

## Blended Learning Models, Frameworks, Stories, and Examples



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## This part of the talk will cover

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



**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**



## Blended Learning



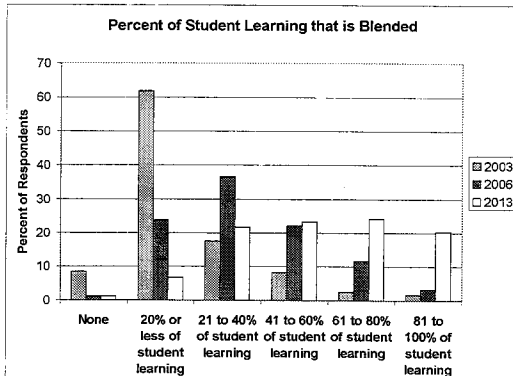
## Poll #2. What are you???

- A. Professor, trainer, instructor, lecturer
- B. Director or staff in a learning center, instructional designer, etc.
- C. Policy maker, government official
- D. Administrator, Dean, President, etc.
- E. Graduate student
- F. Corporate trainer, corporate director
- 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 to blend and how much?
- D. Why blend (advantages and disadvantages)?
- E. Where is this all headed?



## Emergence of Blended Learning Systems in Higher Ed

In 2002 the President of Pennsylvania State University said that the convergence between online and residential instruction was "the single-greatest unrecognized trend in higher education today."

Young, J. R. (2002, March 22). 'Hybrid' teaching seeks to end the divide between traditional and online instruction. *Chronicle of Higher Education*, pp. A33.

## Blended Learning Definitions

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

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

## 1. Blending Delivery Media

- "Blended learning means the combination of a wide range of learning media (instructor led, web based courseware, simulations, job aids, webinars, documents) into a total training program designed to solve a specific business problem." (Bersin & Associates, 2003, p. 3)

## 2. Blending Instructional Methods

- "Blended learning: to combine various pedagogical approaches (e.g., constructivism, behaviorism, cognitivism) to produce an optimal learning outcome with or without instructional technology." (Driscoll, 2002, p. 54)

## 3. Blending Online and F2F Instruction

- "Blended learning refers to events that combine aspects of online and face-to-face instruction" (Rooney, 2003, p. 26; Ward & LaBranche, 2003, p. 22)
- "Hybrid or blended model of learning replace some in-person meetings with virtual sessions, hybrid courses offer some of the convenience of all-online courses without the complete loss of face-to-face contact." (Young, 2002, p. A33)

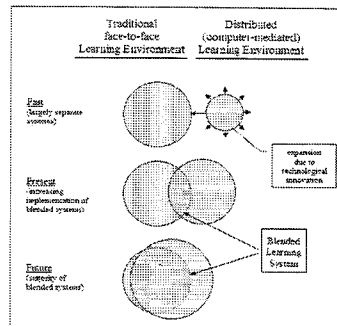
## A Working Definition

### Working Definition:

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

- More inclusive than just online technologies.
- Emphasizes the central role of computer-based technologies in BL.
- This definition is consistent with the historical emergence of the concept of blended learning.

## Historical Emergence of BL



	Traditional F2F	Computer-mediated
Space	Live (physical F2F)	Virtual (distributed)
Time	Live Synchronous (very short lag time)	Asynchronous (long lag time)
Fidelity	High (rich all senses)	Low (text only)
Humanness	High Human No Machine	No Human High Machine

## Why Blend? Three Key Reasons

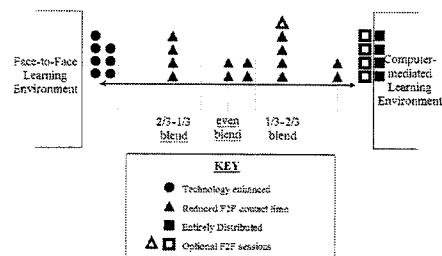
- 1. Improved Pedagogy**
  - Interactive vs. Transmissive environments
  - Authenticity integration into work
- 2. Increased Access/Flexibility**
  - Reduced seat time courses – UCF M courses
- 3. Increased Cost Effectiveness**
  - Corporate: ROI – IBM 47:1, Avaya, Microsoft
  - Higher Ed: PEW Grants

**Pew Foundation, PROGRAM IN COURSE REDESIGN** (Carol Twigg, August 2004  
Keynote Presentation at Wisconsin DL Conference)  
<http://www.center.rpi.edu/PewHome.html>

To encourage colleges and universities to redesign their approaches to instruction using technology to achieve cost savings as well as quality enhancements.

**\$6 million 30 projects**

## Graham & Allen (2005) Blended learning: An emerging trend in education



Range of blends in 30 course redesign projects funded by the PEW Charitable Trust

## IMPROVED LEARNING OUTCOMES from Technology

(Carol Twigg, August 2004 Keynote Presentation)

- Penn State - 68% on a content-knowledge test vs. 60%
- UB - 56% earned A- or higher vs. 37%
- CMU - scores on skill/concept tests increased by 22.8%
- Fairfield - 88% on concept retention vs. 79%
- U of Idaho - 30% earned A's vs. 20%
- UMass - 73% on tougher exams vs. 61%
- FGCU - 85% on exams vs. 72%; 75% A's and B's vs. 31%
- USM - scored a full point higher on writing assessments
- IUPUI, RCC, UCF, U of S Maine, Drexel and U of Ala - significant improvements in understanding content

**25 of 30 have shown improvement;  
5 have shown equal learning.**

## REDUCTION IN Drops, Failures, and Withdrawal RATES

(Carol Twigg, August 2004 Keynote at Wisconsin DL Conference)

