Adding Some TEC-VARIETY for Online Motivation and Retention

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What did Jean-Luc Picard say?

That’s right, Engage!

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.

Poll #1: Million Dollar Question: What words come to mind when I say that I want to motivate learners?

April 23, 2015
Can Behavioral Tools Improve Online Student Outcomes? Experimental Evidence from a Massive Open Online Course, Richard W. Patterson
http://www.ilr.cornell.edu/sites/ilr.cornell.edu/files/cheri_wp165_0.pdf
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)


April 10, 2015

103-year-old Marie Hunt fulfills her lifelong dream to graduate from high school, NBC, WMTV Madison (Spring Green, Wisconsin)


April 20, 2015

250 MOOCs and Counting: One Man’s Educational Journey,

http://chronicle.com/article/250-MOOCs-Counting-One/229397/?cid=at

If the MOOC movement has faded, nobody told Jima Ngei. Mr. Ngei, who lives in Port Harcourt, Nigeria, has completed and passed 250.

Jima Ngei: “I had this unrelenting fear that this miracle of free access might evaporate soon.”

Framework: TEC-VARIETY 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

Introducing the “TEC-VARIETY book...”

http://tec-variety.com/

What motivates?

1. Tone/Climate: Psych Safety, Comfort, Sense of Belonging
2. Encouragement, Feedback: Responsive, Support
3. Psych Safety, Support, Inclination
4. Variety: Novelty, Intrigue, Unknowns
5. Autonomy: Choice, Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting
7. Interactive: Collaborative, Community
8. Engagement: Effort, Involvement, Ownership
9. Tension: Challenge, Dissonance, Controversy
10. Yields Products: Goal Driven, Purpose, Success, Ownership
Examples of TEC-VARIETY

1. **Tone/Climate: A. Threaded Video Discussions, e.g., Flipgrid**
   - [http://flipgrid.com/#429f88c5](http://flipgrid.com/#429f88c5)

2. **Encouragement, Feedback, etc.: A. Demonstrations and Tutorials**
   - Emerging technology specialist, IU UITS, Nitocris Perez, May 29, 2014

   - [http://vocaroo.com/i/s1vGImGXxw9y](http://vocaroo.com/i/s1vGImGXxw9y)
     (Recorded April 23, 2015 by Curt Bonk for Penn State)

   - C. Online Practice Tests and Quizzes (e.g., CPR, Human Embryology Animations)
2. Encouragement, Feedback, etc.: D. Blog and Website Polling
(e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)
http://www.poll Everywhere.com/

3. Curiosity, Fun:
A. Videos and Online Quizzes
(e.g., Want to be an activist? Start with your toys - McKenna Pope, TEDEd)

March 15, 2015
3. Curiosity, Fun:
B. Something in the News
(e.g., Protesters stage anti-robot rally at SXSW, USA Today, Jon Swartz)
http://www.usatoday.com/story/tech/2015/03/14/sxsw-robot-ai-protest-artificial-intelligence/24777871/

3. Curiosity, Fun:
C. Something in the News
New 'massive' dinosaur skeleton discovered, USA Today, September 5, 2014 (Dreadnoughtus)

October 23, 2014: Goofy dinosaur blends Barney and Jar Jar Binks, SF Gate

January 20, 2015: Naomi Ng, for CNN

3. Curiosity, Fun:
D. Something in the News
(e.g., This may be the oldest surviving Photo of a human, November 7, 2014, CNN, Brandon Griggs; But this image, taken in Paris, France, in 1838)

3. Curiosity, Fun:
E. Tracking the Life of a Computer Scientist (bio.com)
http://www.biography.com/people/steve-jobs-9354805
http://www.biography.com/people/ada-lovelace-28835323
3. Curiosity, Fun:
F. Tracking the Life of a Computer Scientist (Wikipedia)

4. Variety, Novelty, Fun:
A. Teach from Vietnam to the World
BBC News Asia, August 14, 2013
Even though he is now very elderly (age 96) still teaches music, using his computer to coach pupils across the globe.

