Poll #1: How many of you cannot keep up with educational technology reports and are frustrated?

Poll #2: What did Jean-Luc Picard say?

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)

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

Framework #1: 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 free “TEC-VARIETY” Framework...

Examples of TEC-VARIETY

<table>
<thead>
<tr>
<th>Risk</th>
<th>Low Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to Embed</td>
<td>Extensive Planning</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Free or Inexpensive</td>
<td>Enterprise Licenses</td>
</tr>
<tr>
<td>Cost</td>
<td>Instructor-Focused</td>
<td>Student-Focused</td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td></td>
</tr>
</tbody>
</table>
November 10, 2016

1. Tone/Climate:
   A. Threaded Video Discussions and Questions
      (e.g., Flipgrid)
      http://flipgrid.com/#429f88c5
      Flipgrid: The Power of Student Voice

2. Encouragement, Feedback:
   A. Demonstrations and Tutorials
      (e.g., Jing, Screenr, GoView, Screencast-o-matic, etc.)

2. Encouragement, Feedback:
   B. Blog and Website Polling
      (e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)
      http://www.polleverywhere.com/

    http://www.englishcentral.com/videos/!
    https://www.englishcentral.com/videos

July 21, 2017

2. Encouragement, Feedback:
   D. English Central
   http://www.englishcentral.com/videos
March 27, 2017

3. Curiosity, Surprise, Intrigue, Unknowns:
A. Summary and Comparison Maps
#GeoawesomeMapOfTheDay
https://twitter.com/geoawesomeness
https://www.instagram.com/p/BNwgvJfDAq3/
https://twitter.com/hashtag/GeoawesomeMapOfTheDay?src=hash

![Map Image]

April 17, 2017

3. Curiosity, Intrigue, Unknowns:
B. Multimedia 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)

![Image of an old photograph]

July 27, 2017

3. Curiosity, Intrigue, Unknowns:
E. Meet Corythoraptor: Newly found dinosaur resembles ostrich gone bad
Traci Watson, USA Today

![Image of Corythoraptor]

February 16, 2017

3. Curiosity, Intrigue, Unknowns:
F. Crowdsourced Science
NASA wants you — to find a missing planet
Doyle Rice, USA Today (includes 1:09 video)
http://www.usatoday.com/story/tech/sciencefair/2017/02/16/planet-9-nasa/98007144/

![Video thumbnail]
Poll #4: 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. Crowdsourced Science
F. Something in the News
G. Summary and Comparison Maps
H. Immediate Science

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

October 5, 2016
4. Variety, Novelty, Fun, Fantasy:
B. Online Test/Quiz Review Games
(e.g., Jeopardy Rocks)
https://www.jeopardy.rocks/r511merve/

April 3, 2017
4. Variety, Novelty, Fun, Fantasy:
C. Kahoot!
https://getkahoot.com/

July 31, 2017
I’m in ‘Kahoots’ with Technology in the Classroom
Cassandra OSullivan Sachar, Faculty Focus
https://www.facultyfocus.com/articles/teaching-with-technology/articles/kahoots-technology-classroom/

April 3, 2017
4. Variety, Novelty, Fun, Fantasy:
D. Sli.do
https://www.sli.do/

July 17, 2017
4. Variety, Novelty, Fun, Fantasy:
E. Learning Chemistry in Virtual Reality,
Sarah Hardman, New Learning Times
1:38 video: https://vialogues.com/vialogues/play/38337/
All: http://curtbonk.com/chemistry-vr.html
01:16: http://curtbonk.com/chemistry-vr-2.html
5. Autonomy, Choice:
A. Enroll in a MOOC and Reflect (e.g., see Class Central)

December 8, 2015
5. Autonomy, Choice:
B. Design Multimedia Glossaries
http://natewynne1982.wix.com/p540courseglossary
Ozgur Ozdemir, December 2011
http://r685glossary.shutterfly.com/
Umida Khikmatillaeva, Dec. 2011, P540
http://learningplanet.shutterfly.com/

5. Autonomy, Choice:
C. Tracking the Life of a Computer Scientist (e.g., bio.com)
http://www.biography.com/people/steve-jobs-9354805
http://www.biography.com/people/ada-lovelace-20825323

