Adding Some TEC-VARIETY for Online Motivation and Retention
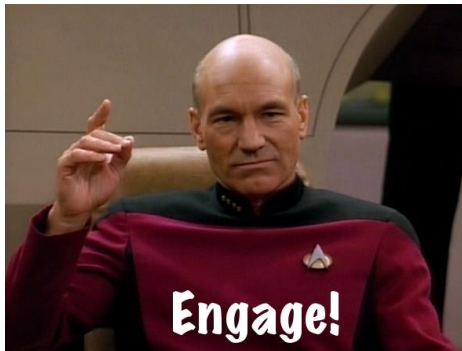
Curtis J. Bonk, Professor, Indiana University
cjbonk@indiana.edu
http://mypage.iu.edu/~cjbonk/

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?

Motivation Research Highlights
(Jere Brophy, Michigan State University)

1. Supportive, appropriate challenge, meaningful, moderation/optimal.
2. Teach goal setting and self-reinforcement.
3. Offer rewards for good/improved performance.
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.

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

THE CHRONICLE OF HIGHER EDU

| Home | News | Global | Opinion & Ideas | Facts & Figures | Blogs | Advice | Forums |

Wired Campus
The latest on tech and education.

April 23, 2015 by Casey Fabris   Comments (4)

Tools That Limit Distraction May Raise Student Performance in Online Classes

For students taking courses online, the endless distractions of the Internet can be a

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)

> See: Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. NY: Plenum Press.
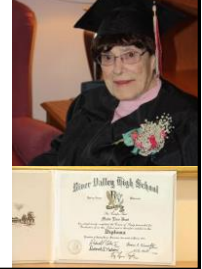

April 10, 2015
103-year-old Marie Hunt fulfills her lifelong dream to graduate from high school, NBC, WMTV Madison (Spring Green, Wisconsin)
http://www.nbc15.com/home/headlines/103-year-old-Spring-Green-woman-fulfills-life-long-goal-299361331.html

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April 20, 2015
250 MOOCs and Counting: One Man's Educational Journey, Chronicle of Higher Education
http://chronicle.com/article/250-MOOCsCounting-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. **T**one/Climate: Psych Safety, Comfort, Belonging
2. **E**ncouragement, Feedback: Responsive, Supports
3. **C**uriosity: Fun, Fantasy, Control
   …
4. **V**ariety: Novelty, Intrigue, Unknowns
5. **A**utonomy: Choice: Flexibility, Opportunities
6. **R**elevance: Meaningful, Authentic, Interesting
7. **I**nteractive: Collaborative, Team-Based, Community
8. **E**ngagement: Effort, Involvement, Excitement
9. **T**ension: Challenge, Dissonance, Controversy
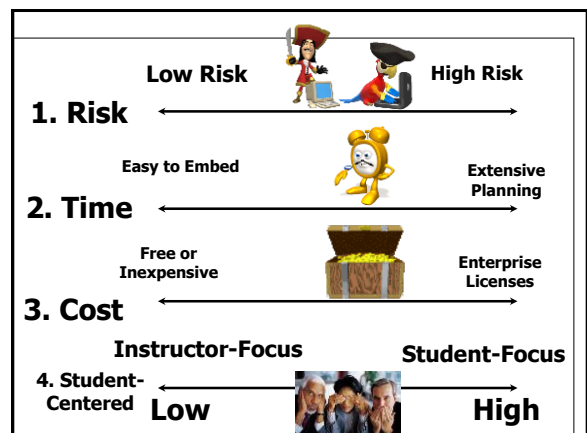10. **Y**ields Products: Goal Driven, Products, Success, Ownership

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Introducing the "TEC-VARIETY book…
http://tec-variety.com/

What motivates?
1. **Tone/Climate:** Psychological Safety, Comfort, Sense of Belonging
2. **Encouragement:** Feedback, Responsiveness, Praise, Supports
3. **Curiosity:** Surprise, Intrigue, Unknowns
4. **Variety:** Novelty, Fun, Fantasy
5. **Autonomy:** Choice, Control, Flexibility, Opportunities
6. **Relevance:** Meaningful, Authentic, Interesting
7. **Interactivity:** Collaborative, Team-Based, Community
8. **Engagement:** Effort, Involvement, Investment
9. **Tension:** Challenge, Dissonance, Controversy
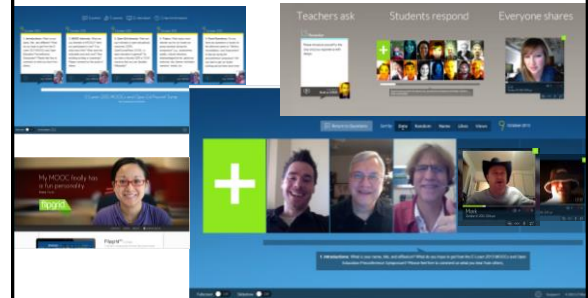10. **Yielding Products:** Goal Driven, Purposeful Vision, Ownership