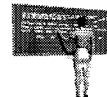
- U of Alabama - 60% to 40%
- Drexel - 51% to 38%
- Tallahassee CC - 46% to 25%
- Rio CC - 41% to 32%
- IUPUI - 39% to 25%
- UNM - 39% to 23%
- U of S Maine - 28% to 19%
- U of Iowa - 25% to 13%
- Penn State - 12% to 9.8%

## What are the advantages (and disadvantages) of blended learning?



## 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



## Hybrid Classes: Maximizing Resources and Student Learning

[http://courses.durhamtech.edu/tic/voww/html/Special\\_Feature/hybridclasses.htm](http://courses.durhamtech.edu/tic/voww/html/Special_Feature/hybridclasses.htm)

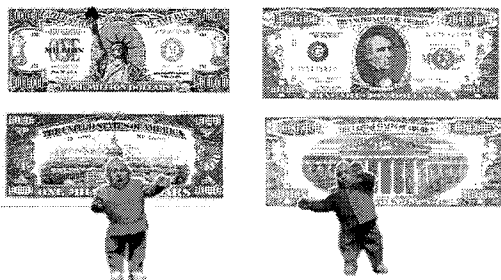
- Approximates real world/collaboration
- Students learned more, wrote better papers, performed better on exams, produced higher quality projects
- Students engaged in doing, rather than just experiencing or reading
- Students can review prerecorded lectures and access course notes/materials
- Presents materials in range of formats
- Lower withdrawal rates

## 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. Good ideas but lack of time, money, & support



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



## Where is Blended Beneficial?

<http://www.center.rpi.edu/PewGrant/ProjDesc.html>

- Large Classes (spanish, intro psych, algebra, elementary statistics, biology)
- Classes with certification
- Classes with need for standardization
- New requirements for a profession
- Massive and widespread audience
- Writing intensive 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



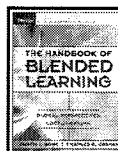
## Models of Blending

### Blending occurs at the following four levels:

1. The **activity** level (e.g., start debate in class and complete it online)
2. The **course** level
3. The **program** level
4. The **institutional** level

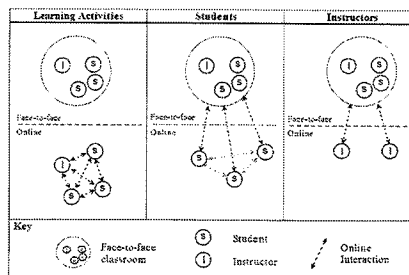
## Upcoming Handbook of Blended Learning (HOBLe)

- 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



## 1. Activity-Level Blends

Blended learning systems: Definitions and directions (Osguthorpe & Graham, 2003)



## 2. Course-Level Blend: Using CMS

- **Alternating F2F and e-learning activities in World Bank course.**

Session 5	Session 6	Session 7	Session 8
Round 2+3 issues Agree on a second working day via a call	In country groups develop country specific CAs	Self-present review and test best practice of policy formulation. Then formulating their best work by Friday	Work in groups to complete policy framework and evaluation
Print or Video Local K2R or electronic	Local facilitation & work in country or forums	Print or Video K2R animation	Work, CD, RM, happened issues and summary
↓ Via Videoconferencing ↓			
<b>Topic 5</b>	<b>Topic 6</b>	<b>Topic 7</b>	<b>Topic 8</b>
Discussion & Lecture to introduce policy issues	Continue presentation on policy and CA	Questions, debate & explanations	Groups presentations and summary

- **Prescriptive blends:** Programs where blend is the same for all; e.g., Avaya's Executive Solutions (see figure)
- **Choice blends:** blend chosen by student.

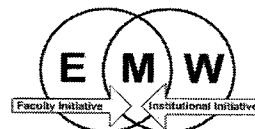
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CRM Philosophy, Orientation	Technology Trends, Financial Concepts	Executive Conversation, Strategic Concepts	Business Process Reengineering, Executive Role Plays	Client Research, Executive Presentations, CRM Qualification, CRMba Club
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###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

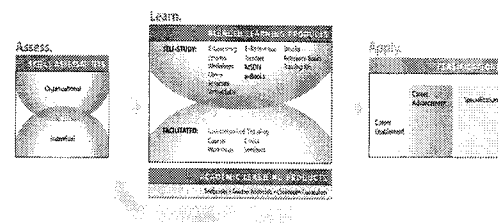
- **E** courses are technology enhanced courses
- **M** courses are blended courses with reduced seat time
- **W** courses are web courses (completely online)



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

- **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)

## Microsoft Products and Services for Lifelong Learning



## Blended Learning Form Factors

(copyright Microsoft, Ziob & Mosher, in press;  
Handbook of Blended Learning Environments

Live instructor-led	Self-paced learning	Tools for learning communities
<ul style="list-style-type: none"> <li>Traditional classroom</li> <li>Onsite engagement</li> <li>Virtual online classroom</li> <li>Live video via satellite or videoconferencing</li> <li>Online coaching/mentoring</li> </ul>	<ul style="list-style-type: none"> <li>Instructor-led classroom via e-mail</li> <li>Online or computer-based training (CBT)</li> <li>Self-study guides, manuals, texts</li> <li>Online resources and databases</li> </ul>	<ul style="list-style-type: none"> <li>Chat</li> <li>Instant messaging (IM)</li> <li>Newsgroups and forums</li> <li>Collaboration</li> </ul>

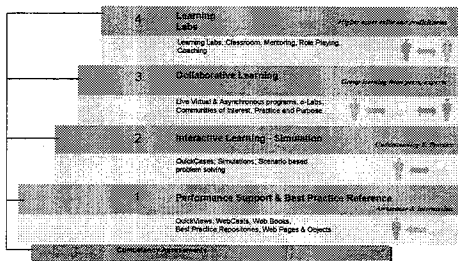
## Blended Learning Scenario

(copyright Microsoft, Ziob & Mosher, in press;  
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

