Blended Learning: Situations and Solutions

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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. Future direction of blended learning

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Chris Dede, Campus Technology, June 2006: Changing the Gold Standard for Instruction

- "Face-to-face may be best for most faculty...However, we know that many students who are silent in classroom discussions find their voice and participate actively in different flavors of mediated interaction."

### Blended Learning Defined: 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)
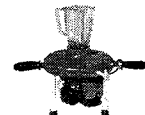
The Sloan Consortium
(2003). Sizing the Opportunity: The Quality and Extent of Online Education in the U.S., 2002 and 2003
http://www.sloan-c.org/resources/sizing_opportunity.pdf

- **Traditional: 0% online technology**
  - (all content in writing or orally)
- **Web facilitated: 1 to 29% online**
  - (Web syllabus or tasks supplemental)
- **Blended/Hybrid: 30-79% of content is delivered online & some FTF meetings**
- **Online: 80+% of content is online**

Historical Emergence of BL
(Graham, 2006)
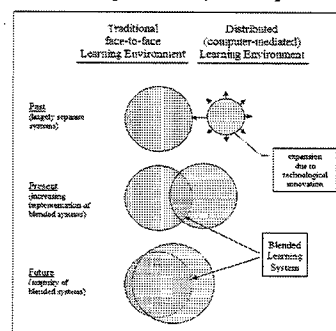
Blended Learning Advantages

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

## Ok, Million Dollar Question: Where is blended learning beneficial?

Where is Blended Beneficial?
http://www.center.rpi.edu/PewGrant/ProjDesc.html

- Large Classes
- Classes with working students
- Class with many reference/supplemental materials
- Need to put prework or assessment online
- Students spread over a distance
- Classes with certification
- Classes with need for standardization
- New requirements for a profession
- Writing intensive classes
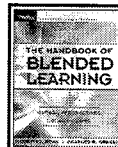- Need to access to experts online
- Theory classes

Frameworks and Models of Blended Learning...
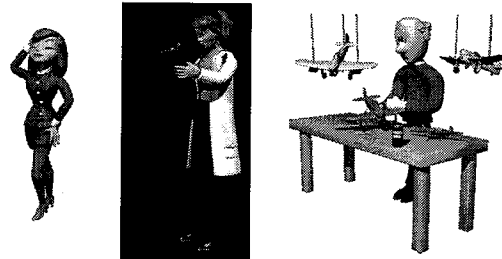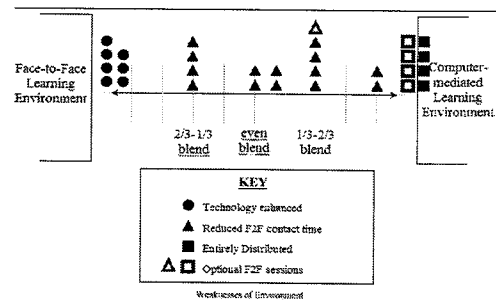

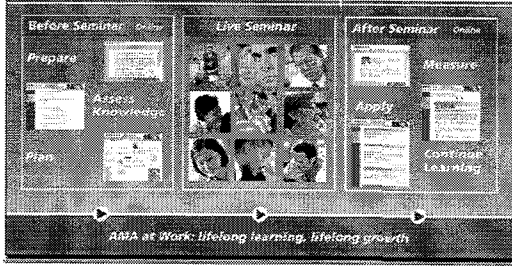## Handbook of Blended Learning (HOBLe)

- 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

Working Definition
(Graham, 2006, HOBLe Chapter 1, Blended Learning Systems)

Face-to-Face Learning Environment — Computer-mediated Learning Environment

2/3-1/3 blend   even blend   1/3-2/3 blend

KEY
- ● Technology enhanced
- ▲ Reduced F2F contact time
- ■ Entirely Distributed
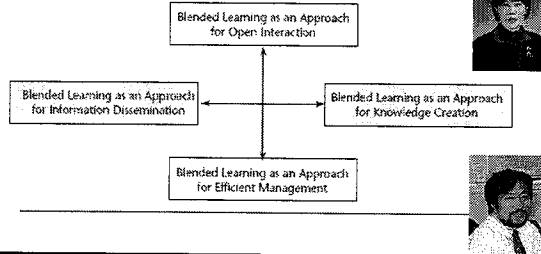- ▲ □ Optional F2F sessions

