Adding Motivation to Online and Blended Courses and Activities with the TEC-VARIETY Model

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1728: 1st correspondence course advertised Boston
(learn shorthand from Caleb Phillips thru weekly mailed lessons)
The First University Correspondence Course
(University of London, External Program, 1858)
1728-1990s – Generally postal system based
1930s – phonograph and radio
1950s and 1960s – television
1970s and 1980s – VHS tapes
1980s and 1990s – DVD

Charles Wedemeyer Quote #1:
“It should be immaterial whether one has learned at the front door or the back door of the Palace of Learning. What one has learned—not where, or how, in what sequence, at what institution, or in what period of time—is the only criterion of supreme importance.”
(Charles Wedemeyer, 1981, p. 216)

Took Correspondence & TV Courses
(thanks to Bob Clasen and Charles Wedemeyer, the University of Wisconsin)

Fall 2014, On Wisconsin
MOOC, Meet MORC (Massive Open Radio Course)
WHA, UW Madison, College of the Air, 1933,
Vocational Training dedicated to Agriculture,
and later Home Economics and Typing

September 5, 1980
SSU Journal (Sangamon State University)
Side-Band Radio Courses

The television course Japan: The Changing Landscape will be broadcasted Wednesday evening on the WGBH TV channel.
The course is being produced with the assistance of Robert F. Kennedy.
His son, Peter, is expected to discuss the show and its implications.

The radio course includes three side-band transmissions.
The first one is scheduled for October, while the second one is planned for November.

Perspectives on Aging – an overview of the discipline related to the older population.
An expert professor of gerontology, Carl Bennett, is expected to discuss the topic.
Side-band transmissions are scheduled.
The changing viewpoint explains the changing role of the academic.
June 5, 1981
SSU Journal (Sangamon State University)
Side-Band Radio Courses
Folk weaving on display

May 10, 2013
10 ed-tech tools of the 70s, 80s, and 90s
eSchool News, Meris Stansbury
http://www.eschoolnews.com/2013/05/10/10-ed-tech-tools-of-the-70s-80s-and-90s/print/

Part I. Learning is Changing
New Technologies = New Delivery Methods...

I. Learning is More Technology-Based

September 9, 2014
I. Learning is More Technology-Based

II. Learning is More Mobile
August 5, 2014
Timex enters smartwatch category. No phone needed, Edward C. Baig, USA Today,
http://www.usatoday.com/story/tech/columnist/baig/2014/08/05/timex-enters-smartwatch-category-no-phone-needed/13597331/
March 1, 2014

Audience Poll #1:
I. Who remembers what they were doing on 911?
II. Who remembers what they were doing on April 4, 2001?

III. Learning is More Open
June 12, 2014
Open access publisher brings scholarship to developing world
David Matthews, Times Higher Education
http://www.timeshighereducation.co.uk/news/open-access-publisher-brings-scholarship-to-developing-world/2013833.article

June 16, 2014
Metra Mehran is a college student in Political Science and Public Administration in Afghanistan.
Afghanistan Student Keynote, by Elliott Masie
Learning 2014, October 26–29, 2014
http://www.learning2014.com/blog/item/afghanistan-student

VI. Learning is More Flipped
August 1, 2014
Get schools out of the 1890s, Newt Gingrich, CNN

VII. Learning is More Video-Based
July 2014
FlipforLearning: http://www.flipforlearning.com/
uTutor.me: http://www.ututor.me/

September 22, 2014
110 Foot Engagement, Elliott Masie’s Learning 2014
VIII. Learning is More Competency-Based 
July 31, 2014
Hire Education: Mastery, Modularization, and the Workforce Revolution, Michelle R. Weise and Clayton M. Christensen, The Christensen Institute
http://www.christenseninstitute.org/publications/hire

IX. Learning also is More Collaborative 
May 16, 2014
Global Ed-Tech Disruption From Poland: Crowdsourced Homework

X. Learning is More Modifiable 
Inside Look: Learning Spaces, Meeting classroom teaching and collaboration expectations, University Business, Feb. 22, 2013

XI. Learning is More Comfortable 
Design for Students, with Students, “Hub Central”, the $42 million University of Adelaide learning hub opened in October 2011, May 8, 2012, Mike Roberts
http://designbuildsource.com.au/design-for-students-with-students

XII. Learning is More Ubiquitous 
Flexible displays bend what’s possible for computers, Jon Swartz, USA Today (May 4, 2012)

September 16, 2014
Panipat Teen Develops Device to Convert Breath Into Words, NDTV
XIII. Learning is More Instantaneous
April 9, 2013
HER Computer fashions face social test: Can wearable computers fit in? Scott Martin, USA Today
(i.e., magnify moles or injuries, see vital signs, live stream surgeries, access previous PT sessions, access research and drug info, etc.)