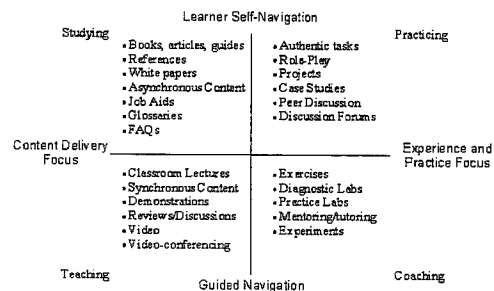
## The IBM Four Tier Learning Model

Blending Learning for Business Impact – IBM's case for learning success, *In press, Handbook of Blended Learning, Nancy Lewis, Vice President, On Demand Learning*



## Specific Learning Elements

An Learning Ecology from Sun Microsystems



## Categories of Blends

<b>A. Enabling Blends</b>	Enabling blends primarily focus on addressing issues of access and convenience; provide similar learning experiences.
<b>B. Enhancing Blends</b>	Enhancing blends allow for incremental changes to the pedagogy; additional or supplementary online resources.
<b>C. Transforming Blends</b>	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.

## B. Enhancing Blends (New Zealand and Wales)

University of Waikato, New Zealand

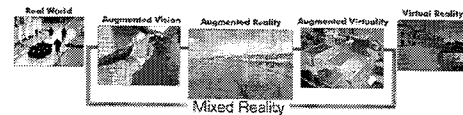
– Model for enhancing F2F courses includes:

- **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 relevant university schools' de management systems



## C. Transforming Blends (Kirkley & Kirkley, Oliver et al. HOBLE)

- **Corporate/Military Training**
  - Workplace learning (integrating learning into workflow)
  - Performance support and knowledge management using mobile technologies
  - Mixed-reality environments combining the virtual and real

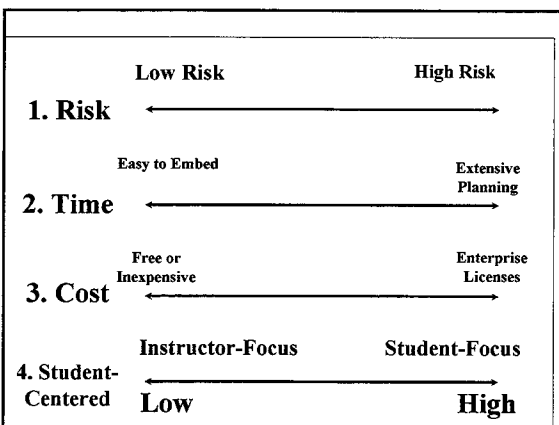
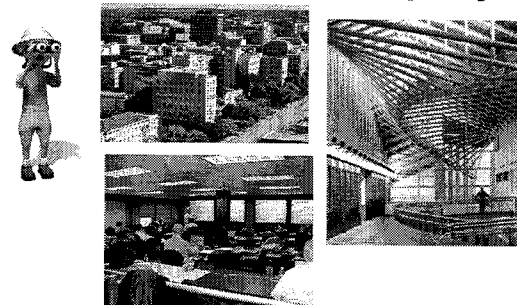


Example of levels of mixed reality that allow a blending of the real and virtual worlds.

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)

## Blended Learning Problems and Solutions (50 examples)



## 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)

The screenshot shows a web page titled "IStream" with a table of "Streamed Class Sessions for 546". The table has columns for Department, Course ID, Section, Date, Part, Media Type, Stream (click to play), and Download. Two sessions are listed for EDUC-P 546, both on 01/22/2005, with a "Real" media type and a "Download" link.

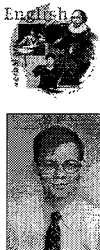
Department	Course ID	Section	Date	Part	Media Type	Stream (click to play)	Download
EDUC-P	546	00000	01/22/2005	Real	Real Player	Download (641 812K)	
EDUC-P	546	00000	01/15/2005	Real	Real Player	Download (594 245K)	

### 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.

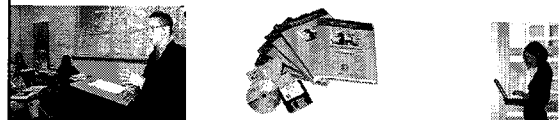
### Blended Solution #2. Divide Online and Class Experiences: English Classes Online Graham, Ure, & Allen (2003, July). Blended Learning Environn A Literature Review and Proposed Research Agenda

- 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).



### Blended Solution #3. CPA Exam Review (June 14, 2003) and Web Videos in Accounting (July, 2003)

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



### Problem Situation #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 #4.

Use Async Forum or Course Management System  
(Discussion Forums, Surveys, Word Docs, Web Links, PP slides)

The screenshot shows a web interface with a list of course resources and a table of assignments. The resources include "Online Learning Class Online" and "Assignment Information (e.g., Document, Lecture)". The table lists assignments with columns for Number, Title, Author, and Assignment Date.

























