Jumbo Motivation with the TEC-VARIETY Model: 10 Principles for Motivating Students with Technology

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Technology of the 1980s

Today we have the Web 2.0

Things That Became Obsolete This Decade
December 11, 2009, Silicon Alley Insider

Gadgets that Changed Everything This Decade
December 9, 2009, Jay Yarow, Silicon Alley Insider
Poll #1: Who finds it hard to keep track of all the technology-related changes today???

Poll #2: Who is sometimes frustrated???

It's Nature (i.e., technology) and Nurture (i.e., pedagogy)!

What if our minds were on fire for learning?

John Dewey (Author of "How We Think" and "Democracy and Education")

Ivan Illich (author of "Deschooling Society")
Seymour Papert, MIT Media Lab

Shephen Heppell (co-developer of Notschool.net and the ULTRALAB)

John Seely Brown (author of "Minds on Fire" and The Social Life of Information)

Old Models of Interactivity

We are not motivating students with the technologies that they love

Jumbo Motivation is Needed!
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, moderate, 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.

Active Learning Principles
1. Authentic/Raw Data
2. Student Autonomy/Inquiry
3. Relevant/meaningful/Interests
4. Link to Prior Knowledge
5. Choice and Challenge
6. Teacher as Facilitator and Co-Learner
7. Social Interaction and Dialogue
8. Problem-Based & Student Gen Learning
9. Multiple Viewpoints/Perspectives
10. Collab, Negotiation, & Reflection

Intrinsic Motivation
"...innate propensity to engage one’s interests and exercise one’s capabilities, and, in doing so, to seek out and master optimal challenges (i.e., it emerges from needs, inner strivings, and personal curiosity for growth)


I even reflected on this for a moment...and then something magical happened...

The 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. **Tone/Climate:** (open, inviting)
   A. Create a Class Wiki (Wikispaces)

2. Encouragement, Feedback, etc.:
   B. Video Course Intros from Instructors.
   Yun Yun Chow, Open U Malaysia
   Making Art Lessons Come Alive with Web 2.0
   http://www.youtube.com/watch?v=BO9ruJD1Gxa

3. Curiosity, Fun:
   A. Online News
   (Giant jellyfish, Tiny T. rex, and Ardil)

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1. **Risk**
   - Low Risk
   - High Risk

2. **Time**
   - Easy to Embed
   - Extensive Planning

3. **Cost**
   - Free or Inexpensive
   - Enterprise Licenses

4. **Student-Centered**
   - Low
   - High

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3. Curiosity, Fun: B. WolframAlpha
(access knowledge)
http://www.wolframalpha.com/

3. Curiosity, Fun: C. Virtual Tours

3. Curiosity, Fun: D. Virtual Field Trips

3. Curiosity, Fun: E. Adventure Learning (e.g., GeoThentic, GoNorth, Polar Husky, Nat'l Geographic; Aaron Doering, U of Minnesota)

3. Curiosity, Fun: F. Videoconference
(e.g., Int'l Studies for Indiana Schools (I.S., ISIS); Mandarin Chinese, Niger, Sudan, Life in Eastern Europe Today (Bulgaria), History and Culture of Mexico (Dob Hutton, Indiana Univ., Mimi Nyoung Lee, Univ of Houston)

3. Curiosity, Fun: G. Oceanographer touts deep sea web surfing (e.g., Nautilus Live allows people to not only learn about the expeditions but watch them live and listen to the scientists in the control rooms as discoveries are made. From staff and wire reports, eSchool News, June 2010 http://www.oceantelecom.com/extension/extension.html#livevideo.html)
3. Curiosity, Fun: H. Tour a Museum (e.g., British Museum, Smithsonian, Louvre)


3. Curiosity, Fun: J. Online Historical Document (e.g., Turning The Pages, British Library)

3. Curiosity, Fun: K. Solo Sailing (e.g., Michael Perham & Zac Sunderland, Summer 2009 (each age 17, youngest person to sail solo around the world...meet Minoru Saito, age 75, oldest solo sailor)

May 2010, Jessica Watson became the youngest person ever to sail solo, non-stop and unassisted around the world.

3. Curiosity, Fun: L. Virtual Archaeology (e.g., ARCHA VE from Brown University)

Abby Sunderland's blog

3. Curiosity, Fun: N. Ice Stories Project from Antarctica

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

4. Variety, Novelty: B. Expert Chats/Real Explorer or Teacher Interaction (Jean Pannucol, blogger)

Arlington Racetrack

Jockey’s are Important
5. Autonomy, Choice: C Online Literature Search (Class Google Jockeys) (links to text, soundtracks, video clips, etc.)

