline performance capability building module**
1. Have learners write their own scenarios to link what they learn to where they are supposed to apply.
2. Instead of delivering pieces of information, teaching principles underlying the skills.
3. Provide various cases with different contexts.
4. Provide sufficient opportunities of practice.
5. Provide easy-to-apply toolkit.
6. Do not score reflective journal as assignment.
7. Allow completion of action plan with flexible time.

Specific Design Guidelines

**Problem**
- Use authentic, real-world, work-based cases
- Provide job-relevant problems
- Be sure that learners are aware of what the training is about and the benefits from learning

**Activation**
- Activate prior knowledge
- Provide self-assessment for gauging learner’s strength, weakness, values, interests, goals and motivation about a given topic
- Provide opportunities to demonstrate learner’s knowledge regarding the topic

Case Example #4:
US Military: Combining Asynchronous, Synchronous, and Live

- Three Phases of AC3-DL: 12 months of asynchronous, 6 months of synchronous, and 2 weeks of face-to-face training.
Three Phases of AC3-DL

I. **Asynchronous Phase:** 240 hours of instruction or 1 year to complete; must score 70% or better on each gate exam

II. **Synchronous Phase:** 60 hours of asynchronous and 120 hours of synchronous; Virtual Tactical Operations Center (VTFC) (7 rooms; 15 people/extension) (chat, avatars, audio conferencing)

III. **Residential Phase:** 120 hours of training in 2 weeks at Fort Knox

---

**AC3-DL Course Tools**

- **Asynchronous:**
  - Learning Management System
  - E-mail
- **Synchronous:** Virtual Tactical Operations Center (VTFC) (7 rooms; 15 people/extension)
  - Avatar
  - Audio conference by extension/room (voice over IP)
  - Text Chat Windows—global and private
  - Special tools for collaboration

---

**Defense Acquisition University**

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**Case Example #5: SonoSite: Podcasted ultrasound training**

- Provide learners with workshop follow-ups and trainings using podcasts.
Podcast for Medical Training
(e.g., "SonoSite on the small screen: The Bothell-based company uses podcasts for its ultrasound scanner training.")

Dan Bates / The Herald, Sept 25, 2006
David Levesque, vice president of global learning at SonoSite in Bothell, demonstrates the company’s new podcast training for ultrasound technicians.

Case Example #6:
Elliott Masie Podcasting before conference

- Promoting a conference through online podcasts with guest experts and keynote speakers: can listen to it (audio), watch it (video), or read it (transcript).

Brandon Hall, Chief Learning Officer Magazine, July 2006

"Podcasts provide a way to distribute an audio or video episode via the Internet for playback at any time on any MP3 device or PC. Podcasts allow training in the form of event capture, new product information, sales tips, orientation, etc. to be delivered on a just-in-time, just-enough basis to anyone anywhere."

Learning TRENDS by Elliott Masie - September 18, 2006.
#402 - Updates on Learning, Business & Technology.

Fingertip Knowledge Podcast & Transcript:
One of my focus points these days is Fingertip Knowledge. You and I and most of our colleagues are increasingly using search engines, from Google to Corporate Intranets, to "walk" our way to the information or knowledge that we need.

Podcast (and Transcript) about the Implications of Fingertip Knowledge and the Learning Field:

Business Blogs

SMALL BUSINESS
World News Travel Money Blogs Life Tech

Blogs put businesses on Web search map

SMALL BUSINESS CORRECTION: Join the blog conversation

Case Example #7:
Chinesepod: Language Learning Online

- Combine podcasts (audio) with transcripts, discussions, videos, blogs, grammar exercises, etc. at different levels of expertise.
Language Learning (ChinesePod—learn Mandarin)

Case Example #8: IBM

- Limit travel.

Success Story: IBM

Special E-Learning Issue, April 2001

- 33,000 IBM managers have taken online courseware.
- 5 times as much content at one-third the cost.
- IBM reported $200 million in savings in one year.
- Voided $80 million dollars in travel and housing expenses during 1999 by deploying online learning.

IBM Training of 6,600 New First-Line Managers (Basic Blue)

- Phase I: 26 Weeks of Self-paced Online Learning
  - Cohorts of 24 managers
  - Lotus LearningSpace Forum
  - 2 hours/week; 5 units/week
  - 18 mandatory and elective management topics
  - Need minimum score on mandatory topics
  - 14 real-life interactive simulations
  - LearningSpace tutor guides behavior

  - Karen Mantyla (2001), ASTD.

