**Part I: 10 Learning Centered Technology Ideas**

**Boring e-Learning**

Experience. The difference.

---

**Learner-Centered on the Web (Bonk & Cummings, 1998)**

1. Safe Lrn Community: 6, 11
2. Foster Engagement: 1-6, 11.
3. Give Choice: 8, 9, 12
4. Facilitate Learning: 2, 9, 11.
5. Offer Feedback: 3, 6, 8, 11, 13.
6. Apprentice Learning: 3, 6, 7-9, 11, 13.
7. Use Recursive Tasks: 1, 3, 8-9, 10, 13.
8. Use Writing & Reflection: 3, 8, 12-13.

---

**1. Learner-Centered Learning Principles**

(American Psychological Association, 1993)

Cognitive and Metacognitive Factors

1. Nature of the learning process
2. Goals of the learning process
3. Construction of knowledge
4. Strategic thinking
5. Thinking about thinking
6. Context of learning

Developmental and Social Factors

10. Developmental influences on learning
11. Social influences on learning

Individual Differences

12. Individual differences in learning
13. Learning and diversity
14. Standards and assessment

Motivational and Affective Factors

7. Motivational and emotional influences
8. Intrinsic motivation to learn
9. Effects of motivation on effort

---

**2. Constructivist Teaching Principles (Brooks, 1990)**

1. Build on student prior knowledge.
2. Make learning relevant.
3. Give students choice in learning activity.
4. Student autonomy & active lrng encouraged
5. Use of raw data sources & interactive materials
6. Encourage student dialogue
7. Seek elaboration on responses and justification
8. Pose contradictions to original hypothesis
9. Ask open-ended questions & allow wait time
10. Encourage reflection on experiences
3. Sociocultural Ideas
(Bonk & Cunningham, 1998)
1. Shared Space and Build Intersubjectivity
2. Social Dialogue on Authentic Problems (mind is in
social interactions and extends beyond skin)
3. Mentoring and Teleapprenticeships
4. Scaffolding and Electronic Assistance in ZPD
5. Group Processing and Reflection
6. Collaboration and Negotiation in ZPD
7. Choice and Challenge
8. Community of Learning with Experts & Peers
9. Portfolio Assessment and Feedback
10. Assisted Learning (e.g., task structuring)
11. Reciprocal Teaching & Peer Collaboration

4. Frameworks: A Theory of Critical Inquiry in Online
Distance Edu.
Randy Garrison, Terry Anderson, & Walter Archer
2003, Handbook of Distance Education, Moore & Anderson (Eds.)
garrison@ucalgary.ca; terrya@athabascau.ca

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

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)

<table>
<thead>
<tr>
<th>Low Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Easy to Embed</td>
</tr>
<tr>
<td>2. Time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Free or Inexpensive</td>
</tr>
<tr>
<td>3. Cost</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Instructor-Focus</td>
</tr>
<tr>
<td>4. Student-Centered</td>
<td>Low</td>
</tr>
</tbody>
</table>

1. One minute papers or muddiest
point papers
(L = Cost, M = Risk, M = Time)
• Have students write for 3-5 minutes
what was the most difficult concept
from a class, presentation, or
chapter. What could the instructor
clarify better.
• Send to the instructor via email or
online forum.
• Optional: Share with a peer before
sharing with instructor or a class.
2. Cool Resource Provider
(Bonk, 2004) (L = Cost, M = Risk, M = Time)
- Have students sign up to be a cool resource provider once during the semester.
- Have them find additional paper, people, electronic resources, etc.
- Share and explain what found with class via synchronous meeting or asynchronous discussion post.

3. Library Day
(Bonk, 1999)
(L = Cost, M = Risk, M/H = Time)
- 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.

4. Jigsaw
(L = Cost, M = Risk, H = Time)
- Form home or base groups of 4-6 students.
- Student move to expert groups—discussion ideas in a chat.
- Share knowledge in expert groups and help each other master the material in an online forum.
- Come back to base group to share or teach teammates.
- Students present in group what learned.

