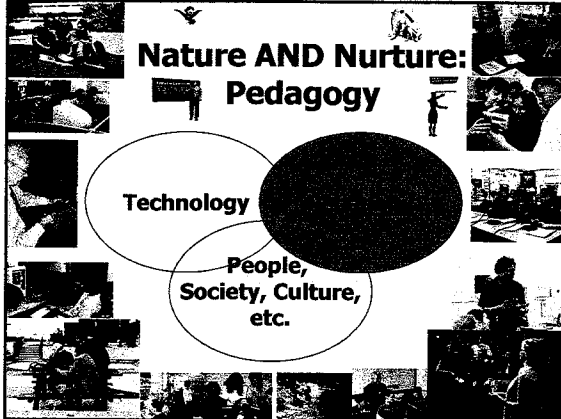


**Active Learning with Technology:  
Myths, Magic, and Mucho Motivation**

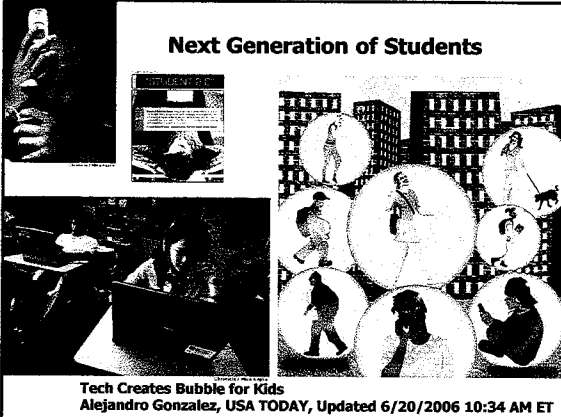
**Dr. Curtis J. Bonk**  
Professor, Indiana University  
President, SurveyShare, Inc.  
<http://mypage.iu.edu/~cjbbonk/>  
[cjbbonk@indiana.edu](mailto:cjbbonk@indiana.edu)



**Nature AND Nurture:  
Pedagogy**

Technology

People,  
Society, Culture,  
etc.



**Next Generation of Students**

Tech Creates Bubble for Kids  
Alejandro Gonzalez, USA TODAY, Updated 6/20/2006 10:34 AM ET




**INFORMATION TECHNOLOGY**

E-Mail Is for Old People

**Yahoo News**  
Love me, love my blog," as Netorati couple-surf  
BY SARA LEDWITH Thu Aug 3, 8:30 AM ET

- Nick Currie and his girlfriend Shizu Yuasa (R) surf the internet over breakfast in Tokyo in this handout photo. As the Internet evolves -- with its webcams, iPods, Instant Messaging, broadband, wi-fi and weblogs -- its image as a relationship-wrecker is changing. Now a sociable habit is emerging among the Netorati: couple-surfing. (Nick Currie/Handout/Reuters)
- "For my birthday, he upgraded my RAM and I thought it was incredibly romantic," writes Jess.



**Bonk's Addiction Q'er**

1. Who has 2 or more cell phones with Internet access?
2. Who has 2 or more laptop computers with wireless connections?
3. Who is on email in the morning? At noon? Who does it at night?
4. Who suffers from nervous tension when you cannot get on email?
5. Who is on the Web right now?

### I. Student Technology Myths

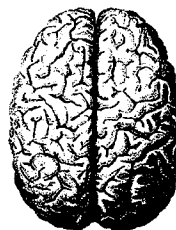
1. They all are Web 2.0 savvy and equipped.
2. Some will dominate and intimidate others.
3. Will be too off task and social online.
4. Online cheating is the key reason not to teach with tech.
5. Online students are located far away.