Weaknesses of Environment

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

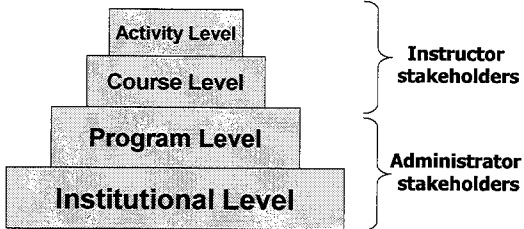

Source: American Management Association, AMA at Work

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

FIGURE 19.1. A FRAMEWORK FOR ANALYSIS OF INSTRUCTIONAL APPROACHES TO BLENDED LEARNING.

Blended Learning as an Approach for Open Interaction

Blended Learning as an Approach for Information Dissemination

Blended Learning as an Approach for Knowledge Creation

Blended Learning as an Approach for Efficient Management

Models of Blending

Blending occurs at the following four levels:

- Activity Level
- Course Level — Instructor stakeholders
- Program Level
- Institutional Level — Administrator stakeholders

1. Activity- and Course-Level Blends
Blended learning systems: Definitions and directions
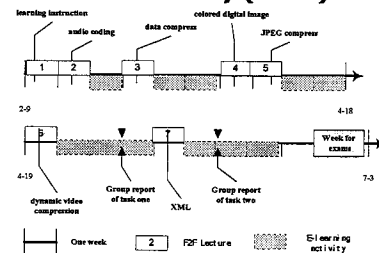### (Osguthorpe & Graham, 2003)
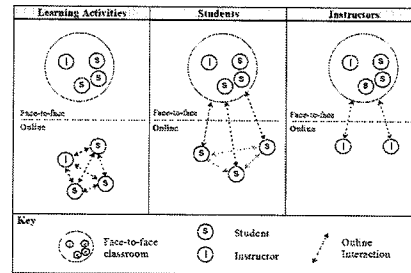
2. Course-Level Blend: Using CMS to blend distance and F2F learners
(Rogers, Graham, et al., 2003)
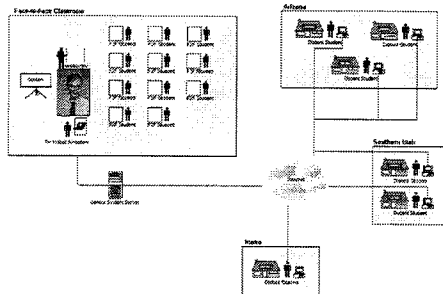
2. Course-level blends: Beijing Normal University (2006)

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

See: Huang Ronghuai, H. & Yueliang Z. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs.* San Fransisco, CA: Pfeiffer Publishing.
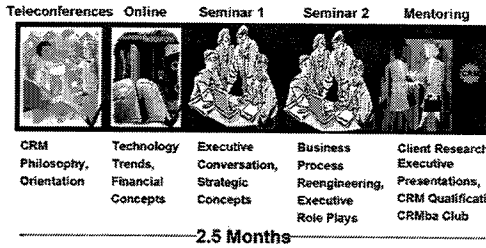
3. Program-level blending

Teleconferences Online Seminar 1 Seminar 2 Mentoring

| CRM Philosophy, Orientation | Technology Trends, Financial Concepts | Executive Conversation, Strategic Concepts | Business Process Reengineering, Executive Role Plays | Client Research, Executive Presentations, CRM Qualification, CRMba Club |

——————————2.5 Months——————————

Figure 1: Avaya's ESSBa program schedule

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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)
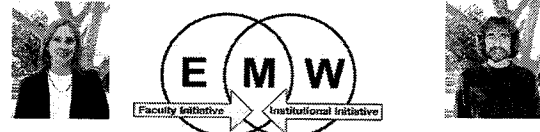
See: Dziuban, C., Hartman, J, Juge, F., Moskal, P., & Sorg, S. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs.* San Fransisco, CA: Pfeiffer Publishing.