ADDING SOME TEC-VARIETY
CURTIS J. BONK   ELAINE KHOO

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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   Instructor-Focus / Low — Student-Focus / High

Examples of TEC-VARIETY

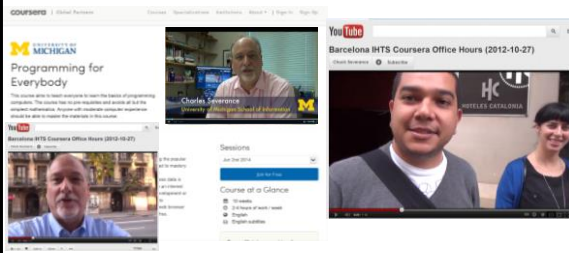**1. T**one/Climate: A. Threaded Video Discussions, e.g., Flipgrid
http://flipgrid.com/#429f88c5)

1. Tone/Climate: B. Video Introductions (Office Hours in Other Countries)
Chuck Severance, U Michigan/Coursera) in Barcelona
http://www.youtube.com/watch?v=JzNHvmSv8TI
Chuck Severance, University of Michigan
https://www.coursera.org/course/pythonlearn

2. Encouragement, Feedback, etc.: A. Demonstrations and Tutorials
Emerging technology specialist, IU UITS, Nitocris Perez,
May 29, 2014
http://inside.iub.edu/features/videos/2014-05-29-inub-vid-cib.shtml

2. Encouragement, Feedback, etc.: B. Voice/Audio Feedback
Vocaroo: http://vocaroo.com/
http://vocaroo.com/i/s1vGImGXxw9y
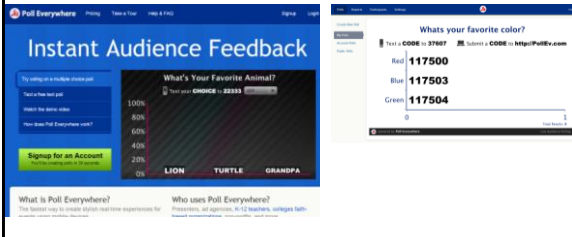**(Recorded April 23, 2015 by Curt Bonk for Penn State)**

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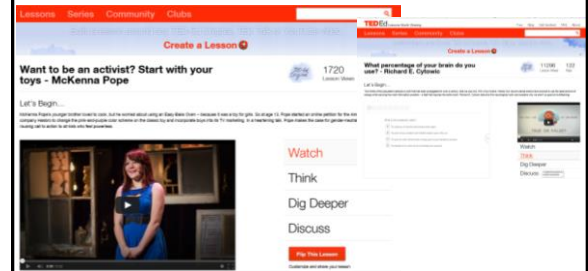
2. Encouragement, Feedback, etc.: D. Blog and Website Polling
(e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)
http://www.polleverywhere.com/

3. Curiosity, Fun:
A. Videos and Online Quizzes
(e.g., Want to be an activist? Start with your toys - McKenna Pope , TEDEd)
http://ed.ted.com/lessons/want-to-be-an-activist-start-with-your-toys-mckenna-pope#watch

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.cnn.com/2014/12/17/health/healthy-aging/index.html?hpt=hp_t2
http://money.cnn.com/2014/11/02/pf/college/for-profit-college-degree/index.html?hpt=hp_t5
http://espn.go.com/sports/endurance/story/_/id/8979487/fauja-singh-101-caps-career-10k-hong-kong
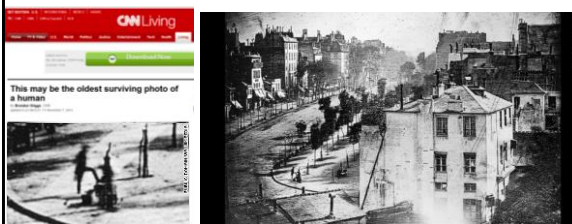http://www.usatoday.com/story/tech/2015/03/14/sxsw-robot-ai-protest-artificial-intelligence/24777871/

