

**Blended Learning:
Situations and Solutions**



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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. Implications for blended learning
6. Challenges for blended learning



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

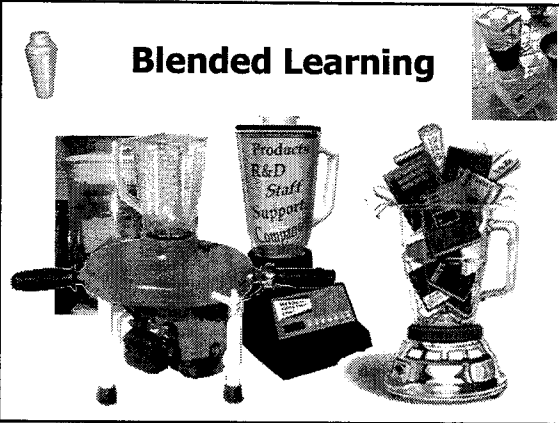
A = yes

B = no

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



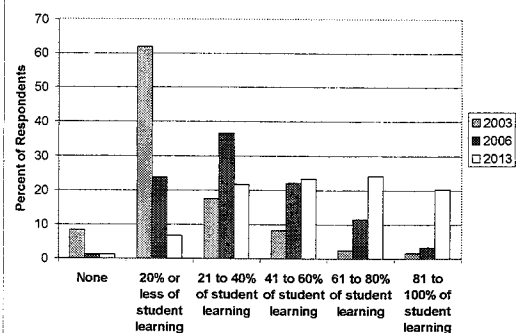
Blended Learning



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

Percent of Student Learning that is Blended



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)

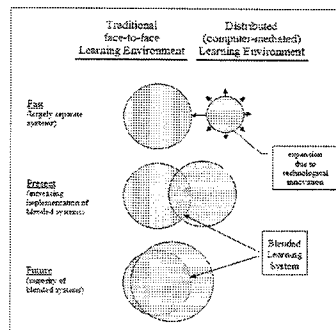
2. Blending Instructional Methods

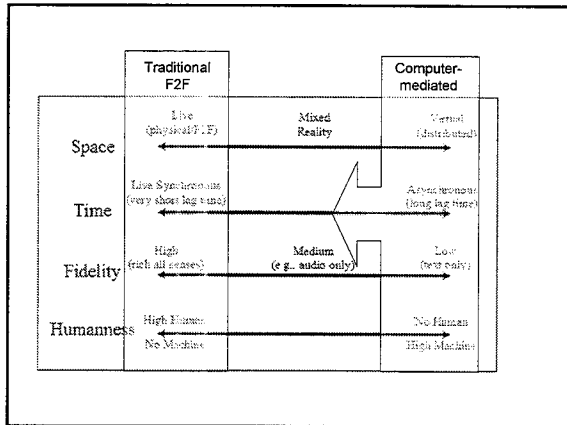
- "Blended learning: to combine various pedagogical approaches (e.g., constructivism, behaviorism, cognitivism) to produce an optimal learning outcome with or without instructional technology." (Driscoll, 2002, p. 54)

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)

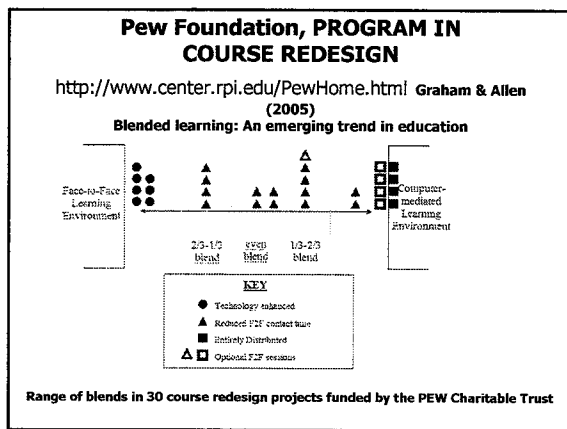
Historical Emergence of BL





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

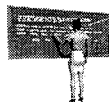


What are the advantages (and disadvantages) of blended learning?