5. 99 Second Quotes
(L = Cost, M = Risk, M = Time)
- Everyone brings in a quote that they like from the readings.
- You get 99 seconds to share it and explain why you choose it in a sync chat or videoconference.
- Options
  - Discussion wrapped around each quote
  - Small group linkages—force small groups to link quotes and present them
  - Debate value of each quote in an online forum

6. Structured Controversy and Instructor (or student) Generated Virtual Debates
(L = Cost, M = Risk, M = Time)
1. Select controversial topic (with input from class)
2. Divide class into subtopic pairs: one critic and one defender.
3. Assign each pair a perspective or subtopic
4. Critics and defenders post initial position statements in an online thread
5. Rebut person in one's pair
6. Reply to 2+ positions with comments or q's
7. Formulate and post personal positions.

7. Scavenger Hunt
(L = Cost, L = Risk, M = Time)
1. Create a 20-30 item scavenger hunt
2. Post scores
8. Pruning the Tree (i.e., 20 questions)

- During a synchronous chat or videoconference, have a recently learned concept or answer in your head.
- Students can only ask yes/no types of questions.
- If guess and wrong they are out and can no longer guess.
- The winner guesses correctly.

9. Numbered Heads Together

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

10. Human Graphs

- In a videoconference or synchronous session, have students line up on a scale (e.g., 1 is low and 5 is high) on camera according to how they feel about something (e.g., topic, the book, class).
- Debrief

Part II: 24 Blended Learning Solutions

Blended Solution #1. Video Streamed Lectures and Expert Commenting

Streamed Class Sessions for E4

<table>
<thead>
<tr>
<th>Course</th>
<th>Section</th>
<th>Date</th>
<th>Time</th>
<th>Media Type</th>
<th>Discussion</th>
<th>Download</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBC4-P</td>
<td>546</td>
<td>0030</td>
<td>11:00</td>
<td>3rd</td>
<td>1st</td>
<td>Download</td>
</tr>
</tbody>
</table>
**Blended Solution #8.**
**Video Scenario Learning**  
(Option 6, Arjuna Multimedia, Bloomington, IN)

**Blended Solution #10.**
**Video Observations**  
(e.g., Virtual Psychiatric Interview, Trinity College, Dublin)

**Solution #11. Instructor led**  
e.g., self study in anatomy

**Solution #12. Sharing in Virtual Teams**  
(e.g., Groove, SharePoint)

**Solution #13. Online Synchronous Cases and Teams; Simulated Boardroom Chat**  
College Wales, Univ. of Glamorgan
Solution #14. Cross-Class Collab
(Indiana Univ and Open U of Malaysia)

Solution #15. Online Groups...

Solution #16. Team Meetings in Skype

Solution #17. Community of Learners:
Medical and Business Cases Online
(cases community)
http://optionstraining.org/login

Solution #18. Community of Practice: Online Professional Development

Solution #19. Anchored Instruction:
News Content Videos (CTGV, 1990?)
Solution #20. Virtual Reality/Worlds
First Course in a Virtual World (Second Life)
Wednesday, August 30, 2006
Harvard Law School (Charles & Rebecca Nesson)
Chronicle of Higher Ed (open to the public)

Solution #21. Educational Simulations
(HEALING GAMES: Computer simulations don't have to be violent -- they can give peace a chance, Scott Duke Harris
May 21, 2006, San Fran Chronicle; and Medical Traumas from TD Magazine, August 2006)

Solution #22. Art and History Exhibits

Solution #23. Basic Acoustics of Musical Instruments
2005 MERLOT Classics Award

Solution #24. Peer Critique in Breeze
(Table of Benefits of Peer Critique; Park & Bonk, in review)
• Providing immediate feedback
• Increasing interactions among participants
• Encouraging to exchange multiple perspectives
• Enhancing dynamic interactions
• Promoting passive to become active
• Strengthening social presence allowing to exchange of emotional supports
• Apply skills just learned
• Exchange constructive feedback on each other's projects

Solution #25. Exploration and Demonstration:
Virtual Fieldtrip, Tours, Timelines
Part III.
Mucho Motivation
10+ Ideas

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

1. Tone: a. Scavenger Hunt (Find Fellow Students Social Networking Software)
2. Feedback:
A. Critical/Constructive Friends, Email Pals...

3. Engagement: C. Clickers; Innovation is but one click away...

4. Meaningfulness:
A. Authentic Data Analysis

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.

