

Adding Some TEC-VARIETY for Online Motivation and Retention

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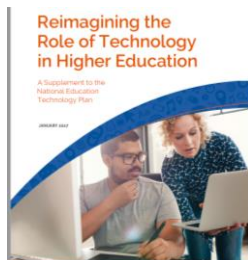
January 15, 2017 3 Reasons to Read the Higher Ed Supplement to National EdTech Plan (e.g., conversation starter, examples of innovation, cross-section of expertise)

Joshua Kim, Inside Higher Ed
<https://www.insidehighered.com/blogs/technology-and-learning/3-reasons-read-higher-ed-supplement-national-edtech-plan-0>



January 2017 Higher Education Supplement to the National Education Technology Plan

U.S. Department of Education, Office of Educational Technology
<https://tech.ed.gov/files/2017/01/Higher-Ed-NETP.pdf>



January 2017 Higher Education Supplement to the National Education Technology Plan

U.S. Department of Education, Office of Educational Technology
<https://tech.ed.gov/files/2017/01/Higher-Ed-NETP.pdf>

'New Normal' Students in Higher Education

74% of all undergraduate students have at least one nontraditional characteristic

66% transfer between institutions prior to completion

62% work either full or part time

43% attend part time

28% have at least one dependent

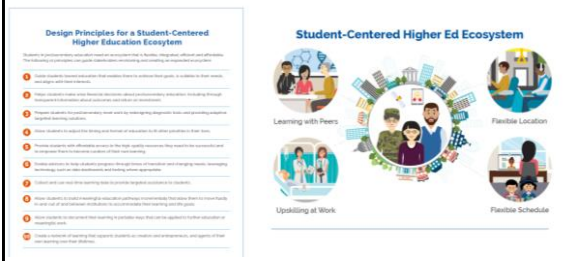
35% are enrolled in two-year colleges

63% are first-gen students

Source: National Center for Education Statistics (2015)*

January 2017 Higher Education Supplement to the National Education Technology Plan

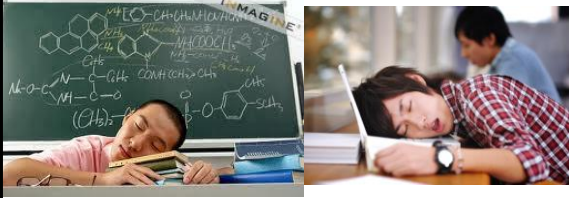
U.S. Department of Education, Office of Educational Technology
<https://tech.ed.gov/files/2017/01/Higher-Ed-NETP.pdf>



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



Needed: New Models of Motivation and Engagement



September 11, 2016 Welcome, Freshmen. Look at Me When I Talk to You

Jonathan Zimmerman, The Chronicle of Higher Education
<http://www.gite.education/events/2017/conference/>



No, Banning Laptops Is Not the Answer

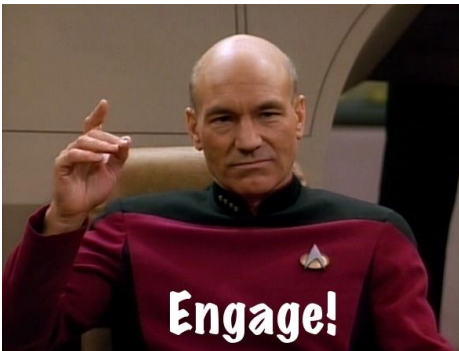
And it's just as pointless to condemn any ban on electronic devices in the classroom.

By James M. Lang | 10/17/2015 11:30 AM

The issue of our students' use of devices in the classroom has been vigorously debated whether to ban them or to limit their use. The problem is that banning them and all electronic devices from the classroom. Laptops have been banned in some classrooms.

Most faculty members allow students to use cell phones, clickers, and other hand-held devices only for very limited purposes such as polling — if at all. Laptops, for instance, have been banned in some classrooms.

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)

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



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.



Poll #2: Million Dollar Question: What words come to mind when I say that I want to motivate learners?



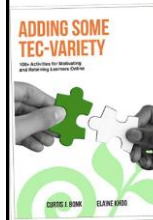
Framework: TEC-VARIETY for Online Motivation and Retention

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 free "TEC-VARIETY" Framework...

