

E-Learning Curriculum Design and Delivery: Best Practices

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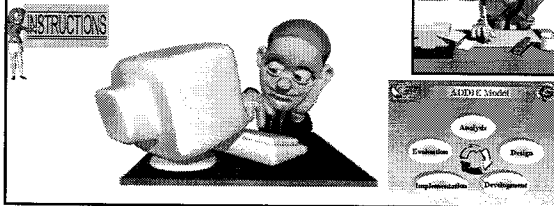


Best E-Learning Practices: Ten Key Areas

1. Instructional Design
2. Next Generation of Learners
3. Multimedia, Animations, and Dual Coding Theory
4. Interactivity
5. Motivation
6. Learning Styles
7. Blended Learning
8. Creating Learning Communities
9. Synchronous/Virtual Learning
10. Instructor Supports (facilitation/moderation skills)

1. Instructional Design

Ah, the Excitement of Instructional Design!



Instructional Philosophy and Approaches

- In 1986 it is was about behavioral and prescriptive models
- In 2007 it is about constructivistic models, social context, inquiry, building communities of practice, promote learner-centered learning



Robert Gagne's 9 instructional events

- gaining attention
- informing learners of the objective
- stimulating recall of prior learning
- presenting the stimulus
- providing learning guidance
- eliciting performance
- providing feedback
- assessing performance
- enhancing retention and transfer

- show variety of examples
- generate examples
- "What is an equivalent example?"
- review performance of examples
- show definition of key concepts
- show example of how to create equivalent
- ask students to create 3 different examples
- check off questions or correct responses
- provide extra and immediate
- show picture of object and
- ask students to identify equivalent

George Siemens
(Sept 30, 2002, eLearnSpace.org)
Instructional Design in E-Learning

"In general, ID theory needs to move in the direction of flexibility and learner-empowerment if it is to allow ID to keep up with technological and institutional changes...."



Problem- and Project-Based Learning (PBL)



(Blumenfeld et al., 1991; Savery & Duffy, 1996)

1. Anchor in larger task or problem
2. Develop learner ownership over the problem
3. Design authentic tasks
4. Tasks should reflect real world complexity
5. Learners must own solution path/processes
6. Support and challenge learners
7. Encourage testing against alternative views
8. Encourage reflection on content and process
9. Novelty, Variety, Valued Problems, Choice

I also started reading books on adult learning (e.g., Malcolm Knowles)

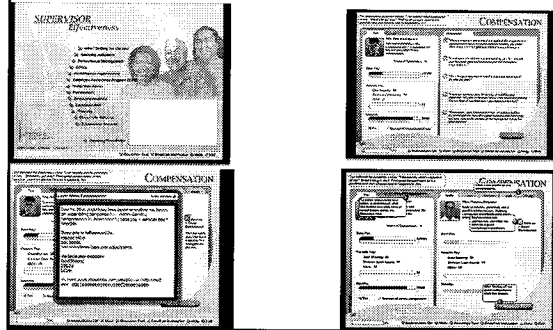
Adult learners are self-directed

1. Adults need to be involved in the planning and evaluation of their instruction.
2. Experience (including mistakes) provides the basis for learning activities.
3. Adults are most interested in learning subjects that have immediate relevance to their job or personal life.
4. Adult learning is problem-centered rather than content-oriented.

Performance-Based Learning (4 Components; Allen Interactions)

- **Meaningful context:** apply to job; creates framework and conditions
- **Challenge:** present a challenge and help
- **Meaningful feedback:** use feedback as a way to present content
- **Meaningful activities not passive**
- Customer service complaints; An animated production line producing poor quality; Increasing business losses; A simulated customer call; A medical prescription to be filled; A simulated electrical fault; A client record to be updated

Allen Interactions (HR Compensation example)



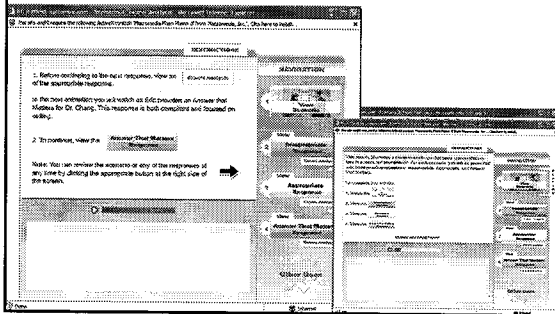
Performance Driven Learning (Option 6)

- **Solutions Centered:** Learning should help learners find solutions. We include extensive use of problem situations where learners explore issues, ideas, and practice real world skills.
- **Learner Focused:** We place foremost focus on the learners. We focus on what needs to be learned rather than what needs to be taught.
- **Context Driven:** We emphasize that learning must take place within meaningful, authentic conditions (also described as situated cognition).

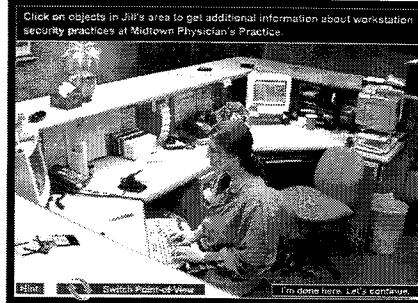
Performance Driven Learning (Option 6)

- **Flexibility:** Learning is rarely a linear process. We provide multiple ways for learners to access and proceed through the content.
- **Interactivity:** Learning requires interactivity—engaging the learner's mind with new perspectives—through questions, feedback, and simulations.
- **Effective:** Bottom-line, our courses are effective by focusing them on specific learning outcomes and then testing our courses with actual learners to see if those outcomes are achieved.

Video Scenario Learning (Option 6, Bloomington, IN)



Learner Content Interaction: Business & Healthcare Examples (Option 6)



Six Elements of Effective e-Learning Design (Brown & Voltz, 2005, IRRODL)

1. **Activity**
2. **Scenario**
3. **Feedback**
4. **Delivery**
5. **Context**
6. **Impact**
 - cover issues across all disciplines involved in e-learning design, but particularly focus on learning as the driving motivation

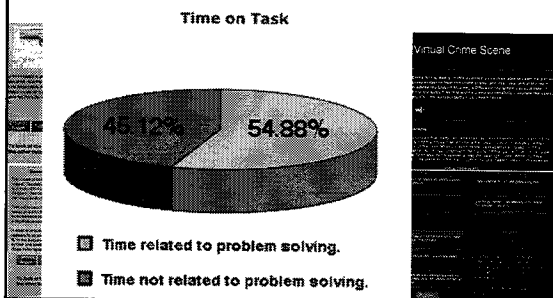
1. Activity

(Brown & Voltz, 2005, IRRODL)

1. **Embed tasks that lead to understanding**
2. **Opportunities for student action rather than predefined tasks**
3. **Challenges lead to affordances**
4. **Involve learner in making choices**
5. **Make task clear and appropriate**

Video Scenario Learning (Option 6, Arjuna Multimedia, Bloomington, IN)

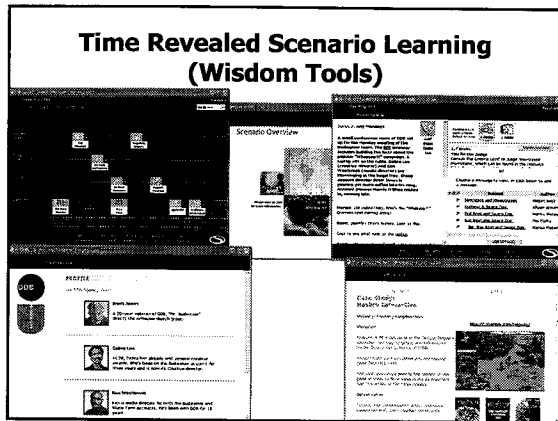
A comparison of average time on task when virtual crime scene is added.



2. Scenario

(Brown & Voltz, 2005, IRRODL)

1. **Give reason or motivation to undertake activity; make it compelling**
2. **Provide interesting context— a story, role play, or situation**
3. **Uses humor, imagination, reward, drama, anticipation**
4. **Authentic and interesting**



Strengths of Scenarios per Marty Siegel (May, 2003)

- They take little time to build
- They are (in comparison) cheap to build and implement; weeks vs. months (soon, even in days!)
- They follow a fixed path (some may see this as a flaw, but it's not); the designer controls the path experience; thus, important
- Paths are always experienced.
- Because they describe a reality, like a good novel, it can feel VERY realistic.