6. Variety:
A. Discussion: Starter-Wrapper (Hara, Bonk, & Angeli, 2000)
   1. Starter reads ahead and starts discussion and others participate and wrapper summarizes what was discussed.
   2. Start-wrapper with roles—same as #1 but include roles for debate (optimist, pessimist, devil's advocate).
B. Alternative: Facilitator-Starter-Wrapper (Alexander, 2001)
   Instead of starting discussion, student acts as moderator or questioner to push student thinking and give feedback.
7. Curiosity: A. Games
Online Jeopardy Game
www.km-solutions.biz/caa/quiz.zip;
Games2Train: The Challenge; Thiagi.com

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

9. Team Collaboration:
A. Court Room Forum (Bus Law)

Grounded Research and Production. Video
Paper Builder (http://vpb.concord.org/)

How many have ever felt that they
hit the wall as far as teaching online?

99 seconds review: What
have you learned so far?
• Turn to someone next to
you and review...
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

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
1. Auditory or Verbal Learners

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

1a. Online Resource Libraries

1b. Online Audio Cases

Audio Dramas
eCollege Wales, Univ. of Glamorgan

1c. Synchronous Conferencing
1d. Online Literature and Free Books

Google

The complete plays of Shakespeare. Now at your fingertips.

In Shakespeare's day, getting access to his plays meant visiting a play with the other groundlings. On the best view of the stage, a lucky few were able to glimpse the action. Today, however, Shakespeare's plays are available online for free. This is true of all his plays, whether you prefer to read them on a computer screen or in a physical copy. In fact, you can even purchase a digital edition on Google Play Books, where many are available for purchase.

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.

2b. Post Model Answers

Employment Law and Ethics Project

Question 1
What is the difference between a laborer and a laborer's assistant? List one example of a laborer and one example of a laborer's assistant.

Answer 1
A laborer is a worker who performs manual labor, while a laborer's assistant assists in performing such tasks. An example of a laborer could be a construction worker, while an example of a laborer's assistant could be a construction laborer.

2c. Reuse Chat Transcripts

Chat Transcript:

User: How can I improve my public speaking skills?

AI: To improve your public speaking skills, consider the following:

1. Prepare thoroughly: Research your topic, outline your presentation, and practice your delivery.
2. Use clear and concise language: Avoid jargon and technical terms that may confuse your audience.
3. Engage your audience: Use humor, stories, and real-life examples to keep your audience interested.
4. Use body language: Stand up straight, make eye contact, and use gestures to complement your speech.
5. Practice and seek feedback: Tape-record your speeches, ask for constructive feedback, and continue to practice.

User: Thank you! I will definitely try to incorporate these tips into my next presentation.

AI: You're welcome. Good luck with your speaking engagements!

- In the Math Emporium, students can take advantage of diagnostic quizzes, an electronic hyperlinked textbook, and interactive self-paced tutorials. There are armies of tutors, GAs, and faculty in the emporium to give students personal help when they do not understand the tutorials or quizzes...Some traditional lectures by professors are also available along with help from a conventional tutor lab.

2f. Practitioner Feedback:

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

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

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

2e. Reflection Sheets and Scaffolds online (E-Reading First Ohio)
(reflect, share, and compare)

3. Visual Learners

- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.
3c. Video Library of Concepts, Cases, or Experts

3d. Digital Libraries (LibraryShare)

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

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

3g. Capture and Videostream Lectures (e.g., Apreso CourseCaster)

3h. Virtual Surgery: multisource, real-time, interactive lesson in anatomy and surgery (Corm project)
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. 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. 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...offers three-dimensional walkthroughs of sites in the Valley of the Kings.

4d. Digital Storytelling

4e: Internally Built Web Links
(Human Intelligence Homepage, Jonathan Plucker, IU)
4f. Romantic Poetry Project

THE LIFE AND WORK OF JOHN KEATS
1795-1821
A COLLECTION OF RESOURCES DEDICATED TO THIS
SECOND GENERATION ROMANTIC POET
Visit the Website

4g. Survey Research and Market Analysis
(e.g., WebSurveyor, Zoomeraang, SurveyShare, SurveyKey)

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

• Mobile
• Auditory
• Thought-stimulating
• Reflective/Real-World
• Visually Interactive
• Extrremely Hands-on

Nature and Nurture:
An Interactional Model

Stand and Share

• Will Work:
• Might Work:
• No Way: