Blended Learning Situations, Solutions, and Several Stunning Surprises

Curt Bonk, Professor, Indiana University
President, SurveyShare, Inc.
cjbonk@indiana.edu
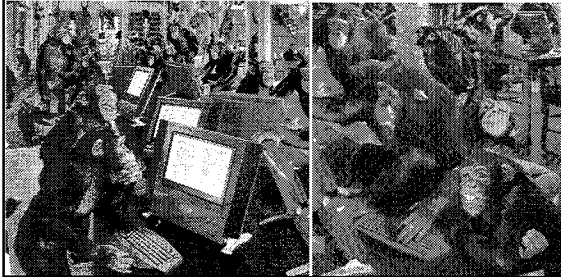http://mypage.iu.edu/~cjbonk/
http://SurveyShare.com

This the talk will cover:

1. Definitions of blended learning
2. Advantages and disadvantages
3. Models of blended learning
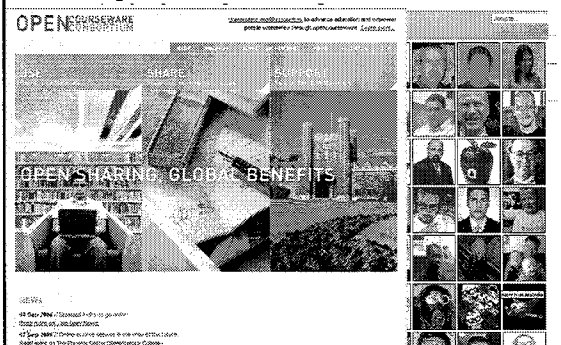4. Examples of blended learning
5. Implications for blended learning

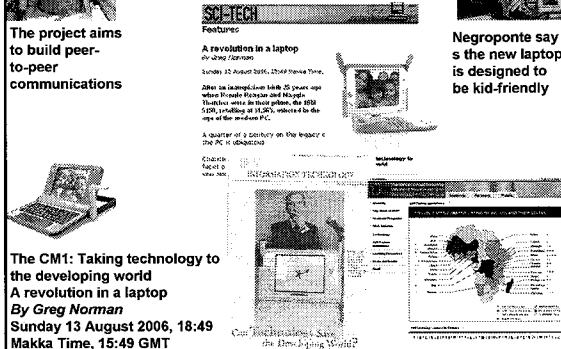---

Ten Technology Trends During Past Year

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1. **Blackboard Buying and Suing**

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2. Open Source Courseware

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3. Accessible Technology

The project aims to build peer-to-peer communications

A revolution in a laptop
By Greg Norman

Negroponte says the new laptop is designed to be kid-friendly

The CM1: Taking technology to the developing world
A revolution in a laptop
By Greg Norman
Sunday 13 August 2006, 18:49
Makka Time, 15:49 GMT

4. Wikis: Wikipedia, Wikibooks, Wiktionary, Wikiversity
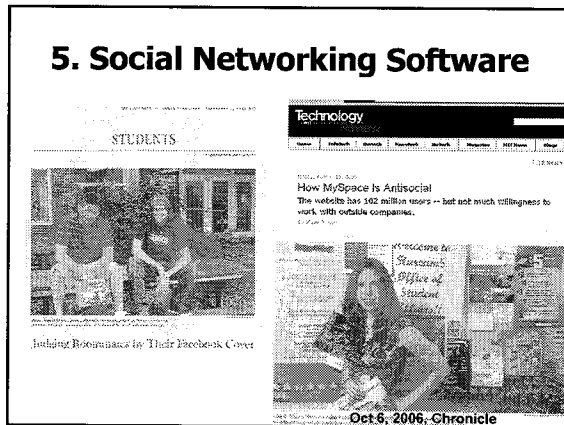

Belatedly, Britannica lambastes Wikip...

Time: 100 People Who Shaped Our World (2006)

Jimmy Wales: The (Proud) Amateur Who Created Wikipedia

5. Social Networking Software

How MySpace Is Antisocial

The website has 102 million users -- but not much willingness to work with outside companies.

Oct 6, 2006, Chronicle
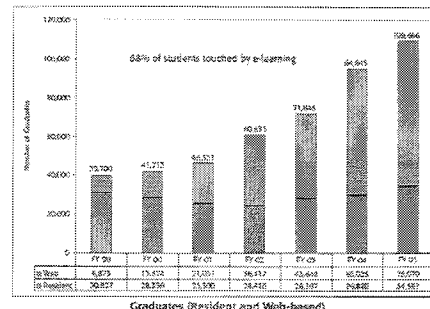
Time: 100 People Who Shaped Our World (2006)

The Flickr Founders
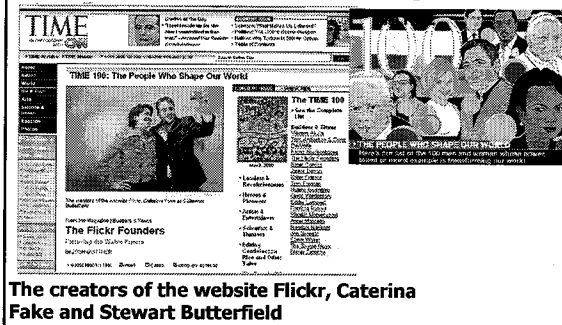
The creators of the website Flickr, Caterina Fake and Stewart Butterfield

