


A Five-Part Masterclass for Technology-Enhanced Teaching and Learning: Sampling across a Scrumptious Smorgasbord

**Dr. Curtis J. Bonk, cjbonk@indiana.edu
Professor, Indiana University**



Technology of the 1980s




| Radio Shack TRS-80 Model III | |
|------------------------------|---|
| Introduced: | July 1983 |
| Price: | US \$899 base model US \$2495 w/ 32K, dual drives |
| CPU: | Z80 2-MHz, 2.83 MHz |
| RAM: | 4K, 16K, 64K |
| Ports: | Cassette tape, expansion, serial |
| Display: | 12-inch B&W monitor, 64 X 16 text |
| Storage: | 0, 1, or 2 internal 5.25 floppy drives External cassette @ 500 / 1500 baud |
| OS: | BASIC in ROM, TRS-DOS on disk |





Things That Became Obsolete This Decade

December 11, 2009, Silicon Alley Insider



Gadgets that Changed Everything This Decade

December 9, 2009, Jay Yarow, Silicon Alley Insider



New technologies hit us everyday!



So much to keep track of!



Poll #1: Who finds it hard to keep track of all the technology-related changes today???



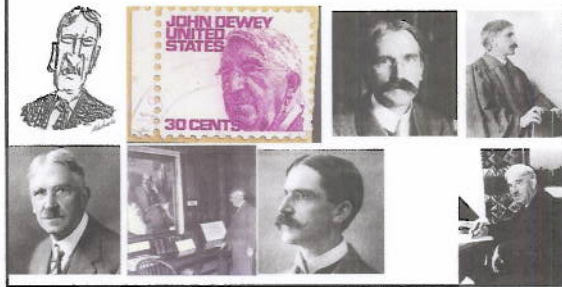
It's Nature (i.e, technology) and Nurture (i.e., pedagogy)!



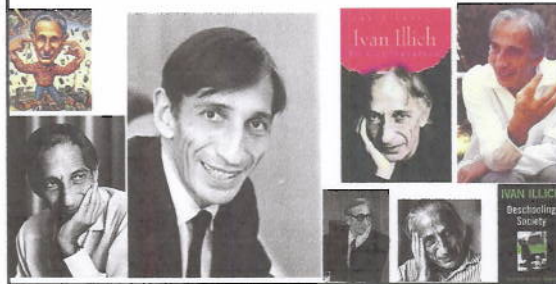
Old Models of Interactivity



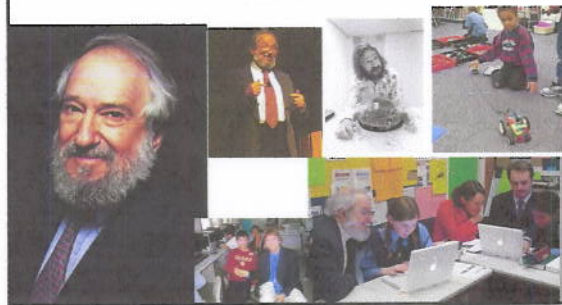
John Dewey (Author of "How We Think" and "Democracy and Education")



Ivan Illich (author of "Deschooling Society")



Seymour Papert, MIT Media Lab



Stephen Heppell (co-developer of Notschool.net and the ULTRALAB)



John Seely Brown (author of "Minds on Fire" and The Social Life of Information)



Masterclass Part 1: The Rise of Shared Online Video, the Fall of Traditional Learning



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



July 24, 2010
Reaching the Last Technology Holdouts at the Front of the Classroom,
 Jeffrey Young, Chronicle of Higher Education
<http://chronicle.com/article/Reaching-the-Last-Technology/123659/>



Why Use Video?

1. Importance of shared online video: educational psychologists such as David Ausubel (1978) argued that knowledge was hierarchically organized.
2. New learning concepts and ideas to be subsumed under or anchored within prior learning experiences.




Why Use Video?



3. Ausubel suggested that new info is going to be meaningful if it is anchored (i.e., attached or related) to what learners already know and understand.
4. Advance Organizers: Provide a context, richer learning, can be replayed for key concepts, bring students to the real world, discussion, reflection, common experience, and the potential for higher order thinking skills.

Why Use Video?

5. Dual coding theory (learning information verbally and visually is more richly stored): Alan Paivio.
6. Anchored instruction and macrocontexts: John Bransford and colleagues.
7. Multimedia theory: Richard Mayer.




Which of these video sharing sites do you use?