5. Autonomy, Choice:
A. 20% Time in Education
Kendal Rasnake & Troy Cockrum, IU

Poll #2:
Which of these ideas might you use?
A. Threaded video discussions (e.g., Flipgrid)
B. Video introductions (instructor or student)
C. Demonstrations and tutorials (Jing, Screenr, etc.)
D. Voice/Audio feedback (Vocaroo)
E. Online practice tests
F. Something in the news
G. Tracking life of scientist

March 13, 2015
5. Autonomy, Choice:
A. 20% Time in Education
Kendal Rasnake & Troy Cockrum, IU

March 5, 2015
Pink Time: New approach to student projects promotes passion, learning for its own sake,
Virginia Tech News
http://www.collegiatetimes.com/news/virginia_tech/article_4140ba24-ad6b-11e4-b05a-47eb57d77a1e.html
http://www.vtnews.vt.edu/articles/2015/01/012315-cnre-pinktime.html

Dr. Tim Baird speaks about his concept of “Pink Time” during the Seventh Annual Conference on Higher Education Pedagogy, February 5, 2015.
5. Autonomy, Choice:

B. Class Central
Gaming Literacy and Learning, MOOC in Canvas, Hui-Yin Hsu & Dr. Shiang-Kwei Wang
https://www.class-central.com/ or http://oedb.org/open/

C. Attend Webinar (pick weeks and reflect)
Cathy Davidson, The End of Higher Education
http://connectedcourses.net/thecourse/why-we-need-a-why/

D. Design Multimedia Glossaries
Ozgur Ozdemir, December 2012
http://r685glossary.shutterfly.com/
Umida Khikmatillaeva, Dec. 2011, P540
http://learningplanet.shutterfly.com/

E. Design Article Database in Pinterest, Jenny Webeck
https://www.pinterest.com/jennifertwebeck/emerging-learning-technologies/

F. Design Article Database in Facebook, Jenny Webeck
https://www.facebook.com/JennyBELTT/timeline

G. Open Educational Resources (OER)
Digital Public Library of America
http://dp.la/
5. Autonomy, Choice:
   H. Video Repositories and Portals
   (e.g., Khan Academy, Computer Programming)

6. Relevance, Meaningfulness:
   A. Guest Chats
   (e.g., Emily Hixon, January 20, 2015)
   [Link]

   B. Video Scenario Learning Accounting Interviews
   and Preparatory Course Review Modules (Franklin
   University, cost and forensic accounting course)
   [Link]

   C. Case-Based Learning: Instructor Cases
   (e.g., Mark Braun, IU)

7. Interactive, Collaborative:
   A. Negotiate Meanings Online
   (e.g., PiratePad: [Link])

Poll #3:
Any light bulbs going off in your head so far...?
A. Yes definitely***
B. Yes maybe!
C. Not yet (but hopefully soon...)
January 27, 2015
7. Interactive, Collaborative:
B. Backchannel Chat (TodaysMeet)
https://todaysmeet.com/
R678_Emerging_Learning_Technologies
https://todaysmeet.com/R678_Emerging_Learning_Technologies

October 4, 2014
7. Interactive, Collaborative:
C. Class Facebook Group
Dr. Bonk’s creative fun time group (R546)
https://www.facebook.com/groups/830496290323899/

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Poll #4:
Which of these ideas might you use?
A. Student designed multimedia glossaries
B. Article database in Pinterest
C. Guest chats with former students
D. Negotiate meanings online (e.g., PiratePad)
E. Backchannel chat (Todaysmeet)
F. Class Facebook group
G. Discussion in Google Hangouts

8. Engagement, Effort:
A. Guest Speaker Quotes
(Rey Junco, February 25, 2013)
8. Engagement, Effort:
B. Map Trend Interpretations
e.g., Global Forest Watch (April 2014)
http://www.globalforestwatch.org/map/3/
Plant Hardiness Zone Map: http://planthardiness.ars.usda.gov/PHZMWeb/

8. Engagement, Effort:
C. Google Map Gallery
September 16, 2014
http://maps.google.com/gallery/

8. Engagement, Effort:
D. Data Visualization Tools (Harvard and MIT MOOCs)
Lawrence Biemiller, February 20, 2014, Chronicle of Higher Education

8. Engagement, Effort:
E. Interactive Multimedia E-Books
June 10, 2014, Chronicle of HE, 300 images, more than 700 notes and explanations, multimedia annotations, video commentary, and two dozen videos.
Digital Dubliners: http://digitaldubliners.com/
James Joyce: http://joyceways.com/

9. Tension, Challenge, etc.:
A. Cage Matches or Debates
(with online audience topical suggestions)
Cage Match on MOOCs at SXSWedu 2013
(Curt Bonk & Chuck Severance)
https://soundcloud.com/sxswedu/cage-match-the-massive-open

9. Tension, Challenge, etc.:
B. Controversial Issue Debates
SXSW: Tackling the growing gender gap in technology
Mike Snider, USA Today
March 13, 2015
9. Tension, Challenge, etc.: C. Controversial Issue Debates
R511 Midterm Video How to Create an Authentic Environment in a Content-Driven School?, R511, Nick and Nik
https://www.youtube.com/watch?v=Bcr3_aZT_xQ&feature=youtu.be