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

- 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

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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)
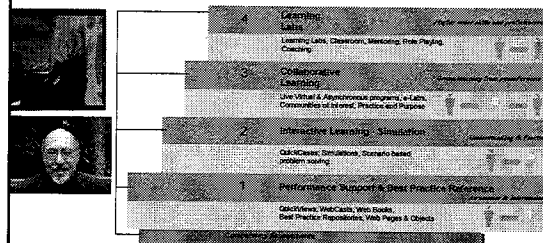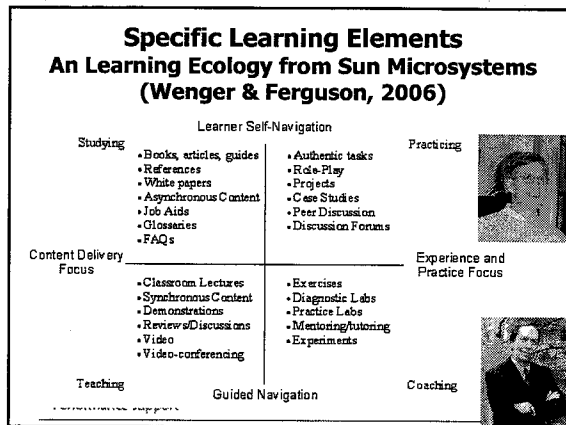

Blended Learning Scenario
(copyright Microsoft, Ziob & Mosher, 2006; Handbook of Blended Learning Environments)

Pre Class	Day 1	Day 2	Day 3	Day 4	Day 5	Post Class
Self-study prep	In classroom	Virtual class	e-Learning	Virtual class	In classroom	Community newsgroups

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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*

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

Learner Self-Navigation

	Studying		Practicing
Content Delivery Focus	• Books, articles, guides • References • White papers • Asynchronous Content • Job Aids • Glossaries • FAQs	• Authentic tasks • Role-Play • Projects • Case Studies • Peer Discussion • Discussion Forums	Experience and Practice Focus
	• Classroom Lectures • Synchronous Content • Demonstrations • Reviews/Discussions • Video • Video-conferencing	• Exercises • Diagnostic Labs • Practice Labs • Mentoring/tutoring • Experiments	
Teaching		Guided Navigation	Coaching

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

- 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

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

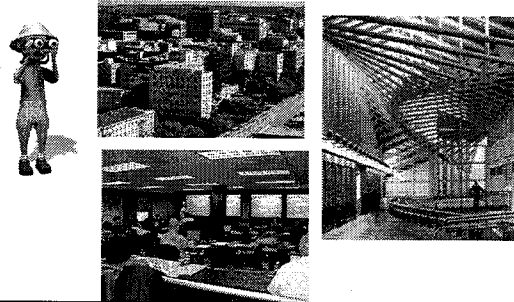**What can we say about blended learning then???**

- **It is everywhere!!!!!!!!**

- **Resistance is futile!!!!!!!**
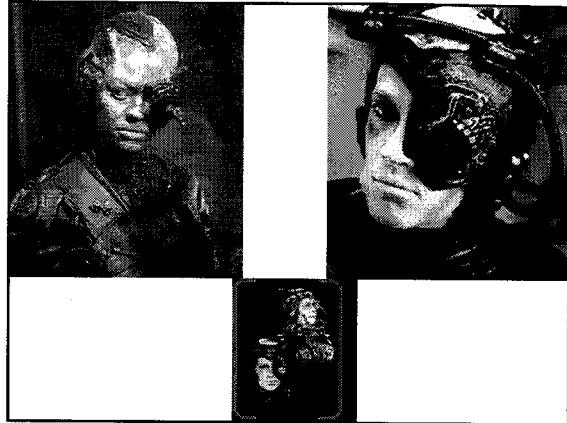
Future learning systems may not be differentiated as much based on *whether* they blend but rather by *how* they blend.

- (paraphrase from Ross and Gage, WebCT)

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12 Blended Learning Problems and 24 Solutions

Problem Situation #1:
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 #1.
Video Streaming Course Sessions (e.g., BobWeb)

Department	Course ID	Section	Date	Part	Media Type	Stream (click to play)	Download
EDUC-P	546	00000	01/22/2005		Real	Real Player	Download (641.81M)
EDUC-P	546	00000	01/15/2005		Real	Real Player	Download (894.24M)

Problem Situation #2: 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 #2.

Divide Online and Class Experiences: English Classes Online

Graham, Ure, & Allen (2003, July). Blended Learning Environn
A Literature Review and Proposed Research Agenda

- 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 #3: 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 #3. Inst Portal: e.g., self study in al

Trunk & Shoulder Muscles

Blended Solution #4: Warm-ups Online Just-In-Time-Teaching (JiTT)

http://webphysics.iupui.edu/jitt/jitt.html

Blended Solution #5. Online Role Play, Surveys, Discussion, etc.