Number	Title	Author	Assignment Date
20	Class Introduction on Thursday, October 24, 2002	Class	10/24/02 10:24 AM
21	Class Introduction on Thursday, October 24, 2002	Class	10/24/02 10:24 AM
22	Class Introduction on Thursday, October 24, 2002	Class	10/24/02 10:24 AM
23	Class Introduction on Thursday, October 24, 2002	Class	10/24/02 10:24 AM
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29	Class Introduction on Thursday, October 24, 2002	Class	10/24/02 10:24 AM
30	Class Introduction on Thursday, October 24, 2002	Class	10/24/02 10:24 AM


### Extensive External Web Links (e.g., Astronomy class)

## STARS AND GALAXIES

### A HyperText Course

by Richard McCray

           	<p>1. <i>Light and Reflection</i></p> <p>2. <i>Eclipsees</i></p> <p>3. <i>The Sun</i></p> <p>4. <i>Stars</i></p> <p>5. <i>Stellar Evolution</i></p> <p>6. <i>Name and Supernovae</i></p>	           	<p>7. <i>Newborn Stars and Black Holes</i></p> <p>8. <i>The Milky Way</i></p> <p>9. <i>Star Formation</i></p> <p>10. <i>Galaxies and</i></p> <p>11. <i>Active Galaxies</i></p> <p>12. <i>Origin and Fate of Universe</i></p>
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### Use of Online Reference Materials (e.g., Content Encyclopedia and Dictionaries on Web in Engineering)

[illegible]

## Blended Solution #7.

### Exploration: Virtual Museums

BECOME A MEMBER

OUR NEWEST

TORE

Laguna

California Art from the Permanent Collection:  
Part I: The Beginning 1822-1925

July 27, 1975 - February 12, 1976

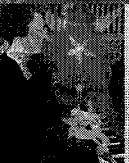
Calendar of Events

November

Sunday, November 17, at 1:00 p.m.

Art from the Permanent Collection, Part I: The Beginning 1822-1925. A special presentation of the art from the Permanent Collection, Part I: The Beginning 1822-1925. A special presentation of the art from the Permanent Collection, Part I: The Beginning 1822-1925.

Sunday, November 17, at 1:00 p.m.



## Blended Solution #8. Post Foreign Language Practice Exercises Online (Grammar Practice on Spanish (Pew course))

Contours 22

## Modelos para conversar

### Modelo 1

Necesito poner cartas en el correo.

[Contour 23]

Listen to the following recording.

Below are some of the vocabulary words found in the models you just listened to. Understanding these words will help you with activities presented later in the course.

Reumen	Vocabularies
El correo va a llegar tarde este día.	correo retraso del tiempo
	carta correo
	correo correo electrónico
	correo electrónico correo electrónico
	correo correo electrónico
	correo correo electrónico

[Contour 24]

### Blended Solution #9. Opencourseware; Tufts and USU OpenCourseWare Projects

# TuftsOpenCourseWare

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ENR002

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- [Exams and Quizzes](#)
- [Readings](#)
- [Class](#)

## DP200 Pathophysiology of Infectious Diseases, Fall 2004/2005



[Course Faculty](#)

Susan Hawley	Michael Decker
Shenwood Ogburn	Linda Hu
Laura Koppelman	Dustin D. Pedersen
John Rios	David Strydom
Christine Thorne	Matt Weaver
Chris de Lencastre	12 Hours
Lecture	2nd Year

[Feedback](#)

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### Blended Solution #10. Online Course Portals and Digital Libraries for Student Exploration Activities: MERLOT, CAREO

Diagram illustrating the internal structures of the heart, including the following labeled parts:

- Superior vena cava
- Right atrium
- Septal wall
- Right ventricle
- Left atrium
- Left ventricle
- Endocardium of wall
- Myocardium
- Epicardium
- Coronary artery
- Coronary vein
- Septum
- Valve
- Chordae tendineae
- Papillary muscle

## 10. Continued...Animations, Video Clips, Audio, Pictures, Web Resources, etc.

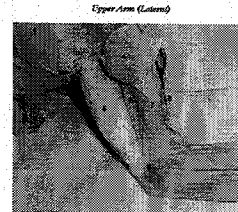
RNA was the first genetic molecule.

RNA was very likely the first molecule to be able to replicate itself. In the primordial soup, a single-stranded RNA molecule could be a template.

The page features a portrait of a man, a chemical structure diagram of RNA, and a timeline of scientific discoveries.

## Blended Solution #11. Instructor Portal: e.g., self study in anatomy

### Upper Extremity Muscles



## Blended Solution #12: Interactive News and Adventure Learning (Andrew Revkin, New York Times, May 25, 2003)

INTERACTIVE FEATURE

The page shows a news article with an interactive element where a character can be moved through a 3D environment to explore different scenarios.

## 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.

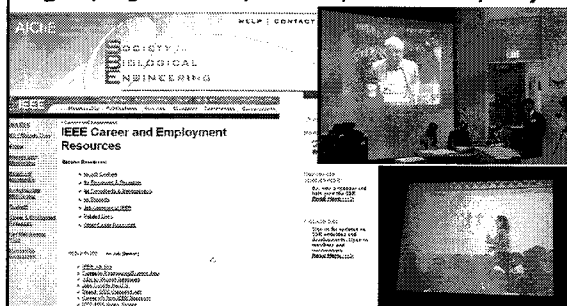
## Blended Solution #13. Survey Research (e.g., WebSurveyor, Zoomerang, SurveyShare, SurveyKey)

The image displays a collage of survey research tools including SurveyShare.com, WebSurveyor, Zoomerang, and SurveyConsole, each with its own logo and brief description of services.

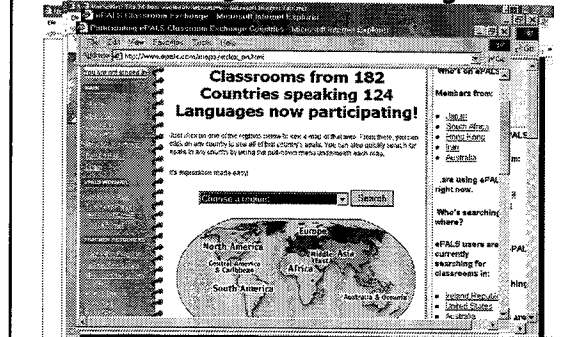
## Problem Situation #5: Preparedness for the Profession

- 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.

