E-Learning: It's about Nature (technology) AND Nurture (pedagogy)
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Nature and Nurture: An Interactional Model

Low Risk High Risk
1. Risk Easy to Embed Extensive Planning
2. Time Free or Inexpensive Enterprise Licenses
3. Cost Instructor-Focus Student-Focus
4. Student-Centered Low High

Three Most Vital Skills
The Online Teacher, TAFE, Guy Kemshall-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)

Instructional Approaches that Selected by Respondents as Among the Four Strategies Likely to Become More Widely Used
Online Drill (perhaps with Audio)
(Electronic Classroom of Tomorrow (ECOT) in Ohio)

I. 14 Online Pedagogical Examples that are not boring!

Boring e-Learning

Experience. The difference.

2. Educational Simulations, Scenarios, and Manipulations

Online Stories (with Audio)
(Electronic Classroom of Tomorrow (ECOT) in Ohio)

2. Online Mentoring:
   iEARN and Other Examples

The iEARN community promotes collaboration among students and teachers around the world.
- is a non-profit organization; searchable database
- made up of over 20,000 schools in 109 countries
- empowers teachers and students to work together using new technologies
- Approximately 750,000 - 1,000,000 students each day are engaged in collaborative project work worldwide; ages 6-19
- Europe, Africa, Middle East, Latin America, Asia & Pacific, Australia/NZ, North America & Caribbean

3. Exploration and Demonstration:
   Virtual Fieldtrip (Trinity College example)
4. Fostering Info Exchange: Critical/Constructive Friends, Email Pals...

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

6. Online Data Collection Survey Research (e.g., WebSurveyor, Zooniverse, SurveyShare, SurveyGizmo)

7. Real World: Internships and Field Experience Job Interviews
   Field Definition Activity: Have students interview (via e-mail, if necessary) someone working in the field of study and share their results
   - As a class, pool interview results and develop a group description of what it means to be a professional in the field

8. Exploration: Virtual Museums and Archeology

9. Reflection and Observation: E-Portfolios
10. Video Library of Concepts, Cases, or Experts

11. Goal Driven & Product Based: B. PBL
1. Asks a guiding question or poses a problem that each student can answer (e.g., What do nocturnal animals do while we're sleeping?)
2. Involves in concrete, hands-on experiences—field trips, experiments, posters, presentations
3. Asks students to investigate issues & topics addressing real-world problems (in-depth)
4. Fosters abstract, intellectual tasks to explore complex issues (e.g., make judgments, interpret, synthesis, etc.)

12. Yahoo Groups: Lurk in an Online Group

13. Online Collaboration and Editing

14. Gallery Tours, Team Products
- Team or Course White Paper, Business Plan, Study Guide, Glossary, Journal: Have students work in teams to produce a product and share with other groups
- Post work to online gallery. Expert Review and rate projects (authentic audience)
- Students generate products for the class

The TICKIT Project
More Example Projects

Part II.
Mucho Motivation

Brainstorm #3:
Why are computers motivating?

Intrinsic Motivational Terms
1. Tone/Climate: Psych Safety, Comfort, Belonging
2. Feedback: Responsive, Supports, Encouragement
3. Engagement: Effort, Involvement, Excitement
4. Meaningfulness: Interesting, Relevant, Authentic
5. Choice: Flexibility, Opportunities, Autonomy
6. Variety: Novelty, Intrigue, Unknowns
7. Curiosity: Fun, Fantasy, Control
8. Tension: Challenge, Dissonance, Controversy
9. Interactive: Collaborative, Team-Based, Community
10. Goal Driven: Product-Based, Success, Ownership

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

2. Feedback.
A. Student Self-Testing
(e.g., Calm Chemistry)
2. Feedback:
B. Web-Supported Group Reading Reactions

1. Give a set of articles.
2. Post reactions to 3-4 articles that intrigued them.
3. What is most imp in readings?
4. React to postings of 3-4 peers.
5. Summarize posts made to their reaction.
(Note: this could also be done in teams)

3. Engagement
B. Questions to Guide Reading

4. Meaningfulness:
A. Authentic Data Analysis.

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5. Choice:
A. Multiple Topics

- Generate multiple discussion prompts and ask students to participate in 2 out of 3
- Provide different discussion “tracks” (much like conference tracks) for students with different interests to choose among
- List possible topics and have students vote (students sign up for lead diff weeks)
- Have students list and vote.
5. Choice:
B. Discussion: Starter-Wrapper (Hara, Bonk, & Angeli, 2000)
1. Starter reads ahead and starts discussion and others participate and wrapper summarizes what was discussed.
2. Start-wrapper with roles—same as #1 but include roles for debate (optimist, pessimist, devil’s advocate).
C. Alternative: Facilitator-Starter-Wrapper (Alexander, 2001)
Instead of starting discussion, student acts as moderator or questioner to push student thinking and give feedback