3. Curiosity, Fun:
C. Something in the News
New 'massive' dinosaur skeleton discovered, USA Today,
September 5, 2014 (Dreadnoughtus)
http://www.usatoday.com/story/tech/2014/09/04/dinosaur-skeleton-discovered/15031803/
October 23, 2014: Goofy dinosaur blends Barney and Jar Jar Binks, SF Gate
http://www.sfgate.com/news/science/article/Goofy-dinosaur-blends-Barney-and-Jar-Jar-Binks-5840093.php
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)
http://www.cnn.com/2014/11/06/living/oldest-photograph-human-daguerre/index.html?hpt=hp_t4 kong

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-20825323

4
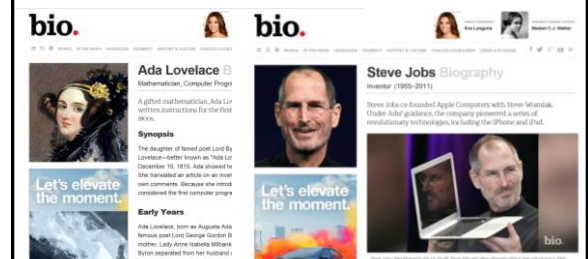
3. Curiosity, Fun:
F. Tracking the Life of a Computer Scientist (Wikipedia)
http://en.wikipedia.org/wiki/Vannevar_Bush

JULY 1945

As We May Think

VANNEVAR BUSH | JUL 1 1945, 12:00 PM ET

TIME

Vannevar Bush

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

INTERNET
HIGH-FIVE
PLACE HAND
HERE

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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.
http://www.bbc.com/news/world-asia-23497559

Working Lives Vietnam

WATCH: | Milk magnate | Textile worker | Software engineer

Working Lives Vietnam

WATCH: | Milk magnate | Textile worker | Software engineer

Working Lives Vietnam: Musician

There is no system for writing Vietnamese traditional music so its survival depends on master musicians passing their skills on to the next generation.

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

RANDOM.ORG   RANDOM.O

Coin Flipper   Dice Roller   List Randomizer

March 13, 2015
5. Autonomy, Choice:
A. 20% Time in Education
Kendal Rasnake & Troy Cockrum, IU
https://www.dropbox.com/s/tcsr5oae2lcgwuk/20_Time_in_Education-Cockrum_and_Rasnake.mov?n=57312573

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
http://chronicle.com/blognetwork/theubiquitouslibrarian/2015/03/04/confronting-the-unexpected-unlocking-intrinsic-learning/?cid=at&utm_source=at&utm_medium=en
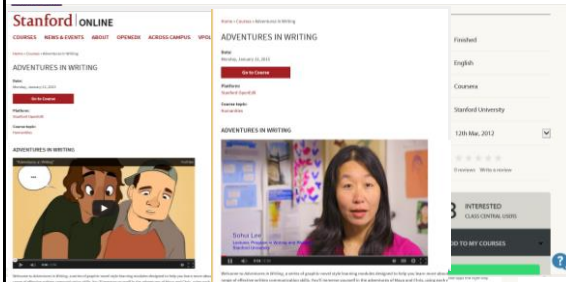

Dr. Tim Baird speaks about his concept of "Pink Time" during the Seventh Annual Conference on Higher Education Pedagogy, February 5, 2015.

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/

5. Autonomy, Choice:
C. Attend Webinar (pick weeks and reflecti)
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, P540
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. Open Educational Resources (OER)
Digital Public Library of America
http://dp.la/
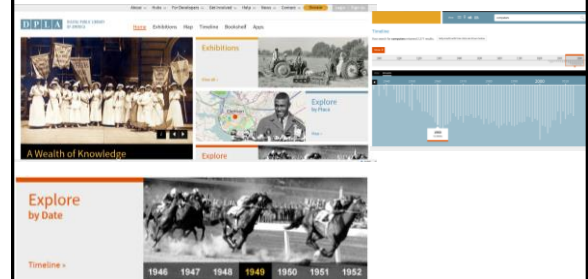
5. Autonomy, Choice:
H. Video Repositories and Portals
(e.g., Khan Academy, Computer Programming)
https://www.khanacademy.org/computing/computer-programming
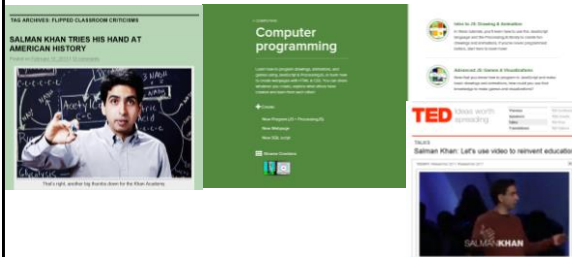
Poll #3:
Any light bulbs going off in your head so far...?
A. Yes definitely***
B. Yes maybe!
C. Not yet (but hopefully soon...)