6. Growth of Online Learning in Secondary Schools

TOTAL HALF-CREDIT ENROLLMENTS AT FLVS
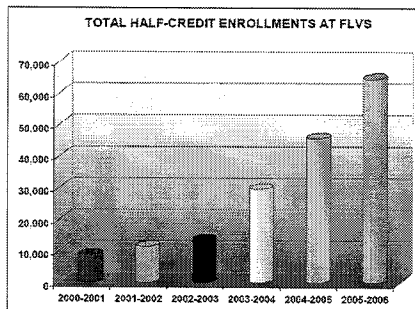
Defense Acquisition University
Shaping a Culture of Career-Long Learning

Graduates (Resident and Web-based)

Open University of Israel (overall enrollment growth)

Student enrollment in the Open University, Israel

Values shown on graph: 24,259 (1995), 27,924, 29,075, 31,003, 32,297, 33,033, 35,100, 36,758, 38,728, 39,249, 40,248 (2005)

Years: 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005
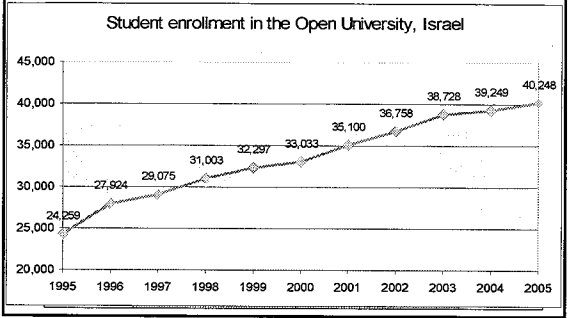
The Seattle Times, September 11, 2006, Jordan Cruz, 14, had no interest in going to a big high school. The Insight School of Washington, the state's first fully online high school, will allow him to work in the way he likes best: independently...from the comforts of home via the Internet)
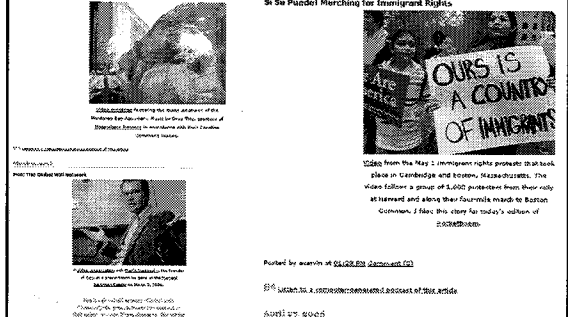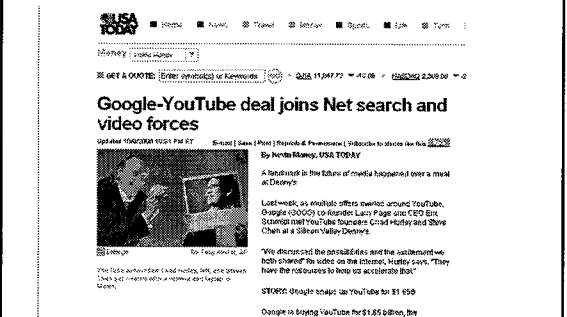
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7. Online Scholarship and Online Books

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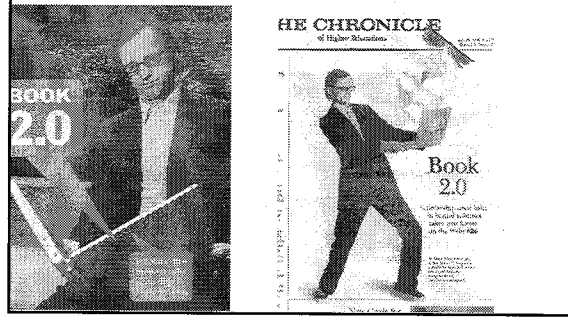
8. Digital Storytelling and Movie Making

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9. The Emergence of Video (e.g., video blogging)

YouTube Emerges...1.65 billion dollars later

Google-YouTube deal joins Net search and video forces

10. Podcasting and Vodcasting

(e.g., Podcast Alley, Chris McIntyre...)

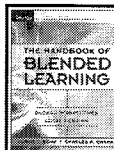

Blended Learning: Two Parts
1. Models and Frameworks
2. Problems and Solutions
(i.e., examples)

Part 1. Handbook of Blended Learning (HOBLe)

- University of Phoenix, Capella University, JIU, National University
- Microsoft, IBM, Sun, Cisco, Macromedia, Oracle, WebCT
- The World Bank, the DOD in USA
- In Canada: York University and the University of Calgary
- Other universities in Japan, Korea, Malaysia, Singapore, China, NZ, South Africa, Israel, Mexico, Australia, Wales, England, USA

Poll #1. Have you taught, taken, or designed a blended learning course?

A = yes

B = no

C = not sure, I am here to find out what blended means

Poll #2. What are you???

A. Tutor, professor, trainer, instructor, lecturer, adjunct, visiting scholar

B. Director or staff in a learning center, instructional designer, etc.

C. Policy maker, government official

D. Administrator, Dean, President, etc.

E. Graduate student, informal learner

G. Other

Poll #3: Burning Blended Learning Q's
(Pick any that interest you)

A. What does blended learning mean?

B. What is typically being blended?

C. How much to blend?

D. Why blend (advantages and disadvantages)?

E. Where is this all headed?

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

- "There is a widespread misconception that, for everyone, face-to-face is the "gold standard" in education, and that any kind of mediated interaction is second best. But we know from research, that's not true."
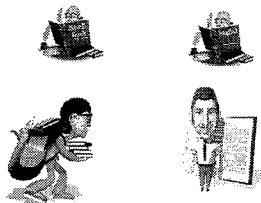

Chris Dede, Campus Technology, June 2006: Changing the Gold Standard for Instruction

- "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 and Explained

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

| Proportion of content delivered online	Type of Course	Typical Description
0%	Traditional	Course with no online technology used - content is delivered in writing or orally.
1 to 29%	Web facilitated	Course which uses web-based technology to facilitate what is essentially a face-to-face course. Might use Blackboard or WebCT to post the syllabus and assignments, for example.
30 to 79%	Blended/Hybrid	Course that is a blend of the online and face-to-face course. Substantial proportion of the content is delivered online, typically uses online discussions, typically has some face-to-face meetings
80+%	Online	A course where the vast bulk of the content is delivered online. Typically has no face-to-face meetings.

