
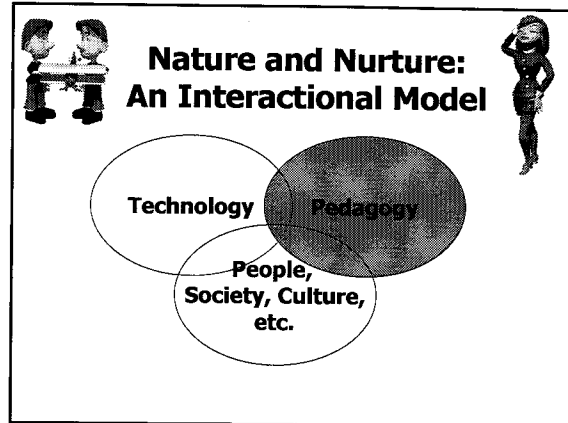




**E-Learning: It's Nature (i.e., technology) and Nurture (i.e., Pedagogy) (Part II)**

**Curtis J. Bonk, Professor, Indiana University**  
 President, SurveyShare  
 cjbonk@indiana.edu  
<http://mypage.iu.edu/~cjbonk/>

**Part I: 10 Learning Centered Technology Ideas**

Experience. The difference.

**1. Learner-Centered Learning Principles**  
 (American Psychological Association, 1993)

*Cognitive and Metacognitive Factors*

1. Nature of the learning process
2. Goals of the learning process
3. Construction of knowledge
4. Strategic thinking
5. Thinking about thinking
6. Context of learning

*Developmental and Social Factors*


10. Developmental influences on learning
11. Social influences on learning

*Individual Differences*

12. Individual differences in learning
13. Learning and diversity
14. Standards and assessment

*Motivational and Affective Factors*


7. Motivational and emotional influences
8. Intrinsic motivation to learn
9. Effects of motivation on effort



**Learner-Centered on the Web**  
 (Bonk & Cummings, 1998)

1. Safe Lrng Community:	6, 11
2. Foster Engagement:	1- 6, 11.
3. Give Choice:	8, 9, 12
4. Facilitate Learning:	2, 9, 11.
5. Offer Feedback:	3, 6, 8, 11, 13.
6. Apprentice Learning:	3, 6, 7-9, 11, 13.
7. Use Recursive Tasks:	1, 3, 8-9, 10, 13.
8. Use Writing & Reflection:	3, 8, 12-13.
9. Build On Web Links:	2-4, 8-9, 12-14.
10. Be Clear & Prompt Help:	2, 9, 11, 14.
11. Evaluate Dimensionally:	1-5, 14.
12. Personalize in Future:	6, 8, 10-13.

**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 lrng 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

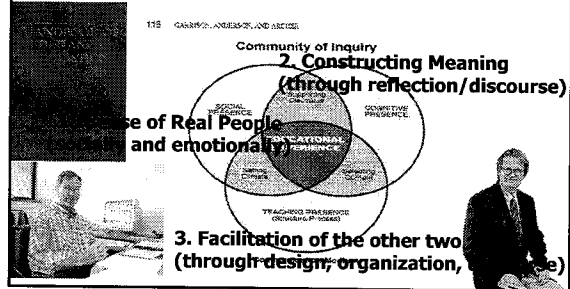
### 3. Sociocultural Ideas (Bonk & Cunningham, 1998)



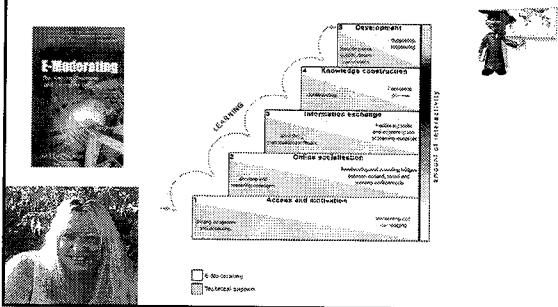
1. Shared Space and Build Intersubjectivity
2. Social Dialogue on Authentic Problems (mind is in social interactions and extends beyond skin)
3. Mentoring and Teleapprenticeships
4. Scaffolding and Electronic Assistance in ZPD
5. Group Processing and Reflection
6. Collaboration and Negotiation in ZPD
7. Choice and Challenge
8. Community of Learning with Experts & Peers
9. Portfolio Assessment and Feedback
10. Assisted Learning (e.g., task structuring)
11. Reciprocal Teaching & Peer Collaboration

### 4. Frameworks: A Theory of Critical Inquiry in Online Distance Educ

Randy Garrison, Terry Anderson, & Walter Archer  
2003, Handbook of Distance Education, Moore & Anderson (Eds.)  
garrison@ucalgary.ca; terrya@athabascau.ca

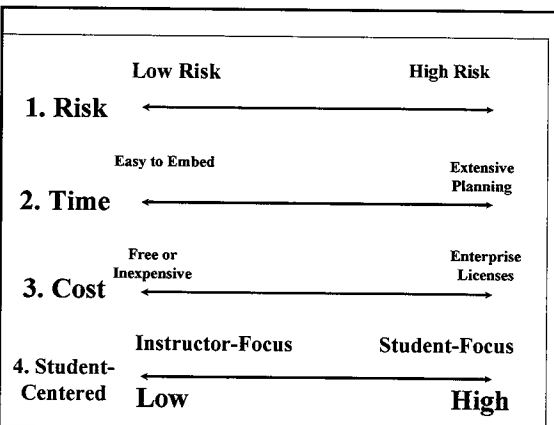


### 5. Model of Teaching and Learning Through CMC (Gilly Salmon, 2000)



### Task

- Ideas definitely Can Use (Circle or write down)
- Ideas you might use (check off or write down in a separate column)
- Ideas you cannot use (cross off or put at the bottom)



### 1. 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.



**2. Cool Resource Provider**  
(Bonk, 2004) (L = Cost, M = Risk, M = Time)

Cool Stuff

- 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. 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. 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.