Poll #5:
Any light bulbs going off in your head so far…?
A. Yes definitely***
B. Yes maybe!
C. Not yet (but hopefully soon…)

Jan. 20, Oct. 13, & Nov. 2016 (Zoom)
6. Relevance, Meaningfulness:
A. Weekly Guest Expert Chats
R511 Chat with Mike Molenda, IU

6. Relevance, Meaningfulness:
B. Case-Based Learning: Instructor Cases (e.g., Mark Braun, IU)
July 28, 2017

6. Relevance, Meaningfulness:
C. Case-Based Learning: Modern medicine breathes new life into virtual training

1:01-2:1: http://curtbonk.com/vr-medicine.html
.57-.6: http://curtbonk.com/vr-medicine2.html

July 26, 2017

6. Relevance, Meaningfulness:
D. MOOC Class Meet-Ups
Beer Matters: Free Online Class With Meetups (September 6, 2017-October 21, 2017), Karl Brown, Assistant Professor of History
http://curtbonk.com/bear.html (1:11)

September 20, 2016

6. Relevance, Meaningfulness:
E. Editing Wikipedia Pages
College students take to Wikipedia to rewrite the wrongs of Internet science, Rosanna Xia, LA Times

Samantha Erickson, left, of the Wiki Education Foundation; Tina Brock, a dean of the School of Pharmacy at UC San Francisco; and professor Amin Azzam discuss implementing the integration of Wikipedia pages on medical topics with students’ work. (David Butow / For The Times)

7. Interactive, Collaborative:
A. Negotiate Meanings Online (e.g., PiratePad: http://meetingwords.com/)
MeetingWords, Google Docs, NowComment, MixedInk

7. Interactive, Collaborative:
B. Virtual Sharing Walls
e.g., Padlet (What is your secret recipe to engage?)
http://padlet.com/zaid_alsagoff/engage

7. Interactive, Collaborative:
C. Backchannel Chat (TodaysMeet)
https://todaysmeet.com/
R678_Emerging_Learning_Technologies
https://todaysmeet.com/R678_Emerging_Learning_Technologies
7. Interactive, Collaborative: D. Guest Speaker Quotes
(Rey Junco, February 25, 2013)

Poll #6:
Which of these ideas might you use?
A. Student designed multimedia glossaries
B. Edit Wikipedia pages
C. Guest chats with former students
D. Negotiate meanings online (e.g., PiratePad)
E. Enroll in a MOOC
F. Discussion in Zoom
G. Guest speaker quotes

8. Engagement, Involvement: A. Interactive Maps Timelines
October 22, 2014, Second immigration wave lifts diversity to record high, Edward Greg Toppo and Paul Overberg, USA Today

8. Engagement, Involvement: B. Interactive Timelines
(Dipity, xtimeline, Simile, TimeLineCurator, etc.)

8. Engagement, Involvement: C. Interactive Labs and Simulations
http://phet.colorado.edu/en/simulation/energy-skate-park

December 13, 2016
9. Tension, Challenge, Controversy, etc.: A. Controversial Issue Debates
 Librarians for Instructional Technology, Latrice Booker, R511, Fall 2016
http://bookerlr2000.wixsite.com/librariansfortl/cognitivism
October 16, 2015
9. Tension, Challenge, Controversy, etc.: B. Case Learning from the News (e.g., Newseum Ed)

10. Yields Products, Goals:
A. Facebook Course Page (R546)
https://www.facebook.com/JennyBELTT/

10. Yields Products, Goals:
B. Database Collection Tools
Design Article Database in Pinterest,
Meina Zhu and Jennifer Weebeck
https://www.pinterest.com/zhumeina0000/r-678-emerging-learning-technologies/
https://www.pinterest.com/jennifertwebeck/emerging-learning-technologies/

March 12, 2016
10. Yields Products, Goals:
D. Student Generated Timelines, Taxonomies, and Concept Maps
R678 John Falchi, Timeglider, An Abbreviated History of Distance Education
http://timeglider.com/t/50843d8903a48008?min_zoom=1&max_zoom=100

Poll #7:
Which of these ideas might you use?
A. Interactive map timelines
B. Facebook course page (or Pinterest)
C. Issue challenges, role plays, and debates
D. Student designed course recap videos
E. Student infographics
F. Interactive timeline tools
G. Videos with test questions
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

Masterclass Part 2:
Best Practices for Online and Blended learning:
Introducing the R2D2 Model

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

Addressing Learning Styles with R2D2

Question: How can technology address diverse learner needs?