March 13, 2015
9. Tension, Challenge, etc.: D. Controversial Issue Debates
Gamification, Jeff Jenkins and Melody Childs, IU
https://www.youtube.com/watch?v=DYe85LMiqSw

March 13, 2015
9. Tension, Challenge, etc.: E. Controversial Issue Debates: Flipped Classroom, Board Meeting, Nora and Lauren, IU
https://www.dropbox.com/sh/geijknepvtjmxdc/AAAuQ9JCBcEtaiBcC-ZLxPuCa?dl=0#lh:null-b03ea104-0935-a723_1329.mp4

10. Yields Products, Goals:
A. Course Video Summaries and Multimedia Team Assignments (April 23, 2015)
Piercarlo Abate: http://www.youtube.com/watch?v=_TURzHO0aU
Qi Li, Gangnam: http://www.youtube.com/watch?v=7Q429lqxZaU&feature=youtu.be
Miguel Lara (Web 2.0 FREEDOM): http://www.youtube.com/watch?v=8cmCFWi9lW8
Kendal Rasnake (Is IT Right For You?): https://www.youtube.com/watch?v=MJ3GUDICIGw

10. Yields Products, Goals:
B. Uploading Mobile Books (e.g., BookRix, http://www.bookrix.com/)

10. Yields Products, Goals:
C. Student Mobile App Creation
The App Builder: http://www.theappbuilder.com/
Mintian Guo (April 2013): http://myapp.is/r685final
January 23-25, 2015

10. Yields Products, Goals:
D. Global Game Jam

25,000 participants. 518 jam sites. Egypt had more than 800 participants. Over 5,000 games made. Includes Belarus, Cuba, Ecuador, Faroe Islands, Georgia, Ghana, Guatemala, Guernsey and Luxembourg as first time participants.
http://globalgamejam.org/news/ggj15-closes (reflect, discuss, etc.)

As the GGJ15 closes...

10. Yields Products, Goals:
E. Business Plans and Virtual Mentoring toward Goals, September 22, 2014, Chronicle of HE
http://chronicle.com/article/Start-Up-Slow-Down/148923/?cid=at

10. Yields Products, Goals:
F. Goal Setting Tools (e.g., I Done This, Milestone Planner, and 43 Things)

G. Interactive Archive/Gallery of Exemplary First-Year Writing Projects (Fresh Writing, University of Notre Dame, September 24, 2014; https://freshwriting.nd.edu/)

Poll #5: Which of these ideas might you use?
A. Guest speaker quotes
B. Data visualization tools
C. Challenge debates (cage matches?)
D. Student designed video productions
E. Student designed e-books
F. Goal setting tools
G. Gallery of exemplary work

Commitments: Stop and Share:
Which principle(s) of TEC-VARIETY will you use?

Tone/Climate
Encouragement, Feedback
Curiosity
Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products
Recap and Reflect with Neighbor:
Explore Websites from this Session!
Or Find the lieu...
Take a quick 1-2 minute break...

Framework #2: The R2D2 Model

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. Collect and Listen to Interactive Stories
(e.g., Meograph: http://www.meograph.com/)

January 28, 2015
Read 1b. Twitter Fed Class Discussions
Live-Tweeting Assignments: To Use or Not to Use?
The Chronicle of Higher Education, Adeline Koh
https://chronicle.com/blogs/profhacker/live-tweeting-assignments-to-use-or-not-to-use/58949
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. Big Issue Reflections
(Big Questions Online (BQO)), Feb 3, 2015
(e.g., Is curiosity essential for human flourishing?)
https://www.bigquestionsonline.com/content/do-we-have-souls

Reflect 2b. Interpreting Infographics
July 24, 2014
Woman in Computer Science
http://graduatedegrees.online.njit.edu/mscs-resources/mscs-infographics/women-in-computer-science/

3. Visual Learners

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

Display 3a. Virtualize Words Used
(e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out)
http://shellyterrell.com/2010/02/14/12-word-cloud-resources-tips-tools/

Display 3b. Concept Mapping and Timeline Tools
(Bubbl.us, Cmap, Gliffy, Mindmeister, or Mindomo)
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 4b. Student Class Documentaries
Umida’s R546 Documentary Project
http://www.youtube.com/watch?v=EMLTzqCV_SA

Poll #6: Which do you prefer...
(A) TEC-VARIETY or (B) R2D2?

Poll #7: How many ideas did you get from this talk?

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.

February 8, 2015
Do 4a. Recap Discussion (e.g., Prezi from Thuy Han for R678 class Week 4)

Poll #7: How many ideas did you get from this talk?

Any Questions?
Try TEC-VARIETY...Try R2D2
Slides at: TrainingShare.com
Papers: PublicationShare.com
Free Book: http://tec-variety.com/
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