**5. 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

**6. Structured Controversy and Instructor (or student) Generated Virtual Debates**

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

1. Select controversial topic (with input from class)
2. Divide class into subtopic pairs: one critic and one defender.
3. Assign each pair a perspective or subtopic
4. Critics and defenders post initial position statements in an online thread
5. Rebut person in one's pair
6. Reply to 2+ positions with comments or q's
7. Formulate and post personal positions.



**7. Scavenger Hunt**

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

**1. Create a 20-30 item scavenger hunt**



**2. Post scores**



### 8. Pruning the Tree (i.e., 20 questions)



- During a synchronous chat or videoconference, have a recently learned concept or answer in your head.
- Students can only ask yes/no types of questions.
- If guess and wrong they are out and can no longer guess.
- The winner guesses correctly.



### 9. Numbered Heads Together

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



### 10. Human Graphs



- In a videoconference or synchronous session, have students line up on a scale (e.g., 1 is low and 5 is high) on camera according to how they feel about something (e.g., topic, the book, class).
- Debrief



### Part II: 24 Blended Learning Solutions



### Ok, Million Dollar Question: How can you blend learning?

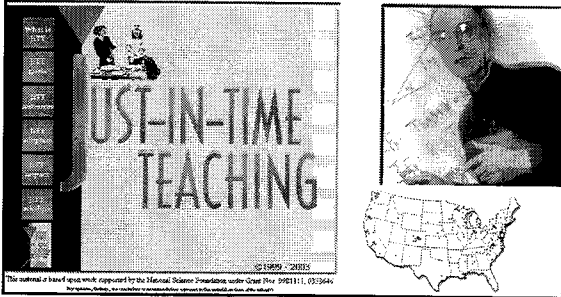


### Blended Solution #1. Video Streamed Lectures and Expert Commenting

Streamed Class Sessions for 546

Department	Course ID	Section	Date	Part	Media Type	Stream (click to play)	Download
EDUC-F	546	00600	01/22/2005		Real	<a href="#">Real Player</a>	<a href="#">Download (641.01M)</a>
EDUC-F	546	00600	01/15/2005		Real	<a href="#">Real Player</a>	<a href="#">Download (694.24M)</a>

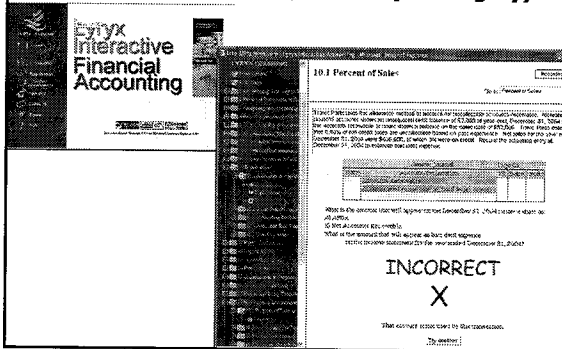
**Blended Solution #2: Warm-ups Online  
Just-In-Time-Teaching (JiTT)**  
<http://webphysics.iupui.edu/jitt/jitt.html>



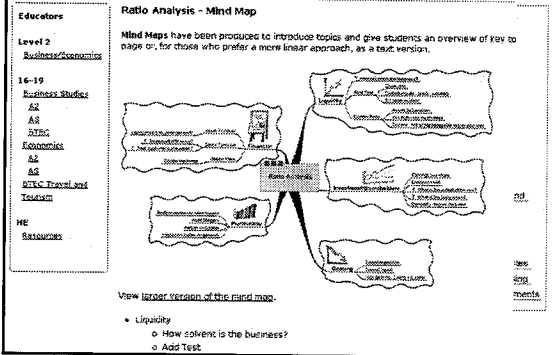
**Blended Solution #3: Apprenticeship:  
Electronic Guests & Mentoring**  
(Simon Fraser University)  
<http://www.sfu.ca/medlprts/news/2001/54>



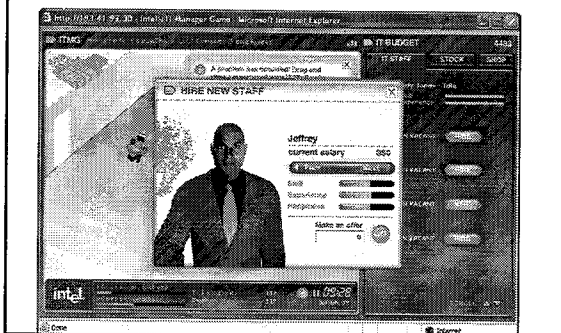
**Blended Solution #4: Online Simulation:  
Financial Accounting; (University of Calgary)**



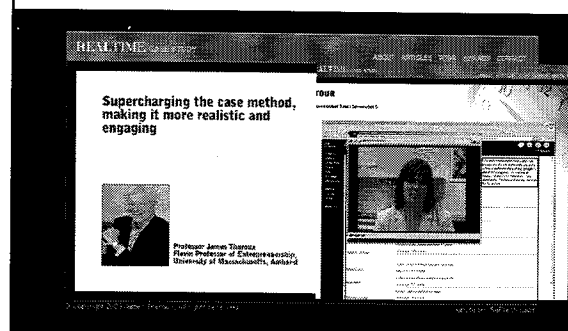
**Blended Solution #5: Concept Mapping Tools**