### Brains Before and After e-Learning

Before                      After

Before



### Myths: No Models or Best Practices



### II. Magic....

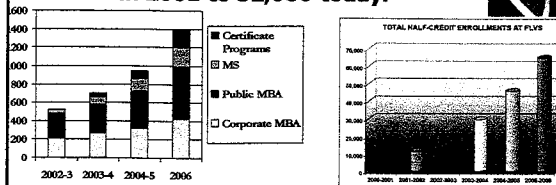


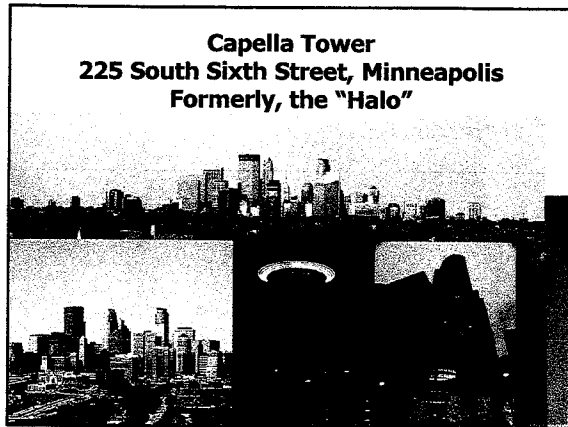
### Magic Pens! (The Pulse from Livescribe)



**The Growth of the Online programs (IU and Virtual Florida School)**  
 Magjuka helped launch Kelley Direct in 1999 with a class of 14 students. Today, the program serves 1,250 students.

**FLVU from a few dozen in 1997 to 6,000 in 2001 to 52,000 today.**






**What if our minds were on fire for learning?**

**MINDS ON FIRE**  
OPEN EDUCATION, THE LONG TAIL, AND LEARNING 2.0  
By John Seely Brown and Richard J. Adler

**MINDS ON FIRE: OPEN EDUCATION, THE LONG TAIL, AND LEARNING 2.0. JOHN SEELY BROWN AND RICHARD ADLER, EDUCAUSE REVIEW, JANUARY-FEBRUARY, 2008.**  
<http://connect.educause.edu/Library/EDUCAUSE+Review/MindsonFireOpenEducation/45823>


**Activities Part I: 10 Learner-Centered Technology Ideas**

  
Experience. The difference.

## Task

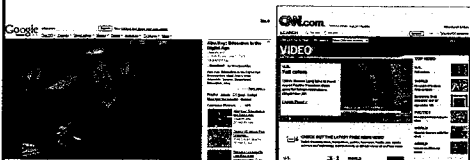

- Ideas definitely Can Use (Circle or write down)
- Ideas you might use (check off or write down in a separate column)
- Ideas you cannot use (cross off or put at the bottom)

**Learner-Centered and Active Learning Principles**



1. Authentic/Raw Data
2. Student Autonomy/Inquiry
3. Make Relevant/Meaningful/Interests
4. Link to and Build on Prior Knowledge
5. Provide Choice and Challenge
6. Act as a Facilitator and Co-Learner
7. Foster Social Interaction and Dialogue
8. Embed Problem-Based and Student Generated Learning and Inquiry
9. Encourage Multiple Viewpoints and Perspectives
10. Foster Collab, Negotiation, & Reflection

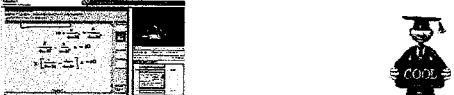
1. Anchored Instruction (find anchoring event (CTGV, 1990?) (L/M = Cost, M = Risk, M = Time)
  - In a synchronous lecture interrupt it with a summary video (could be a movie clip) explaining a key principle or concept.
  - Refer back to that video during lecture.
  - Debrief on effectiveness of it.

