

The R2D2 Model of Online Instruction: A Mapping Out of the Components



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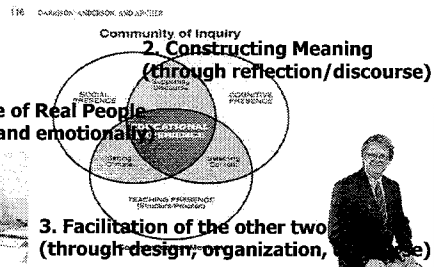


Task

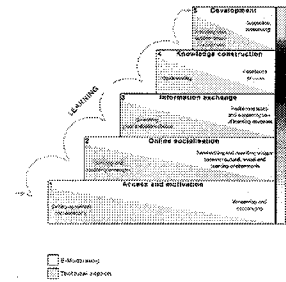
- Ideas definitely Can Use (Circle or write down)
- Ideas you might use (check off or write down in a separate column)
- Ideas you cannot use (cross off or put at the bottom)

Frameworks: A Theory of Critical Inquiry in Online Distance Educ

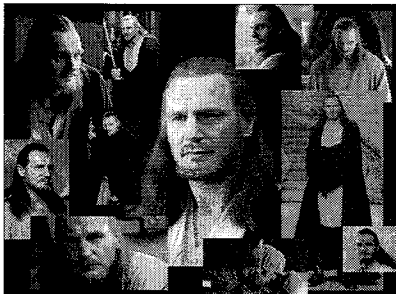
Randy Garrison, Terry Anderson, & Walter Archer
2003, Handbook of Distance Education, Moore & Anderson (Eds.)
garrison@ucalgary.ca; terrya@athabasca.ca



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



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



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

- (1) visual;**
- (2) auditory;**
- (3) reading/writing;**
- (4) kinesthetic, tactile, or exploratory,**

Poll 1: Which learning style do you prefer?

- a. Read (Auditory and Verbal Learners)**
- b. Reflect (Reflective Learners)**
- c. Display (Visual Learners)**
- d. 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.**

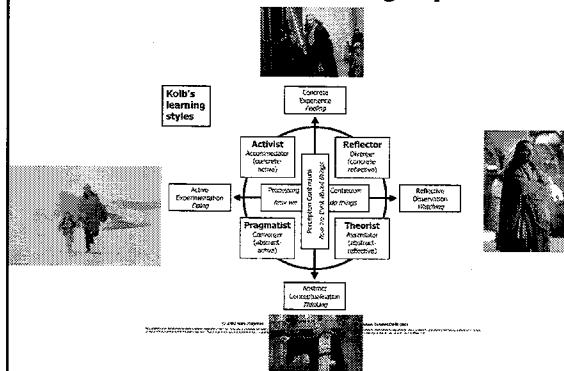
Kolb (1984)



- **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



Abstract Conceptualization vs. Concrete Experiences

- **(AC)** - I am rational and logical.
- **(CE)** - I am practical and down to earth.
- **(AC)** - I plan events to the last detail.
- **(CE)** - I like realistic, but flexible plans.
- **(AC)** - I am difficult to get to know.
- **(CE)** - I am easy to get to know.



Active Experimentation vs. Reflective Observation

- (AE) - I often produce off-the-cuff ideas.
- (RO) - I am thorough and methodical.
- (AE) - I am flexible and open minded.
- (RO) - I am careful and cautious.
- (AE) - I am loud and outgoing.
- (RO) - I am quite and somewhat shy.