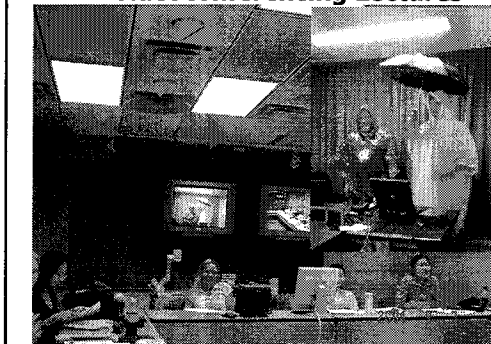
### Blended Solution #14. Apprenticeship in Professional Devel Sites (jobs, organizations, mentors, conferences, etc.)



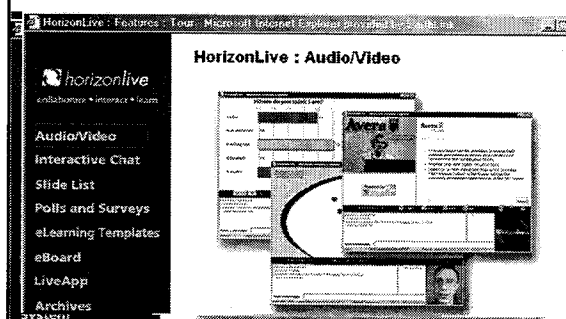
### Blended Solution #15. International Exchanges and Mentoring



### Blended Solution #16. Videoconferencing Lectures



### Blended Solution #17. Webinars Synchronous Learning Example

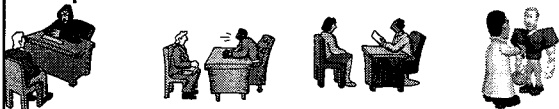


### Blended Solution #18. E-mail Expert Job Interviews (or post from actual internships)

Field Definition: Have student

interview (via e-mail, if necessary) someone working in the field of study and share their results

- As a class, pool interview results and develop a group description of what it means to be a professional in the field.



### Blended Solution #19. Virtual Surgery

John Robertson MP  
Annesland, Glasgow

#### Online-Surgery

The Online e-Surgery allows you to put questions to John, or to make a comment about any issue.

You can request that replies be sent by e-mail, post or telephone.

Each question is allocated an individual reference number which can be used in future correspondence.

There are no mandatory fields but if you require a response please enter your name and means of contact.

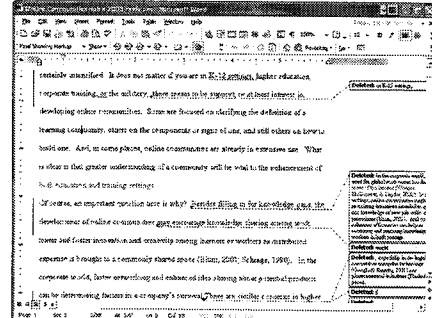
[Click here to complete a form.](#)



### 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 #20. Online Collaboration and Editing

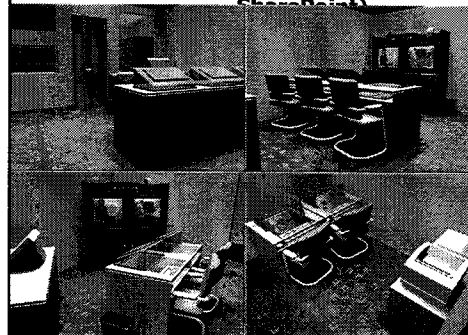


### Blended Solution #21. Gallery Tours, Team Products

- Team or Course White Paper, Business Plan, Study Guide, Glossary, Journal: Have students work in teams to produce a product and share with other groups
- Post work to online gallery. Expert Review and rate projects (authentic audience)
- Students generate products for the class



### Blended Solution #22. Synchronous and Async Collaborative Tools (e.g., Microsoft SharePoint)



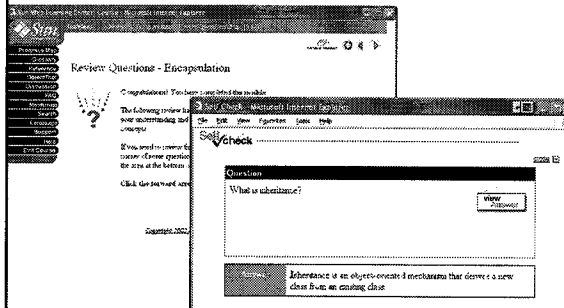
### Problem Situation #7: Student Reflections and Connections

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

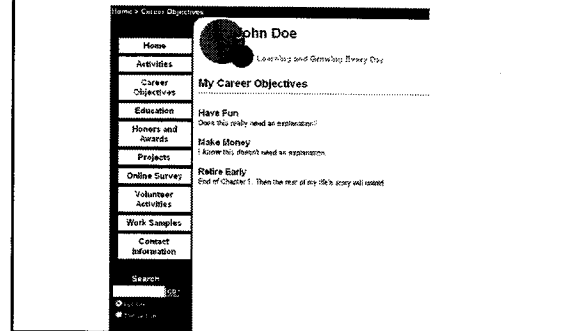
### Blended Solution #23. Blogs (diaries, writing)