### 2. Cool Resource Provider Cool Stuff

(Bonk, 2004) Capture and Videostream Lectures (e.g., Apreso 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

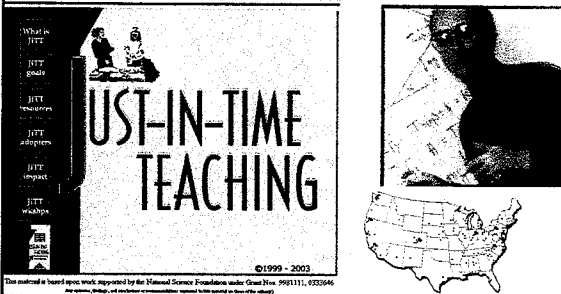
(L = Cost, M = Risk, M/H = Time) (Bonk, 1999)

- 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.

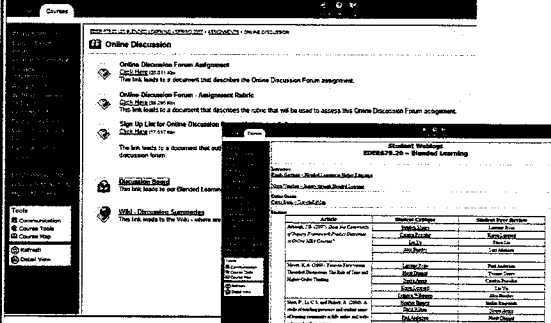


### 4: Online Warm-ups Activities Just-In-Time-Teaching (JITT)

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

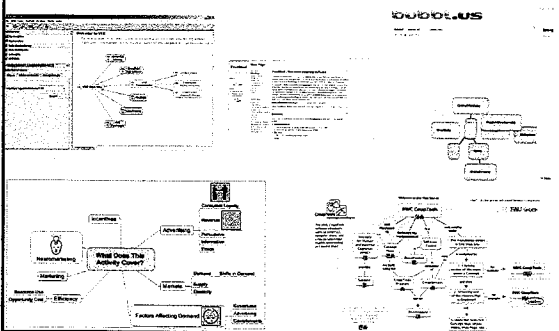


### 5. Paired Weblog Critiques



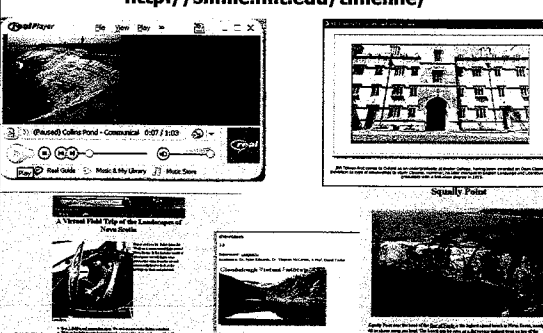
Activity	Student Name	Student Score	Student Status
Activity 1: 10/17/07 - Use the Canvas of a Group's Personal Page (Home of the Web Course)	John Doe	100%	Completed
	Jane Smith	100%	Completed
	Bob Johnson	100%	Completed
	Alice Brown	100%	Completed
Activity 2: 10/17/07 - Use the Canvas of a Group's Personal Page (Home of the Web Course)	John Doe	100%	Completed
	Jane Smith	100%	Completed
	Bob Johnson	100%	Completed
	Alice Brown	100%	Completed