IVX. Learning is More On Demand
May 5, 2014
Mobile MOOCs: New platform challenges conventional MOOCs eCampus News (https://coursmos.com/)

XV. Learning is More Personal
August 5, 2014
OpenStax Aims To Bring Free Digital Textbooks to High Schools, David Nagel, THE Journal

XVI. Learning is More Global
August 1, 2014
Can You Really Teach a MOOC in a Refugee Camp?, Chronicle of Higher Education, Steve Kolowich
Two men living in Dadaab, a refugee camp in Kenya, would watch lecture videos and take online quizzes at a nearby United Nations compound. (InZone)

January 2014
XVII. Learning is More Online

June 15, 2014
Starbucks offers workers 2 years of free college, CNN Money, Gregory Wallace (from Arizona State online programs)
XVIII. Learning is More Self-Directed
February 2013, TED Talks
(Build a School in the Cloud; Self-Organized
Learning Environments (SOLEs), TED Talk from
Sugata Mitra
http://www.ted.com/talks/sugata_mitra_build_a_school_in_the_cloud.html

XX. Learning is More Massive
Sample Course: Open Knowledge:
Changing the Global Course of Learning
September 2, 2014 to December 12, 2014, Stanford
https://class.stanford.edu/courses/Education/OpenKnowledge/Fall2014/about#
Softcover ($30): http://www.parlorpress.com/invasion_of_the_moocs
Things are heating up!
http://routledge-ny.com/books/details/9781138807419/

XIX. Learning is More Adventurous
Aaron Doering, Chasing Seals, TEDx
http://chasingseals.com/

MOOCs and Open Education
Around the World
http://routledge-ny.com/books/details/9781138807419/

Let’s Review:
Learning is Changing...
(i.e., it’s more informal, video-based,
ubiquitous, collaborative, self-directed,
global, mobile, open, massive, etc.)

Frank Basile, an aircraft technician, took
an MITx course on circuits and
electronics to increase his knowledge.
Joe Alfonso, a financial adviser
from Oregon, is taking the online
finance course as a “refresher.”
Audience Poll #2: Are we going crazy yet? Any questions?

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

January 2014
http://sloanconsortium.org/publications/survey/grade-change-2013
Direct source: http://www.onlinelearningsurvey.com/reports/gradechange.pdf

Motivation and Engagement

What did Jean-Luc Picard say?

That’s right, Engage!
What was it that he said?

Audience Poll #3: What does engagement look like?

NASA's spacey Google+ Hangout

http://cosmiclog.nbcnews.com/_news/2013/02/22/17057588-nasas-spacey-google-hangout-shows-off-zero-g-antics-and-cats

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.

June 13, 2014
Learning should be joyful,
Heather Stacker, Blog Post, Clayton Christensen Institute
http://www.christenseninstitute.org/learning-should-be-joyful/

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)

Audience Poll #4:
How can technology address diverse learner needs?
(and how can we engage the borg?)

Framework: The R2D2 Model

Framework: TEC-VARIETY for Online Motivation and Retention
(May 2014)
1. Tone/Climate: Psych Safety, Comfort, 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. Interactive: Collaborative, Team-Based, Community
8. Engagement: Effort, Involvement, Investment
9. Tension: Challenge, Dissonance, Controversy
10. Yields Products: Goal Driven, Purposeful Vision, Ownership

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, Intriguing
7. Interactive: Collaborative, Team-Based, Community
8. Engagement: Effort, Involvement, Investment
9. Tension: Challenge, Dissonance, Controversy
10. Yields Products: Goal Driven, Purposeful Vision, Ownership

Every Chapter is Free in TEC-VARIETY...
http://tec-variety.com/freestuff.php

Examples of TEC-VARIETY
1. Risk
- Low Risk
- High Risk
- Easy to Embed
- Extensive Planning