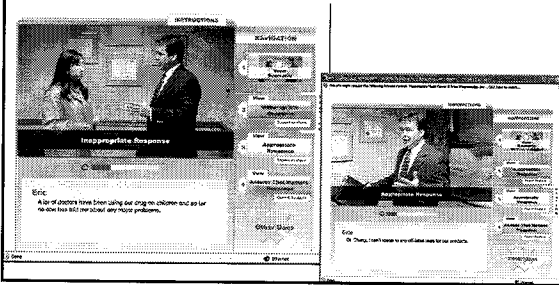
**Blended Solution #6: Educational  
Simulations, Scenarios, and Manipulations**



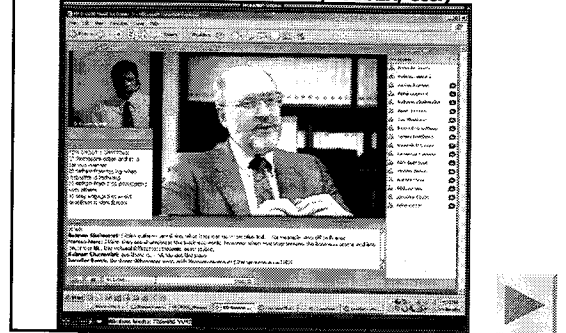
**Blended Solution #7: Real World  
Problems (PBL online): Real-time Cases**



### Blended Solution #8. Video Scenario Learning (Option 6, Arjuna Multimedia, Bloomington, IN)



### Blended Solution #9. Instructor Presentation in Synchronous Sessions (Breeze, Elluminate, WebEx, etc.)



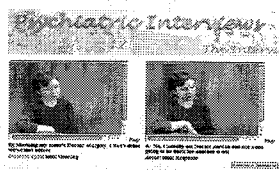
### Blended Solution #10. Video Observations (e.g., Virtual Psychiatric Interview, Trinity College, Dublin)

showcases

12

Department: **Psychiatry**

Academics: Prof. Michael O'G, Dr. Brian Fitzmaurice, Kate Amstrong



This is a Virtual Interview project that has been developed by CLT and the Department of Psychiatry. The first iteration was launched in March, 2004 for students. In this project students 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 #11. Instructor | e.g., self study in anat



The following table will allow you to access the photographs of the cat cadaver system.  
The purpose of these pages is to get your knowledge on the structure of the muscular system.  
Please try to answer all structures are given before you look at the answers.

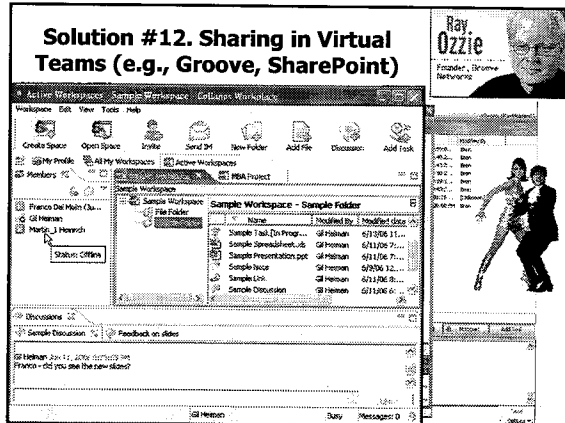
#### Trunk & Shoulder Muscles

Choose one of the following categories:

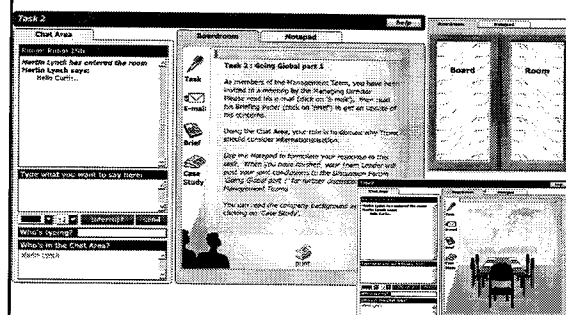
- Neck Muscles
- Trunk & Shoulder Muscles
- Upper Extremity Muscles



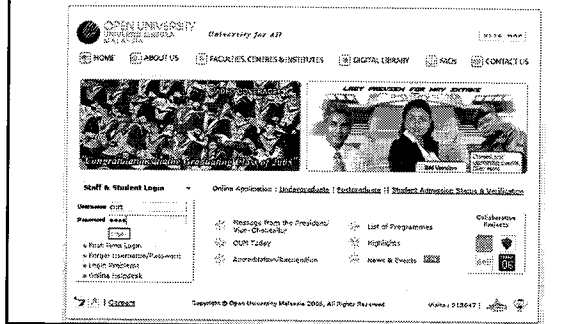
### Solution #12. Sharing in Virtual Teams (e.g., Groove, SharePoint)



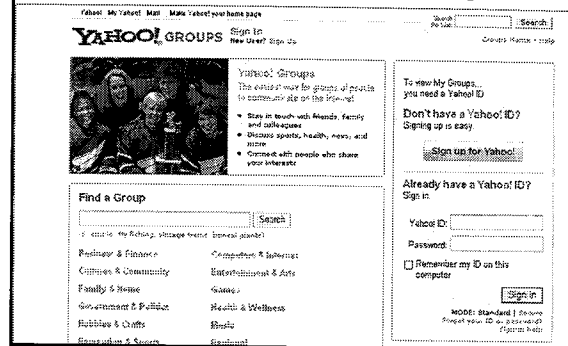
### Solution #13. Online Synchronous Cases and Teams; Simulated Boardroom Chat; College Wales, Univ. of Glamorgan



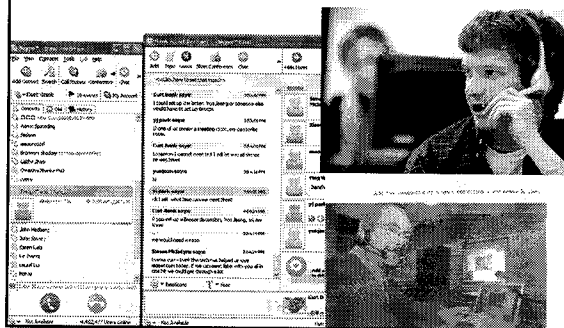
### Solution #14. Cross-Class Collab (Indiana Univ and Open U of Malaysia)



