Active Learning with Technology: Myths, Magic, and Mucho Motivation (A Two-Part Masterclass)

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We are not motivating students with the technologies that they love!

Jumbo Motivation is Needed!

Yonsei University Library, Seoul, Korea
August 5, 2010
Remaking the College Campus,
Bridget McCrea, Campus Technology
http://campustechnology.com/article/2010/08/05/remaking-the-college-campus-part-1

Aces of Spaces, Campus Technology,
June 2011, Jennifer Demski

Masterclass Part 1:
TEC-VARIETY

Ok, Million Dollar Question: How do you motivate online learners? What Words come to mind?

Motivation Research Highlights
(Jere Brophy, Michigan State University)
1. Supportive, appropriate challenge, meaningful, moderation/optimal.
2. Teach goal setting and self-reinforcement.
4. Novelty, variety, choice, adaptable to interests.
5. Game-like, fun, fantasy, curiosity, suspense, active.
6. Higher levels, divergence, dissonance, peer interaction.
7. Allow to create finished products.
8. Provide immediate feedback, advance organizers.
9. Show intensity, enthusiasm, interest, minimize anxiety.
10. Make content personal, concrete, familiar.

I even reflected on this for a moment...and then something magical happened...
Magic #1: TEC-VARIETY Model for Online Motivation and Retention
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. Risk
Low Risk
High Risk
1. Easy to Embed
2. Free or Inexpensive
3. Instructor-Focus
4. Student-Centered

1. Tone/Climate: Social Ice Breakers
A. Public Commitments:
Have students share how they will fit the coursework into their busy schedules
B. Favorite Websites
1. Everyone posts 1-2 of their favorite Websites and explain why.
2. Peers comment on or rate them.

1. Tone/Climate: Social Ice Breakers
C. 8 nouns (adjectives, verbs)
- List of nouns: (e.g., pirate, computer, traveler, roadrunner, wind, bookworm, musician, mentor, etc.)
- List of adjectives: (e.g., lazy, powerful, shy, bored, exotic, cooperative, sloppy, rebel, etc.)
- List of verbs: (e.g., coordinate, entertain, amuse, push, unite, beg, dream, publicize, etc.)

1. Tone/Climate: Video Course Intros
(examples from Northern Virginia Community College and Indiana University KO (online MBA) program)
Yun Yun Chew, Open U Malaysia, Making Art Lessons Come Alive with Web 2.0
http://www.youtube.com/watch?v=BOq9wU110x0

2. Encouragement, Feedback, etc.
A. Online Self-Testing (e.g., self study in vocabulary, anatomy, chemistry, dissection, etc.)

2. Cost
Extensive Planning
Enterprise Licenses
High
2. Encouragement, Feedback, etc.: B. Tutorials with Screen Capture (e.g., Jing, Screen, GoView, etc.)

2. Encouragement, Feedback, etc.: C. Video Scenario Learning Accounting Interviews and Preparatory Course Review Modules (Franklin University, cost and forensic accounting course)

2. Encouragement, Feedback, etc.: D. Vocab Sushi ($25 for 3 months)

2. Encouragement, Feedback, etc.: E. Online Accounting Lessons (e.g., Lyryx; https://lifa.lyryx.co)

2. Encouragement, Feedback, etc.: F. Blog and Website Polling (e.g., BlogPolls, BlogPoll, MicroPoll, etc.)

3. Curiosity, Fun: A. Online News (Politics, Giant Jellyfish, Tiny T. rex, and Ard)
3. Curiosity, Fun: 
B. Online Social Networking Games (e.g., scrabble, hangman, etc.)

3. Curiosity, Fun: C. Online Database Activities (e.g., WolframAlpha) 
http://www.wolframalpha.com/

3. Curiosity, Fun: D. Track a Scientist, Scholar, Celebrity, Writer 
(e.g., Biography.com, biography online, FamousPeople.com)

4. Variety, Novelty: 
A. Cool Resource Provider or Tech Demos

4. Variety, Novelty, Fun, Fantasy: 
B. Random Lists (Random.org—clocks, coins, playing cards, dice, integers, passwords, jazz scales, lists, sequences, etc.)

4. Variety, Novelty, Fun, Fantasy: 
C. Timers (Stopwatches, Countdown Timers, Stopwatch Bombs, etc.; http://www.online-stopwatch.com/countdown-timer/)
4. Variety, Novelty, Fun, Fantasy: D. Music Videos of Content
History for Music Lovers, Washington Post
The French Revolution ("Bad Romance" by Lady Gaga)
Treaty Way ("Tainted Love" by Soft Cell)
Charlimage ("Call Me" by Blondie)

5. Autonomy, Choice: A. Online Literature Search (Class Google Jockeys)
(links to text, soundtracks, video clips, etc.)

5. Autonomy, Choice: B. Web Exploration Assignments
1. Complete Works of Charles Darwin Online: http://darwin-online.org.uk/
4. Electronic Archives Online: http://www.alberteinsen.info/

6. Relevance, Meaningfulness: A. Online Cases (e.g., Mark Braun, IU)

6. Relevance, Meaningfulness: B. Google Art Project (new Google project that allows
visitors to explore museums around the world and view hundreds of
artworks) http://www.googleartproject.com/
6. Relevance, Meaningfulness:
C. 60 Second Recap, Jenny Sawyer
http://www.60secondrecap.com/
Actress to students: Send me your earbuds!
English major, 24, rambunctiously recap the classics in 60-second Web videos; by Greg Topper; USA TODAY, September 2009