3. Feedback (Brown & Voltz, 2005, IRRODL)

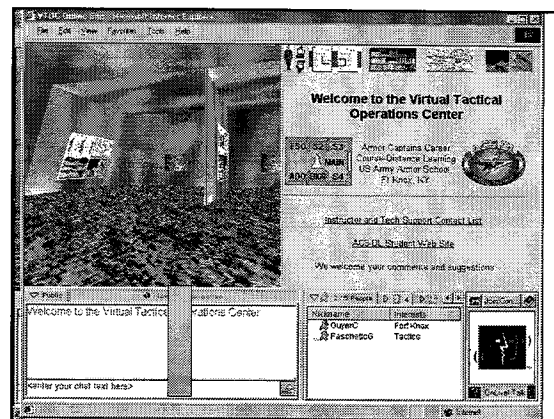
1. Timely and appropriate criticism
2. Reflective responses to questions
3. Shared comments on forums and blogs
4. Monitor progress in real time
5. Multiple avenues for feedback

4. Delivery (Brown & Voltz, 2005, IRRODL)

1. There is tension between practical costs and access and learning activity requirements (media rich content, timely activities, etc.)
2. Maximize engagement, feedback, and reflection
3. Incorporate student voting or preferences for activities

Async-Sync-FTF (Armor Captains Career Course)

- I. **Asynchronous Phase:** 240 hours of instruction or 1 year to complete; must score 70% or better on each gate exam
- II. **Synchronous Phase:** 60 hours of asynchronous and 120 hours of synchronous; Virtual Tactical Operations Center (VTOC) (7 rooms; 15 people/extension (chat, avatars, audio conferencing))
- III. **Residential Phase:** 120 hours of training in 2 weeks at Fort Knox



5. Context (Brown & Voltz, 2005, IRRODL)

1. Need to consider user profiles as well as technology infrastructure
2. Consider the institutional objectives
3. How does the activity fit within any sequence of learning

George Siemens (Sept 30, 2002, eLearnspace.org) Instructional Design in E-Learning

"Unfortunately, the role of instructional design (ID) in elearning is often misunderstood - due to the perceived complexity of the process and to poor understanding of the pedagogical requirements of elearning. To a large degree, ID is the process whereby learning, not technology, is kept at the center of elearning development."

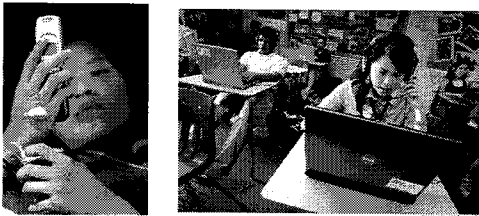
2. Next Generation of Learners



Next Generation of Students

Tech creates a bubble for kids
Alejandro Gonzalez, USA TODAY, Updated 6/20/2006 10:34 AM ET

A Different Generation??? Multitasking... "YOUNG AND WIRED," Katherine Seligman, San Fran Chronicle, Sunday, May 14, 2006



Gloria Kwan listens to her iPod while text messaging a friend who's in class.
Chronicle photo by Mike Kepka

Money
Generation Y: They've arrived at work with a new attitude
By Stephanie Armour, USA TODAY

Generation Y

New Data Show Distinct Skills Gap as Generation X Managers Replace Baby Boomers Minneapolis —

Feb. 9, 2007, Chief Learning Officer News

- 22.5 million baby boomers are on schedule to retire during the next 10 years
- The PDI "Pulse on Leaders" research surveyed the competencies of nearly 24,000 mid-level managers in 20 skill areas.
- Baby boomers higher ratings in 10 out of 18 competencies. More likely to know the business and to use technical or functional expertise on the job and their ability to coach and develop and their ability to manage execution.
- Gen X managers are more likely to receive higher ratings in self-development, work commitment, and analyzing issues than their older counterparts.



**What Students Need to Know:
21st Century Skills and ICT literacy;
Susan D. Patrick, President and CEO
North American Council for Online Learning**

- Information and communication skills;
- Thinking and problem-solving skills;
- Interpersonal and self-direction skills;
- Global awareness;
- Financial, economic, and business skills; and
- Civic literacy.

From: The Partnership for 21st Century;
www.21stcenturyskills.org
Report: are they really ready to work (2006).
http://www.21stcenturyskills.org/documents/FINAL_REPORT_PDF9-29-06.pdf



**What Students Need to Know:
21st Century Skills and ICT literacy;
Susan D. Patrick, President and CEO
North American Council for Online Learning**

The future will demand people who can express themselves effectively with images, animation, sound, and video, solve real world problems that require processing and analysis of thousands of numbers, evaluate information for accuracy, reliability, and validity; and organize information into valuable knowledge, yet students are not learning these skills in school.

From: The Partnership for 21st Century;
www.21stcenturyskills.org
Report: are they really ready to work (2006).
http://www.21stcenturyskills.org/documents/FINAL_REPORT_PDF9-29-06.pdf

Generations: Dealing with Boomers, Gen-X, and Beyond

N. Boyce Appel, April 1, 2005, Practice Management Digest

Generalizations about Generations—Categorizations vs. Stereotypes

Generational Group	Born	Age	Stereotype
Silent Generation	1925 - 1942	61 - 78	Adaptive
Baby Boomers	1943 - 1960	43 - 60	Idealists
Thirteenth (Gen. X)	1961 - 1981	22 - 42	Reactive
Millennial (Gen. Y)	1982 - ?	13 - 21	Civic

Learner Control: Boomer

- The traditional instructor-focus is what is expected. The instructor determines what is important to learn and how it should be learned. Consistency and control are maintained with the "tell me, tell me, tell me" approach.

Learner Control: Xer

- Xers expect a range of options, in terms of what they learn and how they learn it. They require autonomy and flexibility for their own learning. They demand a variety of instructional methods from which they can choose to learn, e.g., videotapes, self-paced modules, interactive CDs.
 - "Online gives me something to do when I'm bored with the professor."
 - "I respect myself more as a self-teacher."
 - Dziuban, Moskal, & Hartman (2005)

Neomillennial Learning Styles

Planning for Neomillennial Learning Styles: Implications for Investments in Technology and Faculty
Chris Dede, Harvard University, Educause, 2005

- Fluency in multiple media--value all types of communication, activities, experiences, not a single best medium
- Actively seek, collect, and synthesize experiences, rather than absorb a single best source
- Active learning and collective reflection
- Non-linear and associated webs of learning
- Co-design of learning experiences for individual needs and preferences not pre-customized

Simulation: Xer

- "The skill to be valued in the twenty-first century is not the length of attention span, but the ability to multitask - to do many things well at once.... [and] the ability to process visual information very rapidly."
(Rushkoff, 1996:50)



3. Multimedia, Animations, and Dual Coding Theory

- "Companies need rich, compelling, targeted content that prompts learners to seize their responsibility to learn."

- Whose Learning Is It, Anyway? Learning & Training Innovations, Clay & Mindrum, July/August, 2003, p.33

Dual Coding Theory (DCT)

- Dual Coding Theory (DCT), proposed by Paivio in 1972, is a model that is based on Cognitive Information Processing Theory. DCT model assumes that information is processed and stored in memory by two separate, but interconnected systems - one visual, the other verbal. DCT claims that pictures are faster and easier to recall since they are coded in both memory systems and the visual system is continuous and parallel in its organization. Verbal memory, on the other hand, is structured in discrete, sequential units.

Verbal and Visual Systems

- The verbal system specializes in processing and storing linguistic information (words, sentences, etc.,). Information is stored in discrete, sequential units. In contrast, the visual system specializes in processing and storing image or 'picture-like' representations.

Cognitive Theory of Multimedia Learning

- Working memory includes independent auditory and visual working memories.
- Each working memory store has a limited capacity.
- Humans have separate systems for representing verbal and non-verbal information.
- Meaningful learning occurs when a learner selects relevant information in each store, organizes the information in each store into a coherent representation, and makes connections between corresponding representations in each store.
- Moreno & Mayer (2000)
- Multimedia instruction should be designed in such a way as to minimize cognitive load (Moreno & Mayer, 2003)

Seven Principles for the Use of Animation in Multimedia Instruction (Mayer & Moreno, 2002)

1. **The multimedia principle (present animation and narration rather than narration alone)**
2. **Spatial contiguity principle (present on-screen text near rather than far from corresponding animation)**
3. **Temporal contiguity principle (present corresponding animation and narration simultaneously rather than successively)**

Seven Principles for the Use of Animation in Multimedia Instruction (Mayer & Moreno, 2002)

4. **Coherence principle (exclude extraneous words, sounds, and video)**
5. **Modality principle (present animation and narration rather than animation and on-screen text)**
6. **Redundancy principle (present animation and narration rather than animation, narration, and on-screen text)**
7. **Personalization principle (present words in conversational rather than formal style)**

The promise of multimedia learning: Using the same instructional design methods across different media

Richard E. Mayer, *Learning and Instruction*, 13 (2003) 125-139.

