

2. Constructivistic Teaching Principles (Brooks, 1990)

1. Build on student prior knowledge.
2. Make learning relevant.
3. Give students choice in learning activity.
4. Student autonomy & active learning encouraged
5. Use of raw data sources & interactive materials
6. Encourage student dialogue
7. Seek elaboration on responses and justification
8. Pose contradictions to original hypothesis
9. Ask open-ended questions & allow wait time
10. Encourage reflection on experiences



1. Anchored Instruction (find anchoring event (CTGV, 1990?) (L/M = Cost, M = Risk, M = Time)

- In a synchronous lecture interrupt it with a summary video (could be a movie clip) explaining a key principle or concept.
- Refer back to that video during lecture.
- Debrief on effectiveness of it.



2. Cool Resource Provider Cool Stuff (Bonk, 2004) Capture and Videostream Lectures (e.g., Apresso CourseCaster)

- Have students sign up to be a cool resource provider once during the semester.
- Have them find additional paper, people, electronic resources, etc.
- Share and explain what found with class via synchronous meeting or asynchronous discussion post.



3. ORL or Library Day (L = Cost, M = Risk, M/H = Time) (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.



4. 99 Second Quotes (L = Cost, M = Risk, M = Time)

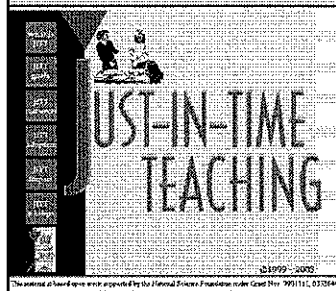
99

- Everyone brings in a quote that they like from the readings
- You get 99 seconds to share it and explain why you choose it in a sync chat or videoconference
- Options
 - Discussion wrapped around each quote
 - Small group linkages—force small groups to link quotes and present them
 - Debate value of each quote in an online forum



5: Online Warm-ups Activities Just-In-Time-Teaching (JiTT)

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



6. One minute papers or muddiest point papers (L = Cost, M = Risk, M = Time)

- Have students write for 3-5 minutes what was the most difficult concept from a class, presentation, or chapter. What could the instructor clarify better.
- Send to the instructor via email or online forum.
- Optional: Share with a peer before sharing with instructor or a class.



7. Jigsaw

(L = Cost, M = Risk, H = Time)



- Form home or base groups of 4-6 students.
- Student move to expert groups— discussion ideas in a chat.
- Share knowledge in expert groups and help each other master the material in an online forum.
- Come back to base group to share or teach teammates.
- Students present in group what learned.

8. Six Hats (Role Play):

(from De Bono, 1985; adopted for online learning by Karen Belfer, 2001, Ed Media) (L = Cost, M = Risk, M = Time)



- **White Hat:** Data, facts, figures, info (neutral)
- **Red Hat:** Feelings, emotions, intuition, rage...
- **Yellow Hat:** Positive, sunshine, optimistic
- **Black Hat:** Logical, negative, judgmental, gloomy
- **Green Hat:** New ideas, creativity, growth
- **Blue Hat:** Controls thinking process & organization

Note: technique was used in a business info systems class where discussion got too predictable!

9. Concept Mapping Tools

Ratio Analysis - Mind Map

Mind Maps have been produced to introduce topics and give students an overview of key to page or, for those who prefer a more linear approach, as a task version.

View linear version of this mind map.

- Liquidity
 - How solvent is the business?
 - Add Text

10. Exploration and Demonstration: Virtual Fieldtrip, Tours, Timelines



Part II: 10 Blended Learning Solutions



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)



Blended Solution #1.