1. BBC News Video and Audio
2. CNN.com Video
3. MSNBC.com
4. Google Video, Yahoo Video
5. Current TV
6. Fora TV
7. MIT World
8. YouTube, YouTube Edu
9. TeacherTube
10. Link TV, Explore, Global Pulse, Latin Pulse
11. Howcast, Big Think, WonderHowTo, Explo.TV, NASA TV, ClipChef, TV Lesson, BookTV, Edutopia videos, MonkeySee, doFlick, the Research Channel, iVideosong




TeacherTube and WatchKnow



The Khan Academy

(videos on math, bio, trig, chemistry, money and banking, economics, statistics, etc.)



How TED Connects the Idea-Hungry Elite, Fast Company, Anya Kamenetz, September 1, 2010

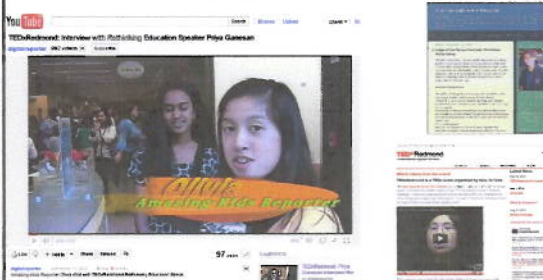
<http://www.fastcompany.com/magazine/148/how-ted-became-the-new-harvard.html>

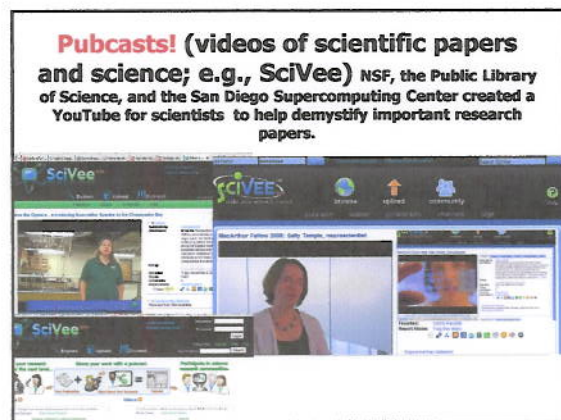
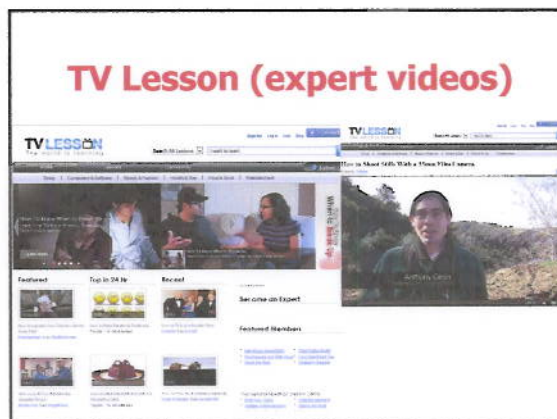
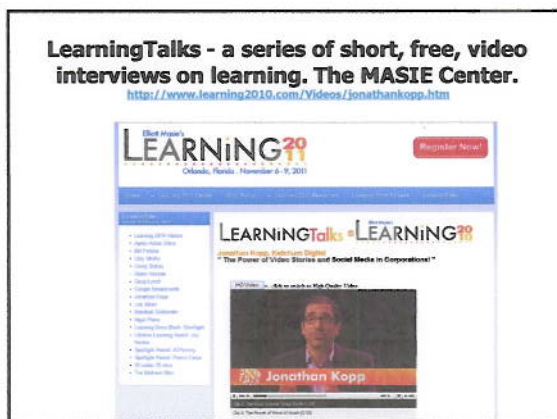


Chris Anderson: The entrepreneur bought TED in 2001. "It felt like something you could devote your life to," he says

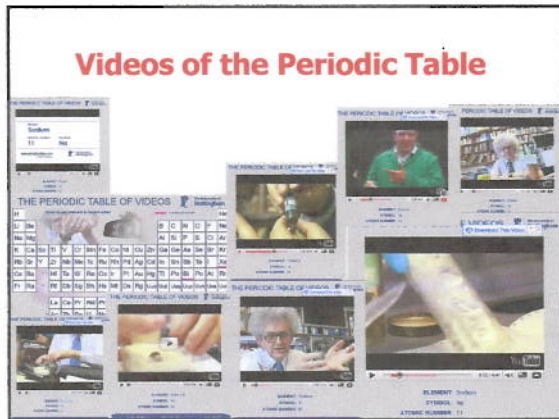
TEDxRedmond: Interview with Rethinking Education Speaker Priya Ganesan, November 24, 2010, Ardith Davis Cole, teacher, author, literacy consultant