### 6. Concept Mapping Tools (VUE, Bubbl.us, Cmap, Freemind)

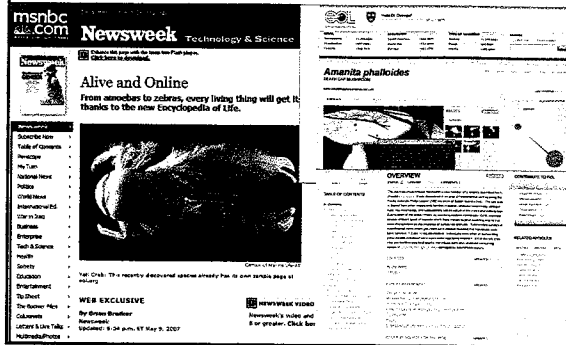


### 7. Exploration and Demonstration: Virtual Fieldtrip, Tours, Timelines

<http://simile.mit.edu/timeline/>



### 8. Online Portal Explorations



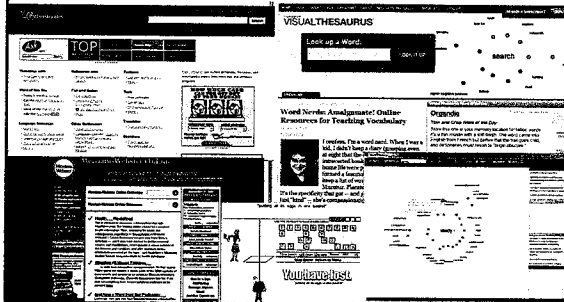
### 9. Online Apprenticeship: Electronic Guests & Mentoring

(Simon Fraser University News: <http://www.sfu.ca/mediaprts/news/2001/Sep16/fig1tech.html>)

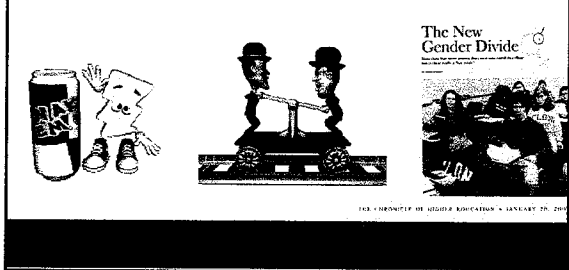


### 10. Referenceware and Terminology Exercises Online (e.g., Websters, Visual Thesaurus)

<http://www.visualthesaurus.com/>  
(\$2.95/month; \$19.95/year)



### Activities Part II. Motivational Ideas



### Three Most Vital Skills

The Online Teacher, TAFE, Guy Kemshal-Bell (April, 2001)

- Ability to engage the learner (30)
- Ability to motivate online learners (23)
- Ability to build relationships (19)
- Technical ability (18)
- Having a positive attitude (14)
- Adapt to individual needs (12)
- Innovation or creativity (11)



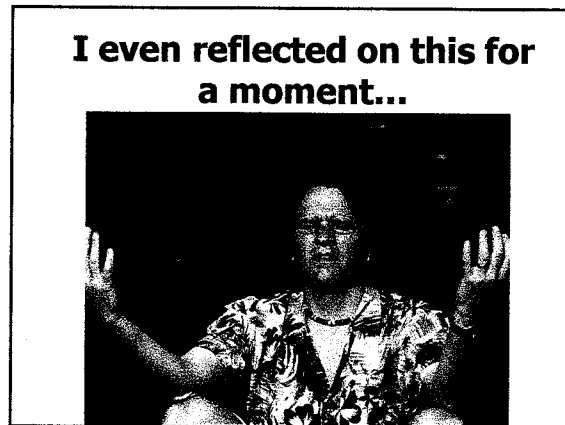
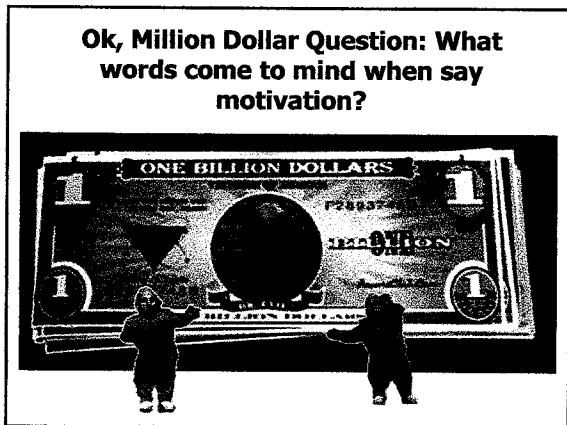
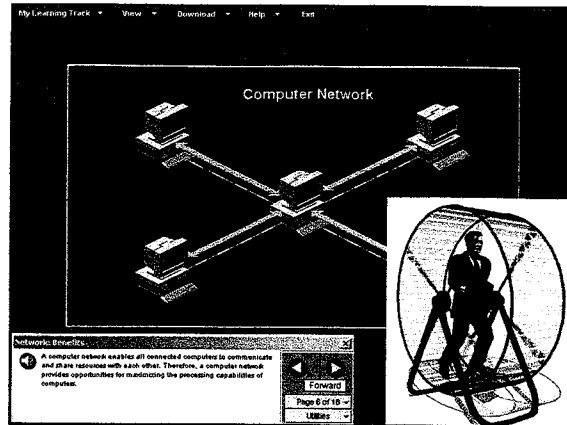
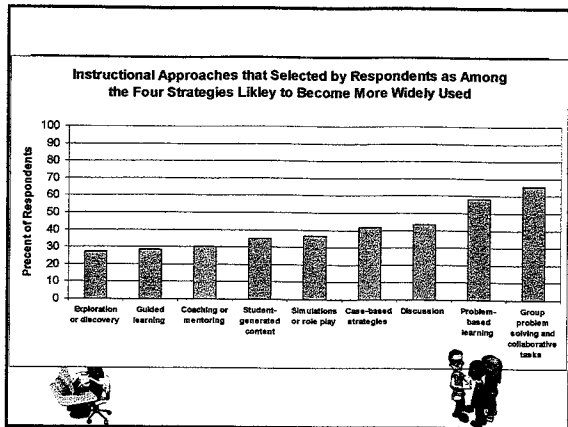
### Intrinsic Motivation