A review of research on the design of multimedia explanations:

- (a) **a multimedia effect: in which students learn more deeply from words and pictures than from words alone—in both book-based and computer-based environments,**
- (b) **a coherence effect: in which students learn more deeply when extraneous material is excluded rather than included—in both book-based and computer-based environments,**

The promise of multimedia learning: using the same instructional design methods across different media

Richard E. Mayer, *Learning and Instruction*, 13 (2003) 125-139.

- (c) **a spatial contiguity effect: in which students learn more deeply when printed words are placed near rather than far from corresponding pictures—in both book-based and computer-based environments, and**
- (d) **a personalization effect: in which students learn more deeply when words are presented in conversational rather than formal style—both in computer-based environments containing spoken words and those using printed words.**

Animation Research

- **Rieber (1990) suggests that animations help with gaining attention, presentation, and practice**
- **Animations help emphasize important information (Hannafin & Peck, 1988)**
- **Attention-getting graphics help make relationships between ideas clear (Levin, Anglin, & Carney, 1987)**
- **Dynamic visual displays tend to be more effective than static (Park & Hopkins, 1993).**

The promise of multimedia learning: Using the same instructional design methods across different media

Richard E. Mayer, *Learning and Instruction*, 13 (2003) 125-139.

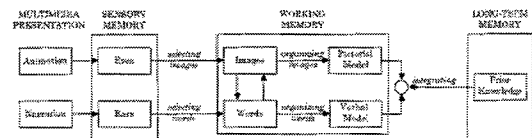
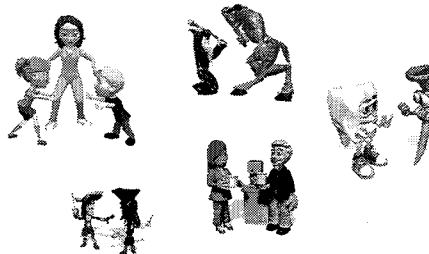


Fig. 1 A cognitive theory of multimedia learning.

Learning outcomes in online multimedia and lecture versions of intro computing course
(Kekkonen–Moneta & Moneta, 2002)

- Evaluated the effectiveness of Web-based, highly interactive, and multimedia-rich e-learning materials (learning outcomes in the lecture and online versions)
- 400+ college students in Hong Kong
- Both groups achieved comparable factual learning outcomes
- Online students outperformed the lecture students in applied-conceptual learning.

4. Interactivity



What is the Interaction Rationale?

(per Ellen Wagner, April, 2004)

- ☑ Interaction is the most debated construct in the world of technology mediated learning design and development.
- ☑ In these settings, interaction is the defining attribute of the quality and value
- ☑ Interactivity (equated with interaction) is the most expensive component of a technology mediated learning design.

February 22, 2007; "Training and eLearning Next: Insights from the ADL (Advanced Distributed Learning) Initiative, US Department of Defense"



Types of Interactions Possible?

(Moore, M. G. (1989). Editorial: Three types of interaction. *American Journal of Distance Education*, 3 (2), 1-7.)

1. Learner-Instructor
2. Learner-Learner
3. Learner-Content



-
- 4a. Learner-Self: highlighted the importance of 'self talking', or internal dialogue when engaging with learning materials (Soo & Bonk, 1998)
 - 4b. Learner-Interface: The learner's ability to use the communication medium facilitating the online course (Hillman, Willis, & Gunawardena, 1994)

Matrix of Web Interactions

(Cummings, Bonk, & Jacobs, 2002, *Internet in Higher Ed*)

Instructor to Student: Syllabus, notes, feedback.

to Instructor: Course resources, syllabi, notes.

to Practitioner: Tutorials, articles, news.

Student to Student: Comments, sample work, links.

to Instructor: Votes, tests, papers, evals.

to Practitioner: Web links, resumes, reflections

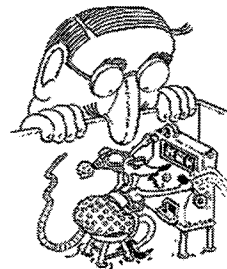
Practitioner to Student: Internships, jobs, e-fieldtrips

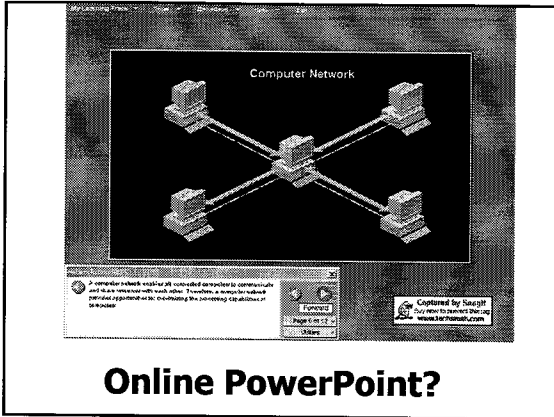
to Instructor: Opinion surveys, fdbk, listservs

to Practitioner: Forums, listservs, prof devel.



Behaviorist Interactivity







Designing Interaction/Interactivity

- Multiple types of interactions (Moore)
- Learners need templates, models, guides
- Feedback/responsiveness key
- Build teaming & collaboration
- Reflection & dialogue build knowledge
- Build consistency in design of resources
- Outcomes of interaction (Wagner)
- Simulations & games increasingly impt

What are the Design Considerations for Learner Interaction???

(Insung Jung, 2003, Handbook of Distance Education, Moore & Anderson (Eds.))



- Multiple layers of online content & resources
- Increase social presence & interpersonal interaction
- Embed different types of interactions with detailed guidelines and good topics
- Provide quick and frequent feedback
- Include visual layouts where possible
- Allow flexible course structure

Interaction with Classmates

(Karen Swan (2004) cites Charlotte Gunawardena)




- Design community building activities
- Build trust in initial activities
- Encourage sharing in discussions
- Train faculty about social presence and instructor immediacy
- Model and encourage verbal immediacy
- Require discussion summaries that identify steps in knowledge creation

Interaction with Instructors


(Karen Swan (2004) cites Peter Shea)

- Provide frequent public and private interactions with students.
- Establish clear expectations for instructor-student interactions
- Provide timely and supportive feedback
- Automate testing and feedback where possible
- Include in faculty development

Interactivity Online

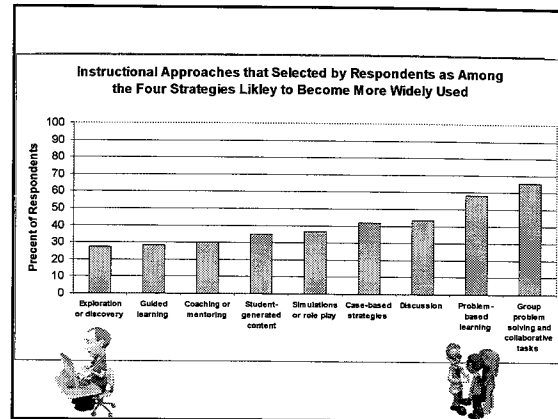
- Animations in small files (Macromedia (Adobe) Flash)
- Capture desktop activities (Matchware Screencorder)
- Collaborative writing (Writely.com, Jotspot)
- Desktop audio recordings (Audacity; iLife)
- Group Forums (Yahoo! Groups, Google Groups)
- Instant Messaging (AIM, MSN, Yahoo!)
- Noncollaborative writing (Blogger, Pitas)
- Photo Storage (Flickr)
- PP Slides with animation and narration (Articulate)
- VoIP (Skype and Google Talk) voice and text
- Web meetings (Ivisit)
- Wikis (PB Wiki, MediaWiki)



5. Motivation

The New Gender Divide

THE UNIVERSITY OF MICHIGAN LIBRARIES • ANN ARBOR, MI, 48106



Interactivity & Continuing Motivation

- "The convenience is nice, but that's not what keeps it. It makes you want to try it, but it's not what keeps you interested in it. It's got to have more interaction. It doesn't hold my interest as long as what I think it should, and I think if there was some more interactivity of a program, then it would really keep my interest more, and I would be more enthused about taking more courses."**

- An adult student who took a Dreamweaver course

Reasons for Not Completing the Course (KJ Kim, 2005)

Reason	Frequency	Percent
1. I was too busy.	19	5.2
2. The content was not relevant to me.	14	3.8
3. It was too boring.	14	3.8
4. There were technical difficulties.	9	2.4
5. I got all the information that I needed to get from the course.	9	2.4
6. Other	7	1.9
Total	79	100.0

Implications of the Findings (KJ Kim, 2005)

Principles for Designing Self-Directed e-Learning Environments to Sustain or Increase Learner Motivation

1. Provide learners with content that is relevant and useful to them.
2. Include multimedia presentations in the course that simulate the learner's interest.
3. Include learning activities that simulate real-world situations.
4. Provide learners with content that the difficulty level that is just right for them.
5. Provide learners with hands-on activities that engage them in learning.
6. Provide learners with enough feedback on their performance.
7. Design the Web site that is easy to navigate.
8. Design the course in a way that the learner is satisfied with the overall learning experience.
9. Incorporate some social interactions in the learning process (e.g., interaction with instructor, technical support staff, or animated pedagogical agents).