<http://www.youtube.com/watch?v=9RyZKHAY-IAS&feature=channel>





Videos of the Periodic Table



Medical Animations and Videos (e.g., YouTube, CNN, BBC)

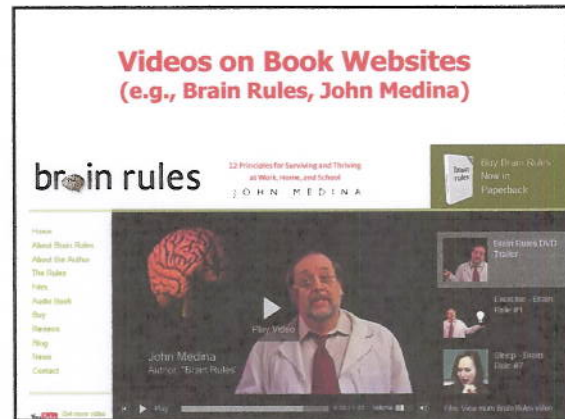


Life of a Scientist or Famous People Website (e.g., Brian J Ford, independent scientist)

(e.g., Brian J Ford, independent scientist)
<http://www.youtube.com/user/tellymonitor#p/u/1/LhGAnnKjaer>



Videos on Book Websites (e.g., Brain Rules, John Medina)



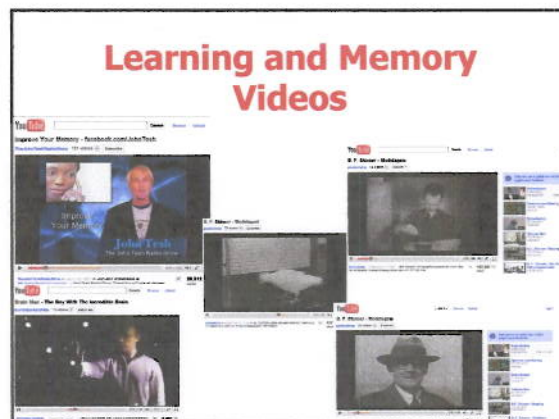
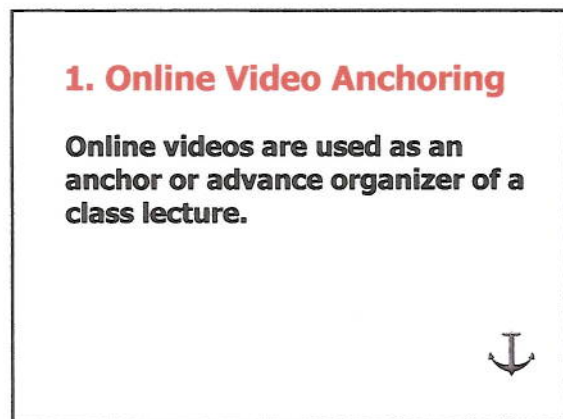
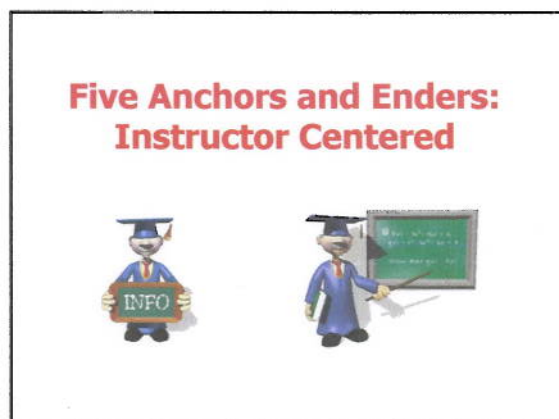
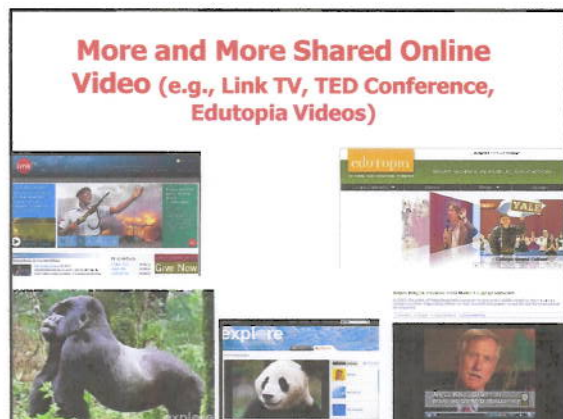
Fora TV (Howard Gardner and Michelle Rhee)