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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)

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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)
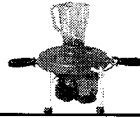
## Who is demanding fully online and blended learning?

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.

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

Percent of Student Learning that is Blended
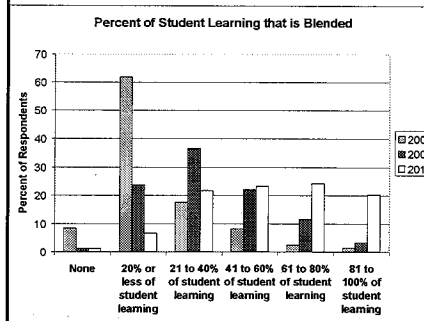
Instructional approaches or strategies that will be more widely used in BL during coming decade (Bonk et al., 2006).

Blended Learning Best Represents (US, UK, Korea, Taiwan)
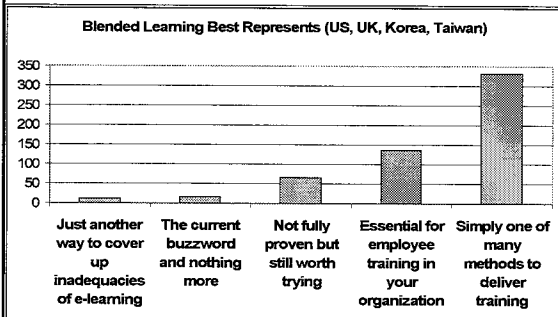
3-4 Skills Most Taught Through Blended

- UK: Computer Applics, Job, Communication, Personal Devel Skills
- US: Computer Applics, 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

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- Korea: Product Specific, Diversity, Customer Product Training, Compliance
- Taiwan: Diversity, Exec Education, Programming, Leadership, Product Specific, Business Practices

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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

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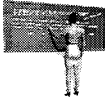
Enriching Student Experience Through BL
(Bob Albrecht, ECAR, June 6, 2006, Educause)

1. **Address diverse learners (low stakes quizzes)**
2. **Student satisfaction (more choice)**
3. **Reduced costs (online scoring or grading)**
4. **Increase capacity in facilities (e.g., UCF)**
5. **Convenience**
6. **Pedagogy**

Student Satisfaction in Canada for Blended Learning
(Owston, Garrison, & Cook 2006)

take another BL course?
legend: ▨ students
y-axis: 0% to 70%
x-axis: yes, no, don't know
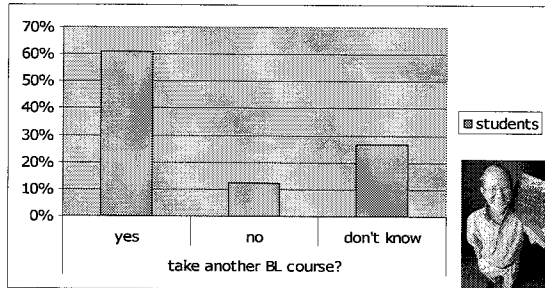
Fully Online and Blended Learning Disadvantages

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, increase workload, and reduced productivity**

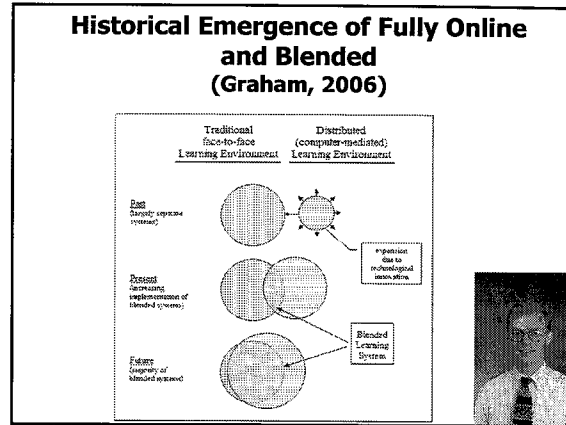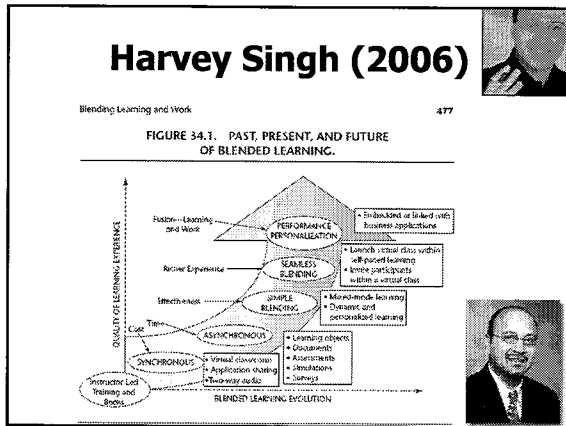## Frameworks and Models of Blended Learning...
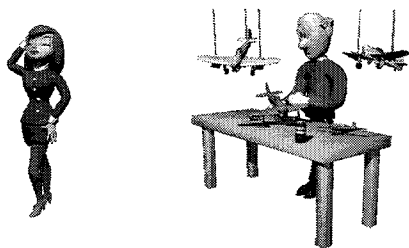
Dimensions of Blended Learning
(Jay Cross, Foreword, 2006)

FIGURE F.1. DIMENSIONS OF THE BLENDED LEARNING STEW.