D. Tour an Online Oil Drilling Site or Role Play Situations (i.e., BP)
http://www.youtube.com/watch?v=b945BlxqnTs

7. Interactive, Collaborative:
A. Working In Virtual Teams
(e.g., Collanos, Ning, Groove, SharePoint, Google Docs)

Ning

8. Engagement, Effort:
A. Flash, 3-D Visualization, & Laboratory Software

B. Dr. Monica Rankin's class, UT Dallas, Cuban Revolution (April/May 2011)
http://www.youtube.com/watch?v=ocQMF1kPo98

C. Flash, 3-D Visualization, & Laboratory Software
8. Engagement, Effort: D. Time Tracker (e.g., Indy Race Tracker, May 29, 2011)

9. Tension, Challenge, etc.: A. Ethical Debates

10. Yields Products, Goals: A. More Student YouTube Products

10. Yields Products, Goals: B. Photo Festivals and Competitions (e.g., COFA at UNSW, Scrapblog, flickr, etc.)
TEC-VARIETY Model for Online Motivation and Retention
- Tone/Climate
- Encouragement, Feedback
- Curiosity
- Variety
- Autonomy
- Relevance
- Interactive
- Engagement
- Tension
- Yields Products

Poll #1: How many ideas did you get so far?
1. 0 if I am lucky.
2. Just 1.
3. 2, yes, 2...just 2!
4. Do I hear 3? 3!!!!
5. 4-5.
6. 5-10.

99 seconds: Stop and Share: Top Three Things Learned!

Do you feel JUMBO MOTIVATION?
Note: Bonk papers and talks at:
http://www.publicationshare.com/
http://www.trainingshare.com/

Masterclass Part 2: Where Are You R2D2? Introducing Read, Reflect, Display, and Do Model

Frame work: #2: The R2D2 Model
Empowering Online Learning
120+ Activities for Reading, Reflecting, Displaying & Doing
The R2D2 Method
1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)

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

Read 1a. Wikibook or Wikipedia
- Ask students to critique a wikibook or page from Wikipedia

Read 1b. Reading from Open Access Journals (e.g., PLOS)

Read 1c. Course Announcements
(e.g., Teaching with Twitter; Course announcements and following people (e.g., microblogging)
Read 1d. Listen to Open Access Podcast Shows (and write papers)

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

Reflect 2a. Individual Blogging Reflections

Reflect 2b. Critical Friend Blog Postings (Kristen and Susan)

Reflect 2c. Expert and Domain Specific Blog Reflections (English, Health, Business, etc. blogs)

Reflect 2d. Cultural Blogs (e.g., Dr. Kim Foreman, San Fran State University, Come and See Africa Blog; http://comeandseeafrica.blogspot.com/)

8/28/2011
3. Visual Learners

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

Display 3b. Visual presentations (e.g., Prezi)
http://prezi.com/iwvnhh6eaxl6/is-the-world-open/
http://prezi.com/9bh5wnjzymnr/the-world-is-open/

Display 3c. Radical Cartography
http://www.radicalcartography.net/index.html#industries
Display 3d. Concept Mapping and Timeline Tools (VUE, Bubbl.us, Cmap, Freemind, Grifty, Mindmeister, or Mindomo)

Display 3e. World Trends and Indices (e.g. Worldmapper)

Display 3f. Medical Animations and Videos (e.g., YouTube, CNN, BBC)

Display 3g. Download and Use Online 3D Sketches (Google SketchUp; download http://sketchup.google.com/3dwarehouse)

Display 3h. The Virtual Zooarchaeology of the Arctic Project (VZAP) is a virtual, interactive, osteological reference collection for the study of northern vertebrates. VZAP is a dynamic natural history archive which allows students and researchers to examine the complete skeletal anatomies of multiple bird, mammal, and fish species in both 2D and 3D.

(Anthropologist Puts an Idaho Museum's Many Bones Within Virtual Reach, Peter Bonagh, July 16, 2011, Chron.com, 11:21)

http://www.idahomuseum.org/Chronicle.asp?id=2310

Display 3i. Weather-Related Visuals and Animations
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.

Do 4a. Podcast Productions and Shows

Do 4b. Paired Article Critiques in Blogs

- Students sign up to give feedback on each other’s article reviews posted to their blogs.

<table>
<thead>
<tr>
<th>Article Title</th>
<th>Student Name 1</th>
<th>Student Name 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Doe</td>
<td>Jane Smith</td>
<td>John Smith</td>
</tr>
<tr>
<td>Jane Doe</td>
<td>Mary Johnson</td>
<td>Helen Brown</td>
</tr>
<tr>
<td>Michael Lee</td>
<td>Sarah Davis</td>
<td>David White</td>
</tr>
<tr>
<td>David White</td>
<td>Lisa Green</td>
<td>Robert Black</td>
</tr>
</tbody>
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Do 4c. Online Warm-ups Activities

Just-In-Time-Teaching (JiTT)

http://webphysics.iupui.edu/jitt/jitt.html

Do 4d. Uploading Mobile Books

(e.g., BookRix, http://www.bookrix.com/)

Do 4e. Virtual Microscopes

(Sungkyunkwan University School of Medicine, www.med.edu.or.kr)
Do 4f. Virtual Quizzes
(Sungkyunkwan University School of Medicine, www.mededu.or.kr)

Do 4g. Virtual Worlds
(e.g., Second Life)

Do 4h. Virtual Worlds with Video Archive
(e.g., Dr. Monica Rankin's class, UT Dallas, Cuban Revolution)
http://www.youtube.com/watch?v=D4U8bPV0D0s

Do 4i. Simulation Games

Poll #2: Is your brain mush?
1. Yes.
2. No.
3. Not sure yet...

Any Questions?
Try the R2D2 and TEC-VARIETY!

Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://worldisopen.com/
Email: curt@worldisopen.com