(Howard Gardner and Michelle Rhee)
http://fora.tv/2009/07/05/Transforming_the_System_An_Interview_with_Michelle_Rhee



YouTube as Class





Anchored Instruction (find anchoring event (YouTube, CNN, BBC, TeacherTube, CurrentTV))

- 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. Online Video Ender

Online videos are used after discussion and activities as a class "ender" or capstone event.

3. Online Class Previews and Discussions

The instructor(s) finds videos and then posts them to the course management system for students to watch prior to or after class. If students participate in an online discussion based on such videos, the instructor should be clear about the length of post (e.g., two paragraphs) and how many comments of peers to respond to.



4. Pause and Reflect

The instructor(s) plays a portion of a YouTube video and pauses for reflections and then continues playing the video which is followed by still more class reflection.



RSA Animate - Drive: The surprising truth about what motivates us

<http://www.youtube.com/watch?v=u6XAPnuFJ3c>



5. Key Concept Reflections

Instructor shows the YouTube video and asks students to reflect on concepts embedded in it. He may replay the video 1-2 more times while prompting the class for certain key concepts. He might ask students to say "pause" when they see a concept from a particular chapter or unit displayed.



Five Anchors and Enders: Student Centered



1. Course Resource Provider Handouts

Students find videos and show them in class and discussion unfolds. Students assigned as the cool resource providers for the week are asked to create a handout for the videos and other course resources selected.



2. Anchor Creators

Students create their own YouTube videos to illustrate course concepts.



3. Anchor Archives

An archive is created of videos from previous years and students are asked to update them.



4. Video Anchor Debates


Students are asked to find YouTube or other online video content on the pro and con sides of a key class issue and then use them in face-to-face or online discussions and debates.




5. Anchor Creator Interviews

Students find YouTube videos relevant to course concepts and email interview the creator about the purpose and potential uses of the video or perhaps request that the creator join the class in a synchronous chat.





Did you know?





shift happens

DID YOU KNOW?

Karl Fisch, Did You Know?
Shift Happens—Globalization,
Information Age




Advice and Guidelines

1. Length of video for activities should be less than 10 minutes and preferably under 4 minutes.
2. Instead of finding all course videos, offer the student the chance to find and show 1-2 free online videos.




Advice and Guidelines

3. Test videos online (or, if FTF, in the room you will use) to check for link rot or video removal.
4. Have back-up videos in case do not work or are taken down.






Poll: How many ideas did you get from this talk?

- a. None—you are an idiot.
- b. 1 (and it is a lonely #).
- c. 2 (it can be as bad as one).
- d. 3-5
- e. 6-10
- f. Higher than I can count!










Now for 2 Minutes: Share your ideas with someone next to you and agree on three things maximum per category.



Masterclass Part 2: Online Motivation with the TEC-VARIETY Model

Dr. Curtis J. Bonk
Professor, Indiana University
<http://php.indiana.edu/~cjbonk>,
cjbonk@indiana.edu

We are not motivating students with the technologies that they love!

**What if students minds were on fire for learning?
i.e., Jumbo Movitation!**

Ok, Million Dollar Question: How do you motivate online learners? What Words come to mind?

I even reflected on this for a moment...and then something magical happened...

Magic #1: 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: (open, inviting)

A. Create a Class Wiki (Wikispaces)

1. Tone/Climate: B. Video Course Intros from Instructors.

(examples from Northern Virginia Community College and Indiana University KD (online MBA) program) Yun Yun Chow, Open U Malaysia, Making Art Lessons Come Alive with Web 2.0

<http://www.youtube.com/watch?v=B09rqJD1GXo>

2. Encouragement, Feedback, etc.:

A. Online Self-Testing (e.g., self study in vocabulary, anatomy, chemistry, dissection, etc.)

2. Encouragement, Feedback, etc.:

B. Tutorials with Screen Capture (e.g., Jing, Scren)

3. Curiosity, Fun:

A. Online News (Giant jellyfish, Tiny T. rex, and Ardi)

3. Curiosity, Fun: B. WolframAlpha (access knowledge)

<http://www.wolframalpha.com/>

3. Curiosity, Fun: C. Online Experiments (e.g., psychology)

PSYCHEXPERIMENTS
Psychology Experiments on the Web

Cognitive Tests: Color Reading Interference (CROI)
[Group] [on the web]

perceptionlab

BLUE
press ENTER or click here to start

Top Ten Online Psychology Experiments
by Lisa M. Glaser

3. Curiosity, Fun: D. Adventure Learning (e.g., GeoThentic, GoNorth, Polar Husky, Nat'l Geographic; Aaron Doering, U of Minnesota)

Explore
HELPING LEARNERS LEARN...