Fleeting know-how	Lasting knowledge
Individual	Community
Generic	Proprietary
Training	Knowledge sharing
Text	Visual
Self-directed	Guided navigation
Content focus	Experience focus
Exploring	Participating
Push	Pull
Personalized	One-size-fits-all
Skills	Values
Information	Transformation
Formal	Informal

Harvey Singh (2006)

Blending Learning and Work   477

FIGURE 34.1. PAST, PRESENT, AND FUTURE
OF BLENDED LEARNING.

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

(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 Igneri, 2006)

Source: American Management Association, AMA at Work

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

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

Definition:
Blended learning systems combine face-to-face instruction with computer-mediated instruction.

Range of Blends in Pew Cases

Source: Graham, C. R., & Allen, S. (2005). Blended learning: An emerging trend in education. In C. Howard & J. V. Boettecher & L. Justice & K. D. Schenk & P. L. Rogers & G. A. Berg (Eds.), *Encyclopedia of Distance Learning* (pp. 172-179). Hershey, PA: Idea Group Inc.

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

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

Models of Blending

Blending occurs at the following four levels:

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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 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.
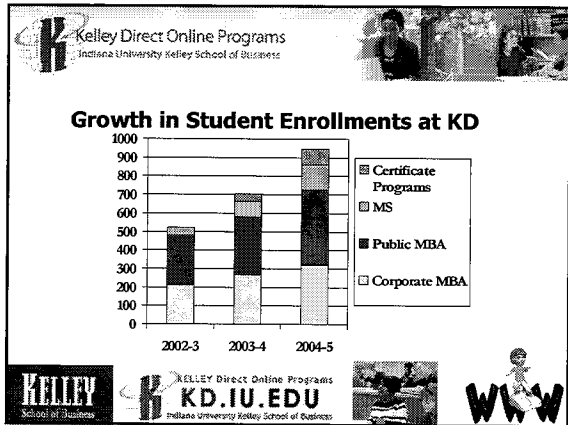

See: Huang Ronghuai, H. & Yueliang Z. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs.* San Fransisco, CA: Pfeiffer Publishing.

3. Program-level blending

Figure 1: Avaya's ESSBa program schedule

Kelley Direct Online Programs
Indiana University Kelley School of Business

Growth in Student Enrollments at KD

- Certificate Programs
- MS
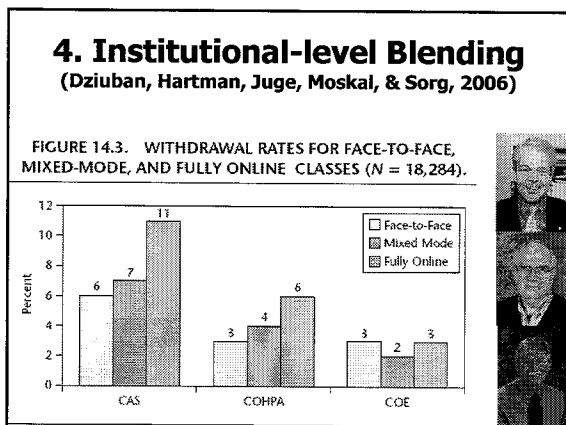- Public MBA
- Corporate MBA

KD.IU.EDU

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
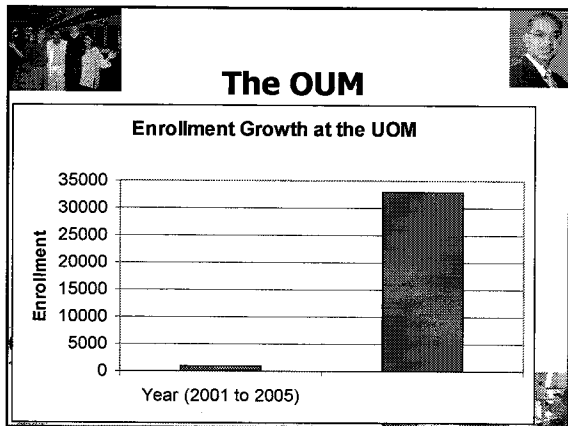- W courses are web courses (completely online)

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.

4. Institutional-level Blending
(Dziuban, Hartman, Juge, Moskal, & Sorg, 2006)

FIGURE 14.3. WITHDRAWAL RATES FOR FACE-TO-FACE, MIXED-MODE, AND FULLY ONLINE CLASSES (N = 18,284).

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

FIGURE 22.1. OPEN UNIVERSITY MALAYSIA'S BLENDED LEARNING MODEL.

The OUM

Enrollment Growth at the UOM

Chart: Enrollment (y-axis: 0 to 35000) vs Year (2001 to 2005)

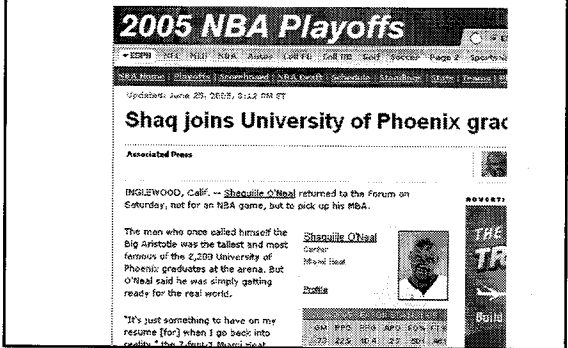
4. Institutional-level Blending
(Brian Linquist, 2006)

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)

Even Shaq is taking courses online!