2. Time
- Free or Inexpensive
- Enterprise Licenses

3. Cost
- Instructor-Focus
- Student-Focus

4. Student-Centered
- Low
- High

1. Tone/Climate: A. Video Introductions, e.g., Flipgrid
   http://flipgrid.com/#429f68ce5

2. Encouragement, Feedback, etc.: A. Voice Feedback
   Vocaroo: http://vocaroo.com/
   http://vocaroo.com/i/s0QRtmhJ27MK (UIS)

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

2. Encouragement, Feedback, etc.: C. Demonstrations and Tutorials,
   Emerging technology specialist, IU UITS, Nitocris Perez

May 29, 2014
3. Curiosity, Fun:
A. Something in the News
New 'massive' dinosaur skeleton discovered, USA Today, September 5, 2014 (Dreadnoughtus)

3. Curiosity, Fun:
B. Something in the News
(e.g., Fauja Singh, 101, finishes last race, February 24, 2013)

3. Curiosity, Fun:
C. Online Quiz Games
Jeopardy Labs
https://jeopardylabs.com/play/ganttpardy

3. Curiosity, Fun:
D. Tracking the Life of a Scientist
(e.g., Brian J. Ford, independent scientist)
http://www.youtube.com/user/tellymonitor#p/a/u/1/LhGeApsKjasr
http://www.labnews.co.uk/news/prehistoric-revolution/

3. Curiosity, Fun:
E. Historical Document Analyses
   e.g., Book Traces
Find unique copies of 19th- and early 20th-century books on library shelves
http://www.booktraces.org/

3. Curiosity, Fun:
F. Cultural Blogs
   (e.g., Dr. Kim Foreman, San Fran State Univ, Come and See Africa Blog; http://comeandseeafrica.blogspot.com/)
4. Variety, Novelty, Fun:
A. External Guests
(e.g., Jay Cross, Internet Time Group)

Even though he is now very elderly Vinh Bao (age 96) still teaches music, using his computer to coach pupils across the globe.

5. Autonomy, Choice:
C. Design Multimedia Glossaries
Ozgur Ozdemir, December 2012
http://learningplanet.shutterfly.com/

5. Autonomy, Choice:
D. Enroll in a MOOC and Reflect
Open Knowledge: Changing the Global Course of Learning
September 2, 2014 to December 12, 2014, Stanford
https://class.stanford.edu/courses/Education/OpenKnowledge/Fall2014/about#

5. Autonomy, Choice:
E. Open Education Database
Class Central
https://www.class-central.com/
http://oedb.org/open/

5. Autonomy, Choice:
F. Class Central
https://www.class-central.com/
http://oedb.org/open/
5. Autonomy, Choice:
G. Visual Library Search
Digital Public Library of America
http://dp.la/

5. Autonomy, Choice:
H. 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:
I. Online Learning Object Repositories and Portals (shared content)
April 23, 2014

5. Autonomy, Choice:
J. Audience Poll #5:
Whu had light bulb going off in your heads so far...? If so, were?

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

6. Relevance, Meaningfulness:
B. Collect and Listen to Interactive Stories (e.g., Meograph: http://www.meograph.com/)
Timelines with Oral Histories, Slavery and the Making of America Time and Place, PBS
7. Interactive, Collaborative:
   A. Collaboration and Discussion in Google Hangouts, Jabber, Skype, etc
      (January 29 and February 25, 2013)

7. Interactive, Collaborative:
   B. 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!

7. Interactive, Collaborative:
   C. Virtualize Words Used
      (e.g., Wordle, Tagxedo, Tagul, WordSift, Word It Out)
      http://shellyterrell.com/2010/02/14/12-word-cloud-resources-to-use/1

8. Engagement, Effort:
   A. Student Generated Timelines,
      (e.g., Dipity, Simile, Xtimeline, Timeglider, Meograph)
      (e.g., Raymond Chandler, The Big Sleep, Kate Hurd)
      http://hurdinsuranceagency.com/thebigsleep/

8. Engagement, Effort:
   B. Virtual Timelines from News Media
      (How Facebook changed our lives, Marco della Cava, USA Today, February 3, 2014)
      http://www.usatoday.com/story/life/movies/2013/04/10/harrison-ford-jackie-robinson/2001783/

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

D. Big Issue Reflections (Big Questions Online (BQO)), May 27, 2014
(e.g., What makes us generous? What is the difference between knowledge and understanding?)