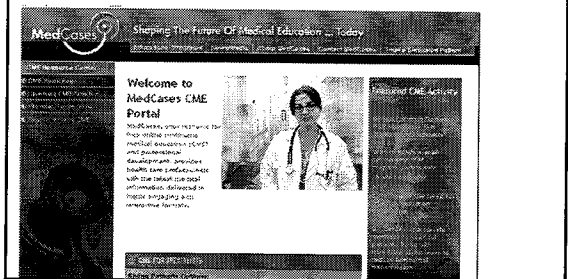
### Solution #15. Online Groups...



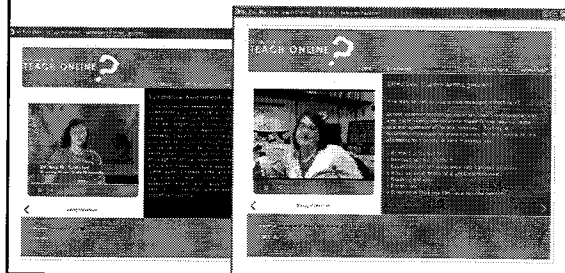
### Solution #16. Team Meetings in Skype



### Solution #17. Community of Learners: Medical and Business Cases Online (cases community) <http://optionstraining.org/login>



### Solution #18. Community of Practice: Online Professional Development



### Solution #19. Anchored Instruction: News Content Videos (CTGV, 1990?)



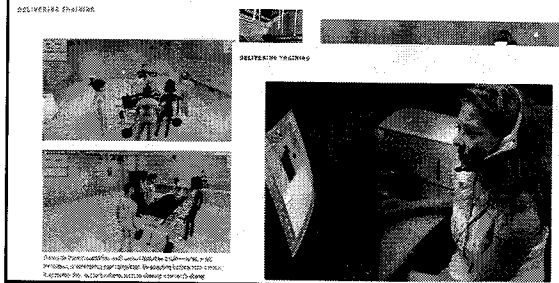
**Solution #20. Virtual Reality/Worlds  
First Course in a Virtual World (Second Life)**

Wednesday, August 30, 2006  
Harvard Law School (Charles & Rebecca Nesson)

Chronicle of Higher Ed (open to the public)  
<http://chronicle.com/daily/2006/08/2006083001t.htm>



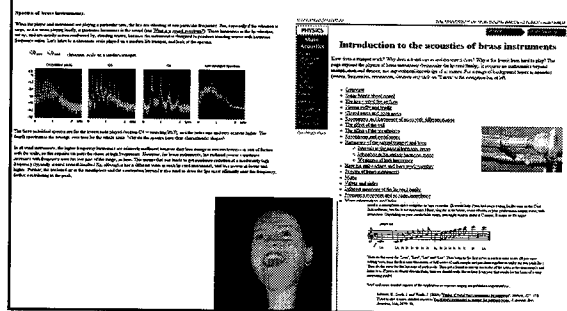
**Solution #21. Educational Simulations  
(HEALING GAMES: Computer simulations don't have to be violent -- they can give peace a chance, Scott Duke Harris May 21, 2006, San Fran Chronicle; and Medical Traumas from TD Magazine, August 2006)**



**Solution #22. Art and History Exhibits**



**Solution #23.  
Basic Acoustics of Musical Instruments  
2005 MERLOT Classics Award**

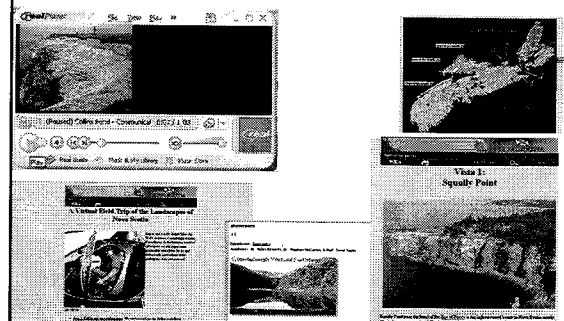


**Solution #24. Peer Critique in Breeze  
(Table of Benefits of Peer Critique;  
Park & Bonk, in review)**

- 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

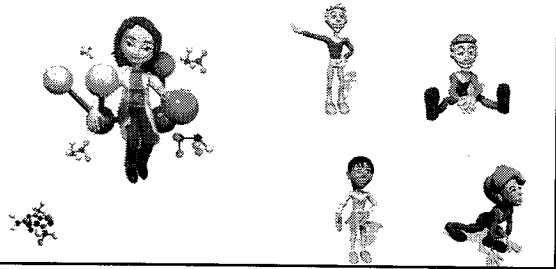


**Solution #25. Exploration and Demonstration:  
Virtual Fieldtrip, Tours, Timelines**





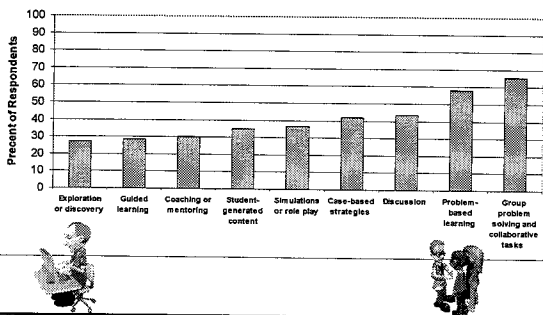
## 99 Second Stretch Break and Chat!!!