IBM Training of 6,600 New First-Line Managers (Basic Blue)

- Phase II: In-class 5 day learning lab
  - Experiential higher order learning
  - Bring real-life activities from job
  - Focus on self-knowledge and to understand their roles as leaders and members of IBM
  - Harvard Business cases, leadership competency surveys, managerial style questionnaires, brain dominance inventories
  - Coached by a learner-colleague (teaming imp!)
  - Less than 1 hour of the 5 days is lecture

IBM Training of 6,600 New First-Line Managers (Basic Blue)

- Phase III: 25 Weeks of Online Learning
  - Similar to Phase I but more complex and focuses on application
  - Creates individual development plan and organizational action plan
  - Managers reviews and signs off on these plans
### IBM Training Results (Kirkpatrick Model)

- **Level 1**
  - High satisfaction and enthusiasm for blended
  - Coaching and climate rated highest
- **Level 2**:
  - 96% displayed mastery in all 15 subject areas; 5 times as much content covered in this program compared to 5 days of live training
  - 150 Web page requests/learner

- **Level 3**
  - Significant behavior change (in particular in coaching, styles, competencies, and climate)
  - Graduate had high self-efficacy and believed that they could make a difference
- **Level 4**
  - Linkage bt leadership & customer satisfaction
  - Leadership led to teamwork and satisfaction
  - Managers reported improvement on job
  - Improved morale and productivity reported

### IBM Training Results (Kirkpatrick Model)

- **Level 5**
  - Asked graduates to estimate the impact on their departments in dollars
  - $415,000 or ROI of 47 to 1.
  - Perceived real and lasting leadership increases

### IBM’s model for blending

*Blending Learning for Business Impact – IBM’s case for learning success (Lewis, 2006)*

- **IBM’s model for blending**
  - Includes performance management
  - Online learning
  - Collaborative online
  - F2F learning labs

### On Demand Learning at IBM (Rex Davenport, TD, May 2005)

- On Demand learning...based on roles in IBM...As an employee progresses through her work, the learning opportunities available to her via her screen change...We are making learning personalized.

### Case Example #9: Option Six: Video Scenario Learning

- Learners watch a story unfold and then solve the problems. An option exists for face-to-face training before or after.
4c. Learner Content Interaction: Business & Healthcare Examples (Option 6)

Option 6, Scenario Learning (2005, Bloomington, IN)

4c. Learner Content Interaction: Business & Healthcare Examples (Option 6)

Time Revealed Scenario Learning (Wisdom Tools)

Strengths of Scenarios per Marty Siegel (May, 2003)
- They take little time to build
- They are (in comparison) cheap to build and implement; weeks vs. months (soon, even in days!)
- They follow a fixed path (some may see this as a flaw, but it’s not); the designer controls the path experience; thus, important
- Paths are always experienced.
- Because they describe a reality, like a good novel, it can feel VERY realistic.

Case Example #10: Krispy Kreme (Option Six, 2006)
- Learners have classroom training followed by online and on-the-job training.
A Blended Case Example – Krispy Kreme Assistant Mgr. Training

Krispy Kreme Doughnuts
Management 101

Training Objective:
- Reinforce company culture
- Develop core competencies
- Leverage existing on-the-job training (OJT) program
- Document best practices previously delivered via (SME)
- Accelerate existing 12-week program into 6 core weeks
- Extends entire training program into the field

A Blended Case Example – Krispy Kreme Management 101

Solution Overview:

Building Fundamentals  Developing Performance  Reinforcing Performance

ILT  ←→  ILT

WBT  ←→  OJT

Performance Support

A Blended Case Example – Krispy Kreme Management 101

Application based, instructor-led (ILT) sessions:
- Two one-week instructor-led session in Winston-Salem
- Promotes connection with Krispy Kreme leadership
- Develops and Validates equipment and process mastery
- Verifies mastery of product quality assurance.