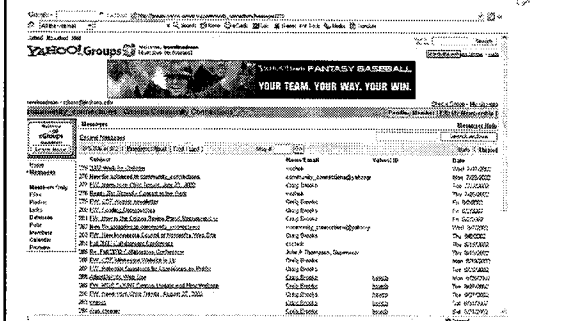
## Blended Solution #24. Learner-Self Interactions (Sun Microsystems)



## #25. Electronic Portfolios



## #26. Yahoo Groups: Lurk in an Online Group



## Blended Solution #27. Workplace and Field Reflections



1. Instructor provides reflection or prompt for job related or field observations
2. Reflect on job setting or observe in field
3. Record notes on Web and reflect on concepts from chapter
4. Respond to peers
5. Instructor summarizes posts

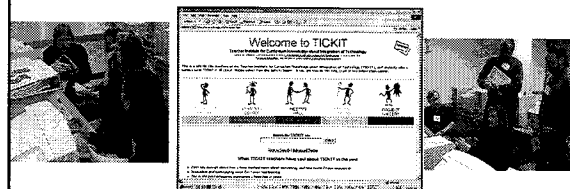


## Problem Situation #8: Learning Community

- 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.

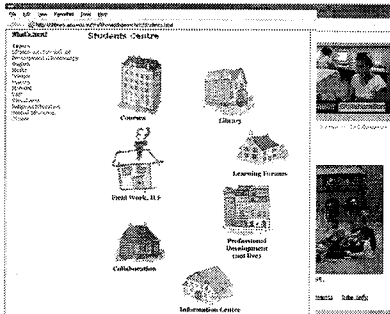
## Blended Solution #28: Teacher Professional Development in Technology Integration (the TICKIT Program)

(Bonk, Ehman, & Yamagata-Lynch, in press, AACE Journal)  
<http://www.iub.edu/~tickit>



**TICKIT: Teacher Institute for Curriculum Knowledge about Integration of Technology**

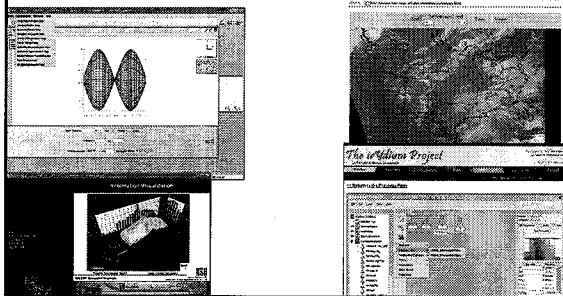
### Blended Solution #29. Professional Development Learning Communities



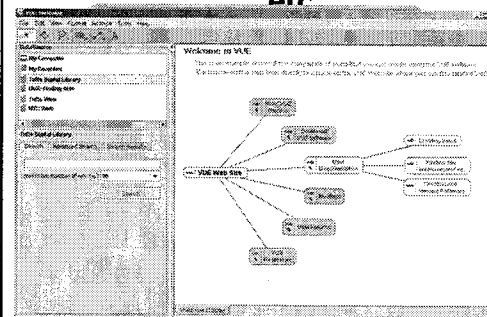
### Problem Situation #9: Need to Visualize Content

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

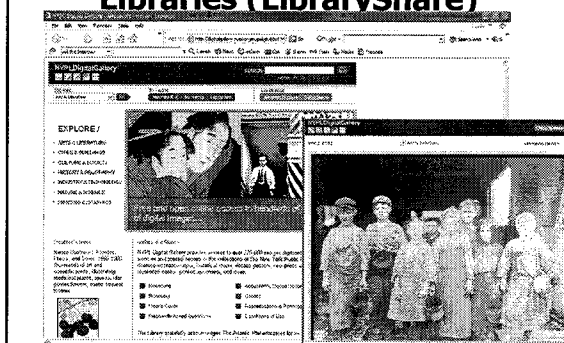
### Blended Solution #30. 3-D Visualization & Laboratory Software



### Blended Solution #31. Concept Maps, Flowcharts, Diagrams, Maps, etc



### Blended Solution #32. Digital Libraries (LibraryShare)



### 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 #33. Authentic Data Analysis

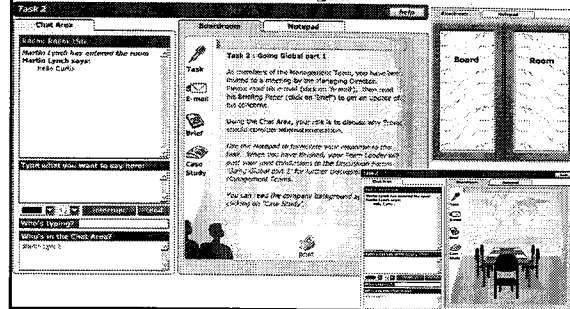


Jeanne Sept, IU, Archaeology of Human Origins; Components: From CD to Web

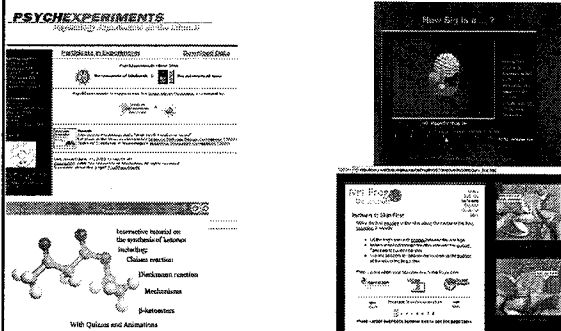
- A set of research q's and problems that archaeologists have posed about the site
- A complete set of data from site & background info
- Students work collaboratively to integrate multidisciplinary data & interpret age of site
- Interpret of ancient enviro
- Analyze artifacts and fossils