## Part III. Mucho Motivation 10+ Ideas



Instructional Approaches that Selected by Respondents as Among the Four Strategies Likley to Become More Widely Used



## Intrinsic Motivational Terms

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

## 1. Tone/Climate: Ice Breakers

### A. Eight Nouns Activity:

1. Introduce self using 8 nouns
2. Explain why choose each noun
3. Comment on 1-2 peer postings



### B. Coffee House Expectations

1. Have everyone post 2-3 course expectations
2. Instructor summarizes and comments on how they might be met

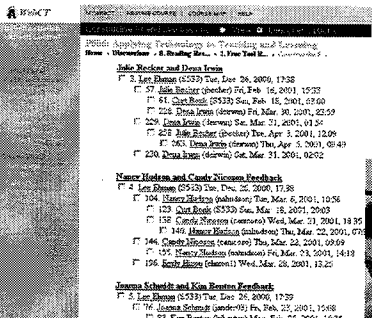


## 1. Tone: a. Scavenger Hunt (Find Fellow Students Social Networking Software)

Oct 6, 2006, Chronicle

## 2. Feedback:

### A. Critical/Constructive Friends, Email Pals...



PEER: Applying Technology in Teaching and Learning  
Home - Discussion - A. Starting Out - 2. Your Turn - > Completed

**John Wickes and Dana Levin**


- 1 2 Jan 2009 (5:53) Tue, Jan 26, 2009, 17:28
- 1 27 John Wickes (checked) Fri, Feb 16, 2009, 15:23
- 1 41 Dana Levin (5:53) Sat, Feb 16, 2009, 07:00
- 1 23 John Wickes (checked) Fri, Mar 20, 2009, 22:59
- 1 229 Dana Levin (checked) Sat, Mar 21, 2009, 03:35
- 1 228 John Wickes (checked) Tue, Apr 3, 2009, 12:09
- 1 263 Dana Levin (checked) Thu, Apr 5, 2009, 09:49
- 1 230 John Wickes (checked) Sat, Mar 31, 2009, 06:52

**Nancy Hickox and Cindy Niccum Feedback**

- 1 2 Jan 2009 (5:53) Tue, Jan 27, 2009, 17:28
- 1 104 Nancy Hickox (checked) Tue, Mar 6, 2009, 10:56
- 1 123 Cindy Niccum (5:53) Sun, Mar 18, 2009, 20:03
- 1 138 Nancy Hickox (checked) Wed, Mar 25, 2009, 18:35
- 1 149 Cindy Niccum (checked) Thu, Mar 22, 2009, 07:29
- 1 144 Nancy Hickox (checked) Thu, Mar 23, 2009, 09:09
- 1 157 Cindy Niccum (checked) Fri, Mar 24, 2009, 14:19
- 1 156 Nancy Hickox (checked) Wed, Mar 28, 2009, 13:23

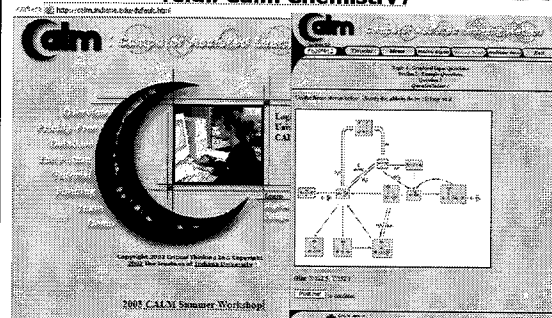
**Jessica Scheidt and Kim Stevens Feedback**

- 1 2 Jan 2009 (5:53) Tue, Dec 26, 2009, 17:29
- 1 77 Jessica Scheidt (checked) Fri, Feb 22, 2009, 15:48
- 1 82 Kim Stevens (checked) Mon, Feb 26, 2009, 16:25



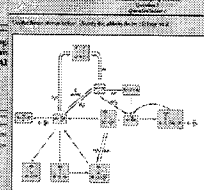
## 2. Feedback.

### B. Student Self-Testing (e.g., Calm Chemistry)



Calm Chemistry

Log Out  
Calm



2009 CALM Answer Worksheet

## 3. Engagement: C. Clickers; Innovation is but one click away...



TECHNOLOGY/BUSINESS

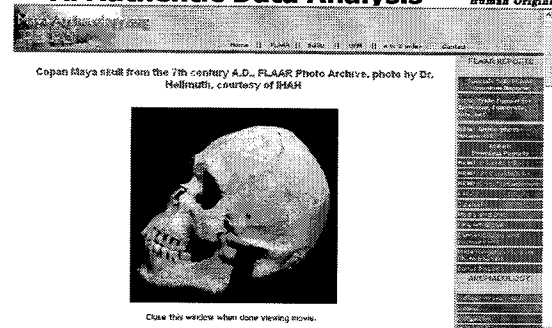
CYBER

Interactive technology transforms the classroom



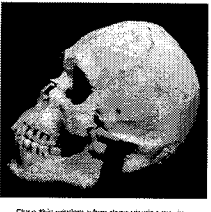

## 4. Meaningfulness:

### A. Authentic Data Analysis



A105 Human Origins

Capan Maya skull from the 7th century A.D., FLAAR Photo Archive, photo by Dr. Hellmuth, courtesy of FLAAR



FLAAR 2009-10-10

Field	Value
Name	FLAAR 2009-10-10
Address	FLAAR 2009-10-10
City	FLAAR 2009-10-10
State	FLAAR 2009-10-10
Country	FLAAR 2009-10-10
Zip	FLAAR 2009-10-10
Phone	FLAAR 2009-10-10
Fax	FLAAR 2009-10-10
Email	FLAAR 2009-10-10
Website	FLAAR 2009-10-10
Comments	FLAAR 2009-10-10
Created	FLAAR 2009-10-10
Modified	FLAAR 2009-10-10

Close this window when done viewing movie.