GeoThentic

GoNorth

Polar Husky

Nat'l Geographic

Aaron Doering, U of Minnesota

3. Curiosity, Fun: E. Videoconference (e.g., Global Nomads Group, Int'l Studies for Indiana Schools (i.e., ISIS); Mandarin Chinese, Niger, Sudan, Life in Eastern Europe Today (Bulgaria), History and Culture of Mexico)

Global Nomads Group

International Studies for Indiana Schools

3. Curiosity, Fun: F. Live Science (e.g., Ice Stories)

Ice Stories

3. Curiosity, Fun: G. Oceanographer touts deep sea web surfing (e.g., Nautilus Live allows people to not only learn about the expeditions but watch them live and listen to the scientists in the control rooms as discoveries are made, eSchool News, June 2010, Deep-sea images reveal colorful life on ocean's floor, Sept 2010)

NAUTILUS LIVE

eSchool News, June 2010

Deep-sea images reveal colorful life on ocean's floor, Sept 2010

4. Variety, Novelty: A. Cool Resource Provider or Tech Demos

- 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.

P540 Cool Resource Provider and Moderator Sign Up Sheet

Multiple people are working with the form. Unfortunately it is possible that some of the entries will not appear in your email. If this happens, please check the sign-up sheet by contacting your teacher or the school's IT department.

Instructions:
Please get your name in the list for the **ONE WEEK** that you wish to complete your sign-up for. If it is not listed, please contact your teacher or the school's IT department.

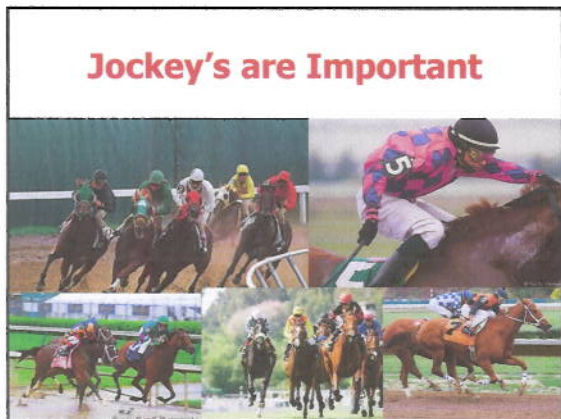
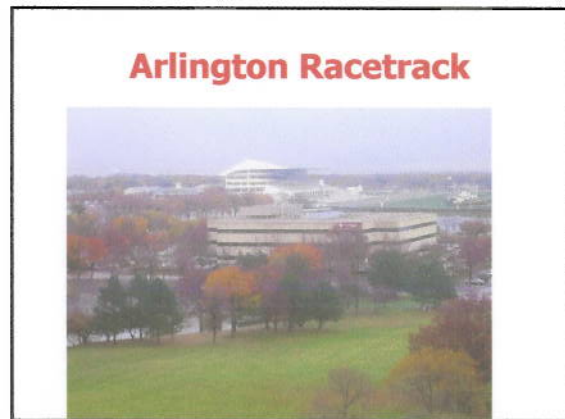
1. Introduction to the Study of Learning

2. Introduction to the Study of Learning

3. Introduction to the Study of Learning

4. Introduction to the Study of Learning

4. Variety, Novelty: B. Bridges to World of Expert and Practitioners (e.g., Watch or Listen to Online Conferences, Expert blogs, chats, interviews)



5. Autonomy, Choice: A. Online Literature Search (Class Google Jockeys) (links to text, soundtracks, video clips, etc.)

5. Autonomy, Choice: B. Clickers/Student Response Systems

5. Autonomy, Choice: C. Famous Person Web Explorations, Searches, Twitter Tracking, and Interviews Continued (e.g., famous Australian actors)

5. Autonomy, Choice: D. Online Cases (e.g., Mark Braun, IU)

PHYSIOLOGY, PATHOLOGY, CLINICAL CASES

When approaching these clinical cases as if you were seeing a new patient, the subjects will give you their histories and the laboratory and *EBay* (diagnostic) results as they go along. You may find several links on each page and the usual process will click on each one. Each case has an index so you can bookmark your progress should you later return. The goal at the end of each case will help reinforce the major points in each exercise.