<http://tec-variety.com/>

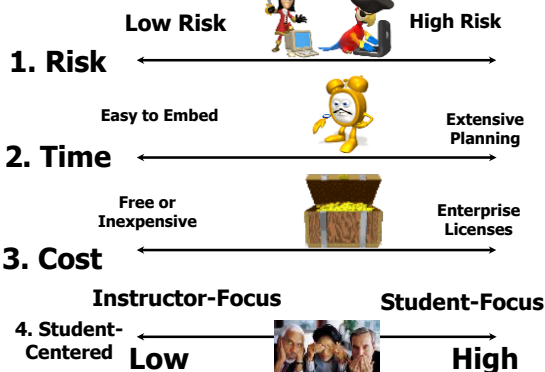
<http://tec-variety.com/TEC-VARIETY-Chinese.pdf>



在线学习动机与激励： TEC-VARIETY 模型

——激励和留住在线学习者的 100 个活动

作者：Curtis J Bonk & Elaine Khoo IU



Examples of TEC-VARIETY



November 10, 2016

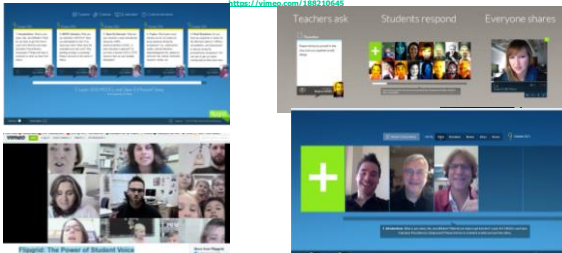
1. Tone/Climate:

A. Threaded Video Discussions and Questions (e.g., Flipgrid)

<http://flipgrid.com/#429f88c5>

Flipgrid: The Power of Student Voice

<https://www.youtube.com/watch?v=1801100051>



1. Tone/Climate:

B. Share Visuals of Favorite Places (e.g., Panoramio)

<http://www.panoramio.com/>



1. Tone/Climate: C. Instructor Course Introductions

(Theatre 10 Intro Video, October 7, 2014, Elizabeth Dale, West Valley College)

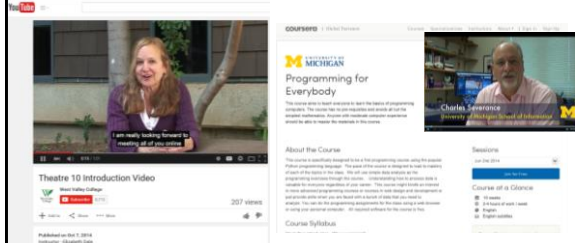
<https://www.youtube.com/watch?v=Wzbzc3QjIA>

Chuck Severance, U Michigan/Coursera) in Barcelona

<http://www.youtube.com/watch?v=JzNHvmsv8T1>

Chuck Severance, University of Michigan

<https://www.coursera.org/course/pythonlearn>



2. Encouragement, Feedback: 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: B. Online Practice Tests and Quizzes (e.g., CPR, Human Embryology Animations)

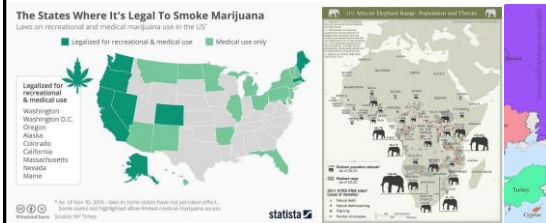


3. Curiosity, Surprise, Intrigue, Unknowns: A. Summary and Comparison Maps

#GeoawesomeMapOfTheDay
<https://twitter.com/geoawesomeness>

<https://www.instagram.com/p/BNWgvJfDQa3/>

<https://twitter.com/hashtag/GeoawesomeMapOfTheDay?src=hash>



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)

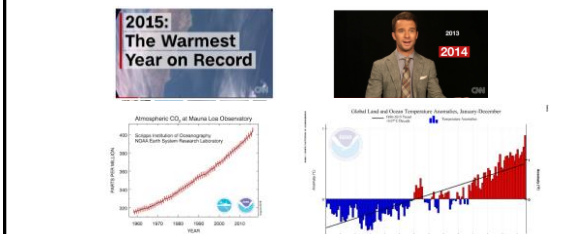
http://www.cnn.com/2014/11/06/living/oldest-photograph-human-daguerre/index.html?hpt=hp_14_kong



3. Curiosity, Intrigue, Unknowns: C. Multimedia News

Changing opinions on climate change, from a CNN meteorologist, Chad Meyers, CNN

<http://www.cnn.com/2015/08/24/Climate/Chad-meyers-climate-change-animator/index.html>



January 17, 2016

**3. Curiosity, Surprise, Intrigue, Unknowns:
D. Something in the News**

http://www.cnn.com/2014/12/17/health/healthy-aging/index.html?hpt=hp_12
http://espn.go.com/sports/story/_/id/8975487/fauja-singh-101-caps-career-106-hong-kong
https://en.wikipedia.org/wiki/Fauja_Singh
<http://www.sbs.com.au/yourlanguage/hindi/en/article/2016/01/17/106-year-old-fauja-singh-runs-mumbai-marathon>

People who feel younger at heart live longer



Fauja Singh, 101, finishes last race

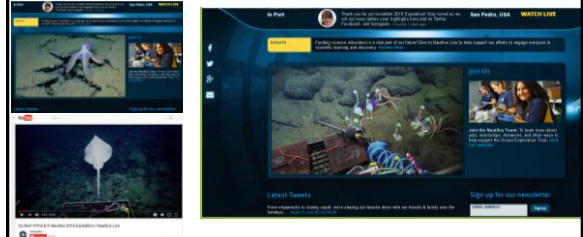


September 16, 2016

**3. Curiosity, Intrigue, Unknowns:
E. Live Science**

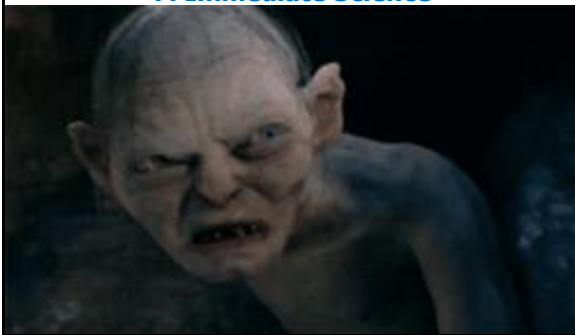
Best of the E/V Nautilus 2016 Expedition | Nautilus Live
(video: 32:28)

<https://www.youtube.com/watch?v=312P90fmsj>



November 19, 2015

**3. Curiosity, Intrigue, Unknowns:
F. Immediate Science**

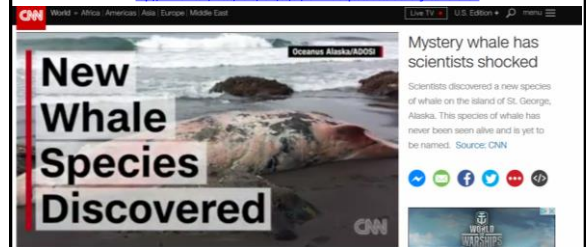


August 2, 2016

**3. Curiosity, Intrigue, Unknowns:
G. Immediate Science**

Mystery whale has scientists shocked,
New Whale Species Discovered, CNN

<http://www.cnn.com/world/asia/2016/08/02/new-whale-species-discovered-orig-04cn.cnn>

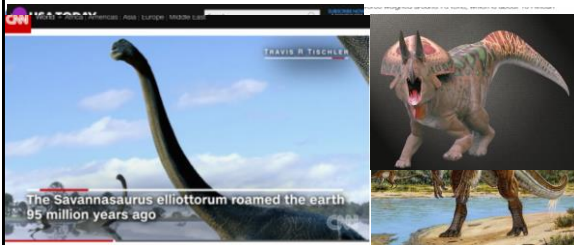


January 5, 2017

**3. Curiosity, Intrigue, Unknowns:
H. Immediate Science**

Move over T. rex, new dinosaur unveiled, Amanda Jackson, CNN

<http://www.cnn.com/2016/01/14/living/titanosaurus-new-dinosaur-on-display-new-york-kcpl/>



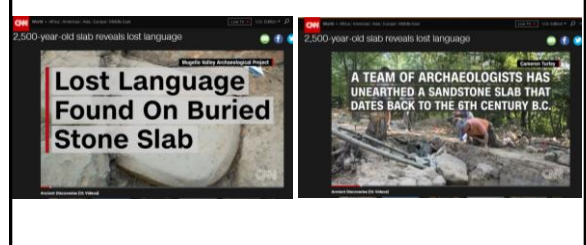
April 1, 2016

**3. Curiosity, Intrigue, Unknowns:
I. Groundbreaking Science**

(e.g., 2,500-year-old slab reveals lost language, CNN)

(A team of scientists have uncovered a 2,500-year-old slab that may reveal details about the ancient Etruscan civilization; found in Temple foundation north of Florence, Italy.)

