
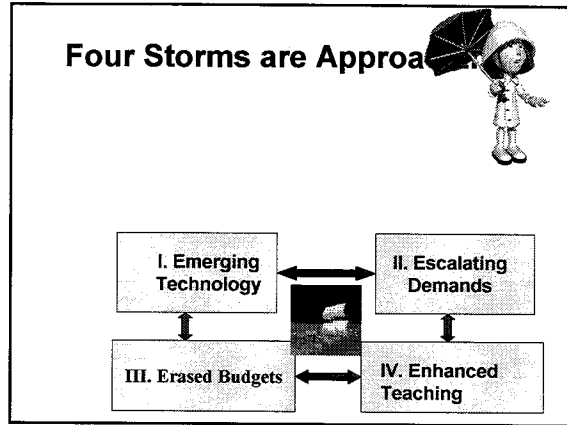


R2D2 on the Matrix: A Galaxy of Online Learning Style, Motivational, and Learner-Centered Examples

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

Open Source Courseware

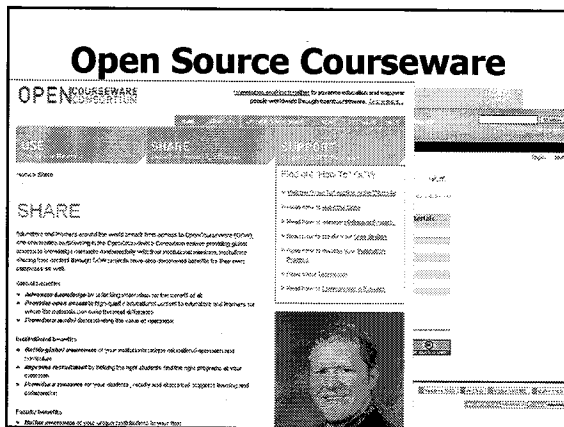
OPEN SOURCE COURSEWARE

USE SHARE SUPPORT

SHARE

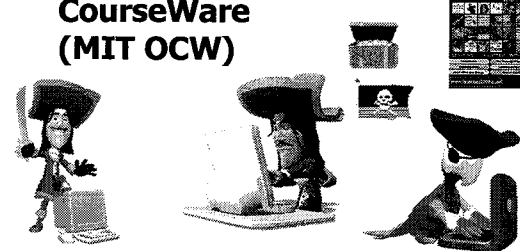
Advantages of Open Source Courseware

- Advantages of Open Source Courseware
- Advantages of Open Source Courseware
- Advantages of Open Source Courseware



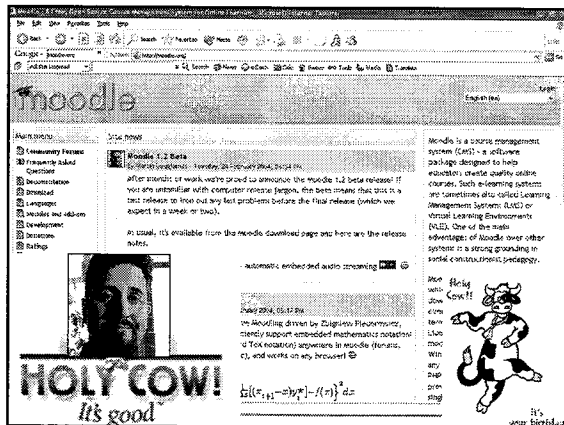
The Ten Forces that Flattened the World

Open CourseWare (MIT OCW)



The Learning World is Flat

LEARNING



HOLY COW!
It's good

It's good

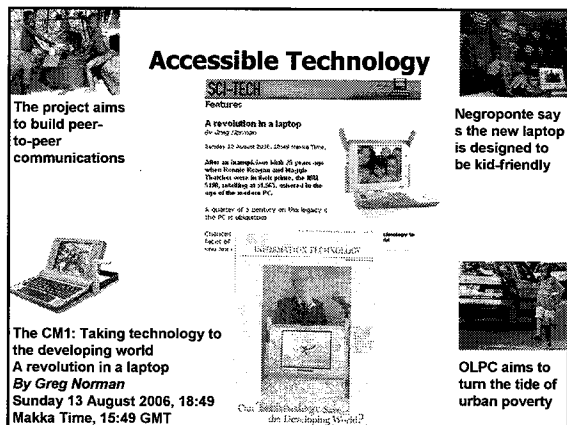
Accessible Technology

The project aims to build peer-to-peer communications

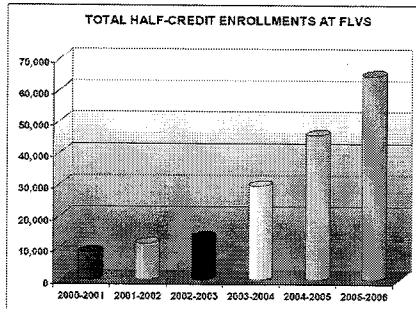
The CM1: Taking technology to the developing world
 A revolution in a laptop
 By Greg Norman
 Sunday 13 August 2006, 18:49
 Makka Time, 15:49 GMT