"...innate propensity to engage one's interests and exercise one's capabilities, and, in doing so, to seek out and master optimal challenges

(i.e., it emerges from needs, inner strivings, and personal curiosity for growth)

See: Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. NY: Plenum Press.





- 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

- 1. Tone/Climate:**
- A. Coffee House Expectations**
    1. Have everyone post 2-3 course expectations
    2. Instructor summarizes and comments on how they might be met
  - B. Public Commitments:** Have students share how they will fit the coursework into their busy schedules
-

### 1. Tone/Climate: C. Video Course Intros (examples from Northern Virginia Community College and Indiana University KD (online MBA) program)

### 2. Encouragement, Feedback, etc.: A. Critical/Constructive Friends, Email Pals...

### 2. Encouragement, Feedback, etc.: B. Instructor Presentation in Synchronous Sessions (Breeze, Elluminate, WebEx, etc.)

### 2. Encouragement, Feedback, etc.: C. Thinking About the Readings (TARS) JIIT; Claude Cookman, IU, Photography Class

### 3. Curiosity, Fun: A. Games e.g., Online Jeopardy Game Games2Train: The Challenge; Thiagi.com

### 4. Variety, Novelty: A. Teaching with Twitter

### 4. Variety, Novelty: B. Video Streamed Lectures & Expert Commenting

This block contains three screenshots. The top-left shows a person in a lecture hall with a large screen displaying a presentation. The top-right shows a close-up of a person's face, possibly a student or expert, in a video stream. The bottom-left shows a smaller video stream of a person speaking.

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

This block features several articles and images. On the left, there's an article titled "Interactive tech transforms the cl" with a sub-headline "The benefits of clickers". In the center, there's an image of a person using a clicker. On the right, there's an advertisement for "Iclicker" described as "A two-way RF polling system" with an image of the device. Above the Iclicker ad is a stack of books.

### 5. Autonomy, Choice: B. Read, Listen, etc. to online books (e.g., "An International Episode" by Henry James)

This block shows screenshots of the Open Content Alliance website. The main heading is "OPEN Content Alliance" with the tagline "Building a digital archive of global content for universal access". Below this, there are several news snippets and a list of member institutions including the University of Illinois at Urbana-Champaign, the University of Michigan, and the University of Toronto.