## 5. Choice:

### A. 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. Variety:

### A. Discussion: Starter-Wrapper (Hara, Bonk, & Angeli, 2000)

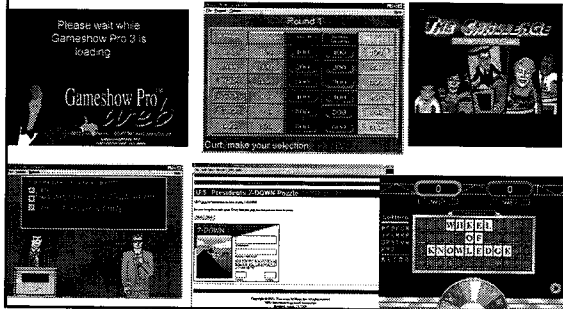


1. Starter reads ahead and starts discussion and others participate and wrapper summarizes what was discussed.
2. Start-wrapper with roles--same as #1 but include roles for debate (optimist, pessimist, devil's advocate).

### B. Alternative: Facilitator-Starter-Wrapper (Alexander, 2001)

Instead of starting discussion, student acts as moderator or questioner to push student thinking and give feedback

**7. Curiosity: A. Games  
Online Jeopardy Game**  
www.km-solutions.biz/caa/quiz.zip;  
Games2Train: The Challenge; Thiagi.com



**8. Tension: A. Online Role Play of Scholars, Personalities, or Famous People**

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



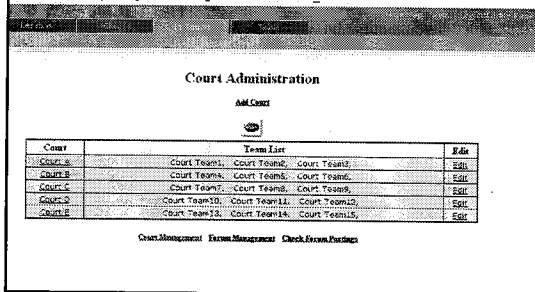
24.3. I am so wise...so listen. Aristotle 11/25/03 05:49 PM

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

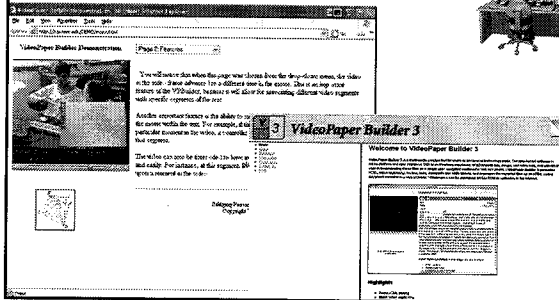


24.3.1. Again my opinion - e-learning is NOT cost-effective and is NOT value for money, and does NOT equate good quality. Athla the Hun

**9. Team Collaboration:  
A. Court Room Forum (Bus Law)**



**10. Product-Based: A. Video Papers.  
Grounded Research and Production. Video Paper Builder (<http://vpb.concord.org/>)**



How many have ever felt that they hit the wall as far as teaching online?



**BONK!**

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

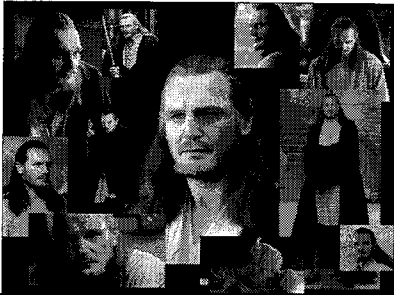
When your body stalls mid-run, it's called bonking.



**99 seconds review: What have you learned so far?**

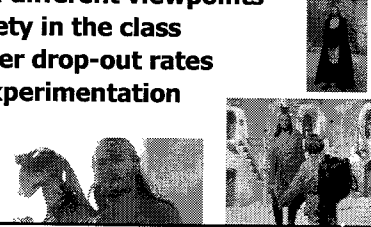
- Turn to someone next to you and review...

## 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)



VARK learning styles (Fleming & Mills (1992a, 1992b). Four types of learners and learning styles

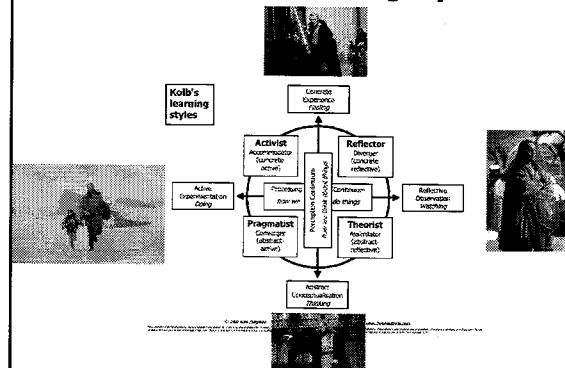
1. Visual learners prefer diagrams, flowcharts, graphics (they do not mention video, film, Webcasts, or PowerPoint presentations).
2. Auditory learners prefer to hearing directions, lectures, or verbal information.
3. Reading and writing learners prefer text passages, words, and written explanations.
4. Tactile or kinesthetic learners learn best by connecting to reality through examples, practices, or simulations.

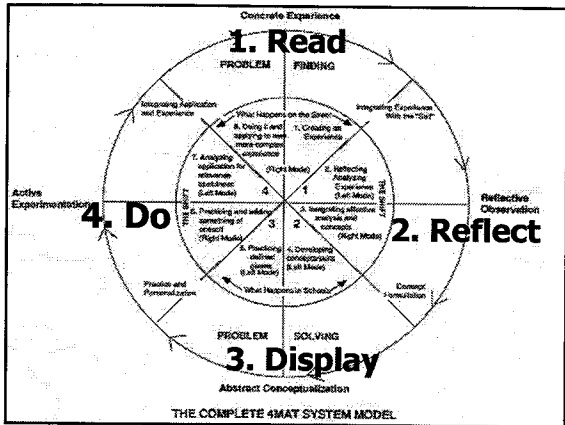
## Kolb (1984)

- 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.