<http://www.cnn.com/videos/world/2016/04/01/italy-etruscan-slab-find-orig-5stan.cnn>



Poll #3:**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. 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.)

RANDOM.ORG

Coin Flipper

You flipped 2 coins of type Irish-E1:



Timestamp: 2011-08-13 01:04:43 UTC

[Flip Again](#) [Go Back](#)

Dice Roller

You rolled 2 dice:



Timestamp: 2011-08-13 01:04:43 UTC

[Roll Again](#) [Go Back](#)
RANDOM.ORG

List Randomizer

There were 10 items in your list. Here they are in random order:

Random Sequence Generator

Here is your sequence:

1. Bill
2. Arthur
3. 10 Thomas
4. 2 Dwayne
5. 7 Stacy
6. 2 Sharon
7. 5 Susan
8. 6 Stephanie
9. 4 Ned
10. 8 Brian

Timestamp: 2011-08-13 01:04:43 UTC

October 5, 2016**4. Variety, Novelty, Fun, Fantasy:****B. Online Test/Quiz Review Games**

(e.g., Jeopardy Rocks)

<https://www.jeopardy.rocks/r511merv/>
**4. Variety, Novelty, Fun, Fantasy:****C. Voice/Audio Feedback**Vocaroo: <http://vocaroo.com/>
<http://vocaroo.com/delete/s0x8moQAYAiu/a37bbc9408bb8c95>

(Recorded by Curt Bonk for the Open University of China)

**4. Variety, Novelty, Fun, Fantasy:****D. Video Editing and Commenting Tools**

(e.g., TubeChop)

How Does It Work?

1. Find the video you want to chop.
2. Select & cut interesting part of the video.
3. Share it with friends.

Watch Examples**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

P540 Final Assignment: Nate Wynne, Supersized Personal Course Glossary
<http://natewynne1992.wikix.com/p540courseglossary>

Ozgur Ozdemir, December 2012

<http://r685glossary.shutterstock.com/>

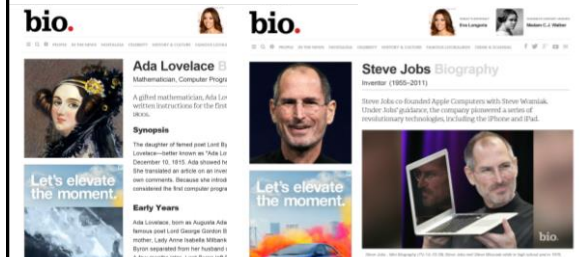
Umida Khikmatillaeva, Dec. 2011, P540

<http://learningplanet.shutterstock.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>



March 13, 2015

5. Autonomy, Choice:

D. 20% Time in Education

Kendal Rasnake & Troy Cockrum, IU

https://www.dropbox.com/s/tcsr50ae2icgwuk/20_Time_in_Education-Cockrum_and_Rasnake.mov?n=57312573



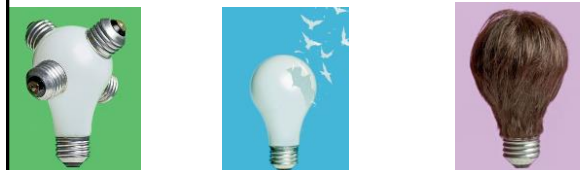
Poll #4:

**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. Weekly Synchronous Guest Chats

(e.g., Emily Hixon, January 20, 2015)

<https://connect.iu.edu/p259wpiabg9/>



Jan. 20, Oct. 13, & Nov. 2016 (Zoom)

6. Relevance, Meaningfulness:

B. Weekly Guest Expert Chats

R511 Chat with Mike Molenda, IU



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

Stomach, endoscopic examination and biopsy:
Poorly differentiated tubular adenocarcinoma

Final conclusion:
Advanced gastric carcinoma with multiple lung metastasis with lymphangitic growth

September 20, 2016 6. Relevance, Meaningfulness: D. Editing Wikipedia Pages

College students take to Wikipedia to rewrite the wrongs of Internet science, Rosanna Xia, LA Times
<http://www.latimes.com/local/lanow/la-me-wikipedia-science-classes-adv-snac-story.html>



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/>)
<http://blogs.elon.edu/technology/6-collaborative-writing-applications-for-group-projects-or-papers/>
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)