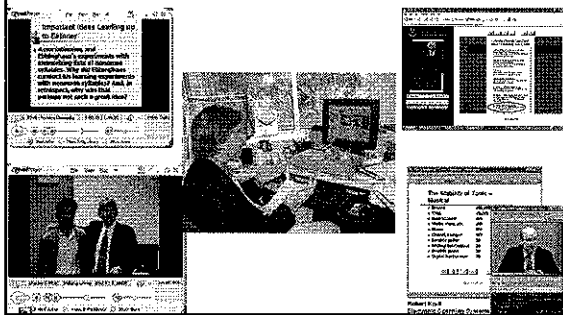
Divide Online and Class Experiences: English Classes Online

Graham, Ure, & Allen (2003, July). Blended Learning Environments: 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 #2. Video Streamed Lectures and Expert Commenting



Blended Solution #3. Apprenticeship: Electronic Guests & Mentoring

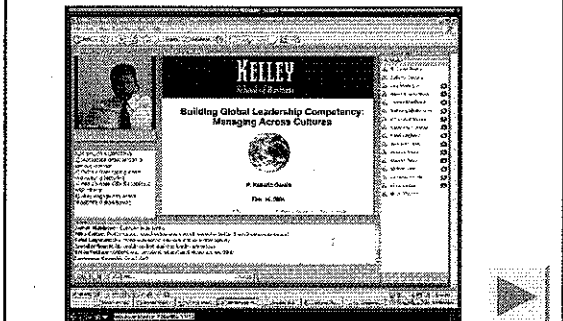
(Simon Fraser University News: <http://www.sfu.ca/media/prsfnews/2001/Sept6/hightech.html>)

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

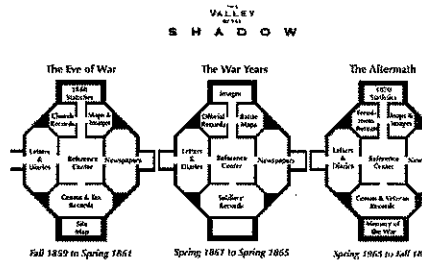
The mentors to his team are now intimately involved with his company and passionate about its success, he says. "Their business connections and experience have opened our eyes to new opportunities."



Blended Solution #4. Instructor Presentation in Synchronous Sessions (Breeze, Elluminate, WebEx, etc.)

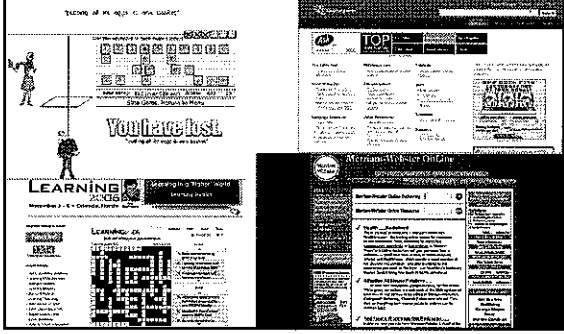


Solution #5. Instructor Portal: e.g., self study in anatomy

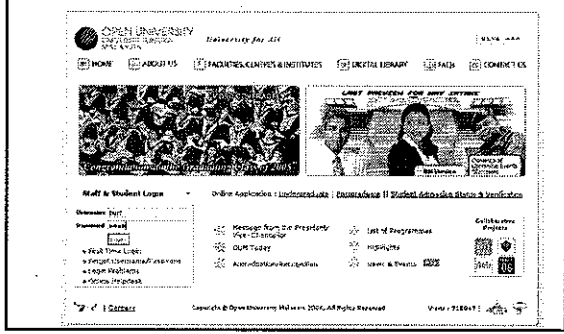


USING THE VALLEY PROJECT
CLASSROOM AND RESEARCH USING THE VALLEY PROJECT

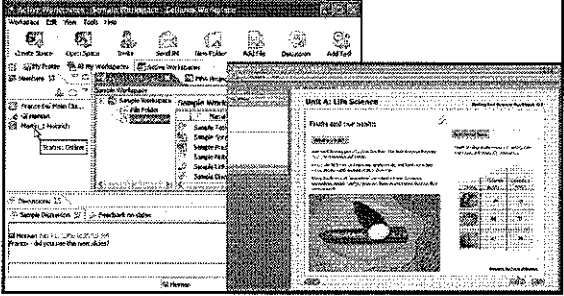
Solution #6. Referenceware and Terminology Exercises Online (puzzles, games, etc.)