Microbiology: 10th Edition of Common Case Studies, Table of Contents

| | |
|--|---|
| 1. A case of fever | 13. A young woman with cellulitis |
| 2. A man with chronic cough | 14. A woman with meningitis and fever |
| 3. Middle-aged man with chest pain | 15. A man with recurrent lymph nodes |
| 4. A man presents with cough | 16. A man with a nose bleed |
| 5. The first outbreak of <i>Legionella</i> | 17. A woman with a tooth abscess |
| 6. One with abdominal pain | 18. <i>HSV</i> lesions |
| 7. A middle-aged man with confusion | 19. A woman's tumor |
| 8. The elderly man has chest pain | 20. There was a light with a cough |
| 9. A young woman with a breast lump | 21. Urinary tract infection |
| 10. An elderly man with a stroke | 22. Infectious disease: Tuberculosis |
| 11. A man complains of fatigue | 23. Chagas disease: Chagas's Triangulum |
| 12. A woman with vaginal bleeding | 24. Urinary tract infection |
| | 25. Acid-base disorders |

6. Relevance, Meaningfulness: A. 60 Second Recap, Jenny Sawyer

<http://www.60secondrecap.com/>
 Address to students: Lend me your earbuds!
 English major, 24, rambunctiously recaps the classics in 60-second Web videos; By Greg Toppo; USA TODAY, September 2009

6. Relevance, Meaningfulness: B. Tour an Online Oil Drilling Site or Role Play Situations (i.e., BP)

7. Interactive, Collaborative: C. Global Collaboration (e.g., EPals and iEARN (Int'l Education and Resource Network))

7. Interactive, Collaborative: D. Create an Online Community in Ning, Google Groups, or Yahoo Groups.

7. Interactive, Collaborative: E. Horizon and Flat Classroom Projects (combine blogs, videoconferencing, chat, async discussion, etc.)

FLAT CLASSROOM

**7. Interactive, Collaborative:
F. Online Language Learning**
(Skype, MSN, ECpod, Mixxer, Livemocha, Babel, KanTalk etc.)

**7. Interactive, Collaborative:
G. Collaborative Documents (Google Docs)**

| | Chesse | Sausage | Crackers |
|---|------------|---------------|------------------|
| 1 | Munster | Summer | Ritz |
| 2 | Cheddar | Breakfast | Tostitos |
| 3 | Doritos | Kielbasa | Saltine |
| 4 | Mozzarella | Mortadella | Melba Toast |
| 5 | Edam | Saltine | Wheat Thins |
| 6 | Goats | Sweet Italian | Garden of Eatin' |

**8. Engagement, Effort:
A. Video Scenario Learning Accounting Interviews and Preparatory Course Review Modules (Franklin University, cost and forensic accounting course)**
<http://video.franklin.edu/franklin/acct/managerialaccounting/cost-behavior-player.html>
<http://video.franklin.edu/franklin/acct/3452/common/TravelScenario2.html>

**8. Engagement, Effort:
B. Synchronous and Asynchronous Events (e.g., Breeze + Video + Online Forum + Online Papers)**

**8. Engagement, Effort:
C. Tour a Museum (e.g., British Museum, Smithsonian, Louvre)**

**9. Tension, Challenge, etc.:
A. Controversial Science (e.g., Ida (a transitional species) 47-Million-Year-Old Darwinius Masillae Fossil the Missing Link?) (wowOwow, May 20, 2009)**

9. Tension, Challenge, etc.: B. Ethical Debates

North Korea demands apology, reparations from Japan over colonization

Students to dissect human body models

Body Worlds

Iran unveils long-range bombing plane

10. Yields Products, Goals: A. Movie Festivals, Virtual Timelines, Digital Movies

Educational Uses of Digital Storytelling

Movie Festivals

Virtual Timelines

Digital Movies

10. Yields Products, Goals: B. Student YouTube Products

<http://www.youtube.com/watch?v=xlw5lryPzsQ>
http://www.youtube.com/watch?v=x3FJy4Pn_E
<http://www.youtube.com/watch?v=eD1awpaSuP0>

Virtual Learning - Is it the Real?