Older Workers

- Life experienced at a slower pace promotes an expectation of "it's ok to wait." Learning experienced from an early age as lecture with drill and practice without stimulation/response. Gaming as part of a learning context may be considered less effective because it is less "serious" and in some cases can be distracting.**
- Older people prefer less interaction than younger people in distance education (Kearsley, 1995).**

TEC-VARIETY Model Online Motivational

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: 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 Expectation

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



C. Course Goals and Personal Commitments to the course; what do you expect or want to accomplish?

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

Yulia Reicher and Dana Irwin
 F 1. Yulia Reicher (Ovren) Tue, Dec 26, 2000, 17:38
 F 2. Dana Irwin (Ovren) Tue, Dec 26, 2000, 17:38
 F 3. Yulia Reicher (Ovren) Tue, Dec 26, 2000, 17:38
 F 4. Dana Irwin (Ovren) Tue, Dec 26, 2000, 17:38
 F 5. Yulia Reicher (Ovren) Tue, Dec 26, 2000, 17:38
 F 6. Dana Irwin (Ovren) Tue, Dec 26, 2000, 17:38
 F 7. Yulia Reicher (Ovren) Tue, Dec 26, 2000, 17:38
 F 8. Dana Irwin (Ovren) Tue, Dec 26, 2000, 17:38
 F 9. Yulia Reicher (Ovren) Tue, Dec 26, 2000, 17:38
 F 10. Dana Irwin (Ovren) Tue, Dec 26, 2000, 17:38

3. Curiosity: A. Games e.g., Online Jeopardy Game www.km-solutions.biz/caa/quiz.zip; Games2Train: The Challenge: Thiagi.com

4. Variety: Video Streamed Lectures and Expert Commenting

HorizonLive: Audio/Video
 Audio/Video
 Interactive Chat
 Email Lists
 Public and Private Learning Templates
 Live/Aspx
 Archive

5. Autonomy: Choice: A. Multiple Topics B. Decision Making in bus course

Figure 2. A screenshot of questions in the sample web-delivered course.

**6. Relevance:
Meaningfulness:
Shell Oil: Workflow
Learning**

- In this context, authentic work-based activities are learning activities that are anchored in workplace practice and that are focused on developing the participants' ability to solve problems in their everyday professional job roles (Merrill, 2002).



**Collis (2006) Shell Oil
Concepts introduced, activities presented, and then a workplace application occurs.**

Week	Topics	Introduction	Activities	Workplace
15	OPICS	Shell Oil		
20	Workshop OPICS week 1 2/16-20/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
25	Workshop OPICS week 2 2/23-27/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
30	Workshop OPICS week 3 3/1-5/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
35	Workshop OPICS week 4 3/8-12/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
40	Workshop OPICS week 5 3/15-19/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
45	Workshop OPICS week 6 3/22-26/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
50	Workshop OPICS week 7 3/29-31/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
55	Workshop OPICS week 8 4/5-9/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
60	Workshop OPICS week 9 4/12-16/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
65	Workshop OPICS week 10 4/19-23/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
70	Workshop OPICS week 11 4/26-30/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
75	Workshop OPICS week 12 5/3-7/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
80	Workshop OPICS week 13 5/10-14/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
85	Workshop OPICS week 14 5/17-21/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
90	Workshop OPICS week 15 5/24-28/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
95	Workshop OPICS week 16 5/31-6/4/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
100	Workshop OPICS week 17 6/11-15/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
105	Workshop OPICS week 18 6/18-22/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
110	Workshop OPICS week 19 6/25-29/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
115	Workshop OPICS week 20 7/2-6/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
120	Workshop OPICS week 21 7/9-13/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
125	Workshop OPICS week 22 7/16-20/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
130	Workshop OPICS week 23 7/23-27/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
135	Workshop OPICS week 24 7/30-8/3/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
140	Workshop OPICS week 25 8/6-10/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
145	Workshop OPICS week 26 8/13-17/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
150	Workshop OPICS week 27 8/20-24/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
155	Workshop OPICS week 28 8/27-31/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
160	Workshop OPICS week 29 9/3-7/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
165	Workshop OPICS week 30 9/10-14/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
170	Workshop OPICS week 31 9/17-21/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
175	Workshop OPICS week 32 9/24-28/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
180	Workshop OPICS week 33 10/1-5/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
185	Workshop OPICS week 34 10/8-12/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
190	Workshop OPICS week 35 10/15-19/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
195	Workshop OPICS week 36 10/22-26/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
200	Workshop OPICS week 37 10/29-31/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
205	Workshop OPICS week 38 11/5-9/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
210	Workshop OPICS week 39 11/12-16/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
215	Workshop OPICS week 40 11/19-23/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
220	Workshop OPICS week 41 11/26-30/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
225	Workshop OPICS week 42 12/3-7/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
230	Workshop OPICS week 43 12/10-14/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
235	Workshop OPICS week 44 12/17-21/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
240	Workshop OPICS week 45 12/24-28/06	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
245	Workshop OPICS week 46 12/31-1/4/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
250	Workshop OPICS week 47 1/11-15/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
255	Workshop OPICS week 48 1/18-22/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
260	Workshop OPICS week 49 1/25-29/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
265	Workshop OPICS week 50 2/1-5/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
270	Workshop OPICS week 51 2/8-12/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
275	Workshop OPICS week 52 2/15-19/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
280	Workshop OPICS week 53 2/22-26/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
285	Workshop OPICS week 54 2/29-3/5/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
290	Workshop OPICS week 55 3/12-3/16/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
295	Workshop OPICS week 56 3/19-3/23/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
300	Workshop OPICS week 57 3/26-3/30/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
305	Workshop OPICS week 58 3/31-4/6/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
310	Workshop OPICS week 59 4/13-4/17/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
315	Workshop OPICS week 60 4/20-4/24/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
320	Workshop OPICS week 61 4/27-5/1/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
325	Workshop OPICS week 62 5/8-5/12/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
330	Workshop OPICS week 63 5/15-5/19/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
335	Workshop OPICS week 64 5/22-5/26/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
340	Workshop OPICS week 65 5/29-6/2/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
345	Workshop OPICS week 66 6/9-6/13/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
350	Workshop OPICS week 67 6/16-6/20/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
355	Workshop OPICS week 68 6/23-6/27/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
360	Workshop OPICS week 69 6/30-7/4/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
365	Workshop OPICS week 70 7/11-7/15/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
370	Workshop OPICS week 71 7/18-7/22/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
375	Workshop OPICS week 72 7/25-7/29/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
380	Workshop OPICS week 73 7/31-8/4/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
385	Workshop OPICS week 74 8/11-8/15/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
390	Workshop OPICS week 75 8/18-8/22/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
395	Workshop OPICS week 76 8/25-8/29/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
400	Workshop OPICS week 77 8/31-9/4/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
405	Workshop OPICS week 78 9/11-9/15/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
410	Workshop OPICS week 79 9/18-9/22/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
415	Workshop OPICS week 80 9/25-9/29/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
420	Workshop OPICS week 81 10/2-10/6/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
425	Workshop OPICS week 82 10/9-10/13/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
430	Workshop OPICS week 83 10/16-10/20/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
435	Workshop OPICS week 84 10/23-10/27/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
440	Workshop OPICS week 85 10/30-11/3/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
445	Workshop OPICS week 86 11/6-11/10/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
450	Workshop OPICS week 87 11/13-11/17/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
455	Workshop OPICS week 88 11/20-11/24/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
460	Workshop OPICS week 89 11/27-12/1/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
465	Workshop OPICS week 90 12/4-12/8/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
470	Workshop OPICS week 91 12/11-12/15/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
475	Workshop OPICS week 92 12/18-12/22/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
480	Workshop OPICS week 93 12/25-12/29/07	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
485	Workshop OPICS week 94 1/1-1/5/08	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
490	Workshop OPICS week 95 1/8-1/12/08	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
495	Workshop OPICS week 96 1/15-1/19/08	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
500	Workshop OPICS week 97 1/22-1/26/08	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
505	Workshop OPICS week 98 1/29-2/2/08	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
510	Workshop OPICS week 99 2/5-2/9/08	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil
515	Workshop OPICS week 100 2/12-2/16/08	Introduction to Shell Oil	Introduction to Shell Oil	Introduction to Shell Oil