6. Variety: A. Online Warm-Up Activities
Just-In-Time-Teaching (JiTT)
http://webphysics.iupui.edu/jitt/jitt.html

7. Curiosity: A. Online Games
www.km-solutions.biz/cea/quiz.zip

8. Tension: A. Online Role Play of Scholars, Personalities, or Famous People
- Enroll famous people in your course
- Students assume voice of that person for one

8. Tension: B. Online Role Plays, Debates, Mock Trials

- Tension Management:
  - Enact your options—a learning activity and does NOT cost. Ask the three actors to voice for movie, and does
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9. Interactive

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


Part III. Addressing Learning Styles

Why Address Learning Styles?
- Promotes reflection on teaching
- Move from just one mode of delivery
- View from different viewpoints
- Offer variety in the class
- Might lower drop-out rates
- Fosters experimentation

Kolb (1984)
- According to Kolb, effective learning involves four phases:
  - from getting involved (Concrete Experience) to
  - listening/observing (Reflective Observation) to
  - creating an idea (Abstract Conceptualization) to
  - making decisions (Active Experimentation).
- A person may become better at some of these learning skills than others; as a result, a learning style develops.
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 quiet and somewhat shy.

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.

The Blending of Learning Styles

Index of Learning Styles Questionnaire
Barbara A. Solomon, North Carolina State Univ
http://www.engr.ncsu.edu/learningstyles/ilosweb.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) lectures, diagrams, graphs, or movies.
   ○ (b) written directions or verbal instructions.

The R2D2 Method

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

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

1a. Online Resource Libraries

1b. Weblogs in Higher Education (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 Music Training
Basic Acoustics of Musical Instruments
2005 MERLOT Classics Award

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

The Chemical Box - Episode 1
Lesson 10: John and Terry talking about their startup ideas. What do they need to consider before deciding to pursue their own business? Think about their personal and professional situations. Class 10 begins.

BACK | PLAY | PAUSE | STOP
1e. LangMedia's Resources for Language and

1f. Students and Teachers, From K to 12. Hit the Podcasts

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

2b. Reuse Chat Transcripts
2c. Workplace and Field Reflections

1. Instructor provides reflection or prompt for job related or field observations
2. Reflect on job setting or observe in field
3. Record notes on Web and reflect on concepts from chapter
4. Respond to peers
5. Instructor summarizes posts

3. Visual Learners

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

3b. Interactive News on Web

3c. Flowcharts, Diagrams, Maps, etc.

Elements in the system for control of oxygenation in the human body (e.g., the kidney). From: Next-Generation Educational Software: Why We Need It and a Research Agenda for Getting It. Van Dam, Becker, & Simpson, Educator Review, March/April 2005
3d. Virtual Tours and Timelines

3e. Video Streamed Lectures and Expert Commenting

3f. E-Reading First Ohio (video-based scaffolding from expert instructors)

3g. 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

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

3i. COSMEO: Online Homework Help from the Discovery Channel
includes math homework help, 15,000 interactive learning quizzes, games, and puzzles, 27,000 research articles, and 30,000 video clips that correlate to state standards!!! And the collection is expanding daily (cost = $9.95/month for up to 4 kids per family)
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.

4b. Online Testing

Students at one middle school in Miami answered more than 250,000 questions in 1 year!

(Gina Koch Hidalgo, FETC Connections, Fall 2005)

4c. Hands-on Handhelds

- Practice foreign language dialects
- Record scripts for theater classes
- Analyze music in engineering labs
- Digitally record own radio shows
- Tape writing center tutoring sessions
- Access portal of university info
- Record lectures
4d. Scavenger Hunts

Using Scavenger Hunts

4e. BrainPop (movies, experiments, timelines, activity pages)
(Gina Koch Hidalgo, FETC Connections, Fall 2005)

4f. Online Historical Documents
discoverbabylon.org

- In its final form, the multiplayer 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 finally the famous Iron Age empire of Assyria, which once stretched from modern-day Iran to Egypt, figuring prominently in the Old Testament.

4g. Cross-Class Collab
(Indiana Univ and Open U of Malaysia)

4h. Wikibook Creation and Collaboration
4i. Digital Storytelling

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

- Mobile/Hands-on
- Auditory,
- Thought-stimulating,
- Real-World,
- Interactive,
- eXtremely Visual learning

Poll #6: Do you think technology will change that way you teach?

a. Yes, definitely
b. Probably yes
c. Maybe
d. No
e. Do not yet know

Any questions, comments, or concerns?

Sample HOBlE chapters at:
http://www.publicationshare.com/
Archived talks at:
http://www.trainingshare.com/