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/tlc/www/html/Special_Feature/hybridclasses.htm

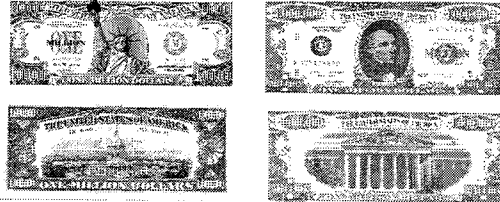
- Approximates real world/collaboration
- Students learned more, wrote better papers, performed better on exams, produced higher quality projects
- Students engaged in doing, rather than just experiencing or reading
- Students can review prerecorded lectures and access course notes/materials
- Presents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



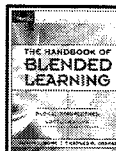
Examples of Blended Learning, Margaret Driscoll, e-Learning, March 2002

- 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



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



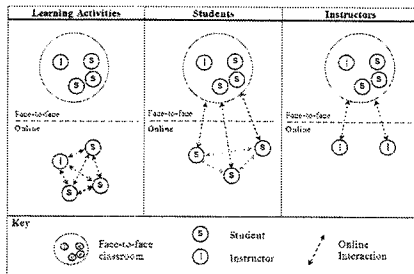
Models of Blending

Blending occurs at the following four levels:

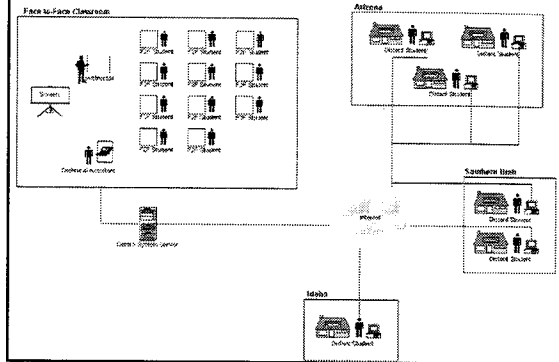
1. The **activity** level (e.g., start debate in class and complete it online)
2. The **course** level
3. The **program** level
4. The **institutional** level

1. Activity- and Course-Level Blends

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



2. Course-Level Blend: Using CMS



2. Course-level Blends

Jagannathan, S. (in press).

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

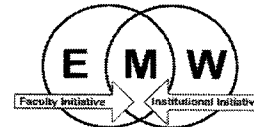
Session 1 Session 2 Session 3 Session 4

| | | | |
|---|---|--|---|
| Background readings & lecture Print or Web | Small group discussion Facilitation/online | Apply models to real case Print, PPT or- discussions | Self-paced work to reinforce learning Web, CD-ROM, print |
| + Via Videoconferencing | | | |
| Topic 1 Introduce analytical model | Topic 2 Comments on group work, new concepts | Topic 3 Groups present, instructor clarifies & summarizes | Topic 4 Links from self-paced to analytical model |

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 Cobble, C., Hartman, J., Page, F., Moskau, P., & Sarg, S. (in press). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), Handbook of blended learning: Global perspectives, local design. San Francisco, CA: Pfeiffer Publishing.

4. Institutional-level Blending

(Brian Linquist, in press)

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 Form Factors

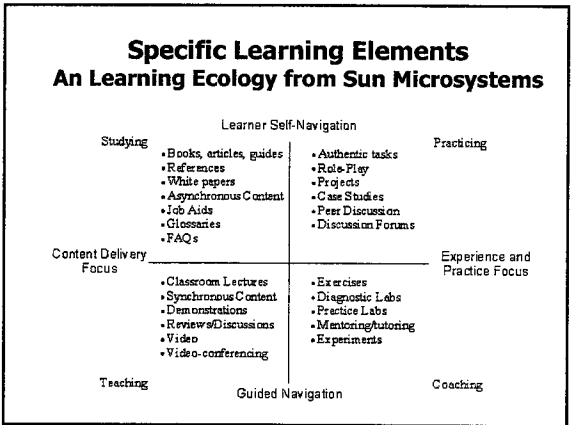
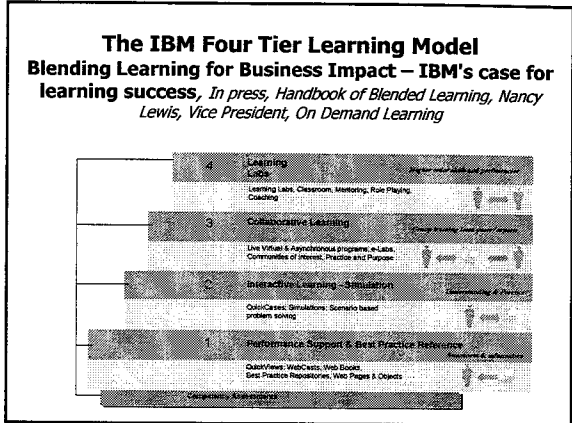
(copyright Microsoft, Ziob & Mosher, in press;
Handbook of Blended Learning Environments)