**Key Steps in Design & Delivery
Collis (2006) Shell Oil**

1. Begin with workplace gap
2. Design with multi-step work-based activity, not sequences of content
 - a. Content is resource not the driver
3. Learning agreements with supervisors
 - a. Determine ending performance
4. Provide electronic workspace support for collaborative learning, discussion, participant submissions



**Key Steps in Design & Delivery
Collis (2006) Shell Oil**

5. Build peer interaction—informal knowledge sharing, expert contacts, reuse submissions
6. Embed different stakeholder evaluations—supervisor, expert, participant, instructor, ID'ers
7. Coach supervisors how to take advantage of teachable moments
8. Reuse participant submissions



**7. Interactive,
Collaborative:**

- A. Panels of Experts: Be an Expert/Ask an Expert: Have each learner choose an area in which to become expert and moderate a forum for the class. Require participation in a certain number of forums (choice)
- B. Press Conference: Have a series of press conferences at the end of small group projects; one for each group)
- C. Symposia of Experts



**8. Engagement:
Delphi/Nominal Group Process
Online (Best of the Best)
(Thiagi, 2004, thiagi.com)**

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 for one or more sessions

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

74.5. He isn't heavy...he's my brother. Mother Theresa 04/22/04 11:41 AM

For me, my children, it's all about helping each other. Our friends Bruner and Vygotsky suggested that learn

74.6. HAPPY ABOR DAY Jane Goodall 04/23/04

I hope that everyone has been feeling wonderful today

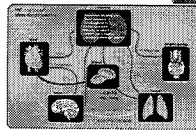


9. Tension, Challenge, etc.:

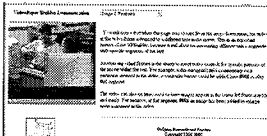
Josh Plaskoff, Director of Learning Emmis Communications



10. Yields Products: Concept Maps, Video Papers, Virtual Timelines

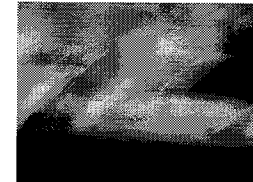


Year	Month	Day	Event
2000	01	01	...
2000	01	02	...
2000	01	03	...
2000	01	04	...
2000	01	05	...
2000	01	06	...
2000	01	07	...
2000	01	08	...
2000	01	09	...
2000	01	10	...
2000	01	11	...
2000	01	12	...
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2000	01	15	...
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2000	01	17	...
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2000	01	26	...
2000	01	27	...
2000	01	28	...
2000	01	29	...
2000	01	30	...
2000	01	31	...



99 seconds: What have you learned so far?

- Solid and Fuzzy in groups of two to four



6. Learning Styles



Consideration of Learner Control, Self-Directed Learning, and Learning Styles

- Decision about amount of control in structure, pace, & sequencing
- Promote self-directed and self-regulated learning (explore, authentic learning, raw data)
- Meet different learning styles (verbal, visual, reflective, hands-on)



Poll: 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

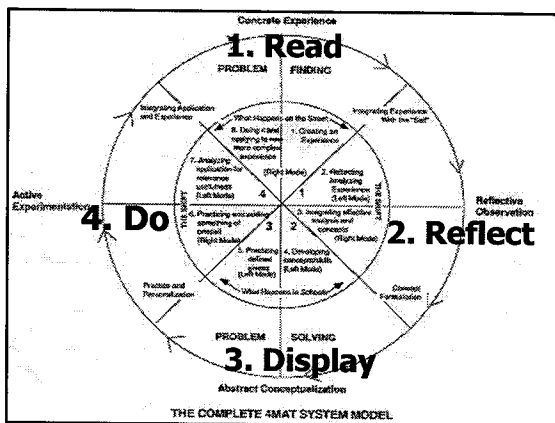
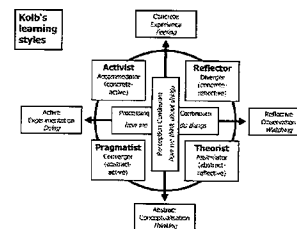
- Visual learners prefer diagrams, flowcharts, graphics (they do not mention video, film, Webcasts, or PowerPoint presentations).
- Auditory learners prefer to hearing directions, lectures, or verbal information.
- Reading and writing learners prefer text passages, words, and written explanations.
- 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.

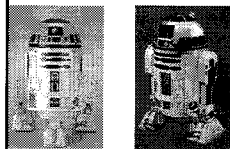


One View of Learning Styles



The R2D2 Method

- Read (Auditory and Verbal Learners)
- Reflect (Reflective Learners)
- Display (Visual Learners)
- Do (Tactile, Kinesthetic, Exploratory Learners)



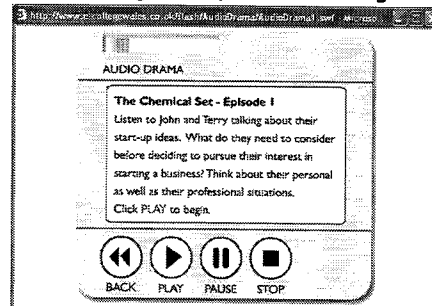
1. Auditory or Verbal Learners

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



1a. Online Audio Cases Audio Dramas

eCollege Wales, Univ. of Glamorgan



1b. Online Tutorials and Help

1c. Language Learning with iPods (Campus Technology, Dec, 2006)

Georgia College & State University, The Department of Music and Theatre, which had foreign language speakers come in to do recordings that are helping the school's chorus. Learners singing in Korean, Portuguese, and many other languages, "Now we can listen to the diction, and make sure that we're pronouncing everything correctly."



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 Lexia 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 1811 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 Lexia 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." AEPCC 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 forenotes 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 AEPCC's policy clearly states to "promote the most

2b. Reuse Chat Transcripts

47. Week 9: Chat 4MAT with Bernice McCarthy March 10th from 5-6 pm

Chat Rank: Started on 02/25/04 11:24 PM
 Modified by Chat Rank on 02/25/04 04:01 PM
 Total Accesses: 96 View names of users who have accessed this entry...

OK, it is time to be 4MATs! This is a chat with Bernice McCarthy!

- View the chat transcript ordered by time
- View the chat transcript ordered by time

Attachments:

- chat_4mat.mhtml
- http://www.abdn.ac.uk/~mccarthy/4mat/4mat.html
- http://www.abdn.ac.uk/~mccarthy/4mat/4mat.html
- http://www.abdn.ac.uk/~mccarthy/4mat/4mat.html
- http://www.abdn.ac.uk/~mccarthy/4mat/4mat.html
- http://www.abdn.ac.uk/~mccarthy/4mat/4mat.html

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

45. Real-time Chat is Enabled...And also More Async Questions for Bob, Erping, Julia, John, or Kira or anyone else.

Chat Rank: Started on 11/05/01 07:14 PM
 Modified by Chat-Rang Wang on 11/05/01 07:27 PM

OK, class post more -> chapter 8, 9, or 10 questions here. Bob, John, Erping, Kira, Julia, and others might reply. Thanks.

- Open this entry for real chat
- View the chat transcript ordered by time
- View the chat transcript ordered by time

Attachments:

- http://www.abdn.ac.uk/~mccarthy/4mat/4mat.html

3. Visual Learners

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



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

RNA was the first genetic molecule.

RNA was very likely the first molecule to be able to explain itself. In the primordial soup, a single-stranded ribonucleic acid could be a template.

DATA FROM THE BEGINNING

RNA was very likely the first molecule to be able to explain itself. In the primordial soup, a single-stranded ribonucleic acid could be a template.

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

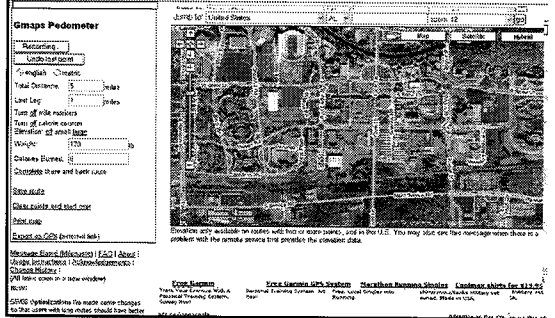
Interact at Crossroads

Distance Learning in the Arts

3c. Exploration and Demonstration: Virtual Fieldtrip and Tours

South Pars - Developmental Program P-3

3d. Use Google Maps Mashups

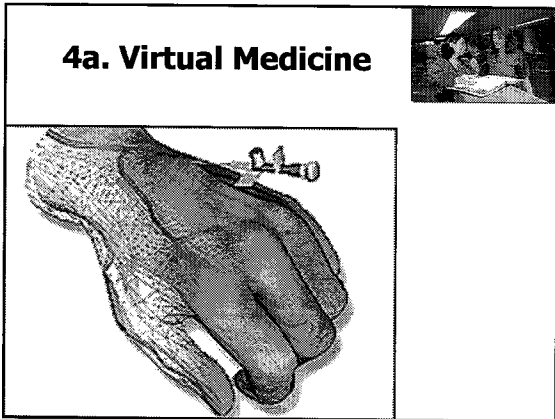


4. Tactile/Kinesthetic Learners

- 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. Virtual Medicine



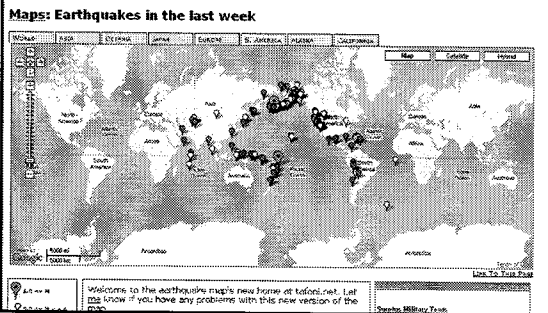
4b. Videoconferencing with Hearing Impaired Students Online

- 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. Use Google Maps Mashups in K-12 Education

By Jeffrey Branzburg, May 15, 2006
<http://www.techlearning.com/story/showArticle.jhtml?articleID=187002846>



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: _____



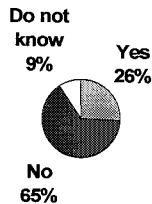
7. Blended Learning (6 examples)



9. Blended learning programs in your organization typically include which of the following? (check all that apply)

Instructor-led training

16-c. If you have a plan, is it shared in a publicly viewable Web site for anyone to download any time?

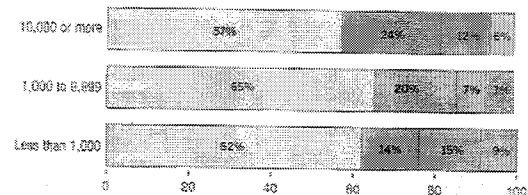


2006 Training Industry Report

Training delivery methods by organization*

By organization size

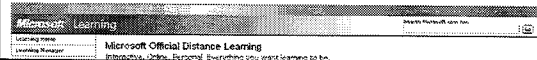
Instructor-Led (Classroom) Virtual classroom
 Online (Self-study) Other



Blended Example #1. Microsoft

<http://www.microsoft.com/learning/modl/default.aspx>

- Microsoft Official Distance Learning (MODL) blends classroom training, live discussion, real-world scenarios, and self-directed study. Available through Microsoft Certified Partners for Learning Solutions.
- Five days of instructor-led training with additional e-Learning content to provide students with the knowledge and skills that are required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data in a Microsoft Windows Server 2003 environment.
- This is the first course in the Systems Admin and Systems Engineer tracks for Windows Server 2003.



MODAL (Microsoft Official Distance Learning); 5 day becomes 5 weeks

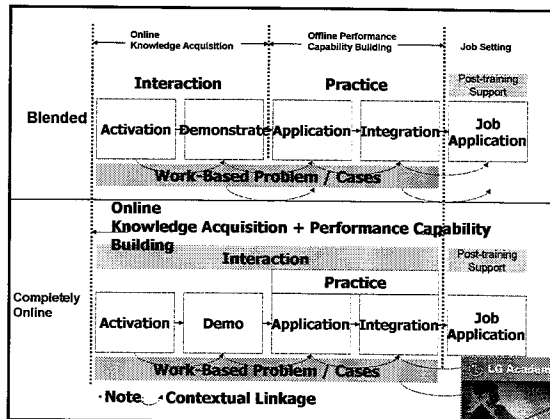
MODL - A Component Breakdown

- GATHER: Facilitated Virtual Classroom**
 - MCT Instructors
 - Microsoft LiveMeeting
 - Instructor Slides
 - Instructor Notes
 - Student Workbook
- EXPAND: Self-Paced E-Learning or Reference**
 - Microsoft E-Learning Content and other References
- APPLY: Scenario Exercises**
 - "Day in the Life" Scenarios
 - Live lab Environment for practice
- RECEIVE FEEDBACK: Assessment & Feedback**
 - Module Assessment Tests & Summaries
 - MCT and Peer Feedback

**Blended Example #2:
K-Smarts Academy: Blended Leadership
Training**

(Jieun Lee, November 30, 2006)

- "Coaching for Performance Improvement", one of the 5 topics in a 6-week mandatory management leadership development program (coaching, accounting, marketing, leadership, etc.)
- Offered to 1,000 employees 13 times/year
- 282 trainee respondents to survey.
- ✓ 100 items including demographic questions
- ✓ Online Knowledge Acquisition: 5 weeks;
- ✓ Offline Performance Capability: 7 days;
- ✓ Job Application: 4 weeks



**Discussion: Comparison of Online Only Training with Blended Training:
Predicting Design Factors for Degree of Transfer**

	Facilitating Factors	Hindering Factors
Blended online Coaching	C1F2. Use of scenario at every step of coaching C1F3. Activation of learned knowledge in the previous unit	C1H7. Lack of interaction with Instructor
Blended offline Coaching	C2F1. Writing my own coaching scenario C2F5. Teaching of principles	No significant factor was drawn.
Online Only Accounting	AF2. Increasingly arranged task complexity AF13. Accessibility to the online module after completing it for 90 days	AH3. Regardless of the current knowledge level, presenting the common content to all participants

Conclusion: Suggested Guidelines

For the online knowledge acquiring module

1. Do not try to cram all the 'nice-to-know' information in the online module
2. Use work-based authentic scenarios for teaching skill concepts
3. Activate the prior knowledge before moving on the new unit
4. Provide feedback and Q&A channel for learners to interact with instructors
5. Inform learners of how online learning will be utilized in the offline module

Conclusion: Suggested Guidelines

For the offline performance capability building module

1. Have learners write their own scenarios to link what they learn to where they are supposed to apply
2. Instead of delivering pieces of information, teaching principles underlying the skills.
3. Provide various cases with different contexts
4. Provide sufficient opportunities of practice
5. Provide easy-to-apply toolkit
6. Do not score reflective journal as assignment
7. Allow completion of action plan with flexible time

Specific Design Guidelines

Problem	<ul style="list-style-type: none"> • Use authentic, real-world, work-based cases • Provide job-relevant problems • Be sure that learners are aware of what the training is about and the benefits from learning
Activation	<ul style="list-style-type: none"> • Activate prior knowledge • Provide self-assessment for gauging learner's strength, weakness, values, interests, goals and motivation about a given topic • Provide opportunities to demonstrate learner's knowledge regarding the topic

**Blended Example #3: Management 101
Krispy Kreme Assistant Mgr. Training (Option Six)**

- **ILT (fundamentals)-> WBT/OJT (performance)-> ILT (reinforcing performance) & Performance Support**
- **Application based, instructor-led (ILT) sessions:**
 - Two one-week instructor-led session in Winston-Salem
 - Promotes connection with Krispy Kreme leadership
 - Dev equip/process mastery & product quality assurance.
- **Self-paced, scenario-based, WBT courses:**
 - 4 one-hour, custom web-based training (WBT) courses.
 - Completed in conjunction with OJT at training stores
 - Establishes foundation of management principles
- **On-the-Job Training (OJT) Program:**
 - Series of OJT activities to be com
 - Completed in conjunction with OJT at training stores
 - Learners run a shift in a training store





**Impact:
Krispy Kreme**

“The blended solution allows us to quickly respond to our growing need for well-trained, effective managers – who embody the Krispy Kreme way.”

“By aligning the online and instructor-led courses with the OJT, managers are consistently better trained and are more often pushing the training managers to provide the best OJT experience.”