Virtual Learning - Is it the Real?

Virtual Learning - Is it the Real?

10. Yields Products, Goals: C. Video Blogs

Video Blogs

Video Blogs

Video Blogs

10. Yields Products, Goals: D. Photo Festivals and Competitions (e.g., COFA at UNSW, Scrapblog, flickr, etc.)

OMNIUM

Flickr

Flickr

TEC-VARIETY Model for Online Motivation and Retention

Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products


Poll #1: How many ideas did you get so far?

1. 0 if I am lucky.
2. Just 1.
3. 2, yes, 2...just 2!
4. Do I hear 3? 3!!!!
5. 4-5.
6. 5-10.
7. More than 10.



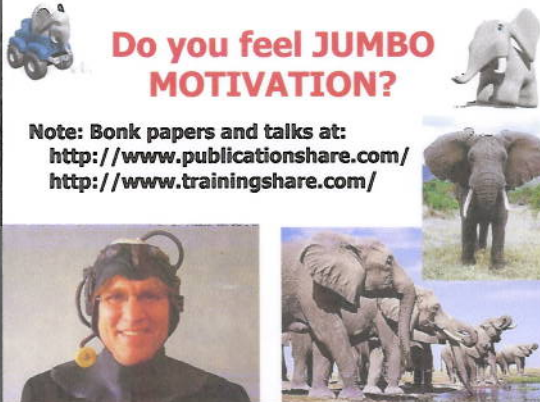
99 seconds: What have you learned so far?

- Solid and Fuzzy in groups of two to four




Do you feel JUMBO MOTIVATION?

Note: Bonk papers and talks at:
<http://www.publicationshare.com/>
<http://www.trainingshare.com/>




Masterclass Part 3: Addressing Learning Styles and Diverse Learners with the R2D2 Model

Dr. Curtis J. Bonk
 Professor, Indiana University
<http://php.indiana.edu/~cjbonk>,
cjbonk@indiana.edu




Magic #2: The R2D2 Model

Empowering Online Learning
 100+ Activities for Reading, Reflecting, Displaying & Doing



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.



Read 1a. Art and History Podcasts



Read 1b. Reading from Open Access Journals (e.g., PLOS)



Read 1c. Course Announcements (e.g., Teaching with Twitter; Course announcements and following people (e.g., microblogging))



Poll 2: Podcast Questions

- Who has listened to a podcast?
- Who listens to a certain podcast on a regular basis?
- Who has created a podcast?
- Who has created a vodcast?
- Who thinks podcasting is simply more talking heads?



Read 1d. Podcast Paper Reflections



Read 1e. Wiki Steps on How to do Something: Wikihow

<http://www.wikihow.com/>

The screenshot shows the WikiHow website interface. At the top, there's a navigation bar with 'Home', 'About', and 'Contact Us'. Below that, a search bar and a 'Log In' button. The main content area features an article titled 'How to Use English Punctuation Correctly' with a sub-header 'Learn the most important punctuation marks and how to use them correctly. This article will help you understand the proper use of punctuation marks and how to use them correctly. This article will help you understand the proper use of punctuation marks and how to use them correctly.' To the right of the article is a small image of a person writing at a desk.

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

The diagram is a circular flow with four quadrants: 'Reflective' (top), 'Observational' (right), 'Action' (bottom), and 'Learning' (left). Arrows connect these quadrants in a clockwise cycle. Below the diagram are three small images: a person in a blue jacket, a man in a white shirt, and another man in a white shirt.

Blogging Questions

1. Who has a blog?
2. Who regularly reads other people's blogs?
3. Who assigns blogging tasks?
4. Who has created a video blog?
5. Who thinks it is an utter waste of time to blog?

The background of the slide is a video frame showing a man with a surprised expression, looking at a clock on the wall.

Reflect 2a. Kids Blogs

The slide shows several screenshots of children's blogs. The most prominent one is 'DogEared' which features a search bar and a post about 'Good News Stories: Secret Agent Jack Stewart Returns'. Other smaller screenshots show various colorful blog layouts for children.

Reflect 2b. Teacher Classroom Blogs

The slide displays two examples of teacher classroom blogs. On the left is 'Mrs. Huff's English Classes' with a navigation menu including 'FRONT PAGE', 'ARCHIVE', 'ABOUT', 'NOTES', 'HANDOUTS', 'SUMMER READING', and 'SUBSCRIBE'. On the right is 'Miller's English 10 Classroom Blog' with a post titled 'This is the second blog posting for the 4th quarter. Please read and share before class starts on Thursday, Dec. 2nd.' The post includes a link to a video and a discussion prompt.