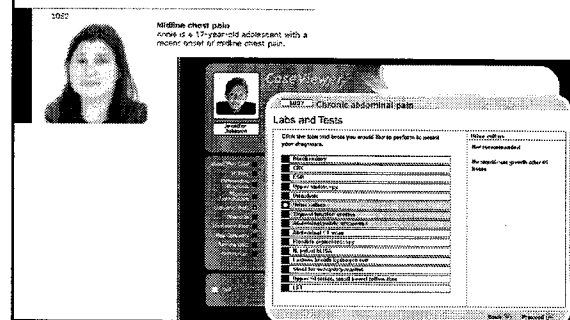
### Blended Solution #34. Online Synchronous Cases and Teams Simulated Boardroom Chat; College Wales, Univ. of Glamorgan



### Blended Solution #35. Online Labs (e.g., Foreign Language Practice Exercises Online)



### Blended Solution #36. Case-Based Learning: My Patient.com



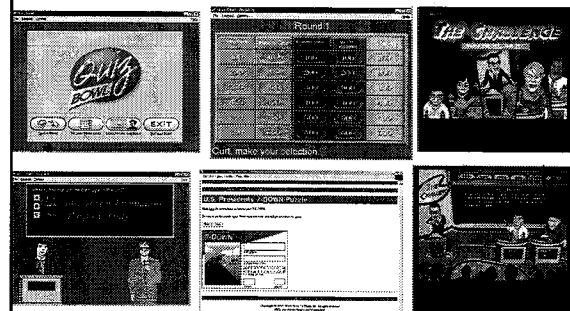
### Blended Solution #37. Posting Oral Histories, Interviews, and Perspective Sharing

Have learners relate the course material to a real-life experience.

Example: In a course on Technology & Culture, students freely shared experiences of visiting grandparents on rural farms.

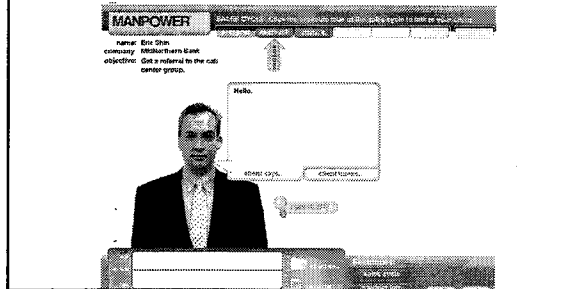


### Blended Solution #38. Online Games [www.km-solutions.biz/caa/quiz.zip](http://www.km-solutions.biz/caa/quiz.zip) Games2Train: The Challenge; Thiagi.com

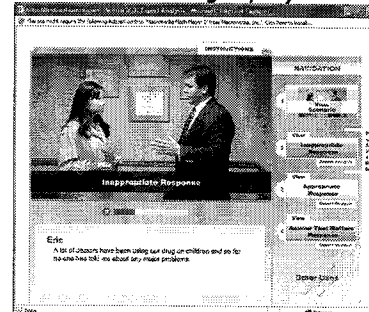




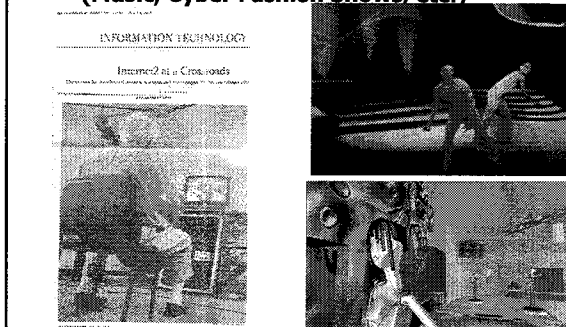
**Blended Solution #39.  
Learner-Content Interactions  
Allen Interactions (sales closing)**  
[http://sales.alleni.com/client/Bonk/Bonk\\_Web\\_Links.htm](http://sales.alleni.com/client/Bonk/Bonk_Web_Links.htm)



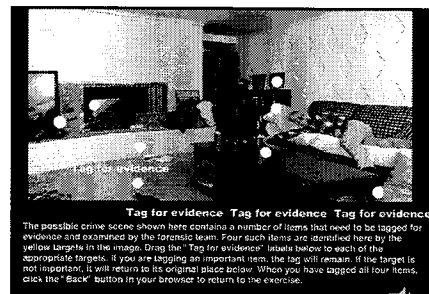
**Blended Solution #40.  
Video Scenario Learning (Option 6,  
Bloomington, IN)**



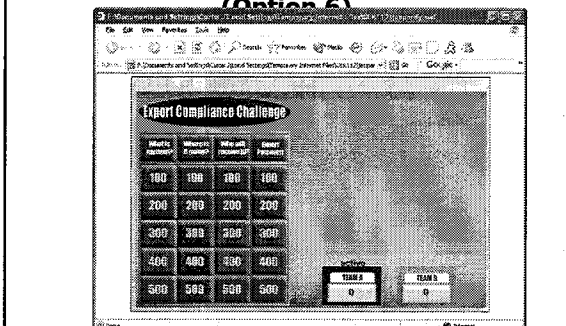
**Blended Solution #41.  
Virtual Performances and Models  
(Music, Cyber Fashion Shows, etc.)**