2005 NBA Playoffs

Shaq joins University of Phoenix grad

Associated Press

INGLEWOOD, Calif. -- Shaquille O'Neal returned to the Forum on Saturday, not for an NBA game, but to pick up his MBA.

The man who once called himself the Big Aristotle was the tallest and most famous of the 2,209 University of Phoenix graduates at the arena. But O'Neal said he was simply getting ready for the real world.

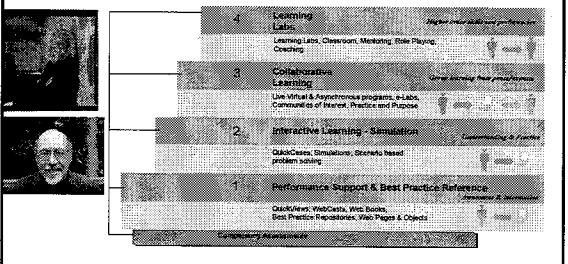"It's just something to have on my resume [for] when I go back into

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

Live instructor-led	Self-paced learning	Tools for learning communities
▪Traditional classroom ▪Onsite engagement ▪Virtual online classroom ▪Live video via satellite or videoconferencing ▪Online coaching/ mentoring	▪Instructor-led classroom via e-mail ▪Online or computer-based training (CBT) ▪Self-study guides, manuals, texts ▪Online resources and databases	▪Chat ▪Instant messaging (IM) ▪Newsgroups and forums ▪Collaboration

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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*

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

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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B. Enhancing Blends
(Univ of Glamorgan, Wales, 2006)

Continuum of e-Learning

Basic ICT usage	E-enhanced	E-focused	E-intensive
Eg PowerPoint presentations	Access to online resources. Use of Bb for announcements. lecture notes, student communication	Discussion boards, online assessment tests. Interactive learning materials	Whole modules/awards delivered and moderated online

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

workflow)
ment using
rtual and real

Reality -Virtuality Training Continuum

Mixed Reality

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

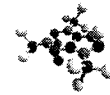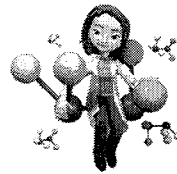**What can we say about blended learning then???**

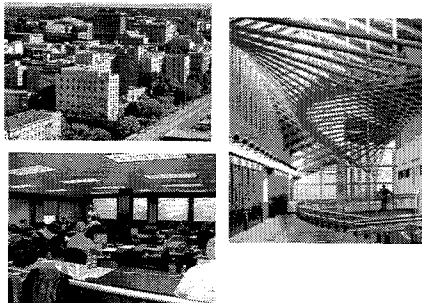- **It is everywhere!!!!!!!!**

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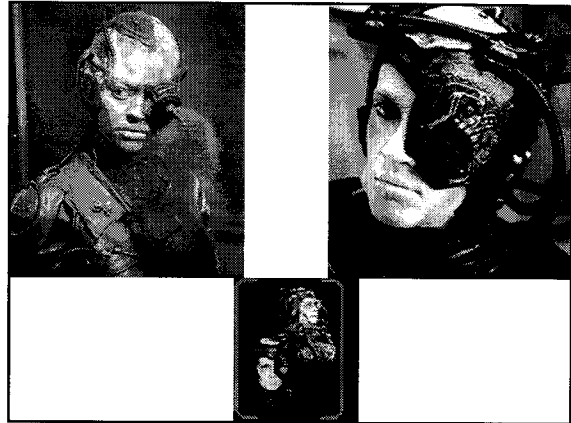
Future learning systems may not be differentiated as much based on **whether** they blend but rather by **how** they blend.

- **(paraphrase from Ross and Gage, WebCT)**

Best BL Model Presentations and a Break!!!

Part II: 13 Fully Online and Blended Learning Problems and 37 Solutions

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Problem Situation #1: Brief FTF Experiences

- Face-to-face (FTF) experiences are brief, one-week journeys. Need to need to build self-confidence, create social supports, teams, camaraderie, etc.

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

Solution #1+. Sample Activities for Brief Meetings

1. Assign web buddies, email pals, critical friends based on interests, confidence, location, etc.
2. Ice breakers—paired introductions, corners.
3. Solve case in team competitions with awards.
4. Test technology in a lab.
5. Assign teams and exchange info for small teams using text messaging.
6. Library (digital and physical) scavenger hunt.
7. Do a podcast documenting the meeting.
8. Have everyone create a blog on the experience.
9. Open an e-portfolio for each student
10. Brainstorm how might use technology in program.

Problem Situation #2: Student Absenteeism

- Students miss class to attend a conference or event or a personal problem arises. Or students asks to watch the class a second time.
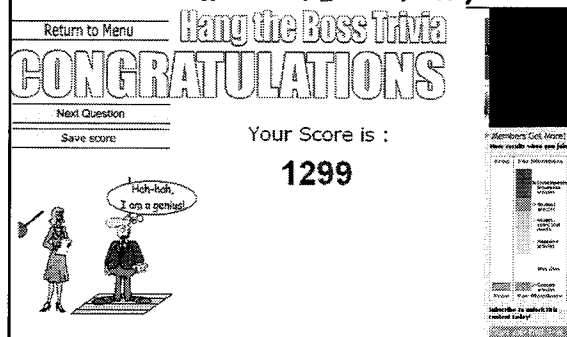
Solution #2. Video Streamed Lectures and Expert Commenting
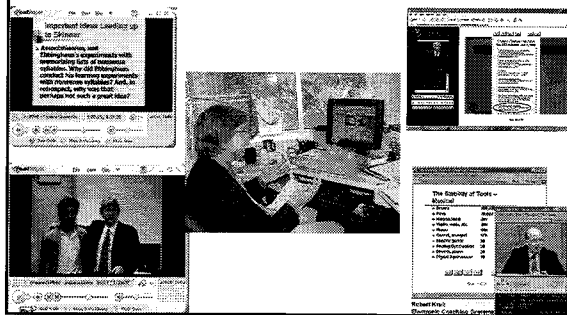
Problem Situation #3: Facilities and Time

- Limited facilities or rooms for teaching. Or students cannot make it to class every week or are working full time.