Negroponete says the new laptop is designed to be kid-friendly

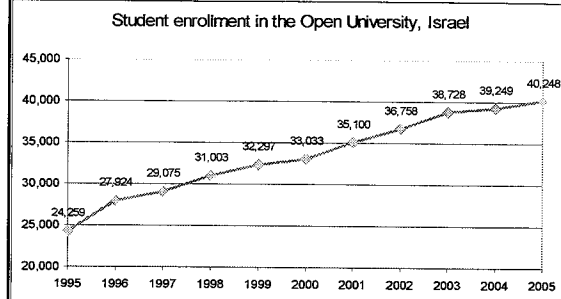
OLPC aims to turn the tide of urban poverty



Growth of Online Learning in Secondary Schools

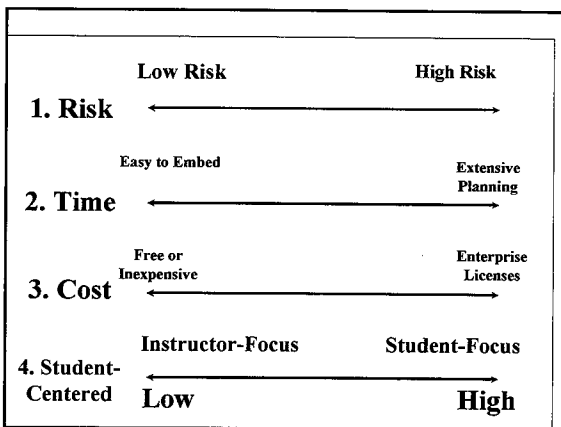


Open University of Israel (overall enrollment growth)



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)



Part I: 15 Learning Centered Synchronous and Asynchronous 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
 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



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. 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.



3. PMI (Plus, Minus, Interesting) (L = Cost, L = Risk, M = Time)

- After completing a lecture, unit, video, expert presentation, etc. ask students what where the pluses, minuses, and interesting aspects of that activity.
- Write in an online forum.
- Respond to comments.



4. K-W-L or K-W-H-L (L = Cost, L/M = Risk, M = Time)

At the end of a unit, student presentation, videotape, expert presentation, etc., have student write down in an email or forum:

1. What did you know?
2. What do you want to know?
3. What did you learn?

- H = How will we learn it?



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

- 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.



6. 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.



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

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

- 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. 99 Second Quotes 

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

- 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

10. 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!

11. 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.



12. Numbered Heads Together

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

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



13. Best 3 Activity

(Thiagi, personal conversation, 2003)
(L = Cost, L = Risk, L/M = Time)

- After a lecture, have students decide on the best 3 ideas that they heard (perhaps comparing to a handout or dense sheet of paper).
- Work with another who has 3 as well and decide on best 3 (or 4).
- Those pairs work with another dyad and decide on best 3 (or 4).
- Report back to class.



14. Human Graphs

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

- 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



15. Scavenger Hunt

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

1. Create a 20-30 item scavenger hunt

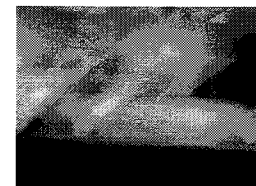


2. Post scores



99 seconds: What have you learned so far?

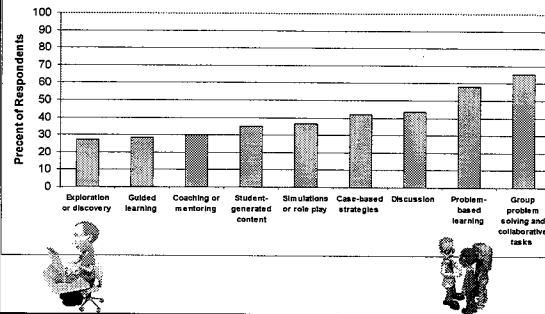
- Solid and Fuzzy in groups of two to four



Part II. Mucho Motivation



Instructional Approaches that Selected by Respondents as Among the Four Strategies Likely 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. Social Ice Breakers