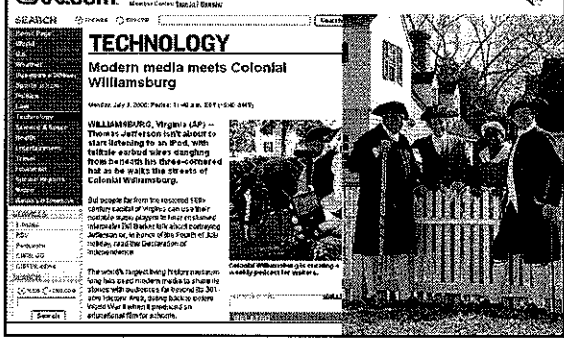
Solution #7. Cross-Class Collab (Indiana Univ and Open U of Malaysia)



Blended Solution #8. Sharing in Virtual Teams (e.g., Collanos, Groove, SharePoint)



Blended Solution #9. Art and History Exhibits



Blended Solution #10. 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

3

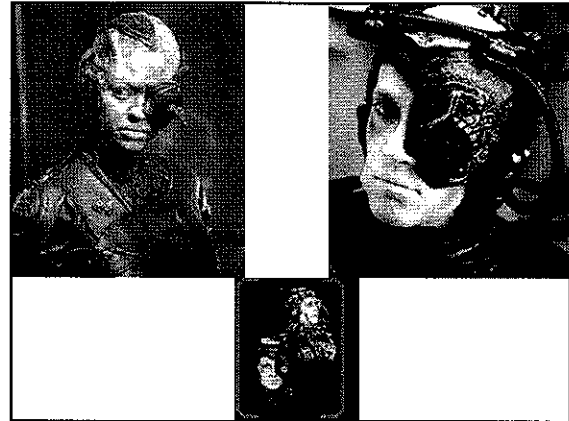
Reflection: What are 3 things you learned so far?

3

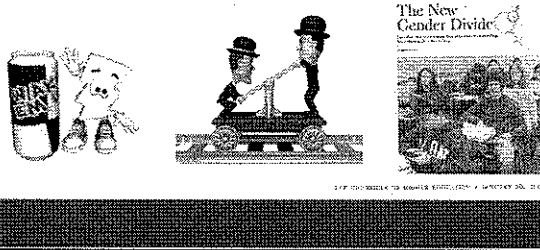
What can we say about blended and learner-centered learning then???

• It is everywhere!!!!!!!

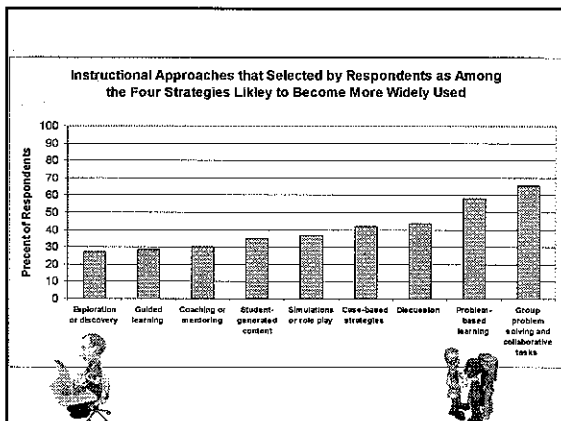
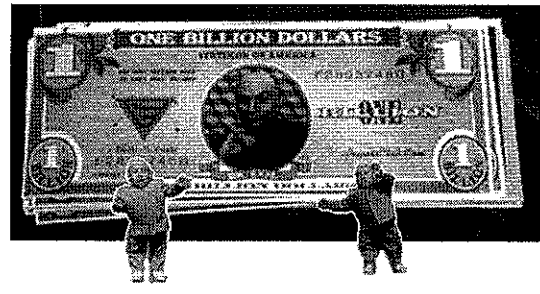
• Resistance is futile!!!!!!!



Part III. Motivational Ideas



Ok, Million Dollar Question: How can you motivate learners online?