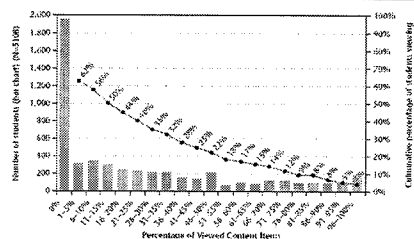## Solution #3. Terminology Exercises Online (puzzles, games, etc.)

Problem Situation #4: Web Supplemental Activities

- **Fail to finish class discussion or other activity in time. Or desire to integrate the Web more in your face-to-face instruction or outside of class. Want to provide course resources and activities for students to explore.**

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

FIGURE 27.2. DISTRIBUTION OF PERCENTAGE OF CONTENT ITEMS VIEWED BY STUDENTS.

Solution #4. Instructor Portal:

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

Solution #6. Online Practice Tests (e.g., Calm Chemistry)

Problem Situation #5: Student Learning Control

- **Want to give students more control and ownership over their own learning. Want to foster student generative learning or being authors of their own knowledge.**

Solution #7.
Survey Research and Market Analysis
(e.g., WebSurveyor, Zoomerang, SurveyShare, SurveyKey)

Problem Situation #6:
Preparedness for the Profession

- Students are not prepared for their professions when they graduate. Or want to better apprentice students into their chosen profession. What to provide opportunities to work with practitioners, experts, mentors, and coaches in authentic learning environment.

Solution #8. Online Synchronous Cases and Teams; Simulated Boardroom Chat; College Wales, Univ. of Glamorgan

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Solution #9.
Video Observations (e.g., Virtual Psychiatric Interview, Trinity College, Dublin)

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.

Solution #10.
E-Reading First Ohio (video-based scaffolding from expert instructors)

Problem Situation #7:
Collaborative Skill Deficit

- Students need collaboration and teamwork skills. Want to build virtual teaming skills in class activities or work with learners in other locales or situations.

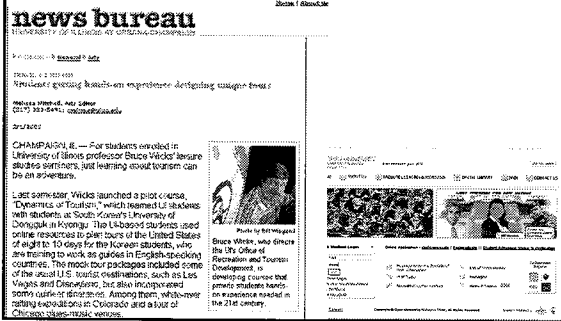## Solution #11. Cross-Class Collab
(Indiana Univ and Open U of Malaysia)

Solution #12. Online Groups...

Solution #13.
Team Meetings in Skype

Solution #14. Numbered
Heads Together

a. Assign a task and divide into groups (perhaps 4-6/group).
b. Perhaps assign group names across class or perhaps some competition between them.
c. Count off from 1 to 4.
d. Discuss problem or issue assigned.
e. Instructor calls on groups & numbers.
   a. e.g., in a research methods class, one person reads intro, another the method, another the findings, discussion, implications, etc.

Problem Situation #8:
Student Reflections and Connections

- **Students are not connecting content. They are just turning pages and going through the motions. Minimal student reflection is seen.**

Solution #15.
Learner-Self Interactions and Reflections

Solution #16. Library Day (Bonk, 1999)

- Have students spend a day in the library or online finding and summarizing a set number of articles.
- Have them bring to class or post abstracts to an online forum.
- Share in small groups interested in similar topics.
- Perhaps give each student 1-2 minutes to describe what found in a chat.

Solution #17. Apprenticeship: Electronic Guests & Mentoring
(Simon Fraser University News:
http://www.sfu.ca/mediapr/sfnews/2001/Sept6/hightech.html)

- He has also found the competition's mentor program, in which contestants are matched with industry experts, to be invaluable.

The mentors to his team are now intimately involved wit

Solution #18. Online Simulation: Financial Accounting; (University of Calgary)

INCORRECT
X

Problem Situation #9: Learning Community

- There is a preference for creating an online learning community in order to increase student learning and retention in the program. Such a community might be in a single class or across a series of classes.

## Solution #19. Community of Learners: Medical and Business Cases Online (cases community)

Solution #20. Community of Practice: Online Professional Development

Problem Situation #10: Need to Visualize Content

- Content is highly visual in nature and difficult to simply discuss in class. Or students have a preference for visual learning.