A Blended Case Example – Krispy Kreme Management 101

On-the-Job Training (OJT) Program:
- Series of OJT activities to be completed
- Completed in conjunction with OJT program at training stores
- Learners run a shift in a training store

A Blended Case Example – Krispy Kreme Management 101

Self-paced, scenario-based, WBT courses:
- 4 one-hour, custom web-based training (WBT) courses.
- Completed in conjunction with OJT program at training stores
- Establishes foundation of management principles

A Blended Case Example – Krispy Kreme Management 101

Building Fundamentals  Developing Performance  Reinforcing Performance

ILT  ←→  ILT

WBT  ←→  OJT

Performance Support
A Blended Case Example – Krispy Kreme Management 101
Illustrations of the OJT

A Blended Case Example – Krispy Kreme Management 101
Lessons Learned:
- Be Resourceful in Gathering the Content and the Context
  Finding different methods including interviews, focus groups, surveys, and observation, allowed us to more easily get the content from potentially inaccessible participants.
- Reinforce the Culture Throughout the Blended Solution
  Culture was at the very heart of this endeavor. The very concept of the company's brand comes from its culture. Excellent customer service, a great product, and a great process is what the company is trying to consistently integrate in each of its stores.

A Blended Case Example – Krispy Kreme Management 101
Impact
"The blended solution allows us to quickly respond to our growing need for well-trained, effective managers – who embody the Krispy Kreme way."
"By aligning the online and instructor-led courses with the OJT, managers are consistently better trained and are more often pushing the training managers to provide the best OJT experience."

A Blended Case Example – Roche Diagnostics
Case Example #11: Roche Diagnostics
(Option Six, 2006)
- Learners watch a story unfold and then solve the problems. An option exists for face-to-face training before or after.

A Blended Case Example – Roche Brand Stewardship
Brand Stewardship

Solution Overview:
- Conveys the brand strategy clearly
- Motivates and enables sales and marketing to create brand-aligned campaigns and to live the brand
- Leverages existing AIMS leader-led course
- Increases the employee's access to critical instruction
- Increases flexibility (time and location) in delivering instruction
A Blended Case Example – Roche Brand Stewardship

Self-paced, scenario-based, WBT courses:
- 2 hour, custom web-based training (WBT) course
- Completed prior to enrollment in the ILT course
- Uses a scenario based approach to develop Brand fundamentals

Application based, instructor-led (ILT) sessions:
- 8 hour ILT session facilitated by AIMS facilitators
- Focused on application of the Brand to specific sales and marketing activities

A Blended Case Example – Roche Brand Stewardship

Performance Support Program:
- Tools and best-practices to be hosted internally

A Blended Case Example – Roche Brand Stewardship

Lessons Learned:
Ensure Collaboration between Partners
A key to success on this project was the collaborative design between the classroom developer (AIMS) and the online development team (Option Six). This established a common framework and enabled both teams to realize the full strength of both mediums.
A Blended Case Example – Roche Brand Stewardship

Lessons Learned:

*Consistent Scenario-Based Approach throughout the Solution*

By focusing the WBT on both establishing a fundamental understanding and authentic application, the classroom session could achieve even deeper analysis and application of the brand strategy in sales activities.

Impact

"The blended solution 'raised the bar' for the entire endeavor. The e-learning component allowed the entire audience to master the basics of Brand Stewardship at their own pace; specifically, those who might be reluctant to ask for clarification in the classroom."

"When the learners came to the classroom they were better prepared and were stronger on the fundamentals of Brand Stewardship. This allowed us to really focus on applying the Brand characteristics to some of their current activities."

A Blended Case Example – Roche Brand Stewardship

Impact

"The performance support toolbox allowed the company to integrate the principles of Brand Management into the fabric of the organization—resulting in the establishment of an organizational capability."

"By blending all of the components we were able to reduce the amount of time spent in the classroom (usually 3-4 days) and drive the learning back into the performance environment."

Case Example #12: Eli Lilly drug company

*(Option Six, 2006)*

- Learners watch a story unfold and then solve the problems. An option exists for face-to-face training before or after.

A Blended Case Example – Lilly Strategic Negotiation Training

*Lilly*  *ACCORDENCE*

**Strategic Negotiations**

Training Objective:

- Improves sales and marketing performance in negotiations
- Leverages existing Accordence instructor-led course
- Increases employee’s access to critical instruction
- Reduces time out of the office
- Increase flexibility (time and location) in delivering critical instruction

A Blended Case Example – Lilly Strategic Negotiation Training

**Solution Overview:**

- Building Fundamentals
- Developing Performance
- Reinforcing Performance

- WBT
- ILT

- Performance Support
A Blended Case Example – Lilly Strategic Negotiation Training

Self-paced, scenario-based, WBT course:
- Two hour, custom web-based training (WBT) course
- Scenario based approach to developing negotiation fundamentals
- Establishes foundation of negotiation framework

A Blended Case Example – Lilly Strategic Negotiation Training

Application based, instructor-led (ILT) sessions:
- 12 hour (day and a half) instructor-led session
- Reinforces and extends negotiation principles
- Allows for critical practice and feedback
- Focused on working with existing negotiations

A Blended Case Example – Lilly Strategic Negotiation Training

Performance Support Program:
- Access to Accordence performance support suite
- Promotes and supports transfer of learning

A Blended Case Example – Lilly Strategic Negotiation Training

Lessons Learned:

**Consistent Scenario-Based Approach throughout the Solution**
By focusing the online component on both establishing a fundamental understanding and authentic application, the classroom session could achieve even deeper analysis and application to real-world negotiations. Accordence facilitators could spend more time on coaching and less time on remediation and level setting.

A Blended Case Example – Lilly Strategic Negotiation Training

**Timing of the WBT and ILT Can Be a Factor**
The timing between the completion of the WBT and attending the classroom session is an important consideration. If the WBT is completed more than four weeks prior, the instructor may need to provide a longer refresher session in the instructor-led training (ILT).

**Selecting Scenarios Is Critical**
Because the WBT is designed for a wide range of skills and experience, choosing scenarios that are meaningful but general enough to apply to a wide audience is essential.
A Blended Case Example –
Lilly Strategic Negotiation Training

- Impact
  - The client was able to rapidly introduce its preferred negotiations strategy to its entire sales and marketing function.
  - The facilitators and the client sponsors shared that they were struck by the sophistication of their questions, and their eagerness to apply what they had learned.

Case Example #13:
Kelley Direct MBA Program: Synchronous lectures on demand.

- The online MBA program at IU heavily relies on two brief face-to-face meetings, asynchronous discussion, case learning in teams, book content, expert PowerPoints, and some simulations and expert chats and lectures.

About the Online MBA Program

- Founded in 1999
- Program length: 24 months
- Completion rate: 96%
- Course delivery: online
  - Course Management System (ANGEL)
- One week in-residence per year
- Number of students: 1398 (as of 2006)
  - Female students: 21%
  - International students: 15%

Growth in Student Enrollments

<table>
<thead>
<tr>
<th></th>
<th>2003-4</th>
<th>2004-5</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate Programs</td>
<td>1600</td>
<td>1500</td>
<td>1400</td>
</tr>
<tr>
<td>MS</td>
<td>600</td>
<td>500</td>
<td>400</td>
</tr>
<tr>
<td>Public MBA</td>
<td>400</td>
<td>500</td>
<td>600</td>
</tr>
<tr>
<td>Corporate MBA</td>
<td>100</td>
<td>150</td>
<td>200</td>
</tr>
</tbody>
</table>

Business Executive and MBA Training
Synchronous Sessions
(Breeze, Elluminate, WebEx, etc.)

Findings: Strategies to Build Sense of Community

<table>
<thead>
<tr>
<th>Instructional Activities</th>
<th>Instructional Activities</th>
<th>Efficacy</th>
<th>Effectiveness of Strategies in Build Learning Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asynchronous class conference</td>
<td>85%</td>
<td>&quot;The discussions helped [building a sense of community] and I thought people were very cordial toward each other.&quot;</td>
<td></td>
</tr>
<tr>
<td>Collaborative discourse</td>
<td>Synchronous class conference</td>
<td>41%</td>
<td>&quot;My understanding of the chat rooms is that’s more real time discussion and we just really had a group of people that it was difficult to get all at one time.&quot;</td>
</tr>
</tbody>
</table>
Findings: Survey Results

In general, I think I am deeply engaged in learning in my KD courses.

- Strongly Agree: 30%
- Agree: 20%
- Neutral: 40%
- Disagree: 10%
- Strongly Disagree: 10%

N=407, SD=1.77

Case Example #14: Microsoft Excel Training

- 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.

Microsoft Excel Training

(Jeff Barbian, Blended Works, Summer 2002, Online Learning; Thompson Job Impact Study (1999))

- Focused on teaching elements of Microsoft Excel to three different groups of people.