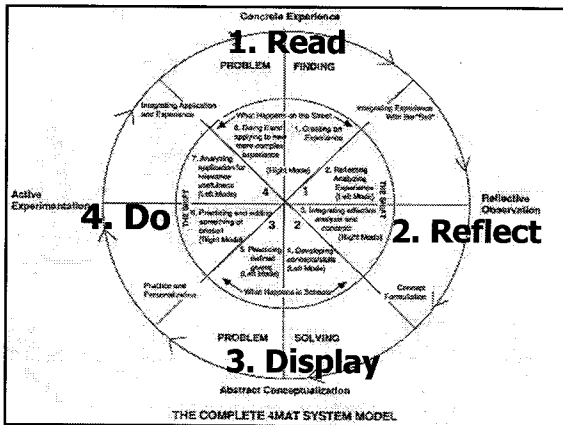


Index of Learning Styles Questionnaire

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

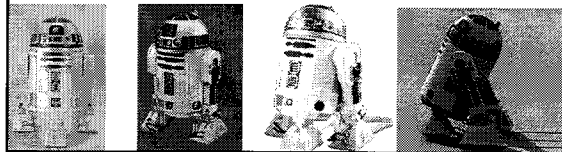


6. If I were a teacher, I would rather teach a course
- (a) that deals with facts and real life situations.
 - (b) that deals with ideas and theories.
7. I prefer to get new information in
- (a) pictures, diagrams, graphs, or maps
 - (b) written directions or verbal information.



The R2D2 Method

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



1. Auditory or Verbal Learners

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



1a. Online Resource Libraries

SiteScape Forum

Tools Menu

Put links to additional articles you read here and discuss them. You critical friend will give you feedback.

Entries

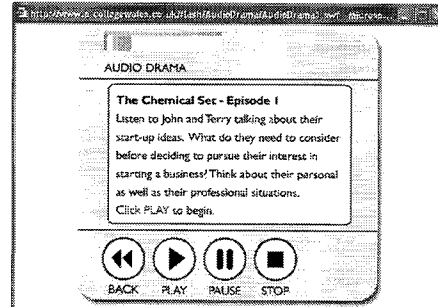
Number	Title
1 20	Leadership That Speaks: Lessons
1 19	The Seven Principles of Sustainable Leadership
1 15	Multicultural Education/Chunghua
1 17	Custom: Construction Ahead
1 16	Jim Soliman on Reading Research
1 15	Stochastic, This and Now
1 14	Don Zuber: Notions about Teaching & Learning that Under the Effectiveness of Special Education
1 13	Reading Disability and the Brain
1 12	Overcoming Early School Failure: What Works
1 11	Can Education Reduce Social Inequality?

View entry

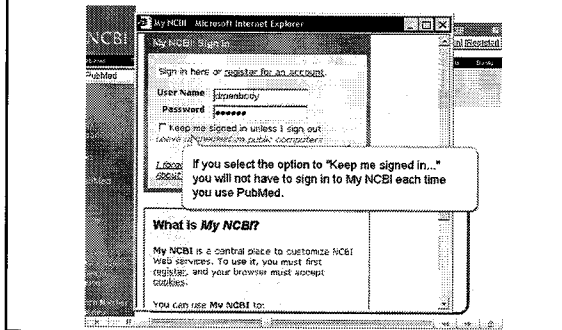
1b. Use of Weblogs (especially English writing class)

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

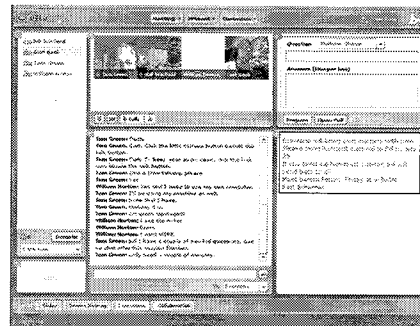
1c. Online Audio Cases Audio Dramas eCollege Wales, Univ. of Glamorgan



1d. Online Tutorials and Help



1e. Synchronous Conferencing



1f. Library Day (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.

1g. Cool Resource Provider (Bonk, 2004)

- 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.

1h. Practitioner Feedback: Asynchronous Threaded Discussion plus Sync Expert Chat (e.g., Starter- Wrapper + Sync Guest Chat)

1i. Webquests (see the Webquests Page)

2. Reflective and Observational Learners

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

2a. Post Model Answers

Employment Law and Ethics Project

Question 1

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

Answer 1

Under both Title VII of the 1964 Civil Rights Act and Section 1981 it is illegal to discriminate on the basis of race or color, and Lewis would likely be 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, then 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." ARECO 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 footnotes 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 ARECO's policy clearly states to "promote the most

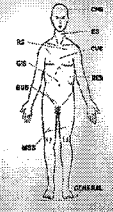
2b. Reuse Chat Transcripts

2c. Reflective Writing: e.g., One minute papers or muddiest point papers

- 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.