- Enroll famous people in your course
- Students assume voice of that person for one

24.3. I am so wise...so listen.   Aristotle 11/25/03 05:49 PM

- Training Magazine might have a a little bit of a bias too. Also, I b boring instructional animations and videos. Classroom or e-learnin a good audiotape - they can all be good for learning. Cost-effectiv to go away as an issue, so we might as well face it instead of sayin learning is better than another - because it costs more! How did y- of the Huns? Didn't you compare prices on spears and horses bef global conquests?

24.3.1. Again my opinion - e-learning is NOT cost-   Attila the Hun
effective and is NOT value for money, and does
NOT equate good quality

Problem Situation #4:
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.**


Blended Solution #6. Use of Weblogs
(especially English writing class)

1. **Instructor or Tutor blog: resources, information, space to chat**
2. **Learner blog: reflections, sharing links and pics, fosters ownership of learning**
3. **Partner blog: work on team projects or activities**
4. **Class blog: international exchanges, projects, PBL**
5. **Revision: review and explode sentences from previous posts, add details**
6. **Nutshell: summarize themes or comments across blogs**
7. **Blog on blog: reflections on feelings, confusions, and experiences with blogs**

Blended Solution #7.
Survey Research and Market Analysis
(e.g., WebSurveyor, Zoomerang, SurveyShare, SurveyKey)
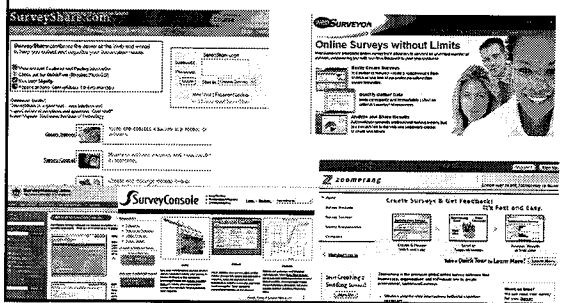
Blended Solution #8.
Wikibook Creation and Collaboration
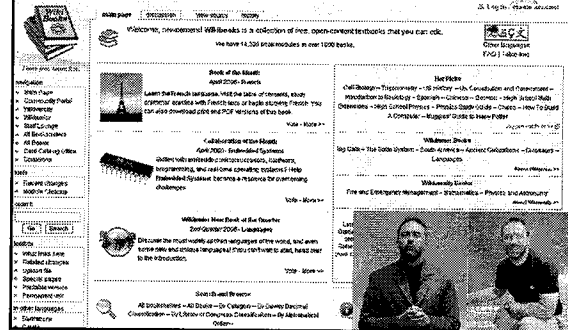
Problem Situation #5:
Preparedness for the Profession

- **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 #9.
Watch Video of Experts
(Interviews, Trinity College, Ohio Reading First)

This is a Virtual Interview project that has been development by CLT and the Department of Psychiatry. The first iteration was launched in March, 2004 for students. In this project student are given the opportunity to carry out a clinical interview with a patient. The student decides what questions are asked and with the aid of video clips can listen and watch the patient responses.

Blended Solution #10.
## Videoconferencing Expert Lectures and Online Conferences

Problem Situation #6:
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 #11. Cross-Class Collab
(Indiana Univ and Open U of Malaysia)
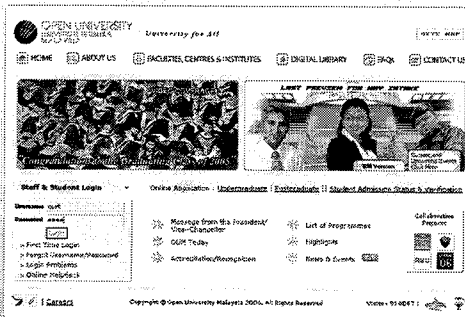
Blended Solution #12.
PBL: Tourism Mock Tours
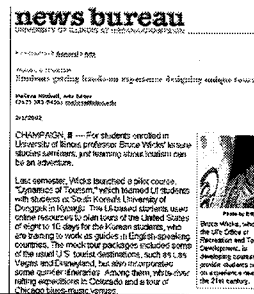
Dynamics of Tourism: students from IU and South Korea use online resources to plan tours and create mock tour packages.

Problem Situation #7:
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 #13.
Workplace and Field Reflections, Job Interviews

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**

9

Problem Situation #8:
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 #14: Teacher Professional Development in Technology Integration (the TICKIT Program)

(Bonk, Ehman, & Yamagata-Lynch, in press, AACE Journal)
http://www.iub.edu/~tickit
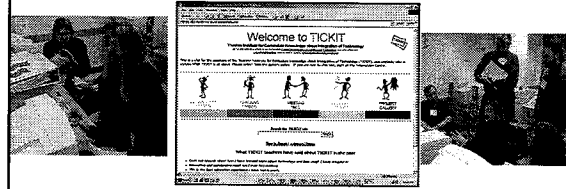
TICKIT: Teacher Institute for Curriculum Knowledge about Integration of Technology

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Problem Situation #9:
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.
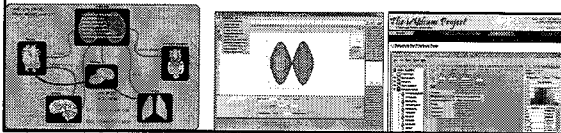
Blended Solution #15: Interactive Online New Stories & Cases
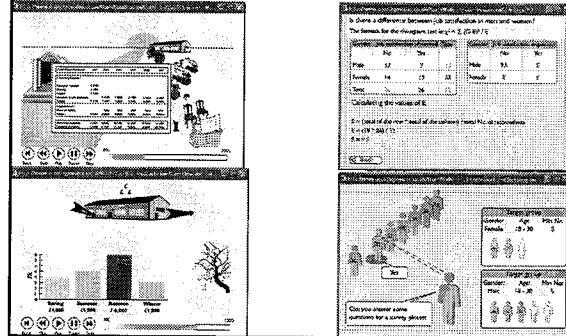
Blended Solution #16: Exploration and Demonstration: Virtual Fieldtrip, Tours, Timelines

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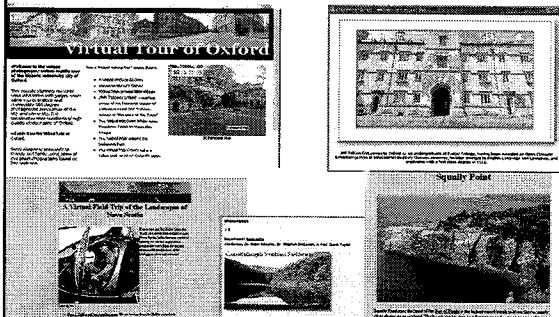
Problem Situation #10:
Need for Hands-On Learning

- 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 #17. Business Classes (Univ of Glamorgan in Wales & Univ of Calgary)
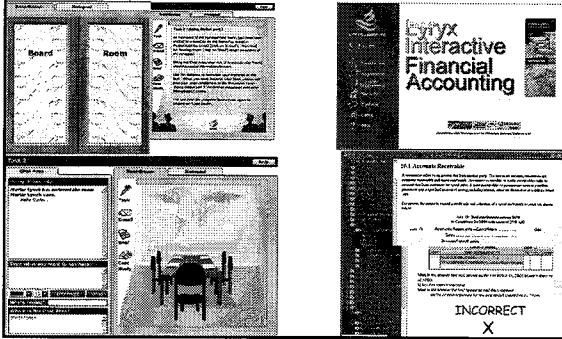
Blended Solution #18. Educational Simulations, Scenarios, and Manipulations
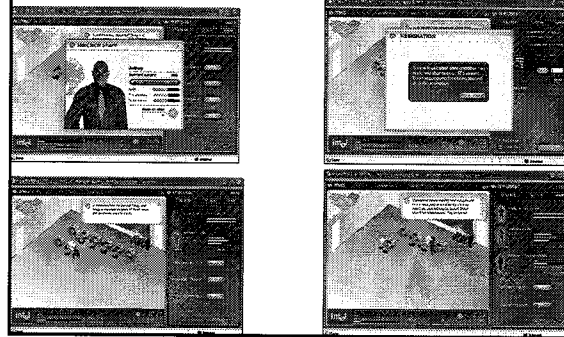
Blended Solution #19. Real World Problems (PBL online): Real-time Cases
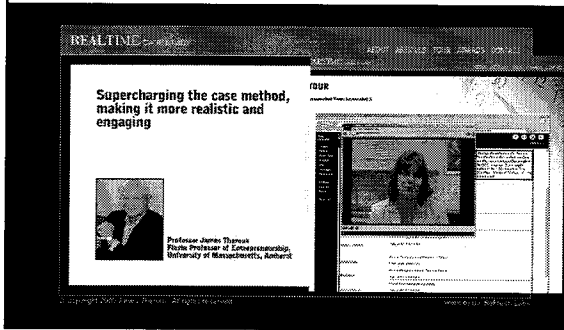
Blended Solution #20.
Video Scenario Learning
(Option 6, Arjuna Multimedia, Bloomington, IN)
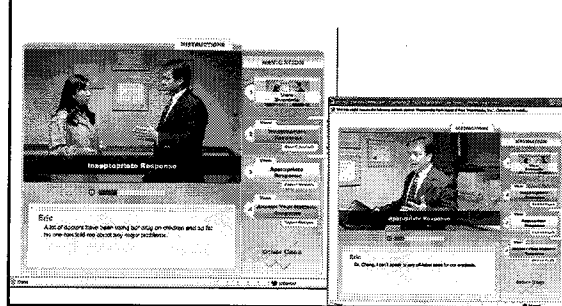
Problem Situation #11:
Preference for Auditory Learning