E. Interpreting Infographics


http://www.forbes.com/sites/joshbersin/2013/09/12/millenials-will-soon-rule-the-world-but-how-will-they-

E2. Interpreting Infographics

Syllabus as Infographic!, Sept. 2014
Dr. Erin McLaughlin, U of Notre Dame

https://remix.nd.edu/?q=node/165

F. Interactive Map Timelines

(adults with college degrees by county, May 7, 2012)

http://todayscampus.com/article/Keith_Hampson_Interviews_Josh_Keller_on__Interactive_Graphics_for_Higher_Education

G. Data Visualization Tools (Harvard and MIT MOOCs)

Lawrence Biemiller, February 20, 2014, Chronicle of Higher Education


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

The newly expanded Medical Simulation Center lets medical trainees practice skills and case scenarios in clinical settings that mimic actual situations. Outside the operating room, a technology specialist manipulates vital signs on a patient simulator and controls the cameras recording the session.

8. Engagement, Effort:
J. Medical Simulations and Practice Cases
The School of Medicine, University of Virginia
http://svamagazine.org/articles/adjusting_the_prescription/

8. Engagement, Effort:
K. Interactive Multimedia E-Books
'Dubliners' Comes to Life in Boston College's Annotated E-Book,
Digital Dubliners: http://digitaldubliners.com/
http://joyceways.com/

Using Apple's iBooks Author software, they infused the text with critical analysis, multimedia annotations, and video commentary from Joyce scholars. The result now lives on iTunes, where anyone, anywhere, can use it free. The e-book, according to its creators, contains about 300 images, more than 700 notes and explanations, and two dozen videos.

9. Tension, Challenge, etc.:
A. Online Math Competitions
(i.e., Math March Madness, Greg Toppo, March 26, 2013, USA Today)
http://www.stargazette.com/article/20130326/NEWS02/303260008/Fibonacci-
Final-Four-Math-March-Madness-coming

9. Tension, Challenge, etc.:
B. Vocabulary Competitions
e.g., Kids learning new words at warp speed, January 14, 2014, Greg Toppo (Georgia Southern, Dir of Curriculum Development, for Vocabulary.com (Thinkmap) presents a banner to Marc Williams, Brooklyn Technical High School)

Vocabulary.com: https://www.vocabulary.com/

9. Tension, Challenge, etc.:
C. Controversial Issue Debates
Scholarly journal retracts 60 articles, smashes 'peer review ring', Fred Barbash, Washington Post
http://www.washingtonpost.com/news/morning-mix/wp/2014/07/10/scholarly-
journal-retracts-60-articles-smashes-peer-review-ring
9. Tension, Challenge, etc.:
D. 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

10. Yields Products, Goals:
A. Course Video Summaries and Multimedia Team Assignments (April. 24, 2014)
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

10. Yields Products, Goals:
B. Student Class Documentaries
Umida’s R546 Documentary Project
http://www.youtube.com/watch?v=EMLTzqCV_5A

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

10. Yields Products, Goals:
E. Uploading Mobile Books
(e.g., BookRix, http://www.bookrix.com/)
10. Yields Products, Goals:
F. Student Mobile App Creation
Mintian Guo (April 2013): [http://myapp.is/r685final](http://myapp.is/r685final)

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/](https://freshwriting.nd.edu/)

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

Poll #6: Which do you prefer...
R2D2 or TEC-VARIETY?

February 20, 2013
Star Trek-like holodeck may be closer to reality than you think
Matt Hartley, Financial Post, Canada
Charles Wedemeyer Quote #2: "If America is on the threshold of becoming a Learning Society, non-traditional learning may be its most genuine ingredient.”
(Charles Wedemeyer, 1981, p. 219)

December 13, 2013
Former MIT president Charles M. Vest dies at 72
As the Institute’s leader from 1990 to 2004, he sparked a period of dynamism.
Steve Bradt, MIT News Office

Time to Stop and Think:
Explore Websites from this Session!
Find the lieu...
Take a break...

Poll #7: Any Questions?
Try TEC-VARIETY...
Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://tec-variety.com/
Dr. Curt Bonk – CJBonk@Indiana.edu