**Blended Example #4:
Roche Brand Stewardship
(Option Six, 2006)**

- **WBT (fundamentals)-> ILT (performance)-> Performance Support**
- **Learners watch a story unfold and then solve the problems. An option exists for face-to-face training before or after.**
- **Self-paced, scenario-based, WBT courses:**
 - 2 hour, custom web-based training (WBT) course
 - Completed prior to enrollment in the ILT course
 - Uses a scenario based approach to develop Brand fundamentals
- **Application based, instructor-led (ILT) sessions:**
 - 8 hour ILT session facilitated by AIMS facilitators
 - Focused on application of the Brand to specific sales and marketing activities



**Impact:
Roche Brand Stewardship**

“The blended solution ‘raised the bar’ for the entire endeavor. The e-learning component allowed the entire audience to master the basics of Brand Stewardship at their own pace; specifically, those who might be reluctant to ask for clarification in the classroom.”

“When the learners came to the classroom they were better prepared and were stronger on the fundamentals of Brand Stewardship. This allowed us to really focus on applying the Brand characteristics to some of their current activities.”



**Blended Example #5:
Lilly Strategic Negotiation Training (Option Six)**

- **WBT (fundamentals)-> ILT (performance)-> Performance Support**
- **Self-paced, scenario-based, WBT course:**
 - Two hour, custom web-based training (WBT) course
 - Scenario based approach to developing negotiation fundamentals
 - Establishes foundation of negotiation framework
- **Application based, instructor-led (ILT) sessions:**
 - 12 hour (day and a half) instructor-led session
 - Reinforces and extends and negotiation principles
 - Allows for critical practice and feedback
 - Focused on working with existing negotiations

**Impact:
Lilly Strategic Negotiation Training**

- **The client was able to rapidly introduce its preferred negotiations strategy to its entire sales and marketing function.**
- **The facilitators and the client sponsors shared that they were struck by the preparation of the learners, the sophistication of their questions, and their eagerness to apply what they had learned.**

**Blended Example #6:
A Blended learning curriculum design by IHRDC**

- Designed around 6 weeks of selected training followed by break for company specific training such as On-the-Job training; specialized training with mentor; rotating assignments; third party vendor training, etc.
- Each participant is assigned a mentor for the program.
- 4 weeks of online 'pure' e-Learning (text, graphics, video) prerequisite training
- 2 weeks of specialized instructor-led classroom training. These two-week sessions are mentor-led since activities in the classroom are team orientated around simulated job assignments. The learning environment, in 3-4 member teams solving a practical simulated problem, with a trained qualified mentor, is powerful.

8. Creating Learning Communities

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



Factors in Creating any Community (Rick Schwier)

- (1) membership/identity
- (2) influence
- (3) fulfill of indiv needs/rewards
- (4) shared events & emotional connections

(McMillan & Chavis, 1986).
History, stories, expression, identity, participation, respect, autonomy, celebration, team building, shape group, Rick Schwier, 1999; University of Saskatchewan, richard.schwier@usask.ca



How Facilitate Online Community?

(Chao, 1999, 2002; National Chengchi University, Taipei, Taiwan; cchao@nccu.edu.tw)

- Safety: Establish safe environment
- Tone: Flexible, inviting, positive, respect
- Personal: Self-disclosures, open, stories telling
- Sharing: Share frustrations, celebrations.
- Collaboration: Camaraderie/empathy
- Common language: conversational chat space
- Task completion: set milestones & group goals
- Other: Meaningful, choice, simple, purpose...



Sense of Community for Bounded Learning Communities (Brent Wilson, 2004, IRRODL)

- Sharing learning goals—look for commonalities and differences, working on common projects
- Have learners develop assessment rubrics
- Train students in monitoring role
- Create personal profiles
- Learners develop community logo/motto
- Establish cyclical events that encourage learner participation
- Assign each learner to mentor another colleague




John Hedberg, Univ of Wollongong
Chapter: Cybereducation
RILE Monograph 2001: Online Learning Environments: Research and Teaching

- > Learner must be active in learning process
- > Provide variety of contexts and viewpoints
- > Learning is a process of construction
- > Immerse learners in authentic contexts
- > Reflective thinking is the ultimate goal
- > Learning involves social negotiation
- > Need to develop realistic strategic, pedagogical, & commercial models for online learning



Factors in Developing Online Community
(Stuckey, Hedberg, & Lockyer, in press)

1. Users are producers, consumers, and builders
2. Strong reciprocal ties – real names used (members might even seek F2F contact)
3. Shared or team projects/activities; joint artefacts
4. Access to experts and mentoring
5. Sustained commitment from developers and members
6. Varied roles for members
7. Moderation from members (Facilitators, mentors, etc.)
8. Success = engagement, ideas, development, trends (A portal = passive place)



Principles of Online Learning Communities and CoPs	Supportive Technology	Sample Activities
1. Shared Goals, Purpose, Mission, Rules and Norms	Calendars, fdbk tools, help, meeting archives, schedules, announce, streaming videos	Create team logo and motto, post member or learner goal statements
2. Trust and Respect	Email, member profiles, shared Web links	Social ice-breakers, online introductions, member expectations, testimonials
3. Shared Spaces, Generate Product, Knowledge Creation, and Negotiation	Annotation and brainstorm tools, async forums, whiteboards, translation tools	Learners create site glossary, learners post work in online galleries
4. Member Collaboration and Team Products	Annotation tools, application sharing, collab tools, drop boxes, team tools, workspaces	Creating team product review and feedback system or procedure, post team products
5. Sense of Identity, Diverse Membership, Expertise, and Growth	Mentoring exchange systems, sync team meetings, synchronous learning & instruction	Global chats, share site logo, hold special events, post both individual & team accomplishments

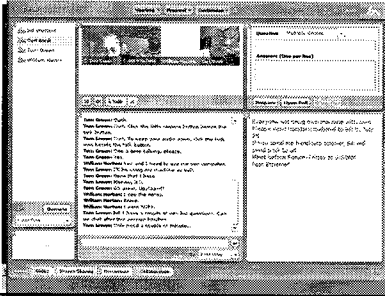
Principles of Online Learning Communities and CoPs	Supportive Technology	Sample Activities
6. Influence and Member Participation	Discussion forums, file exchange, polling and voting, Web link tools	Change Web site based on member survey results
7. Sense of Autonomy	Cafés, chat rooms, idea forums	Allow choice in online course, allow work teams to form around interests
8. Shared History, Events, and Stories, Sense of Belonging, and Emotional Connections	Buddy lists, chat rooms, discussion forums, email, FAQs, instant messaging, newsgroups	Historical or memorable events, coordinate controversial topic discussions
9. Fulfilling Personal Needs, Rewards, Acknowledgements	Breakout rooms, intelligent agents, member profiles, online surveys, online mentoring	Use of online mentoring, post accomplishments of members
10. Embedded in Practice, and Integration with Real World	Application sharing, online cases and simulations, synchronous conferencing tools	Reflect online on internship or job experiences, synchronous guest chats, PBL

3

Reflection: What are 3 things you learned so far?


3

9. Synchronous/Virtual Learning



Ideal Environment of Synchronous Trainer
Jennifer Hoffman, Online Learning Conference, 2001, Oct.;
Synchronous Trainers Survival Guide, August, 2003)

- A private, soundproof room.
- High-speed connection; telephone; powerful computer; additional computer; tech support phone #
- Studio microphone and speakers
- A "Do Not Disturb" sign
- Near restroom; pitcher of water



Considerations: The Event

Jennifer Hoffman, ASTD, Learning Circuits, (2001, March)
http://insynctraining.com/Insync_Home.html#Home

- Log on early; students come 15 minutes early.
- Check to see if students brought needed items
- Vary instructional strategies; maximize interactivity
- Make it visual—color, sound, animation
- Design 10-minute breaks every 90 minutes
- Do tech checks of microphones (sound check).



Synchronous Observations

(Rick Schwier & Shelly Balbar, 2002, Canadian Journal of Learning and Technology)

- Organization is critical: good chats must be planned
- Be flexible: be ready to move in new directions
- Facilitation is an art: be prepared to nudge people (redirect, ask q's)
- Private messaging reduces isolation
- Push the limits and enjoy the ride
- Don't intrude on student discussion



Four advantages to the synchronous media

Robin Mason's (2006) Web Site

<http://iet.open.ac.uk/pp/r.d.mason/globalbook/syncasync.html>

1. **Motivation** - synchronous systems focus the energy of the group, providing motivation to distance learners to keep up with their peers and continue with their studies
2. **Telepresence** - real time interaction with its opportunity to convey tone and nuance helps to develop group cohesion and the sense of being part of a learning community
3. **Good feedback** - synchronous systems provide quick feedback on ideas and support consensus and decision making in group activities, both of which enliven distance education
4. **Pacing** - synchronous events encourage students to keep up-to-date with the course and provide a discipline to learning which helps people to prioritize their studies.