## One View of Learning Styles





## 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 Resource Libraries

SiteScape Forum

Tools Menu

Search

Student Online Resource Libraries (ORL)

Folders

- Directions for Online Resource Library (OCR)
- Online Resource Library for Amanda Kolb
- ORL for
- ORL for
- ORL for
- ORL for
- ORL for
- ORL for
- ORL for

## 1b. 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

## 1c. Synchronous Conferencing

Chat window with text:

John: I'm interested in starting a business. I've got some ideas but I need to know more about the market. Terry: I can help you with that. I've got some experience in this area. John: How do you think I should go about it? Terry: Well, first you need to do some research. You need to know what your target market is and what their needs are. John: That makes sense. I'll do some research. Terry: Good. I'll be here if you need any more help.

## 1d. Online Literature and Free Books

Google  
Book Search



The complete plays of Shakespeare.  
Now at your fingertips.

In Shakespeare's day, gaining greater access to his plays meant duking it out with the other "groundlings" for the best view of the stage. It took centuries for the modern printing press to bring plays like *Hamlet* to people all around the world — and for the Bard to become one of the most quoted writers in history.

New Shakespeare's oeuvre is even more accessible. Search within *Hamlet* for "to be or not to be" to read the rest of his famous soliloquy. Find out who called the world his "oxeye" and why. Browse through a familiar play — or follow your curiosity to discover a new one. And if you decide you want to buy a copy, "All editions" will show you every version in [Google Book Search](#), many of which are available for purchase.

## 1e. Online Tutorials and Help

The screenshot shows the NCBI PubMed website. At the top, it says "NCBI PubMed" and "A service of the National Library of Medicine and the National Institutes of Health". Below that, there are search fields and buttons. A prominent box on the right says "To register for a My NCBI account, click on the Register link at the top right of the screen." Below that, another box says "Target your results using the Improved Limits page!" and lists several options: "Click the Limits tab to enable", "Add an author or journal to your search", "Limit to citations with links to full text", and "Select multiple languages, publication types, and do lots more." At the bottom of this box, it says "Press the PubMed Help to explore other PubMed search options."

## 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. Learner-Self Interactions and Reflections

The screenshot shows a self-check interface for a quiz titled "Review Questions - Encapsulation". It includes a "Self-check" section with a question: "What is inheritance?" and a text input field. Below the question, there is a "Submit" button and a "Feedback" section that says "Inheritance is an object-oriented mechanism that derives a new class from an existing class."

## 2b. 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?

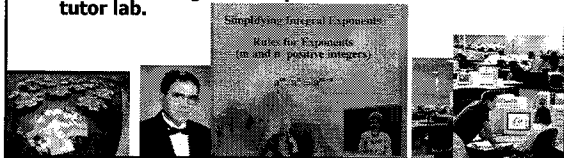
**Answer 1**  
Under both Title VII of the 1964 Civil Rights Act and Section 1981 it is illegal to discriminate on the basis of race or color, and Lewis would likely win a lawsuit using the claim of disparate treatment if he were not recommended for the promotion. If Lewis does not recommend Lewis, she 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." ARPCO 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 histories point 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 ARPCO's policy clearly states to "promote the most

## 2c. Reuse Chat Transcripts

The screenshot shows a chat transcript from a "SiteScope Forum". The chat title is "47. Week 9: Chat 4MAT with Bernice McCarthy March 18th from 5-6 pm". It shows a chat log with a question: "OK, it is time to be 4MATed. This is a chat with Bernice McCarthy!" and several responses from participants. The chat log includes a "Chat Room" section with a "Print" button and a "Total Answers: 26" section. At the bottom, there are "All Answers" and a list of links for more information.

## 2d. Video Streaming: Math Emporium of Online Tutorials and Testing (Virginia Tech, Robert Olin)

- In the Math Emporium, students can take advantage of diagnostic quizzes, an electronic hyperlinked textbook and interactive, self-paced tutorials. There are armies of tutors, GTAs and faculty in the emporium to give students personal help when they do not understand the tutorials or quizzes...Some traditional lectures by professors are also available along with help from a conventional tutor lab.

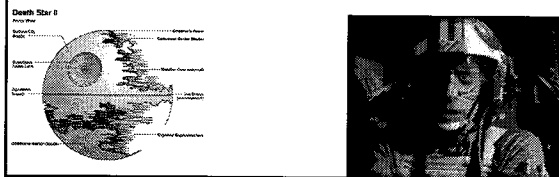


## 2e. Reflection Sheets and Scaffolds online (E-Reading First Ohio) (reflect, share, and compare)

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

## 3. Visual Learners

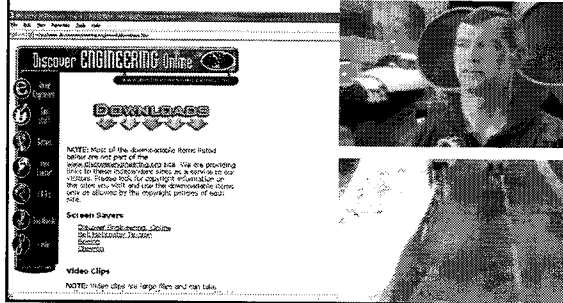
- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.