**Blended Solution #42.  
Cascaded Instruction (e.g., A  
Virtual Crime Scene)**



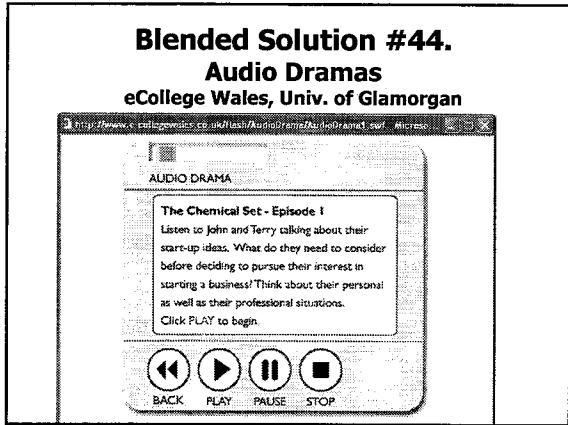
**Blended Solution #43. Learner Content  
Interaction:  
Business & Healthcare Examples  
(Option 6)**



**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.

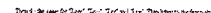
**eCollege Wales, Univ. of Glamorgan**



### Sound files

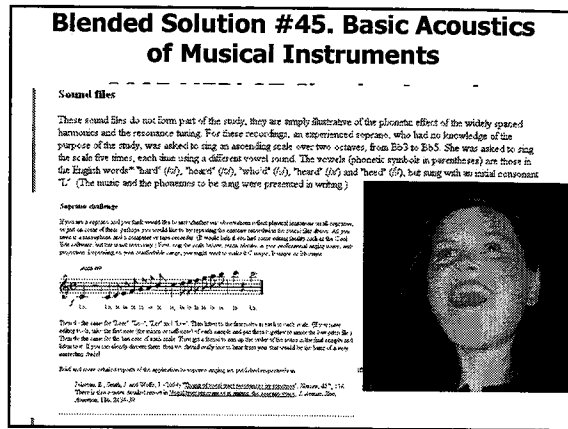
**Separate coding**

403



*Do not use critical reports of the application to require action, published separately*

#####



- **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.**

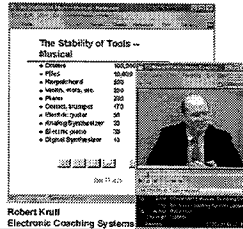
The screenshot shows a web browser window with the address bar displaying "http://www.gutenberg.org/files/69807/69807-h/69807-h.htm". The page title is "Meaningful Learning". On the left side, there is a large black and white photograph of Albert Einstein. To the right of the photo, there is a bulleted list of four items:

- Non-arbitrary, non-verbalist, substantive incorporation of new knowledge into cognitive structure.
- Deliberate effort to link new knowledge with higher order concepts in cognitive structure
- Learning related to experiences with events or objects.
- Affective commitment to relate new knowledge to prior learning.

Below the list, there are several search engine logos and input fields: Google, Yahoo!, MSN, and others. At the bottom of the page, there is a navigation bar with links: Home, About Us, Contact Us, etc.

### Blended Solution #49. Video Streamed Lectures and Expert Commenting

- Video streaming subscription services will take off in the next several years, according to a new study, which estimates that the market's value will reach \$4.5 billion in 2007 (Sept 23, 2003, Stephanie Olsen, CNet News.com).



### Blended Solution #50. Web Streamed Lectures



### Blended Works: Here's Proof

Jeff Barbian, 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



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

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

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

- Online simulations, games, demos, and hands-on activities
- Online surveys, polls, research, and authentic data collection
- Extensive Web explorations (student selected and reported)
- Extensive Web support materials (papers, discussion forums, test examples)
- Alternative class and face-to-face meetings and activities

### 10 Implications for Blended Learning in Higher Education



**Implication #1.  
Faculty are More Mobile**

- Faculty can deliver instruction and participate in class from more locations.



**Implication #2.  
Student Expectations Rise**

- Students will be used to having more choices and selections so their expectations will rise.

**Implication #3.  
More Corporate University Partnerships**

- Create more opportunities for learning at multiple locations; and hence, more training partnerships.

**Implication #4.  
Changes Strategic Planning for Technology**

- Technology plans must more directly address instructional technology options and not focus simply on administrative systems.

**Implication #5.  
Courses will Increasingly Become Modular**

- Blending of face-to-face and online technologies will segment pieces of content and lead for more interoperable modules.

**Implication #6.  
Less Predefined Schedules**

- When faculty are teaching and students are learning is less clear. New norms and measurement scales will emerge.

**Implication #7.  
Classroom Costs will Rise  
and Fall**

- There will be increases in technologies made available for instruction but decreases in facilities needed.

**Implication #8.  
Customized Training and  
Education**

- There will be increasing focus on providing the learner with what he or she needs and wants.

**Implication #9.  
Jump Starts Faculty into Online  
and Allows Others to Resist**

- Some faculty will try out e-learning in a small, supplemental way and have success.

**Implication #10.  
Scheduling Courses Becomes  
More Complex**

- The more course options that there are, the more complex course scheduling becomes.

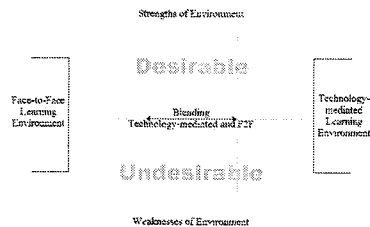
**What are the challenges?**



**Six Important Challenges and Issues**

1. The role of live interaction
2. Role of learner choice and self regulation
3. Models for support and training
4. Digital Divide
5. Cultural adaptation
6. Finding balance between innovation (creativity) and production (need for cost reduction)

## A Challenge for the Future



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."

## This part of the talk addressed

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



**It's Over...**

Poll #5. Ok, then, who wants more???

A. Yes  
B. No  
C. Not sure

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

**BONK!**

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

**Any questions, comments, or concerns?**

The Handbook of Blended Learning: Global Perspectives Local Insights  
Curtis J. Bonk  
Charles B. Stashok

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

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