Model #2: The R2D2 Model:
Read, Reflect, Display, Do...

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. Podcasts

IU Bloomington podcast series to launch Jan. 24, Steve Hinnefeld, IU Newsroom

IU's Media School dean James Shanahan, at left, will host a new campus podcast. Senior Luqmann Ruth will read the news for the inaugural podcast.

PHOTO BY JENNIFER PIUREK, OFFICE OF THE PROVOST

Read 1b. Collect Oral Histories

e.g., Joan Kang Shin, George Mason University, has her students write "This I believe" Statements.

(EFL teachers around the world interview elders in their community for a rich database of oral histories and documentaries for social change)

Oral History Society: http://www.ohs.org.uk/

Read 1c. Exploring Various Resources to Track the Life of a Prominent People

(e.g., Vannevar Bush in Atlantic Monthly, Wikipedia, Time, etc.)


Read 1d. Immediate Science and Open Access Science

Ancient jawbones put new species on the human family tree, researchers say, Laura Smith-Spark, CNN


http://www.nature.com/nature/journal/v521/n7553/full/nature14448.html

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

May 28, 2015

Read 1d. Immediate Science and Open Access Science

New species from Ethiopia further expands Middle Pleistocene hominin diversity

http://www.nature.com/nature/journal/v521/n7553/full/nature14448.html
Reflect 2a. Big Issue Reflections
(Big Questions Online (BQO)), Feb 3, 2015
(e.g., Can a Living Creature Be as Big as a Galaxy?)

April 15, 2017
Reflect 2B. “What if” Questions?
Emma Morano, Last Known Person Born During The 1800s, Dies, Hilary Hanson, Huffington Post

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

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

3. Visual Learners
• Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.

Display 3a. Interpreting Infographics
August 5, 2015
How much rainforest in that chocolate bar?
Global Forest Watch, Nancy Harris, Octavia Payne and Sarah Mann
http://blog.globalforestwatch.org/2015/08/how-much-rainforest-is-in-that-chocolate-bar/
Display 3b. Virtualize Words Used (e.g., Wordle, Tagzedo, Tagul, WordSift, Word It Out)

Display 3c. Map Animations
Yes, Mr. President, We Remade Our Atlas to Reflect Shrinking Ice
Christine Dell’Amore, National Geographic, August 3, 2015

Display 3d. Cartograms, Maps, and Other Visualizations
Metrocosm: Cartograms Archive
The Housing Value of Every County in the U.S.
https://metrocosm.com/category/cartograms/

Display 3e. A total solar eclipse is happening Aug. 21 and here’s what you need to know
Sarah Kaplan, The New York Times

Display 3f. Maps of Languages
Langscape, Language at Maryland
http://www.spicynodes.org/index.html

Display 3g. (April 28, 2015)
Concept Mapping and Timeline Tools
(Bubbl.us, Cmap, Gliffy, Spicynodes, or Mindomo)
http://www.spicynodes.org/index.html
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. Goal Setting Tools

(e.g., iDoneThis, Milestone Planner, and 43 Things)
October 26, 2016
Do 4b. Student Research Recap Video
R511, Rob Elliot, Erin Milanese, and Patrick Walsh
Traditional Textbook (8:11)

Do 4c. Student Website Development
R511 Final Projects, April 2016
IT and HPT Comparisons (Website), Doug Hsu
http://dougandindira.wix.com/r511finalproject

"Cousins but Not Twins: Instructional Technology and Human Performance Technology,"
Merve Basdogan and Brett Gary, R511, December 2016
http://educbasdogan.wixsite.com/511final

Poll #8: Which do you prefer...
(A) TEC-VARIETY or (B) R2D2?

Poll #9: 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.

Poll #10: Three Words from this Session...?
e.g., “I am happy!” and...
My minions are happy!

Any Questions or Comments?
Slides at: TrainingShare.com
Papers: PublicationShare.com
Free book: http://tec-variety.com/
Dr. Curt Bonk – CJBonk@Indiana.edu