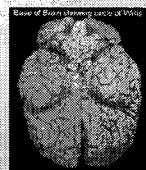
3a. Online Anatomy and Physiology

INTERACTIVE CADAVER



CENTRAL NERVOUS SYSTEM

- The skull, skull and meninges were formed, without evidence of any old tracing or bleeding.
- The brain weighed 1400g.
- The cortex of Willis is normal with no aneurysms or arterioles.
- There showed scattered scattered petechial hemorrhages throughout the white matter.



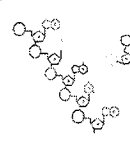
Base of Brain showing cerebellum of Willis



Return to history Back to m

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

RNA was the first genetic molecule.

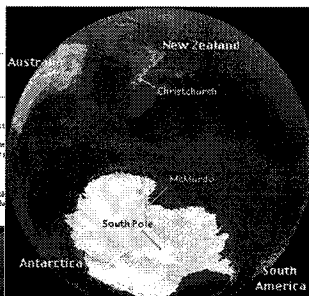
RNA was only likely the first molecule to be able to replicate itself. In the primordial soup, a single-stranded RNA molecule could be a template.



3c. Virtual Tour (Center for Astrophysical Research in Antarctica)

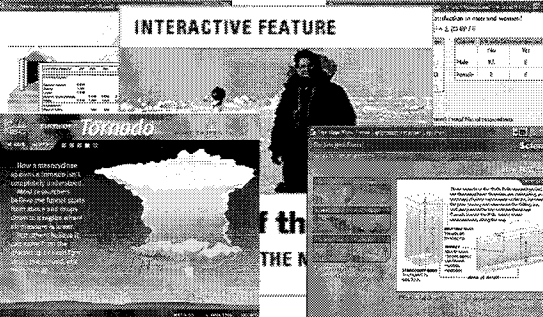
Welcome to Antarctica!



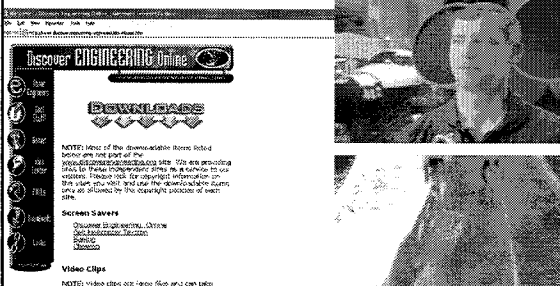
Now, let's go!

3d. Current Events: Interactive Online New Stories & Cases

INTERACTIVE FEATURE




3e. Video Library of Concepts, Cases, or Experts



3f. Anchoring Event (CTGV, 1990?)

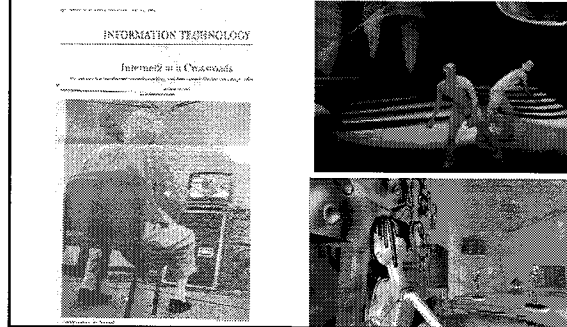
- In a synchronous lecture interrupt it with a summary video (could be a movie clip) explaining a key principle or concept.
- Refer back to that video during lecture.
- Debrief on effectiveness of it.



3g. Digital Libraries (LibraryShare)



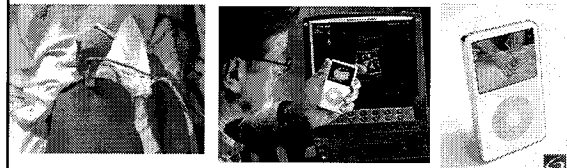
3h. Online Modeling: Watch Expert Performances (Music, Cyber Fashion Shows, etc.)