October 16, 2015
9. Tension, Challenge, Controversy, etc.:
B. Case Learning from the News
 (e.g., Newseum Ed)
<https://newseumed.org/>



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

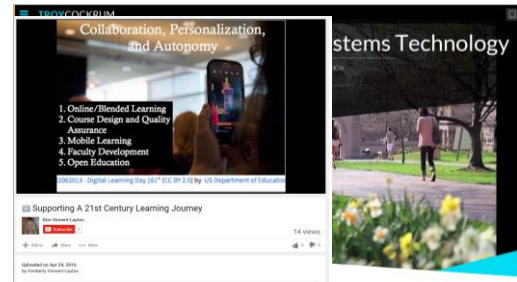


10. Yields Products, Goals:
B. Student Created Mobile Apps
 The App Builder: <http://www.theappbuilder.com/>
 Mintian Guo: <http://myapp.is/r685final>

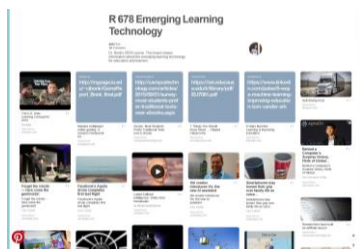


10. Yields Products, Goals:
C. Student Created Recap Videos

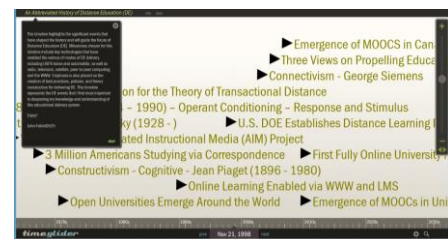
Piercarlo Abate: <http://www.youtube.com/watch?v=TU2zi00dU>
 Qi Li, Gangnam: <http://www.youtube.com/watch?v=7Q425pZaU8M>
 Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=8cmCFW9iW8>
 Kendal Rasnake (Is IT Right For You?): <http://www.youtube.com/watch?v=H33GU01CI6w>
 Kimberly Vincent-Larkin: http://www.youtube.com/watch?v=K5C8B_7V1L8



10. Yields Products, Goals:
D. Database Collection Tools
 Design Article Database in Pinterest,
 Meina Zhu and Jennifer Weebek
<https://www.pinterest.com/zumeina0000/r-678-emerging-learning-technology/>
<https://www.pinterest.com/jennifertweebek/emerging-learning-technologies/>



March 12, 2016
10. Yields Products, Goals:
E. Student Generated Timelines, Taxonomies, and Concept Maps
 R678 John Falchi, Timeglider, An Abbreviated History of Distance Education
http://timeglider.com/t/50843d9903a48008?min_zoom=1&max_zoom=100



December 13, 2016

10. Yields Products, Goals:

F. Student Infographics, Charts, and Maps (e.g., Piktochart)

Brittany Campbell, Brooke Welti, Kevin McCracken, R511, Fall 2016
<https://magic.piktochart.com/output/18501778-r511?presentation=true>



Poll #6:

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 created websites
- F. Student infographics
- G. Interactive timeline tools
- H. 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

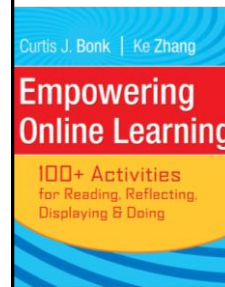
Tension

Yields Products

What motivates?

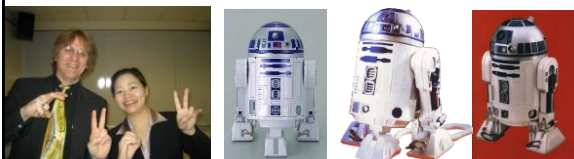
1. Tone/Climate: Psychological Safety, Comfort, Sense of Belonging
2. Encouragement: Feedback, Responsiveness, Praise, Supports
3. Curiosity: Surprise, Intrigue, Unknowns
4. Variety: Novelty, Fun, Fantasy
5. Autonomy: Choice, Control, Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting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

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)