5. Autonomy, Choice: D. Clickers/Student Response Systems

5. Autonomy, Choice: E. Famous Person Web Explorations, Searches, Twitter Tracking, and Interviews (e.g., famous Australian actors)

5. Autonomy, Choice: F. Explore Online Museums, Zoos, Library Exhibits (Museum of Online Museums or MoOM)

5. Autonomy, Choice: G. Free Lesson Plans (Smithsonian Education, Department of Education) [http://www.free.ed.gov/]

5. Autonomy, Choice: H. Online Portal Explorations
5. Autonomy, Choice: I. Samuel Pepys and Phil Gyford, UK

6. Relevance, Meaningfulness:
   A. Tour an Oil Drilling Site (i.e., BP)

6. Relevance, Meaningfulness:
   B. 60 Second Recap, Jenny Sawyer
   http://www.60secondrecap.com/
   Actress to students: ‘Lend me your ear buds’
   English major, 2A, rambunctiously recaps the classics in 60-second Web videos; By Greg Toppo; USA TODAY, September 2009

6. Relevance, Meaningfulness:
   C. New Real World and Authentic Learning Skills (PBL, evaluation, interaction, communication, etc.)

6. Relevance, Meaningfulness:
   D. Concept Mapping Tools (vue, Bubbl.us, Cmap, Freemind, Gtiffy, Mindmeister, or Mindomo)

6. Relevance, Meaningfulness:
   E. Virtual Tours and Timelines
   (i.e., HyperHistory; http://simeio.mit.edu/timeline/)
6. Relevance, Meaningfulness: F. Videos of the Periodic Table

7. Interactive, Collaborative: A. Collaborative Documents (Google Docs)

7. Interactive, Collaborative: B. Online Language Learning (Skype with Mixter, Livemocha, Friends Abroad)

7. Interactive, Collaborative: C. Int'l Children's Digital Library (ICDL) project (Univ. of Maryland, Black Beauty, Aesop's Fables, Little Red Riding Hood, Grimm's Fairy Tales, Robinson Crusoe, and Mother Goose.)

7. Interactive, Collaborative: D. Global Collaboration (e.g., EPals and IEARN (Int'l Education and Resource Network))

7. Interactive, Collaborative: E. Global Nomads Group
7. Interactive, Collaborative:
F. Create an Online Community in Ning, Google Groups, or Yahoo Groups.

7. Interactive, Collaborative:
G. Horizon and Flat Classroom Projects (combine blogs, videoconferencing, chat, async discussion, etc.)

8. Engagement, Effort:
A. Follow Online Adventure
Australian adventurer Doc McIntyre and teenage circumnavigator Mike Perham to re-enact Capt William Bligh's epic mutiny on the Bounty open boat voyage

8. Engagement, Effort:
B. Anchored Instruction (find anchoring event in YouTube, CNN, BBC, TeacherTube, CurrentTV)

8. Engagement, Effort:
C. Shared Online Video (e.g., the Khan Academy; videos on math, bio, trig, chemistry, money and banking, economics, statistics, etc.)

8. Engagement, Effort:
D. Synchronous and Asynchronous Events (Webinars in Elluminate, Dimdim, WebEx, Adobe Connect Pro)
8. Engagement, Effort: E. Basic Acoustics of Musical Instruments (Univ. of New South Wales)

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

9. Tension, Challenge, etc.: B. Controversial Science (e.g., Ida (a transitional species) 47-Million-Year-Old Darwinia Has Fossil the Missing Link? (wwwdenver_may2000)

10. Yields Products, Goals: A. Movie Festivals, Virtual Timelines, Digital Movies

10. Yields Products, Goals: B. Video Blogs

10. Yields Products, Goals: C. Photo Festivals and Competitions (e.g., COFA at UNSW, Scrapblog, flickr, etc.)
10. Yields Products, Goals:
D. Using Online Video (e.g., YouTube) to Memorize Sonnets and Poems

10. Yields Products, Goals:
E. Wikis (e.g., for Monster Writing)

10. Yields Products, Goals:
F. Student Developed Wikibooks
(Wikibooks Junior)

TEC-VARIETY Model for Online Motivation and Retention
- Tone/Climate
- Encouragement, Feedback
- Curiosity
- Variety
- Autonomy
- Relevance
- Interactive
- Engagement
- Tension
- Yields Products

Poll: 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.

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