Blended Solution #21. Explore Virtual Worlds and Online Representations (UCLAs CVRLab)
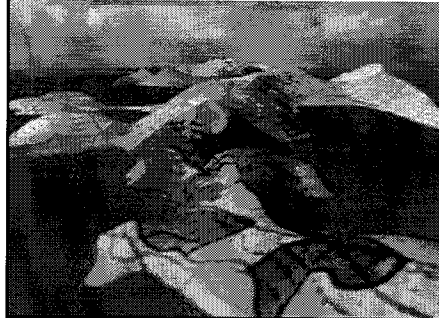
Ancient Rome Virtually

"Today he (Dr. Bernard Frischer) can present virtual-reality projects wherever he goes -- classrooms, museums, conferences, or workshops -- as long as he has access to a screen and a digital projector. On this morni his art-history course, "\ he treats his students ar interested guests to a to Rome as it looked in the before and after Julius C (July 22, 2005, Chronicl

Blended Solution #22. 3-D Visualization & Laboratory Software
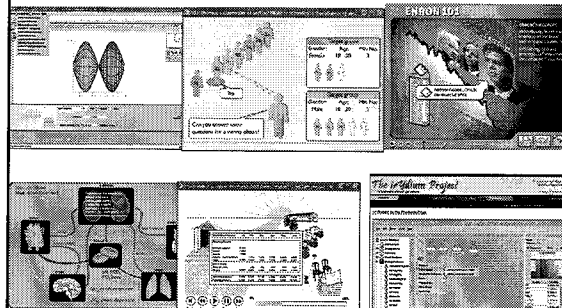
Solution #23. Anchored Instruction: News Content Videos (CTGV, 1990?)

Solution #24. Use Google Maps Mashups in K-12 Education

Solution #25. Concept Mapping

Ratio Analysis - Mind Map

Mind Maps have been produced to introduce topics and give students an overview of key topics or, for those who prefer a more linear approach, as a text version.
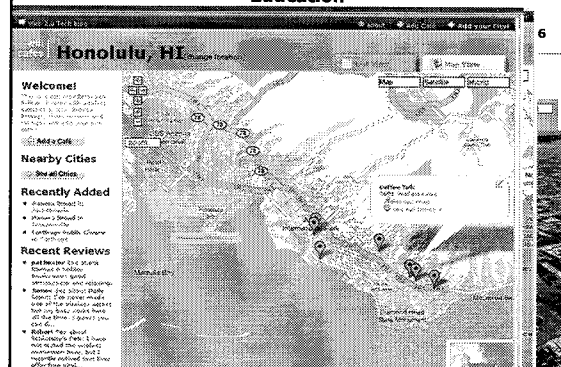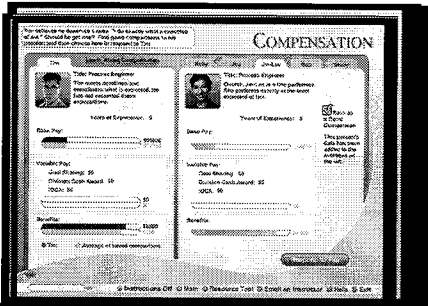
View larger version of the mind map.

- Liquidity
  - How solvent is the business?
  - Acid Test

Solution #26. Exploration and Demonstration: Virtual Fieldtrip and Tours

Virtual Field Trip Around Southwest Oahu

Solution #27. Virtual Timelines

Solution #28. Virtual Reality/Worlds
First Course in a Virtual World (Second Life)
Wednesday, August 30, 2006

Problem Situation #11: Need for Hands-On Learning

- **To learn the material requires that students try it out in a lab or real-world situation. Or students prefer hands-on learning activities.**

Solution #29. 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)

U.N. Food Force, called the first humanitarian game, simulates problems of getting supplies to wartime refugees.

Terrorist reality to treat sun attacks.

Solution #30. Allen Interactions
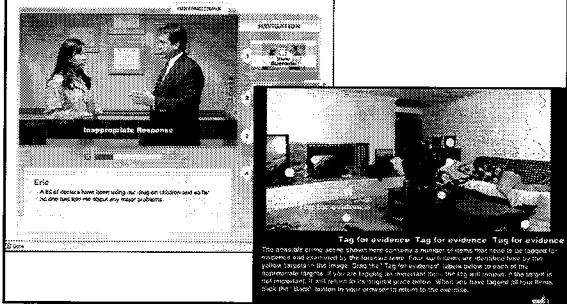http://sales.alleni.com/client/Bonk/Bonk_Web_Links.htm

Solution #31. Educational Simulations, Scenarios, and Manipulations
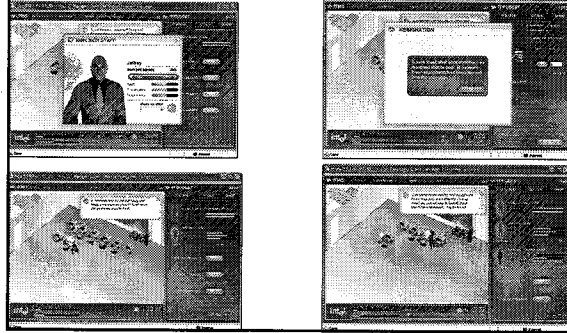
Solution #32. Real World Problems (PBL online): Real-time Cases
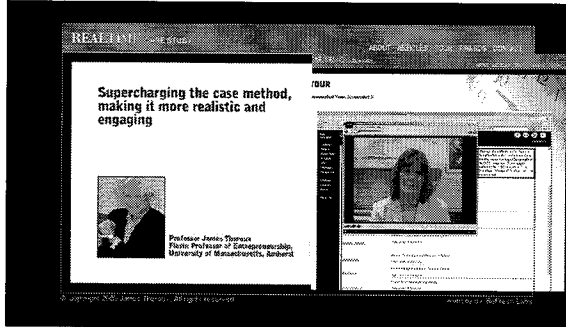
Solution #33. Video Scenario Learning
(Option 6, Arjuna Multimedia, Bloomington, IN)

Problem Situation #12: Preference for Auditory Learning

• The content is heavily verbal or words. Or students have a preference to listen to a lecture or hear an instructor deliver a lecture.