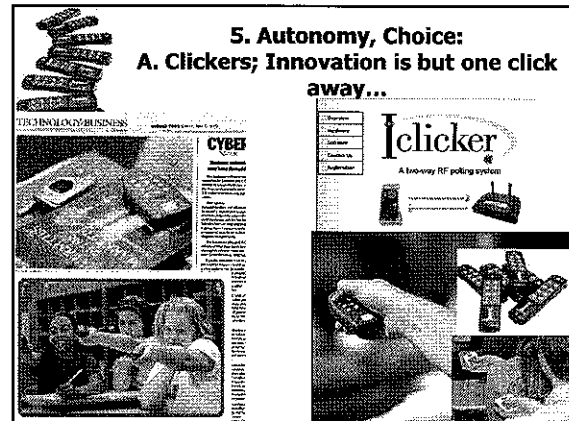
TEC-VARIETY Model for Online Motivation and Retention

1. **Tone/Climate:** Psych Safety, Comfort, Belonging
2. **Encouragement, Feedback:** Responsive, Supports
3. **Curiosity:** Fun, Fantasy, Control
- ...
4. **Variety:** Novelty, Intrigue, Unknowns
5. **Autonomy:** Choice: Flexibility, Opportunities
6. **Relevance:** Meaningful, Authentic, Interesting
7. **Interactive:** Collaborative, Team-Based, Community
8. **Engagement:** Effort, Involvement, Excitement
9. **Tension:** Challenge, Dissonance, Controversy
10. **Yields Products:** Goal Driven, Products, Success, Ownership

**4. Variety, Novelty:
B. Brainstorming Chat**

- Come up with interesting or topic or problem to solve
- Anonymously brainstorm ideas in a chat discussion
- Encourage spin off ideas
- Post list of ideas generated
- Rank or rate ideas and submit to instructor
- Calculate average ratings and distribute to group

**5. Autonomy, Choice:
A. Clickers; Innovation is but one click away...**



**5. Autonomy, Choice:
B. Multiple Topics**

- Generate multiple discussion prompts and ask students to participate in 2 out of 3
- Provide different discussion "tracks" (much like conference tracks) for students with different interests to choose among
- List possible topics and have students vote (students sign up for lead diff weeks)
- Have students list and vote.

**6. Relevance: Meaningfulness:
B. 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 environments
- Analyze artifacts/fossils from site

7. Interactive, Collaborative:



- A. Panels of Experts: Be an Expert/Ask an Expert:** Have each learner choose an area in which to become expert and moderate a forum for the class. Require participation in a certain number of forums (choice)
- B. Press Conference:** Have a series of press conferences at the end of small group projects; one for each group)
- C. Symposia of Experts**

**7. Interactive, Collaborative:
D. Discussion: Starter-**



Wrapper (Hara, Bonk, & Angeli, 2000)

1. Starter reads ahead and starts discussion and others participate and wrapper summarizes what was discussed.
 2. Start-wrapper with roles--same as #1 but include roles for debate (optimist, pessimist, devil's advocate).
- E. Alternative: Facilitator-Starter-Wrapper** (Alexander, 2001)
Instead of starting discussion, student acts as moderator or questioner to push student thinking and give feedback


8. Engagement: A. Text Messaging

Students at the Mennonite Centre for Newcomers are testing mobile learning - downloading an English grammar lesson, then answering a series of multiple choice, or true or false questions.


CBC NEWS CANADA | EDMONTON

Text-message course helping newcomers learn English

A pen and paper aren't necessary in an Edmonton classroom where students are learning English with a tool — text messages on their cellphones.



8. Engagement: B. Student Self-Testing (e.g., Calm Chemistry)



Give the following molecules:

- SO₂ (Tetrahedral shape)
- CO₂ (Tetrahedral shape)
- SO₃ (Octahedral shape)
- SO₃ (Trigonal bipyramidal shape)
- SO₃ (Trigonal planar shape)

What of them is associated with the dipole moment?

Post your answer.