Reflect 2c. Expert and Domain Specific Blog Reflections (English, Health, Business, etc. blogs)

The slide shows several examples of expert and domain-specific blogs. 'The English Blog' features a post about 'THIS IS IT' with a picture of a person. Another blog, '3.75', has a post with a large number '3.75' and a picture of a person. There are also other domain-specific blogs with various content.

Reflect 2d. Cultural Blogs (e.g., Dr. Kim Foreman, San Fran State University, Come and See Africa Blog; <http://comeandseeafrica.blogspot.com/>)

Reflect 2e. Analyze Online Cases (problems, solutions, etc.)

Reflect 2f. Workplace, Internship, and Field Reflections

3. Visual Learners

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

Display 3a. Find Open Source Photography (e.g., Flickr, Everystockphoto.com; courses on Winter Olympics, photography, motivation, geography, culture, meteorology, physics, etc)

Display 3b. Concept Mapping and Timeline Tools (VUE, Bubbl.us, Cmap, Freemind, Giffy, Mindmeister, or Mindomo)

Display 3i. Adventure Learning (bikes and cars), Dan Grec and Mark Beaumont
<http://dangrec.com/>

Display 3j. Online History Portals and Resources (Civil Rights Digital Library and Amistad)

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.

Wiki Questions

- Who regularly reads Wikipedia articles just for fun?
- Who regularly reads Wikibooks?
- Who seeks Wikipedia for content?
- Who has edited or written new articles on Wikipedia or Wikibooks?
- Who thinks it is ok for college students to cite from Wikipedia?

Do 4a. Student Work in a Wiki
 (e.g., Wet Paint, a free wiki tool for online collaboration; e.g., medical education)

4b. Learner Blogging

Read 1c. Learner Podcasts

The screenshot shows the Willow Web website interface. At the top, there's a navigation bar with 'Home', '1st', '2nd', '3rd', '4th', and '5th' links. The main content area features a large 'Radio WillowWe' logo with the tagline 'KIDS FOR KIDS BY KIDS'. Below the logo, there are several sections: 'Audio Applications on Computer', 'Listen', and 'Behind Australia'. There are also images of children and a calendar on the right side.

Do 4d. Online Performances Virtual Worlds and Podcasts (e.g., Shakespeare plays reenacted)

This collage includes several elements related to online performances. On the left is a poster for 'A SHAKESPEARE CAST TWELFTH NIGHT LIVE PLAY'. In the center is a screenshot of the 'ShakespeareCast.com' website, which features a video player and text about the project. On the right is a screenshot of the 'Big Bang Theory' website, showing a list of episodes and a 'Subscribe' button.

Do 4e. Class Developed Wikibooks (and Wikibooks Junior)

The screenshot shows a Wikibooks page. It features a 'WikiBooks' logo at the bottom left. The main content area includes a 'Current Titles' section with a list of books and a large illustration of a Stegosaurus. There are also various icons and text blocks related to the Wikibooks project.

Do 4f. Online Warm-ups Activities Just-In-Time-Teaching (JITT) <http://webphysics.iupui.edu/jitt/jitt.html>

The graphic for Just-In-Time Teaching (JITT) has a bright yellow background. The text 'JUST-IN-TIME TEACHING' is written in large, blue, block letters. To the right of the text is a black and white photograph of a man looking at a document. Below the photograph is a map of the United States. At the bottom, there is a small copyright notice: '©1999-2003 The material is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike license. CC BY-NC-SA. 1000111, 1000146'.

Do 4g. International and Global Education and Competitions (e.g., Global Game Jams, online role play, Global Videoconferencing, computer war games)

This collage illustrates international and global education activities. It includes several photographs: a group of people in a meeting, a 'Global Game Jam' event with people gathered around a table, and various scenes of online activities and videoconferencing. The text 'Global Game Jam' is prominently displayed in the center.

99 Seconds Stop and Share: Top Three Things you can use!

The graphic for '99 Seconds Stop and Share' features a central text box with the title '99 Seconds Stop and Share: Top Three Things you can use!'. The number '3' is written in large, bold, black font on both sides of the text. Surrounding the text are various colorful icons representing different items and activities, such as a jar of jam, a game controller, a person, and various objects.