Solution #34. Art and History Exhibits

Solution #35.
Basic Acoustics of Musical Instruments

Problem Situation #13:
Lack of Instructor Presence

• **Students need to see or hear from the instructor. They need a sense that the instructor is supporting their learning. They prefer face-to-face but are willing to try online.**

Solution #36. Instructor Presentation in Synchronous Sessions
(Breeze, Elluminate, WebEx, etc.)

Solution #37. 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

Poll #4. Which blended learning strategy might like to try?

A. Post assessments and reviews online
B. Follow-up activities in a community of practice
C. Put reference materials on the web
D. Use online mentors, experts, and coaches
E. Rely on instant messaging and chat

Poll #5. What blended ideas do you think work or have you tried?

A. Online simulations, games, demos, and hands-on activities

B. Online surveys, polls, research, and authentic data collection

C. Extensive Web explorations (student selected and reported)

D. Extensive Web support materials (papers, discussion forums, test examples)

E. Alternative class and face-to-face meetings and activities

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## 10 Predictions for Blended Learning

- From: Bonk, C. J., & Kim, K. J. (in press). Future directions of blended learning in higher education and workplace learning settings. To appear in C. J. Bonk & C. R. Graham (Eds.). *Handbook of blended learning: Global Perspectives, local designs.* San Francisco, CA: Pfeiffer Publishing.

Blended Learning Trend #1. Mobile Blended Learning

- **Increasing use of mobile and handheld will create rich and exciting new avenues for blended learning.**
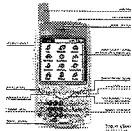
Blended Learning Trend #2. Greater Visualization, Individualization, and Hands-on Learning

- **Blended learning environments will increasingly become individualized; in particular, emphasizing visual and hands-on activities.**

Blended Learning Trend #3. Self-Determined Blended Learning

- Blended learning will foster greater student responsibility for learning. Decisions about the type and format of blended learning will be made by students instead of instructors or instructional designers. Learners will be designing their own programs and degrees.

Blended Learning Trend #4. Increased Connectedness, Community, and Collaboration

- Blended learning will open new avenues for collaboration, community building, and global connectedness. It will become used as a tool for global understanding and appreciation.

Blended Learning Trend #5. Increased Authenticity and On-Demand Learning

- Blended learning will focus on authenticity and real world experiences to supplement, extend, enhance, and replace formal learning. As this occurs, blended learning will fuel advancements in the creation and use of online case-learning, scenarios, simulations and role play, and problem-based learning.

Blended Learning Trend #6. Linking Work and Learning

- As blended learning proliferates, the lines between workplace learning and formal learning will increasingly blur. Higher education degrees will have credits from the workplace and even credit for work performed.

Blended Learning Trend #7. Changed Calendaring

- The calendar system or time scheduling of learning will be less appropriate and predefinable.

Blended Learning Trend #8. Blended Learning Course Designations

- Courses and programs will be increasingly designated as blended learning paths or options.

Blended Learning Trend #9. Changed Instructor Roles

- The role of an instructor or trainer in a blended environment will shift to one of mentor, coach, and counselor.

Blended Learning Trend #10. The Emergence of Blended Learning Specialists

- There will emerge specialist teaching certificates, degree programs, and resources or portals related to blended learning courses and programs.

Poll #6. Which of these 5 predictions do you agree with the most?

A. Increased self-determined web learning
B. Increased connectedness, community, and collaboration
C. Increased authenticity and on-demand learning
D. Blended learning course designations
E. The emergence of blended learning specialists

Poll #7. Which of these 5 predictions do you agree with the most?

A. Increasing use of mobile blended learning
B. Greater visualization, individualization, and hands-on learning
C. Greater linking of workplace and formal learning
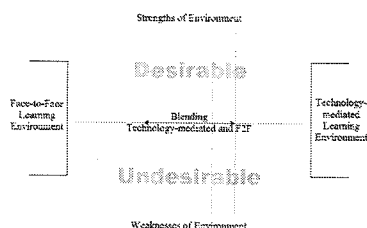D. Changed calendaring
E. Changed instructor roles

Implications and Challenges for Blended Learning

1. Faculty and students are more mobile.
2. Students more choices.
3. Student expectations rise.
4. Greater self-determined learning.
5. More corporate university partnerships.
6. Courses increasingly modular.
7. Less predefined schedules.
8. When teaching less clear; when learning less clear.

A Challenge for the Future

- Our challenge is to learn how to design effective blended learning systems
  - For a wide variety of contexts (tech impoverished to tech rich)
  - For a wide variety of learners
  - With a broad range of constraints

A Challenge for the Future

Strengths of Environment

Desirable

Face-to-Face Learning Environment | Blending Technology-mediated and F2F | Technology-mediated Learning Environment

Undesirable

Weaknesses of Environment

One of our challenges is to determine the **strengths and weaknesses** of the two archetypal environments and use those to develop solutions that really do take advantage of the "best of both worlds."

Enriching Student Experience Through BL (Bob Albrecht, ECAR, June 6, 2006, Educause)

"Blended learning, a more pedagogically oriented innovation with many of the advantages of online learning, could well become a standard practice favored by both faculty and students. Institutional support, however, will determine how quickly it spreads and whether it achieves its promise of improving student learning."

The End...Remember

It's Over...

Poll: Ok, then, who wants more???

A. Yes

B. No

C. Not sure

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

Your skeletal muscles' maximum burn rate is double that of your brain. Think about it.

Boring e-Learning

Experience. The difference.

Time for a BL Competition???

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/