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

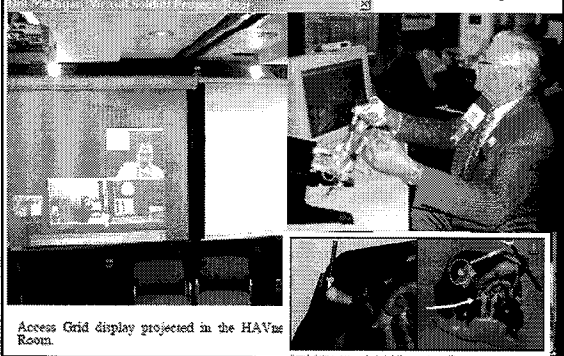


3j. Vodcast for Medical Training (e.g., "SonoSite on the small screen: The Bothell-based company uses podcasts for its ultrasound scanner training," By Eric Fetters, Herald Writer, Everett, WA, Sept 25, 2006)



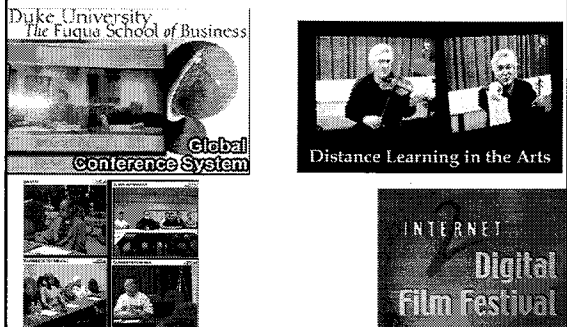
Dan Bates / The Herald, Sept 25, 2006
David Levesque, vice president of global learning at SonoSite in Bothell, demonstrates the company's new podcast training for ultrasound technicians.

3k. Virtual Surgery: multisource, real-time, surgery



Access Grid display projected in the HAViR Room.

3m. Internet2 Video Conferencing Applications



Distance Learning in the Arts

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. 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



4c. 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 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-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

4d. 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



4e. Online Games

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

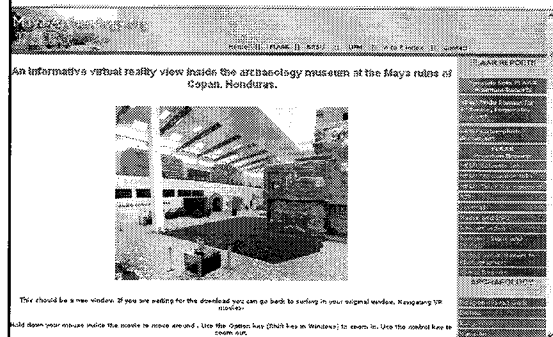


4f. Structured Controversy and Instructor Generated Virtual Debates (or student generated)

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.



4g. Online Labs and Authentic Data Analysis



4h. 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

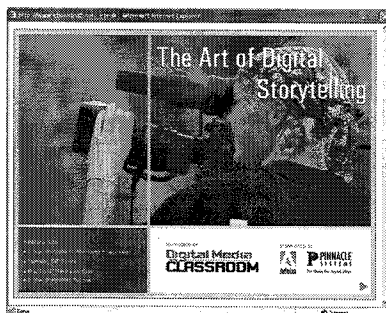


4i. Jigsaw

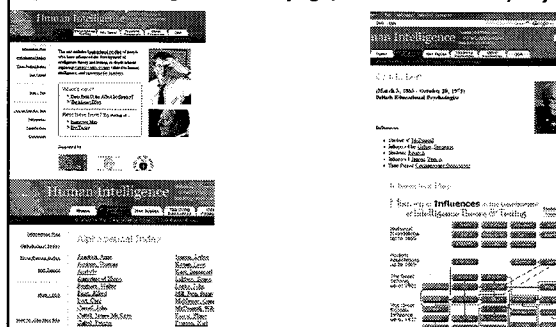


- Form home or base groups of 4-6 students.
- Student move to expert groups—discussion ideas in a chat.
- Share knowledge in expert groups and help each other master the material in an online forum.
- Come back to base group to share or teach teammates.
- Students present in group what learned.

4j. Digital Storytelling



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



in Brain-Op (movies, experiments, timelines, activity pages)
 (Gina Koch-Hidalgo, FETC Connections, Fall)

4m. Romantic Poetry Project

4n. Continuous Writing Tools and Resources (e.g., Writer's Window)

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

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

Stand and Share

- Will Work: _____
- Might Work: _____
- No Way: _____

Try the R2D2 Method!!!