  - Group 1: blended approach
  - Group 2: e-learning approach
  - Group 3: control group/no training

Microsoft Excel Training

(Jeff Barbian, Blended Works, Summer 2002, Online Learning; Thompson Job Impact Study (1999))

- Group One: 5 scenario-based exercises that offered live use of Excel on realistic business situations or real-world tasks, online mentors, FAQs, relevant Web sites, NETg Excel Fundamentals Learning Objects. (note: tasks were arranged in ascending difficulty levels)
- Group Two: Same as Group One but without scenarios, but info in 5 scenarios were embedded in the learning objects.
- Group Three: No training control.

Microsoft Excel Training

(Thompson Learning Company Study; Jeff Barbian, Blended Works, Summer 2002, Online Learning)

- Group One (the blended group): 30 percent increase in accuracy over Group Two (the e-learning group) and were 41 percent faster
- Group One performed 159% more accurately than Group Three (Grp #2 was 99 %)
- Groups 1 and 2 relied on the online mentors for support
  - (Note: with these results, Lockheed Martin became a blended learning convert.)

Microsoft Excel Training

(Thompson Learning Company Study; Jeff Barbian, Blended Works, Summer 2002, Online Learning)

- Having access to mentors within the online instruction was essential to the success of both groups but in particular to the blended participants.
Apprenticeship: Electronic Guests & Mentoring

Case Example #15: Cases and Simulations Online
- Learners complete online cases. A face-to-face component occurs before or after that.

Educational Simulations, Scenarios, and Manipulations

Case-Based Learning: Business

Community of Learners: Medical and Business Cases Online (cases community)
http://optionstraining.org/login

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)
Real-time Cases

Business Class Simulated Boardroom Chat
eCollege Wales, Univ. of Glamorgan

Online Simulation: Financial Accounting: (University of Calgary)

Interactive Online Stories & Flash Animation Cases

Case Example #16: 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.

Capture and Videostream Lectures (e.g., Apreso CourseCaster)
Video Streamed Lectures and Expert Commenting

Videoconferencing Expert Lectures and Online Conferences

Case Example #17: Online Games and Referenceware
- Learners learn content online from online games and reference materials.

Terminology Exercises Online (puzzles, games, etc.)

Games
Online Jeopardy Game
www.km-solutions.biz/cas/quiz.zip
Games2Train: The Challenge; Thiagi.com

Terminology Exercises Online (puzzles, games, etc.)

Return to Menu
Hang the Boss Trivia
CONGRATULATIONS

Your Score is: 1299
Case Example #18:
Allen Interactions
• Interactive problems to select from.

Allen Interactions
http://sales.alleni.com/client/Bonk/Bonk/Web_Links.htm

Case Example #19:
Team Collaboration at Intel
• Use online tools for team collaboration.

Team Meetings in Skype
Case Example #20: Shell Oil: Workflow Learning

- In this context, authentic work-based activities are learning activities that are anchored in workplace practice and that are focused on developing the participants' ability to solve problems in their everyday professional job roles (Merrill, 2002).

Key Steps in Design & Delivery

Collis (2006) Shell Oil

1. Begin with workplace gap
2. Design with multi-step work-based activity, not sequences of content
   a. Content is resource not the driver
3. Learning agreements with supervisors
   a. Determine ending performance
4. Provide electronic workspace support for collaborative learning, discussion, participant submissions

Collins (2006) Shell Oil

5. Build peer interaction—informal knowledge sharing, expert contacts, reuse submissions
6. Embed different stakeholder evaluations—supervisor, expert, participant, instructor, ID’ers
7. Coach supervisors how to take advantage of teachable moments
8. Reuse participant submissions

Blended Works: Here’s Proof

Jeff Barbisan, September 2002, Online Learning

“The question is not if we should blend...rather the question is what are the ingredients.”
- Per Marc Rosenberg, E-Learning: Strategies for Delivering Knowledge in the Digital Age

This talk covered...

1. Definitions of blended learning
2. Advantages and disadvantages
3. Models of blended learning
4. Examples of blended learning
5. 10 predictions for blended learning
6. Challenges for blended learning
The End...Remember

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

Break for questions or reflections on models...

It's Over...

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

Time for a BL Competition??
Sample HOBLe chapters at:
http://www.publicationshare.com/
Archived talks at:
http://www.trainingshare.com/