- A. Peer (or Team) Interviews:** Have learners interview each other via e-mail and then post introductions for each other.
- B. Public Commitments:** Have students share how they will fit the coursework into their busy schedules



1. Tone/Climate: Ice Breakers

C. Eight Nouns Activity:

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



D. Coffee House Expectations

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



1e. Scavenger Hunt: Find Fellow Students Social Networking Software

Oct 6, 2006, Chronicle

2. Feedback.

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

The screenshot shows the Calm Chemistry website. At the top, there is a navigation menu with options like 'Home', 'About', 'Contact', and 'Help'. Below the menu, there is a search bar and a main content area featuring a large diagram of a chemical reaction or process. The diagram includes various chemical structures and arrows indicating the flow of the reaction. The website also has a sidebar with additional links and information.

2. Feedback:

B. Critical/Constructive Friends, Email Pals...

The screenshot shows a web page with a list of feedback comments. The comments are organized into sections, such as 'Julie Necker and Dawn from' and 'Nancy Nielsen and Cindy Nicolson Feedback'. Each section contains a list of comments with dates and specific feedback points. The page also features a sidebar with a search bar and a main content area with a large image of a person.

2. Feedback:

C. Web-Supported Group Reading Reactions

1. Give a set of articles.
2. Post reactions to 3-4 articles that intrigued them.
3. What is most imp't in readings?
4. React to postings of 3-4 peers.
5. Summarize posts made to their reaction.

(Note: this could also be done in teams)

2. Feedback: D. Clickers; Innovation is but one click away...

The screenshot shows a webpage for 'iClicker' technology. The page features a large image of a hand holding a clicker device, with a computer screen in the background. The text on the page describes the benefits of using clickers in the classroom, such as increasing student engagement and providing instant feedback. The page also includes a navigation menu and a search bar.

3. Engagement

A. 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

4. Meaningfulness:


A. Authentic Data Analysis

The screenshot shows a webpage titled 'FLAAR: Photo Archive'. The page features a large image of a skull, which is the subject of the data analysis. Below the image, there is a list of data points, including the name of the skull, its age, and its location. The page also includes a navigation menu and a search bar.

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.

5. Choice: B. Discussion: Starter-Wrapper



(Hara, Bonk, & Angeli, 2000)

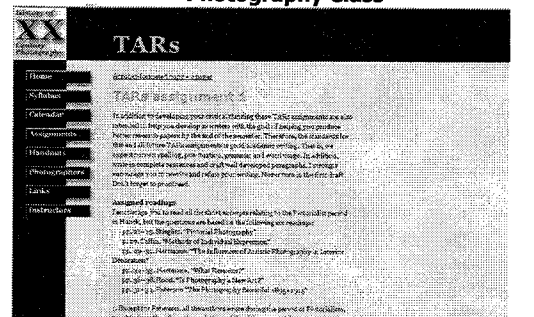
1. Starter reads ahead and starts discussion and others participate and wrapper summarizes what was discussed.
2. Start-wrapper with roles--same as #1 but include roles for debate (optimist, pessimist, devil's advocate).

B. Alternative: Facilitator-Starter-Wrapper

(Alexander, 2001)

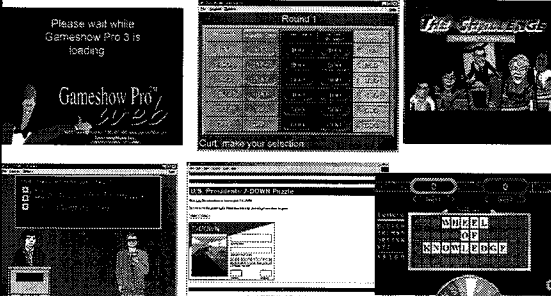
Instead of starting discussion, student acts as moderator or questioner to push student thinking and give feedback

6. Variety: A. Thinking About the Readings (TARS) JIIT; Claude Cookman, IU, Photography Class




7. Curiosity: A. Games Online Jeopardy Game


www.km-solutions.biz/caa/quiz.zip;
Games2Train: The Challenge; Thiagi.com



7. Curiosity: B. Electronic Seance




- Students read books from famous dead people
- Convene when dark (sync or asynchronous).
- Present present day problem for them to solve
- Participate from within those characters (e.g., read direct quotes from books or articles)
- Invite expert guests from other campuses
- Keep chat open for set time period
- Debrief



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 h boring instructional animations and videos. Classroom or e-learnin a good audiotape - they can all be good for learning. Cost-effectiv 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. Attila the Hun