### 5. Autonomy, Choice: C. Online Literature Search (Class Google Jockeys)

The Electronic Literati, in Search of a Voice, June 1, 2007, Chronicle of Higher Education, Jeffrey Young (links to text, soundtracks, video clips, etc.)

The image is a dense grid of small, square thumbnails, each representing a different search result or piece of media related to the online literature search project.

### 5. Autonomy, Choice: C. Multiple Topic Forums or Task Options

- 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.

The screenshot shows a web interface with a list of topics or tasks, each with a corresponding number of votes or participants. The interface appears to be a simple web-based voting or discussion tool.

### 6. Relevance: Meaningfulness: A. 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
- Students work collab to interpret age of site
- Interpret of ancient environments
- Analyze artifacts/fossils from site

This block includes several screenshots. At the top right is the "AIOS Human Origins" logo. Below it are images of archaeological sites and artifacts. At the bottom, there are screenshots of a website and a software interface used for data analysis.



**6. Relevance: Meaningfulness: B. Real World Problems (PBL online): Real-time Cases**

**7. Interactive, Collaborative: A. Online Language Learning (Mixer, Livemocha, Friends Abroad)**

**7. Interactive, Collaborative: B. 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).
- C. 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. (Edmonton)**

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

**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 one or more sessions

**9. Tension, Challenge, etc.:  
B. Scenario Learning (Emmis Communications example)**

**10. Yields Products: A. Concept Maps, Video Papers, Virtual Timelines, Digital Movies**

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

- Solid and Fuzzy in groups of two to four

**Activities Part III.  
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

**Kolb (1984)**

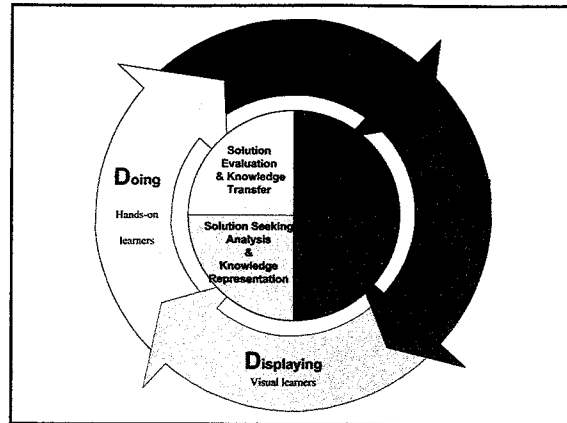
- According to Kolb, effective learning involves four phases:
  - from getting involved (Concrete Experience) to
  - listening/observing (Reflective Observation) to
  - creating an idea (Abstract Conceptualization) to
  - making decisions (Active Experimentation).
- A person may become better at some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

**Index of Learning Styles Questionnaire**  
 Barbara A. Soloman, North Carolina State Univ  
<http://www.engr.ncsu.edu/learningstyles/ilsweb.html>



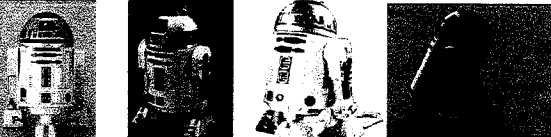
6. If I were a teacher, I would rather teach a course  
 (a) that deals with facts and real life situations.  
 (b) that deals with ideas and theories.

7. I prefer to get new information in  
 (a) pictures, diagrams, graphs, or maps.  
 (b) written directions or verbal information.

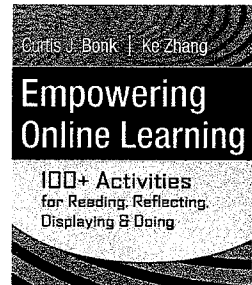


**The R2D2 Method**

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




**R2D2 Book**  
 (to be printed July 4, 2008)



**1. Auditory or Verbal Learners**

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



**1a. Documents on Web**  
 Scribd: <http://www.scribd.com/>