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

Blended Learning Scenario

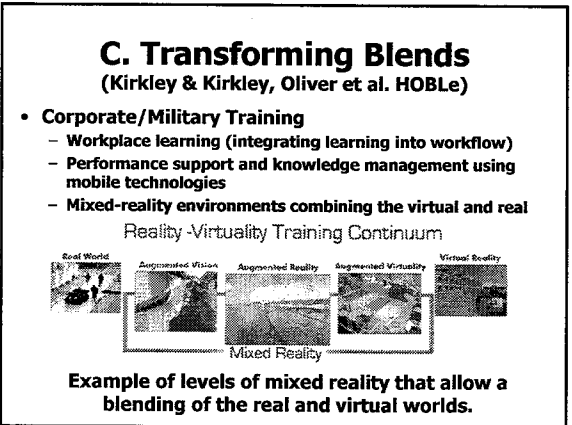
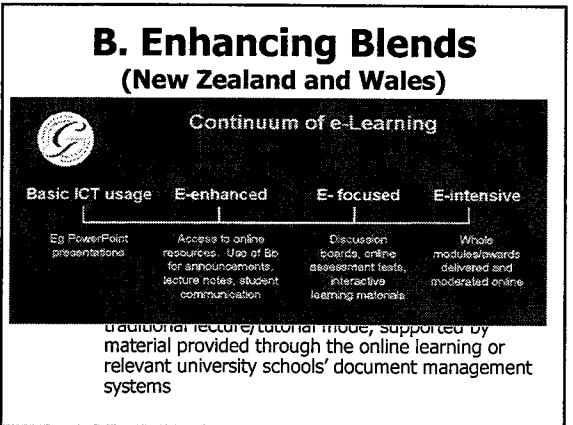
(copyright Microsoft, Ziob & Mosher, in press;
Handbook of Blended Learning Environments)

| 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 |



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. |

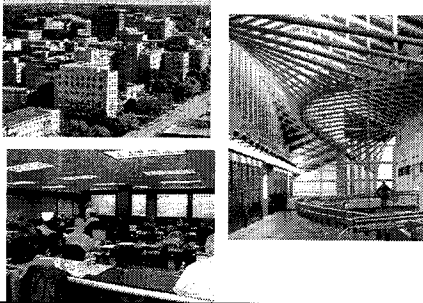


What can we say about emerging technology then???

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



Blended Learning Problems and Solutions (40 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)

IStream

Please enter your IP (or use the IP of the client computer to see a list of streamed data sources. In your case:

For help, please see the IStream Help Page

Streamed Class Sessions for 546

| Department | Course ID | Section | Date | Part | Media Type | Stream (click to play) | Download |
|------------|-----------|---------|------------|------|------------|-----------------------------|-------------------------------------|
| EDUC-P | 546 | 06006 | 01/22/2005 | | Real | Real Player | Download (641.813K) |
| EDUC-P | 546 | 06006 | 01/15/2005 | | Real | Real Player | Download (634.243K) |

For more information about this course, e-mail iprweb@bobweb.edu. Dr. Scott J. Smith, scsmith@bobweb.edu, Assistant Professor, scsmith@bobweb.edu

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Problem Situation #2: Facilities and Time

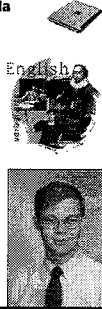
- **Limited facilities or rooms for teaching. Or students cannot make it to class every week or are working full time.**

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).



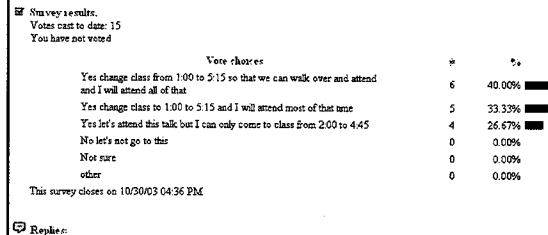
Blended Solution #3. Post Foreign Language Practice Exercises Online (Grammar Practice on Spanish (Pew course))

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.