9. Tension, Challenge, etc.:

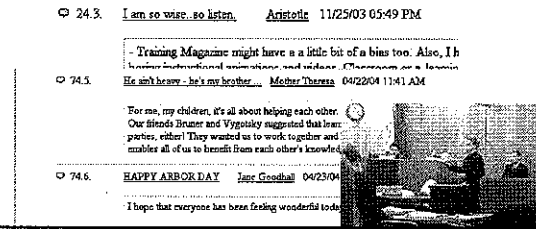
A. Online Role Play of Famous People, Mock Trial, Debates, etc.

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

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

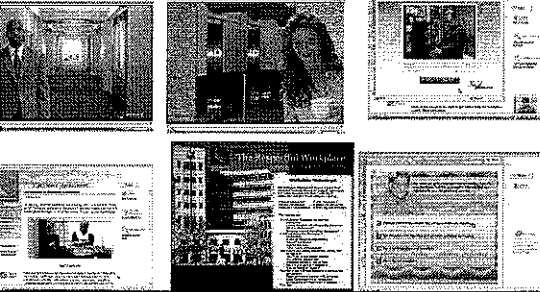
74.5. He ain't heavy... he's my brother. **Mother Theresa** 04/22/04 11:41 AM

74.6. **HAPPY ABOR DAY** **Jane Goodall** 04/23/04

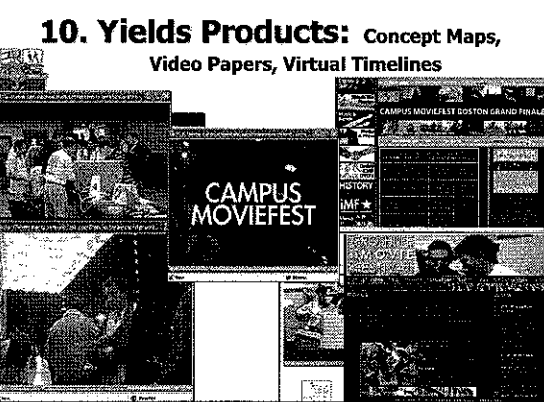


9. Tension, Challenge, etc.:

B. Scenario Learning (Emmis Communications example)

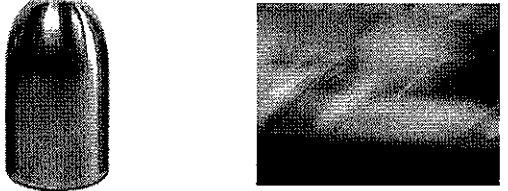


10. Yields Products: Concept Maps, Video Papers, Virtual Timelines



99 seconds: What have you learned so far?

- Solid and Fuzzy in groups of two to four



Part IV. Addressing Learning Styles



Why Address Learning Styles?

- Promotes reflection on teaching
- Move from just one mode of delivery
- View from different viewpoints
- Offer variety in the class
- Might lower drop-out rates
- Fosters experimentation



Poll 1: Which learning style do you prefer?

- Read (Auditory and Verbal Learners)
- Reflect (Reflective Learners)
- Display (Visual Learners)
- Do (Tactile, Kinesthetic, Exploratory Learners)



Kolb (1984)



- According to Kolb, effective learning involves four phases:
 - from getting involved (Concrete Experience) to
 - listening/observing (Reflective Observation) to
 - creating an idea (Abstract Conceptualization) to
 - making decisions (Active Experimentation).
- A person may become better at some of these learning skills than others; as a result, a learning style develops.

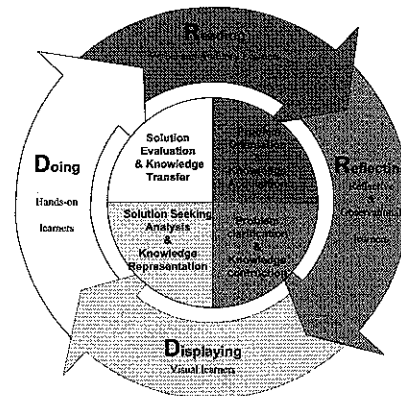


Index of Learning Styles Questionnaire

Barbara A. Solomon, North Carolina State Univ
<http://www.engr.ncsu.edu/learningstyles/ilsweb.html>




- If I were a teacher, I would rather teach a course
 - (a) that deals with facts and real life situations.
 - (b) that deals with ideas and theories.
- I prefer to get new information in
 - (a) pictures, diagrams, graphs, or maps.
 - (b) written directions or verbal information.