## 3a. Animations, Video Clips, Audio, Pictures, Web Resources, etc.

## 3b. Current Events: Interactive Online New Stories & Cases

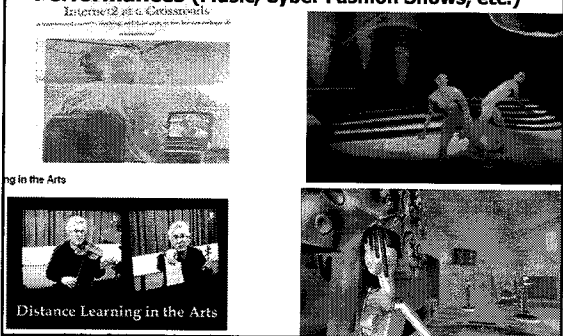
### 3c. Video Library of Concepts, Cases, or Experts



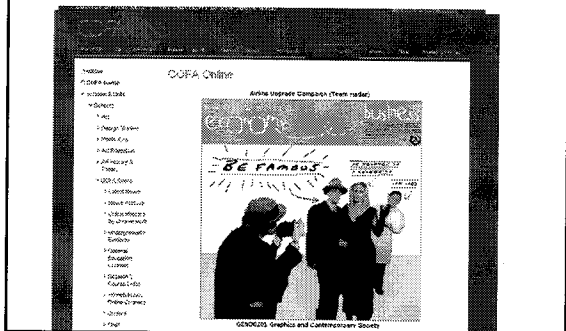
### 3d. Digital Libraries (LibraryShare)



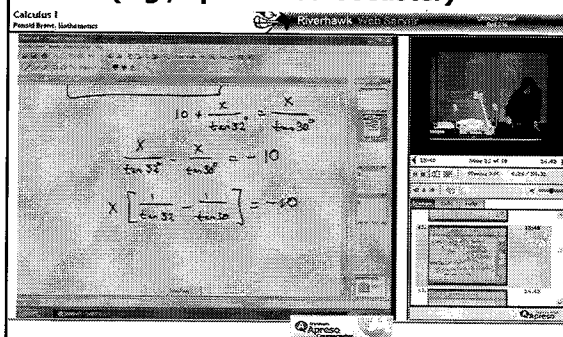
### 3e. Online Modeling: Watch Expert Performances (Music, Cyber Fashion Shows, etc.)



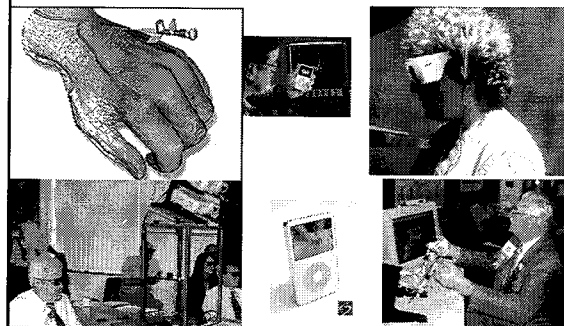
### 3f. Expert Mentoring Online in Art and Design (COFA Online, Omnium Project, Creative Waves—online graphics and photomedia project)



### 3g. Capture and Videostream Lectures (e.g., Apresio CourseCaster)



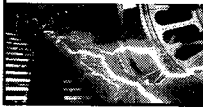
### 3h. Virtual Surgery: multisource, real-time, interactive lesson in anatomy and surgery (Corn project)





#### 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. Educational Simulations, Scenarios, and Manipulations

#### 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. Historical Documents discoverbabylon.org

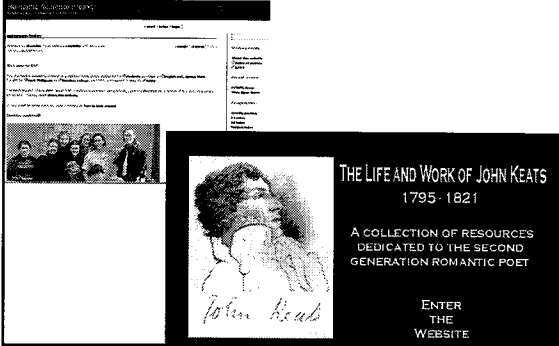
- In its final form, the multi-player game will let you march through three-dimensional recreations of the first city-states, around 3000 B.C., the first empires, around 2300 B.C., and finally the famous Iron Age empire of Assyria...offers three-dimensional walk-throughs of sites in the Valley of the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



#### 4d. Digital Storytelling

#### 4e: Internally Built Web Links (Human Intelligence Homepage, Jonathan Plucker, IU)

## 4f. Romantic Poetry Project

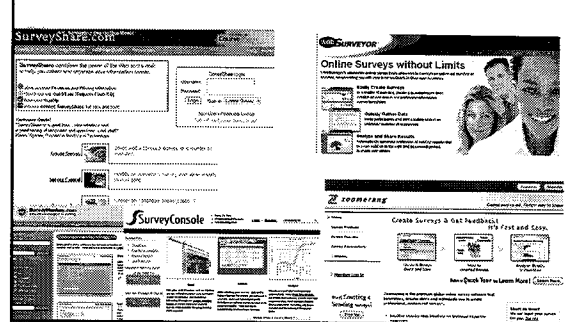


**THE LIFE AND WORK OF JOHN KEATS**  
1795 - 1821

A COLLECTION OF RESOURCES DEDICATED TO THE SECOND GENERATION ROMANTIC POET

ENTER THE WEBSITE

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



SurveyShare.com

Surveyor

Zoomerang

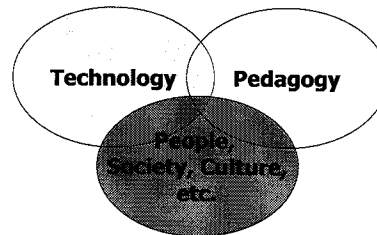
SurveyConsole

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

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



## Nature and Nurture: An Interactional Model



## Stand and Share

- Will Work: \_\_\_\_\_
- Might Work: \_\_\_\_\_
- No Way: \_\_\_\_\_