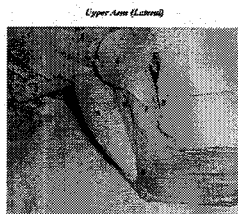
Blended Solution #4.

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



Blended Solution #5. Instructor Portal: e.g., self study in anatomy

Upper Extremity Muscles



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.

Survey Research (e.g., WebSurveyor, Zoomerang, SurveyShare, SurveyKey)

The collage shows four distinct survey platforms. SurveyShare.com features a clean, modern interface with a navigation menu. WebSurveyor has a more traditional layout with a prominent header and a list of services. Zoomerang displays a 'Direct Surveys & Get Feedback!' banner. SurveyConsole includes a 'Feedback' section and a 'Thank You - Leave Here!' button.

Blended Solution #7. The Valley

The Valley of the Shadow

The map is a central hexagonal graphic with various icons and labels. To the right is a photograph of a large, multi-story building. Below the map, text reads 'Fall 1859 to Spring 1861' and 'The Valley of the Shadow Project'. At the bottom, there are logos for 'The Valley of the Shadow Project' and 'The Valley of the Shadow Project'.

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 #8.

Apprenticeship in Professional Devel Sites (jobs, organizations, mentors, conferences, etc.)

The collage includes a screenshot of the IEEE Career and Employment Resources website, which lists various resources like 'IEEE Career and Employment Resources', 'IEEE Career and Employment Resources', and 'IEEE Career and Employment Resources'. To the right is a photograph of a person in a white lab coat standing in a laboratory setting.

Blended Solution #9. Virtual Psychiatric Interview (Trinity College, Dublin)

showcases

22

Department: **Psychiatry**
Academics: Prof. Michael O'R, Dr. Brian Fitzmaurice, Kate Armstrong

The screenshot shows a video call interface with a patient on the left and a therapist on the right. The patient is wearing a white shirt and the therapist is wearing a white lab coat. The interface includes a title 'Psychiatric Interview' and a subtitle 'The Interview'.

This is a Virtual Interview project that has been developed by CLT and the Department of Psychiatry. The first iteration was launched in March, 2014 for students. In this project students are given the opportunity to carry out a virtual interview with a patient. The student decides what questions are asked and with the aid of video cross can listen and watch the patient responses.

Blended Solution #10. Webinars

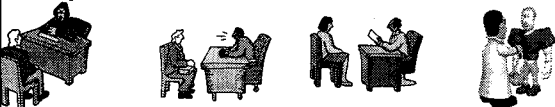
Synchronous Learning Example

The screenshot shows a HorizonLive webinar interface. On the left is a sidebar with a list of features: Audio/Video, Interactive Chat, Slide List, Polls and Surveys, eLearning Templates, eBoard, LiveApp, and Archives. On the right is a main window showing a webinar slide with the title 'HorizonLive : Audio/Video' and a video feed of a speaker.


Blended Solution #11. 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 #12. Virtual Surgery



Virtual Autopsy Scores Some Success

The virtual autopsy is poised to get the most widespread use as the virtual autopsy, they expect to be developed.

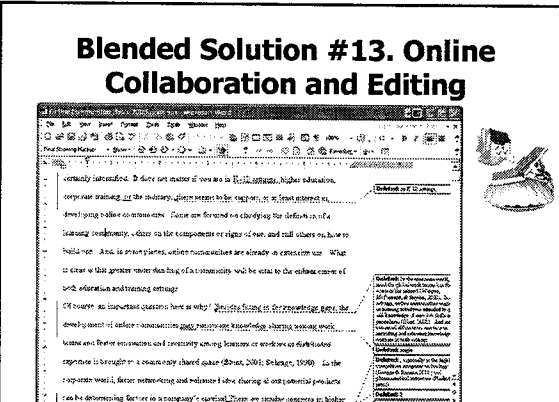
Such studies by leading virtual autopsy experts are already being conducted. The data shows virtual autopsies could improve on aspects of the traditional autopsy performed by the pathologist, which have declined in recent years. A body is preserved with a headless method of preserving the body, then scanning the body on the scanner, and then a computer program reconstructs the body.