• 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 #21.
## Basic Acoustics of Musical Instruments

Blended Solution #22:
Podcasting and Coursecasting
(Adam Curry; www.dailysourcecode.com)

- Recordings of lectures (Coursecasting)
- Textbook text
- Student projects
- Interviews
- Language lessons
- Oral reports
- K-12 classroom interactions
- Downloadable library
- Recordings of performances

Blended Solution #23:
Language Learning
(ChinesePod—learn Mandarin)

Jenny Zhu
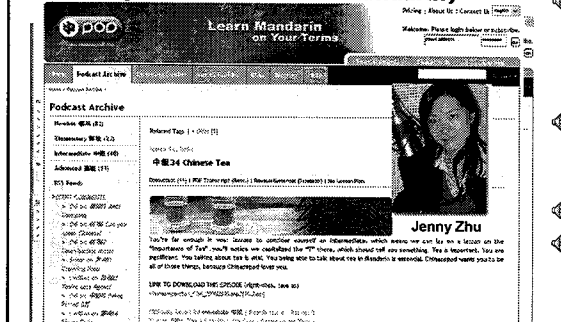
Problem Situation #12:
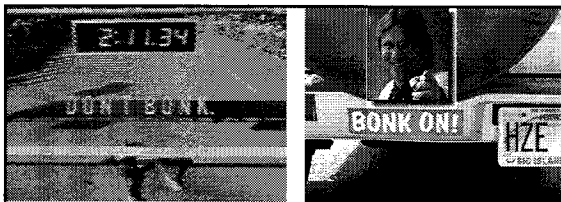## Lack of Instructor Presence

- 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 #24. Synchronous Sessions
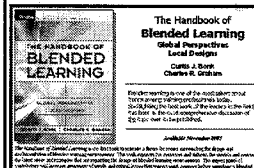### (Breeze, Elluminate, WebEx, etc.)
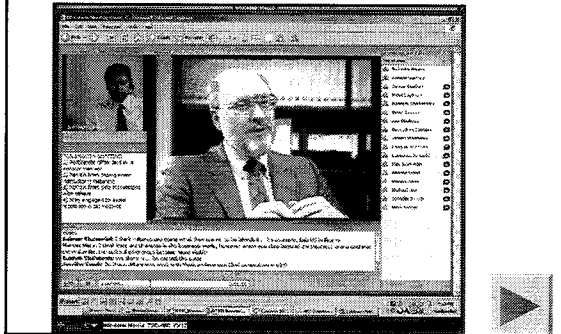
Implications and Challenges for Blended Learning in Higher Education

- Faculty and students are more mobile.
- Student expectations rise.
- Greater self-determined learning.
- More corporate university partnerships.
- Courses increasingly modular.
- Less predefined schedules.
- Scheduling much more complex.

Any questions, comments, or concerns?

The Handbook of
Blended Learning
Global Perspectives
Local Designs

Curtis J. Bonk
Charles R. Graham

Sample HOBLe chapters at:
http://www.publicationshare.com/

Archived talks at:
http://www.trainingshare.com/