6. Relevance, Meaningfulness:
A. Guest Chats (e.g., Emily Hixon, January 20, 2015)
https://connect.iu.edu/p259wpiabg9/

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/fraud5cenario02.html
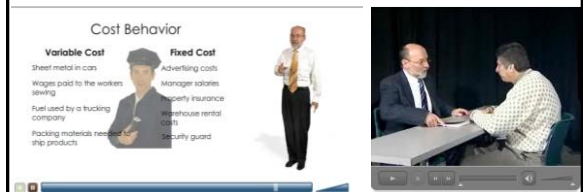
6. Relevance, Meaningfulness:
C. Case-Based Learning: Instructor Cases
(e.g., Mark Braun, IU)

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!
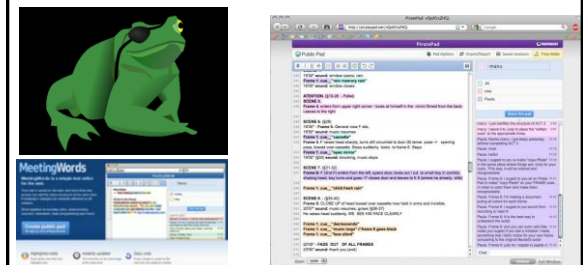
January 27, 2015
7. Interactive, Collaborative:
B. Backchannel Chat (TodaysMeet)
https://todaysmeet.com/
R678_Emerging_Learning_Technologies
https://todaysmeet.com/R678_Emerging_Learning_Technologies
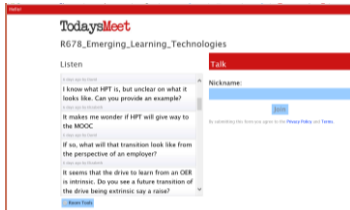
October 4, 2014
7. Interactive, Collaborative:
C. Class Facebook Group
Dr. Bonk's creative fun time group (R546)
https://www.facebook.com/groups/830496290323899/

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 (**https://connect.iu.edu/p4bytsoronh/**)

7. Interactive, Collaborative:
E. Collaboration and Discussion in
Google Hangouts, Jabber, Skype, etc
(January 29 and February 25, 2013)

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/-3.72/27.00/ALL/grayscale/loss/596
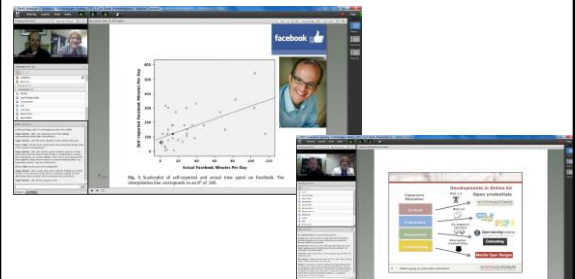**Plant Hardiness Zone Map: http://planthardiness.ars.usda.gov/PHZMWeb/**
(e.g., New USDA climate zone map reflects northward warming trends, By Janice Lloyd, USA Today)
http://www.usatoday.com/news/nation/environment/story/2012-01-26/USDA-climate-zone-map/52787142/1
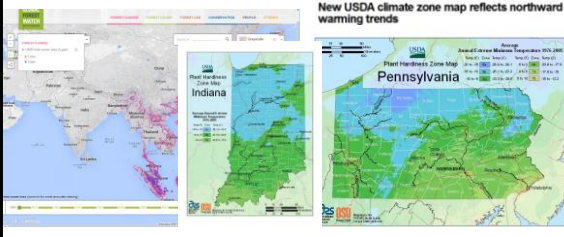
8. Engagement, Effort:
C. Google Map Gallery
September 16, 2014
http://maps.google.com/gallery/