By performing virtual autopsies, forensic pathologists can perform virtual autopsies. The use and cost of virtual autopsies will be significantly lower than traditional autopsies.

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 #13. Online Collaboration and Editing



...currently interested. If there are members of you are in this network, higher education, ...

...young people continue. There are focused on developing the definition of ...

...learning community, a clear on the components or right of use, and still others to have to ...

...to have. And, in general, when communities are already in existence, what ...

...to ease the greater number of a community will be able to the online course of ...

...and training settings.

...of course, an important question here is why? ...

...development of online communities ...

...and their resources and resources using lessons or services or facilitated ...


...response is brought in a community shared space (Bates, 2001; DeLong, 1999). In the ...

...response will, faster networking and reduce time sharing of content products ...

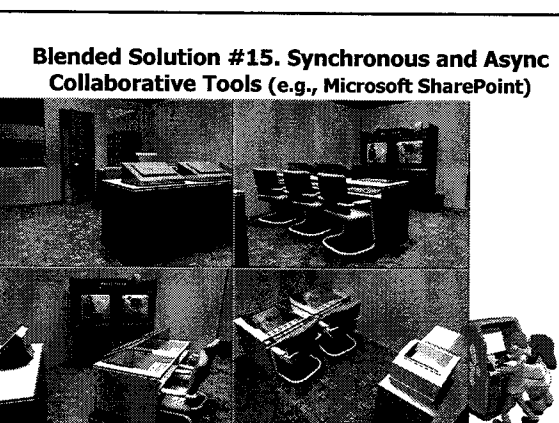
...can be determining factors in a company's survival, there are regular concerns in higher ...

Blended Solution #14. 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



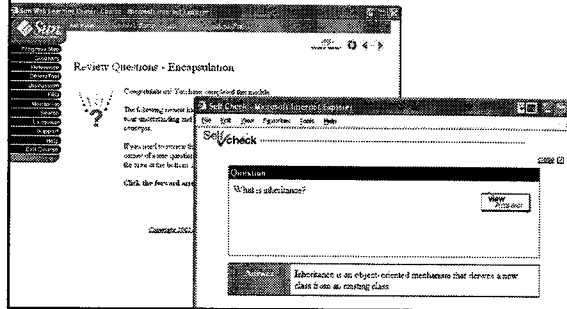
Blended Solution #15. Synchronous and Async Collaborative Tools (e.g., Microsoft SharePoint)



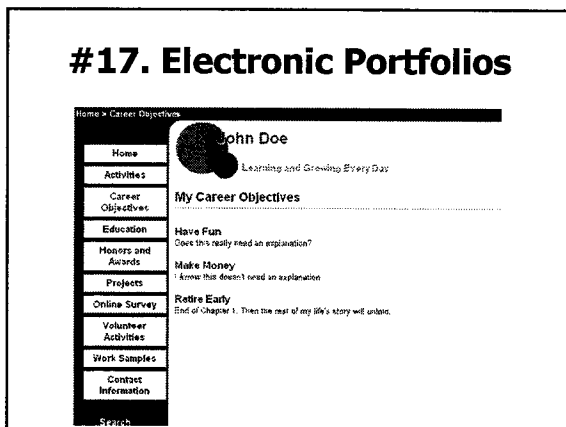
Problem Situation #7: Student Reflections and Connections

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

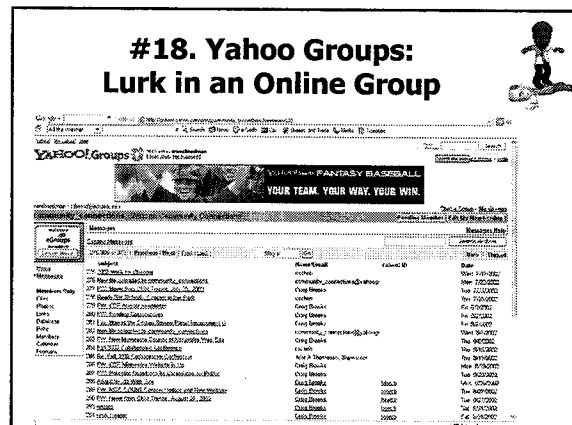
Blended Solution #16. Learner-Self Interactions (Sun Microsystems)



#17. Electronic Portfolios



#18. Yahoo Groups: Lurk in an Online Group



Blended Solution #19. 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.