The R2D2 Method

1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)



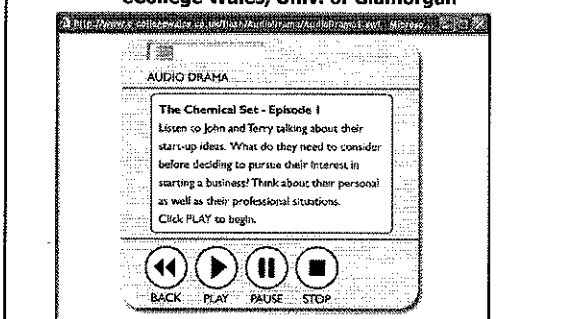
1. Auditory or Verbal Learners

- Auditory and verbal learners prefer words, spoken or written explanations.



1a. Online Audio Cases Audio Dramas

eCollege Wales, Univ. of Glamorgan



AUDIO DRAMA

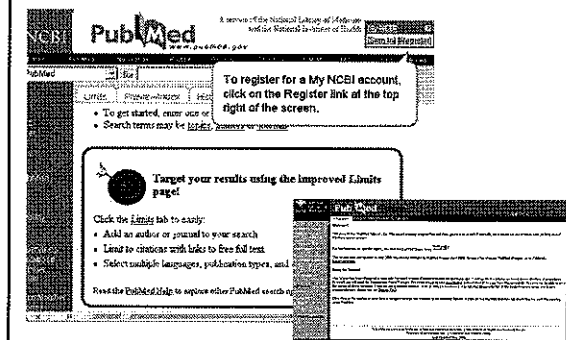
The Chemical Set - Episode 1

Listen to John and Terry talking about their start-up ideas. What do they need to consider before deciding to pursue their interest in starting a business? Think about their personal as well as their professional situations.

Click **PLAY** to begin.

BACK PLAY PAUSE STOP

1b. Online Tutorials and Help



PubMed
A service of the National Library of Medicine
and the National Institutes of Health

To register for a My NCBI account, click on the Register link at the top right of the screen.

- To get started, enter one or
- Search terms may be linked

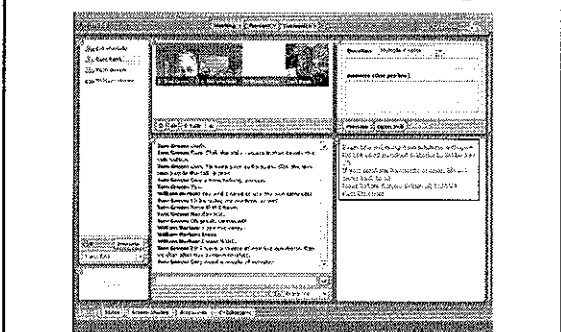
Target your results using the Improved Limits page!

Click the **Limits** tab to study:

- Add as author or grant to your search
- Limit to clinical trials to free full text
- Select multiple languages, publication types, and

Visit the PubMed Help to explore other PubMed searching

1c. Synchronous Conferencing



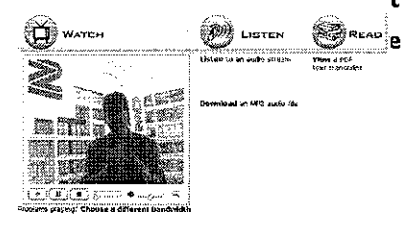
1d. Use of Weblogs (especially English writing class)

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

1e. Podcast

Learning TRENDS by Elliott Masie - September 18, 2006.
 #402 - Updates on Learning, Business & Technology.
 52,889 Reads - <http://www.masie.com> - The MASIE Center.