8. Engagement, Effort:
D. Data Visualization Tools (Harvard and MIT MOOCs) Lawrence Biemiller, February 20, 2014, Chronicle of Higher Education
http://chronicle.com/blogs/wiredcampus/harvard-and-mit-release-visualization-tools-for-trove-of-mooc-data/50631?cid=pm&utm_source=pm&utm_medium=en
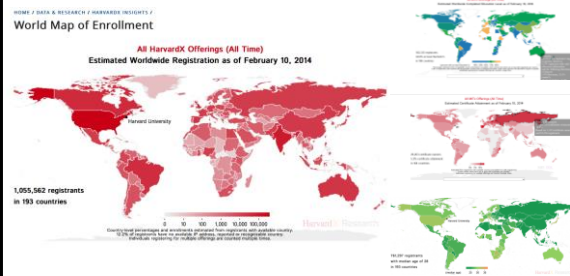
8. Engagement, Effort:
E. Interactive Multimedia E-Books
June 10, 2014, Chronicle of HE, 300 images, more than 700 notes and explanations, multimedia annotations, video commentary, and two dozen videos.
Digital Dubliners: http://digitaldubliners.com/
James Joyce: http://joyceways.com/

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)
http://chronicle.com/blogs/wiredcampus/at-south-by-southwest-education-event-tensions-divide-entrepreneurs-and-educators/42777
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
http://www.usatoday.com/story/tech/2015/03/15/sxsw-geek-girls-chic-technology-gender-gap/24808699/

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=DYe85LMiq5w

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=7Q429IqxZaU&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=MJ3GUDlCIGw

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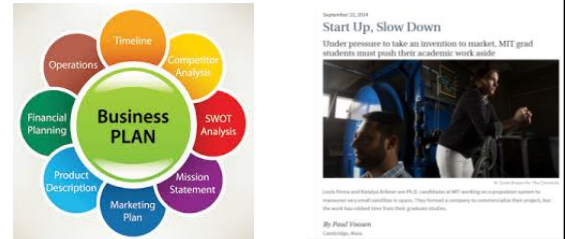**10. Yields Products, Goals:**
D. Global Game Jam
25,000 participants. 518 jam sites. Egypt had more than 800 participants. Over 5,000 games made. Includes Belarus, Cuba, Ecuador, Faroe Islands, Georgia, Ghana, Guatemala, Guernsey and Luxembourg as first time participants.
http://globalgamejam.org/news/ggj15-closes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

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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

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

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10. Yields Products, Goals:
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

COMMITMENT

Recap and Reflect with Neighbor:
Explore Websites from this Session!
Or Find the lieu…

Take a quick 1-2 minute break…

What motivates?
1. **Tone/Climate:** Psychological Safety, Comfort, Sense of Belonging
2. **Encouragement:** Feedback, Responsiveness, Praise, Supports
3. **Curiosity:** Surprise, Intrigue, Unknowns
4. **Variety:** Novelty, Fun, Fantasy
5. **Autonomy:** Choice, Control, Flexibility, Opportunities
6. **Relevance:** Meaningful, Authentic, Interesting
7. **Interactivity:** Collaborative, Team-Based, Community
8. **Engagement:** Effort, Involvement, Investment
9. **Tension:** Challenge, Dissonance, Controversy
10. **Yielding Products:** Goal Driven, Purposeful Vision, Ownership

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Framework #2: The R2D2 Model

Empowering Online Learning
Curtis J. Bonk | Ke Zhang
100+ 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)**

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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/)

Meograph
Easily tell interactive stories

January 28, 2015
Read 1b. Twitter Fed Class Discussions
Live-Tweeting Assignments: To Use or Not to Use?
he Chronicle of Higher Education, Adeline Koh
http://chronicle.com/blogs/profhacker/live-tweeting-assignments-to-use-or-not-to-use/58949
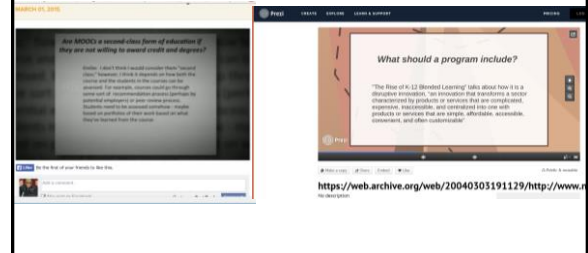
4. Tactile/Kinesthetic Learners

- **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.**

February 8, 2015
Do 4a. Recap Discussion (e.g., Prezi from Thuy Han for R678 class Week 4)
https://prezi.com/r4vkwqokrn9/httpswebarchiveorgweb20040303191129httpwwwnetco/?utm_campaign=share&utm_medium=copy

https://web.archive.org/web/20040303191129/http://www.n

Do 4b. Student Class Documentaries
Umida's R546 Documentary Project
http://www.youtube.com/watch?v=EMLTzqCV_5A

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.
7. More than 10.

Any Questions?
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