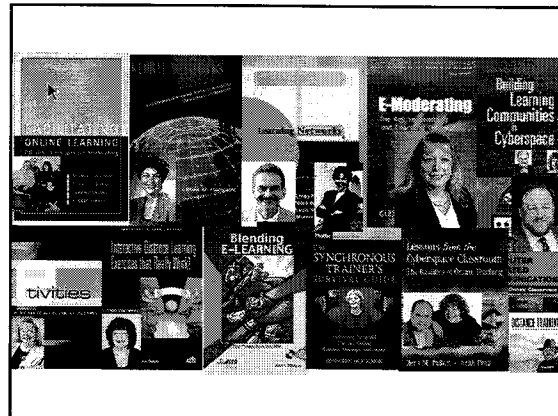


What can you do synchronously and asynchronously?

Synchronous Activities (Bonk, 2004) **Asynchronous Activities** (Bonk, 2004)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Quick Poll or Surveys 2. Guest Expert Chats 3. Online Role Play 4. Team or Group Meetings and Reflections 5. Webinars, Webcasts, or Online Lectures 6. Virtual Conference Attendance 7. Virtual Office Hours 8. Transcript Archives and Reviews 9. Breakout Room Discussions 10. Synchronous Quizzes | <ol style="list-style-type: none"> 1. Ice Breakers: Eight Nouns Activity and Coffee House Expectations 2. Web Resource Explorations 3. Field Experiences & Internships 4. Case Learning 5. Critical Friend and Web Buddy 6. Just in Time Teaching 7. Anonymous Suggestion Box 8. Online Debates (E-bates) 9. Reflective Writing (minute papers, diaries, and blogs) 10. Online Galleries of Student Work |
|--|--|

10. Instructor Supports (facilitation/moderation skills)



E-tivities

Salmon, G. (2002). *E-tivities: The key to active online learning*. London: Kogan Page.



There are 5 vital features to e-tivities:

1. A small piece of information, stimulus or challenge (the 'spark')
2. Online activity which includes individual participating posting a contribution
3. An interactive or participative element-such as responding to the postings of others
4. Summary, feedback or critique from an e-moderator (the 'plenary')
5. All the instructions to take part are available in one online message (the 'invitation') (Salmon, 2002, p. 13).



Online Teaching Skills

The Online Teacher, TAFE, Guy Kemshal-Bell (April, 2001)
guykb@iprimus.com.au

- Technical: email, chat, Web development
- Facilitation: engaging, questioning, listening, feedback, providing support, managing discussion, team building, relationship building, motivating, positive attitude, innovative, risk taking
- Managerial: planning, reviewing, monitoring, time management



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)



Feelings Toward Online Teaching

The Online Teacher, TAFE, Guy Kemshal-Bell (April, 2001)
(Note: 94 practitioners surveyed.)

- Exciting (30)
- Challenging (24)
- Time consuming (22)
- Demanding (18)
- Technical issue (16); Flexibility (16)
- Potential (15)
- Better options (14); Frustrating (14)
- Collaborative (11); Communication (11); Fun (11)



Pedagogical Recommendations

(Berge, Z.L. (1995). Facilitating Computer Conferencing: Recommendations From the Field. *Educational Tech.* 35(1) 22-30.
http://www.emoderators.com/moderators/teach_online.html)

- Draw attention to conflicting views
- Do not lecture (Long, coherent sequence of comments yields silence)
- Request responses within set time
- Maintain non-authoritarian style
- Promote private conversations



Managerial Recommendations

(Berge, 1995, The role of the online instructor/facilitator)

- Distribute lists of participants
- Provide timely administrative info books, enrollment, counseling, etc.
- Change procedures that are not working
- Change misplaced subject headings
- Decisively end discussion sessions
- Don't overload



Key Steps to Design and Development
Belly Collis (2006). University of Twente (UT), Putting Blended Learning to Work

- Begin course with competence gap
- Build course around work activities not around sequences of content
- Guide learners to complete work agreements
- Design using best practices
- Build in: peer interaction, informal knowledge sharing, contacts with experts, reuse of previous submissions, carefully crafted interactions
- Evaluate from many perspectives



Selecting Distance Learning Instructors

(Karen Mantyla, July 2000, Learning Circuits; author of Distance Learning: A Step-by-Step Guide for Trainers' QuietPower@aol.com)

- Exude enthusiasm
- Be learner-centered (ask if satisfied, active)
- Be flexible and willing to learn new skills
- Be adaptable to student and team needs
- Learn new tech and rehearse delivery
- Willing to create and use interactive tasks
- Display a sense of humor



Facilitating Online Learning: Effective Strategies for Moderators
 (Collison, Erlbaum, Haavind, & Tinker, 2000)

- Lead into community bldg activities
- Infuse personality: tone, graphics, humor
- Balance private email & public discuss
- Organize posts and threads
- Highlight tensions in the dialogue
- Avoid publicly praising someone
- Continuously judge when to respond



Facilitating Student Responsibility
 (The Virtual Student, Rena Palloff & Keith Pratt, 2003)

- Openness: Share from work of life
- Flexibility: Develop sense of online learning
- Honesty: Willing to give and receive feedback
- Willing to Take Charge/Responsibility
- Willing to Work Collab
- Post intros, bios, create social space, mode humor
- Give up control, co-create, allow time for reflection
- Model open, honest feedback, approp commun
- Rotate facilitation or leadership roles
- Post grading rubrics



Ron Oliver, Edith Cowen University, Collab & Constructivist Web Tasks
 (McLoughlin & Oliver, 1999; Oliver & McLoughlin, 1999)

1. **Apprenticeship: Q&A; Ask an Expert forums.**
2. **Case-Based and Simulated Learning: exchange remote views; enact events online.**
3. **Active Learning: Design Web pages & databases.**
4. **Reflective/Metacognitive Learning: Reflect in online journals, bulletin boards**
5. **Experiential Learning: Post (articulate ideas) to discussion groups**
6. **Authentic Learning: PBL, search databases**

<http://elrond.scam.ecu.edu.au/oliver/>



Framework for Pedagogical CMC Techniques
 (Paulsen, 1995, The Online Report on Pedagogical Techniques for CMC; morten@nki.no)

1. **One-alone Techniques:** Online journals, online databases, interviews, online interest groups.
2. **One-to-one Techniques:** Learning contracts, internships, apprenticeships.
3. **One-to-many Techniques:** Lectures, symposiums, skits.
4. **Many-to-many Techniques:** Debates, simulations, games, case studies, discussion groups, brainstorming, Delphi techniques, nominal group process, forums, group projects.



**Vanessa Dennen's Research on
Nine Online Courses**

(sociology, history, communications, writing,
library science, technology, counseling)



- | | |
|--|--|
| <ul style="list-style-type: none"> ▪ Little/no feedback given ▪ Always authoritative ▪ Kept narrow focus of what was relevant ▪ Created tangential discussions ▪ Ultimate deadlines | <ul style="list-style-type: none"> ▪ Provided regular feedback ▪ Participated as peer ▪ Allowed perspective sharing ▪ Tied discussion to grades, other assessments. ▪ Incremental deadlines |
|--|--|



Modeling
(Dennen, 2002)



- Instructor modeling increased the likelihood of student messages meeting quality and content expectations
- Modeling was more effective than guidelines



**Common problems with online
discussion prompts**
(Dennen, 2002)

Too vague

- Learners have no idea how to respond

Too fact-based

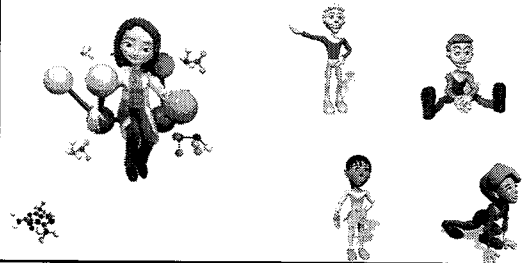
- Only one or two persons need to respond

Lack directions for interactions

- Learners don't know what acceptable participation looks like



**99 Second Stretch Break and
Chat!!!**



**Any Questions?
Sample Chapters at
PublicationShare.com
archived Talks at TrainingShare.com**