• Download the audio file
 • Listen to the audio file
 • Download an MP3 audio file



Educational Applications of Podcasting


(Essex, 2006, Leftwich, 2007)

1. Recordings of lectures (Coursecasting)
2. Supplemental textbook or entire book
3. Student projects
4. Interviews
5. Language lessons
6. Oral reports
7. K-12 classroom interactions
8. Downloadable library of resources
9. Recordings of performances
10. Expert presentations



2. Reflective and Observational Learners

- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives



2a. Post Model Answers

Employment Law and Ethics Project

Question 1

Would it be illegal for Lewis to recommend Billings instead of Lewis? Explain, being specific about the legal doctrines that would apply?

Answer 1

Under both Title VII of the 1964 Civil Rights Act and Section 1981 it is illegal to discriminate on the basis of race or color, and Lewis would likely win a lawsuit using the claim of disparate treatment if he were not recommended for the promotion. If Lewis does not recommend Lewis, she is guilty of violating the law. None of the three primary defenses—seniority, merit, or bona fide occupational qualification—apply to this situation since Lewis has higher seniority, equal skills, and more direct experience with power tools, than does the other candidate Frank Billings.

Title VII "prohibits discrimination based on race, color, religion, sex, and national origin in hiring, firing, job assignments, pay, access to training and apprenticeship programs, and most other employment decisions." ABECO is a covered entity under Title VII because they are "employing 15 or more employees and engaging in an industry affecting interstate commerce" and as the case factfinder points out "as of November 21, 1991, the Civil Rights Act of 1991 extended protection from discrimination in employment to U.S. citizens working in foreign countries while employed by U.S. firms."

In this case, Title VII's disparate impact is not applicable since ABECO's policy clearly states to "promote the most

2b. Reuse Blog or Chat Transcripts

47. Week 9: Chat 4NIAT with Bernice McCarthy March 10th from 5-6 pm

Chat Book

Total Accesses: 66

Chat transcript for this chat:


- [View the chat transcript online](#)
- [View the chat transcript online](#)
- [View the chat transcript online](#)

Attachments:

- [Chat transcript](#)
- [Chat transcript](#)
- [Chat transcript](#)
- [Chat transcript](#)
- [Chat transcript](#)

2c. Reflecting on Adventure Blogging

(Ben Saunders, Mark Fennell)



2d. Practitioner Feedback: Asynchronous Threaded Discussion plus Sync Expert Chat (e.g., Starter-Wrapper + Sync Guest Chat) (L/M = Cost, M = Risk, M = Time)

45. Real-time Chat is Enabled... And also More Async Questions for Bob, Erping, Julia, John, or Kira or anyone else.

Q: Bob
Posted on 11/06/01 07:14 PM
Modified by Zhu-Hang Wang on 11/06/01 07:23 PM

Ok, that post more Chapter 8, 9, or 10 questions for Bob, Tom, Erping, Yara, Yoko, and when night ready. Thanks

- Open the entry for online chatting
- View the chat messages as they're sent
- View the chat messages as they're received

Attachments:
 What is...
 What is...

3. Visual Learners

- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.

3a. Online Anatomy and Physiology

INTERACTIVE ANATOMY AND PHYSIOLOGY

CARDIOVASCULAR SYSTEM

HEALTHY HEART

HEALTHY BLOOD VESSELS

HEALTHY BLOOD CELLS

3b. Animations, Video Clips, Audio, Pictures, Web Resources, etc.

RNA was the first genetic molecule.

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

3c. Virtual Tours, Maps, and Field Trips

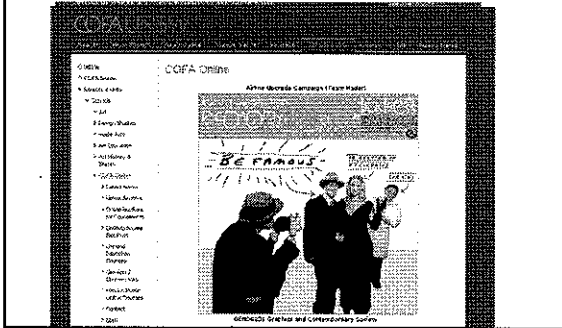
Google Earth

Virtual Tours, Maps, and Field Trips

3d. Vodcast for Medical Training (e.g., "SonoSite on the small screen: The Bothell-based")