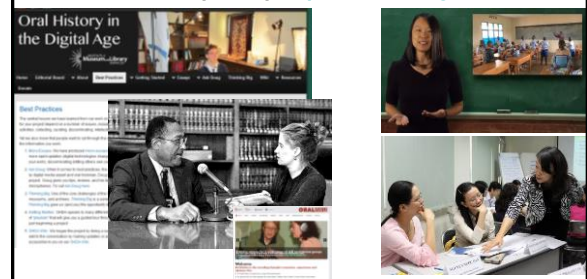


Read 1a. Collect Oral Histories

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 1b.**Exploring Various Resources to Track the Life of a Prominent People**

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

http://en.wikipedia.org/wiki/Vannevar_Bush

JULY 1945

As We May Think

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

**October 6, 2016****Reflect 2a. What-if Reflections**
What if Aaron Burr had missed Alexander Hamilton?, Thomas Fleming, CNN<http://www.cnn.com/2016/10/06/politics/alexander-hamilton-aaron-burr-missed/index.html>

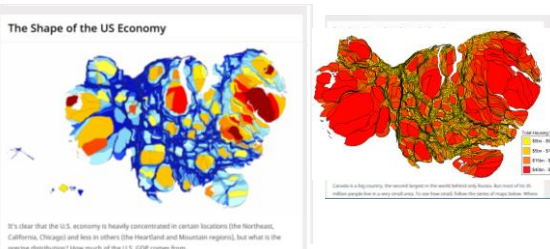
What if Aaron Burr had missed Alexander Hamilton?

By Thomas Fleming for CNN
© 2016 CNN. All Rights Reserved. Published 10/6/2016.**April 13, 2016**
Reflect 2b. Interpreting Interactive Graphs

Tech billionaire announces \$250 million in cancer immunotherapy funding, Jayne O'Donnell, USA Today

<http://www.usatoday.com/story/news/2016/04/13/billionaire-announces-250-million-cancer-immunotherapy-funding/82821158/>

Dr. Jedd D. Wolchok, Chief, Melanoma and Immunotherapeutics Service at Memorial Sloan Kettering Cancer Center in Photo by John OBoyle, Freelance ORG XMIT: JO 134700 seanpark 4/7/2016 [Via MerlinFTP Drop]

Display 3a. Virtualize Words Used
(e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out)**November 19, 2016**
Display 3b. Cartograms, Maps, and Other Visualizations**Metrocosm: Cartograms Archive**
The Housing Value of Every County in the U.S.
<http://metrocosm.com/category/cartograms/>

Do 4a. Goal Setting Tools (e.g., I Done This, Milestone Planner, and 43 Things)

The image shows two websites side-by-side. On the left is iDoneThis, featuring a large green plus sign and the text 'Awesome Reminders'. On the right is 43Things, with the headline 'Changing your life is hard. Doing it by yourself is harder.' and a 'Start listing your goals now' button.

October 26, 2016 Do 4b. Student Created Marketing and Explanatory Videos

R511, Kai Westerfield, Jennifer Blankenship, And Colbi Lehman,
Online Degree Programs, (11:54) Go Animate

The image shows two video thumbnails. The left one is titled 'Online Degree Programs' and shows a presentation slide about online degree programs. The right one shows three students sitting around a table, engaged in a discussion.

Do 4c. Student Website Development R511 Final Projects, April 2016

IT and HPT Comparison (Website), Doug Hsu
<http://dougandindra.wix.com/r511finalproject>

"IST Construction, Co." R511, December 2016
<http://reliott.net/istconstruction/index.php>

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

The image shows three website thumbnails. The left one is 'Cousins but Not Twins: Instructional Technology and Human Performance Technology'. The middle one is 'IST CONSTRUCTION CO.' with a header 'ABOUT US AND OUR ETHICS'. The right one is 'DOUG AND INDIRA' with a header 'ABOUT US AND OUR ETHICS'.

Poll #7: Which do you prefer... (A) TEC-VARIETY or (B) R2D2?

The image shows a book cover titled 'ADDING SOME TEC-VARIETY' and a circular diagram of the TEC-Variety model. The diagram has four quadrants: 'Reading' (top, blue), 'Reflecting' (right, red), 'Displaying' (bottom, green), and 'Doing' (left, yellow). Each quadrant contains a list of activities. The center of the circle is divided into four sections: 'Solution Evaluation & Knowledge Transfer', 'Problem Observation & Knowledge Acquisition', 'Solution Seeking Analysis & Knowledge Representation', and 'Problem Clarification & Knowledge Contribution'.

Poll #8: 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 or Comments?

Slides at: TrainingShare.com
Papers: PublicationShare.com
Free book: <http://tec-variety.com/>
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