Masterclass Part 3: Adding Some TEC-VARIETY
For Online Motivation and Retention

Curtis J. Bonk, Professor, Indiana University
cjbonk@indiana.edu
http://mypage.iu.edu/~cjbonk/

New Instructor Roles
(Concierge, Curator, Counselor, etc.)

Motivation and Engagement
(e.g., students in Japan)

What did Jean-Luc Picard say?

That’s right, Engage!

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


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: Psychological Safety, Comfort, Sense of Belonging
2. Encouragement, Feedback: Responsive, Supports
3. Psych Safety, Comfort, Belonging
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
Examples of TEC-VARIETY

1. Tone/Climate: A. Video Introductions, e.g., Flipgrid
   [http://flipgrid.com/#429f68c5]

2. Encouragement, Feedback, etc.: A. Demonstrations and Tutorials
   Chuck Severance, U Michigan/Coursera in Barcelona
   [http://www.youtube.com/watch?v=3XWkx9v8T1]
   Chuck Severance, University of Michigan
   [https://www.coursera.org/course/pythonlearn]

2. Encouragement, Feedback, etc.: B. Voice Feedback
   Vocaroo; [http://vocaroo.com/]
   [http://vocaroo.com/i/s1ao2YOFyPI3 (Singapore)]

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

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

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

Incredible 50-foot 'dragon' dinosaur unearthed by Chinese farmers
January 20, 2015: Naomi Ng, for CNN
http://www.cnn.com/2015/01/30/asia/china-dragon-dinosaur/index.html

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-20835323
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 Vinh Bao (age 96) still teaches music, using his computer to coach pupils across the globe.

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

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.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-Wen Wang
https://www.class-central.com/
http://oedb.org/open/
5. Autonomy, Choice:
C. Attend Webinar (pick weeks and reflect!)
Cathy Davidson, The End of Higher Education
http://connectedcourses.net/thecourse/why-we-need-a-why/

5. Autonomy, Choice:
D. Design Multimedia Glossaries
Ozgur Ozdemir, December 2012
http://r685glossary.shutterfly.com/
Umida Khikmatillaeva, Dec. 2011, PS40
http://learningplanet.shutterfly.com/

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

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

5. Autonomy, Choice:
G. Visual Library Search
Digital Public Library of America
http://dp.la/

5. Autonomy, Choice:
H. Online Learning Object Repositories and Portals (e.g., Computer Programming)
6. Relevance, Meaningfulness:
A. Guest Chats (e.g., Emily Hixon, January 20, 2015)
https://connect.iu.edu/p259wplabg9/

6. Relevance, Meaningfulness:
B. Video Scenario Learning Accounting Interviews and Preparatory Course Review Modules (Franklin University, cost and forensic accounting course)
http://video.franklin.edu/Franklin/acct/managerialAccounting/cost_Behavior-player.html
http://video.franklin.edu/Franklin/acct/342/common/fraudScenario02.html

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

7. Interactive, Collaborative:
A. Negotiate Meanings Online (e.g., PiratePad: http://meetingwords.com/)
MeetingWords is a simple text editor for the web. Your text is saved on the web, and more than one person can edit the same document at the same time. Everybody's changes are instantly reflected on all screens. Work together on meeting notes, brainstorming sessions, homework, team programming and more!

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. R546 Facebook Group
Dr. Bonk's creative fun time group (R546)
https://www.facebook.com/groups/830496290323899/
7. Interactive, Collaborative: D. Multiple Guest Experts
Sara de Freitas and Jim Hensman, U of Coventry, UK
https://connect.iu.edu/p2ie1yx6z6x/
Jay Cross, Berkeley

7. Interactive, Collaborative: E. Collaboration and Discussion in Google Hangouts, Jabber, Skype, etc

8. Engagement, Effort: F. Guest Speaker Quotes
(Rey Junco, February 25, 2013)

8. Engagement, Effort: G. Map Trend Interpretations
e.g., Global Forest Watch (April 2014)
http://www.globalforestwatch.org/map/3/-3.72/27.00/ALL/grayscale/loss/596

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

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

March 15, 2015
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=DUYo65Mig8w

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/AAAuQ9JCBcEtaiBcCZLxPuCa?dl=0#lh:null-b03ea104-0935-a723_1329.mp4
10. Yields Products, Goals:
A. Course Video Summaries and Multimedia Team Assignments (April 24, 2014)
Pierrcarlo Abate: http://www.youtube.com/watch?v=TURzHO0aU
Qi Li, Gangnam: http://www.youtube.com/watch?v=7Q429lqxZaU
Miguel Lara (Web 2.0 FREEDOM): http://www.youtube.com/watch?v=8cmCFWj9lW8

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

10. Yields Products, Goals:
D. Global Game Jam
January 23-25, 2015
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.)

10. Yields Products, Goals:
E. Business Plans and Virtual Mentoring toward Goals,
September 22, 2014, Chronicle of HE

10. Yields Products, Goals:
F. Goal Setting Tools
(e.g., I Done This, Milestone Planner, and 43 Things)
10. Yields Products, Goals: G. Fresh Writing, Interactive Archive of Exemplary First-Year Writing Projects (University of Notre Dame, September 24, 2014) 
https://freshwriting.nd.edu/

Audience Poll #2: 
Any light bulbs going off in your head so far...? If so, where?
A. Yes definitely
B. Maybe
C. No

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

I just Love It when they "make it so!"

Addressing Learning Styles

Question: How can technology address diverse learner needs?
Framework #2: The R2D2 Model

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

The R2D2 Method
1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)

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

Reflect 2b. Workplace Internship, Practicum, and Field Experiences

Reflect 2c. Big Issue Reflections
(Big Questions Online (BQO)), Feb 3, 3015
(e.g., Is curiosity essential for human flourishing?)
https://www.bigquestionsonline.com/articles/can-you-flourish

Reflect 2d. Reflect on Virtual Timelines
(Dipity, xtimeline, Simile, etc.) (How Facebook changed our lives, Marco della Cava, USA Today, February 3, 2014)
http://www.usatoday.com/story/tech/2014/02/02/facebook-turns-10-cultural-impact/5063979/
http://www.360doc.com/content/09/0326/15/78535_2925017.shtml

Reflect 2e. Reflect on Virtual Timelines
(Dipity, xtimeline, Simile, etc.)

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/-word-cloud-resources-type-tools/

---

**Display 3b. Interactive Timeline Maps,**
**October 22, 2014**

Second immigration wave lifts diversity to record high:
Greg Toppo and Paul Overberg, USA Today


---

**Display 3c. Big Data Visualization Tools,**
**January 20, 2014,**

6.00x Introduction to Computer Science and Programming
MITx on EdX Course


---

**Display 3d. Student Collaborative Knowledge Building and Sharing**
(e.g., Popplet: http://popplet.com/)

---

**Display 3e. Concept Mapping and Timeline Tools**
(Bubbl.us, Cmap, Gliffy, Mindmeister, or Mindomo)

---

**Display 3f. Anchored Instruction in Shared Online Videos**
(e.g., WonderHowTo)
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.