SonoSite on the small screen: The Bothell-based

3e. Expert Mentoring Online in Art and Design
(COFA Online, Omnium Project, Creative Waves—online graphics and photomedia project)

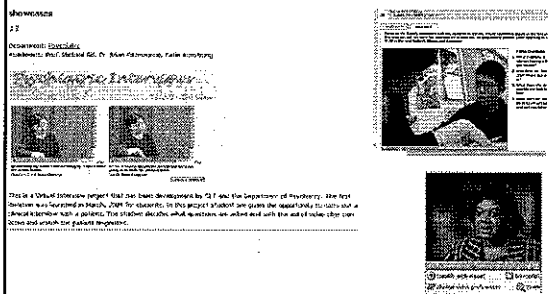


3f. Historical Documents
discoverbabylon.org

- In its final form, the multi-player game will let you march through three-dimensional recreations of the first city-states, around 3000 B.C., the first empires, around 2300 B.C., and finally the famous Iron Age empire of Assyria...offers three-dimensional walk-throughs of sites in the Valley of the Kings.



3g. Reflection Sheets and Scaffolds
online (E-Reading First Ohio)
(reflect, share, and compare)



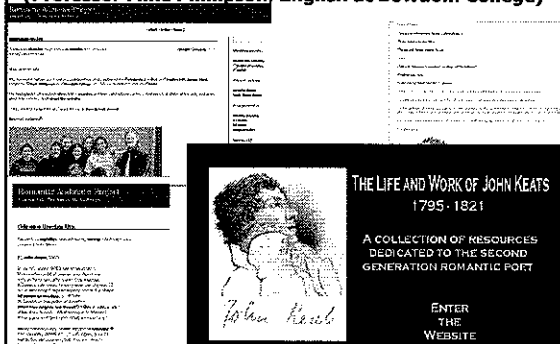
4. Tactile/Kinesthetic Learners

- Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.



4a. Romantic Poetry Project

(Professor Mike Phillipson, English at Bowdoin College)



4b. Videoconferencing with Hearing Impaired Students Online

- College students tutoring high schools on their homework
- Instructors observing how teacher education students are doing in field placements (practice presentation and communication skills)
- Interpret speaker via Web cam

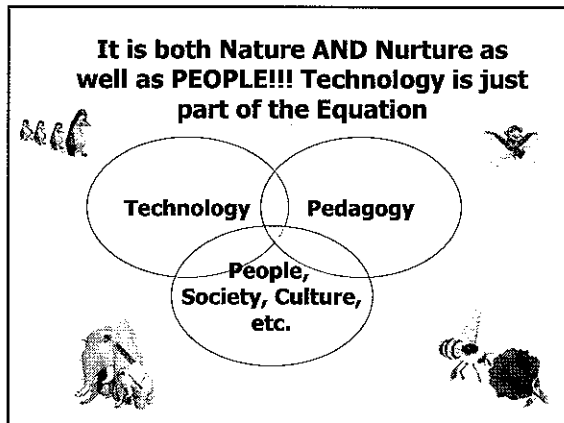


4c. Virtual Worlds/Virtual Reality/MMOG
First Course in a Virtual World (Second Life)
Wednesday, August 30, 2006
Harvard Law School (Charles & Rebecca Nesson)
Chronicle of Higher Ed (open to the public)...
[.htm](#)

4d. Survey Research and Market Analysis
 (e.g., WebSurveyor, Zoomerang, SurveyShare, SurveyKey)

Next up: The MATRIX!!!!!!!!!!!!

- **Mobile**
- **Auditory**
- **Thought-stimulating**
- **Reflective/Real-World**
- **vIsually Interactive**
- **eXtremely Hands-on**



The End...Remember

Try the R2D2 Method!!!
Try TEC-VARIETY!!!
 Sample papers at: <http://www.publicationshare.com/>
 Archived talks at: <http://www.trainingshare.com/>