Best Practices for Online Learning: Introducing the R2D2 and TEC-VARIETY Models

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Learning is Changing Continued...
New Technologies = New Delivery Methods...

I. Learning is More Online
Why I spent 10th grade online. Sophia Pink, Washington Post, August 23, 2013

II. Learning also is More Collaborative
Collaboration and Discussion in Google Hangouts or with iPad, Jan. 28, 2013
(Carrie Gong from Beijing Normal University)

Google Hangouts
Class Sync Collaboration and Discussion
(Spring, 2013)

III. Learning is More Mobile
Brown, Keynote talk, "Learning in Hand With Mobile Technology," Wisconsin Distance Teaching and Learning Conference, August 10, 2012
IV. Learning is More Video-Based
Adora Svitak, WFP Youth Representative - 2013
ECOSOC Youth Forum, March 27, 2013
"Shaping tomorrow’s innovators: Leveraging science, technology, innovation and culture for today’s youth", Statement by the World Food Programme Youth Representative, Ms. Adora Svitak at the 2013 ECOSOC Youth Forum.

V. Learning is More Social
Facebook reaches one billion users, CNN Money, Aaron Smith, October 4, 2012

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

VII. 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
VIII. Learning is More Global
UC Irvine (2013 report)
Example 3: Fundamentals of Japanese
Dr. Hidemi Riggs, Fall 2012 & Winter 2013, Tech-enhanced:
EEE Advanced Webspace (Dreamweaver), Skype video conferencing tool, Active Learning, Format: 5-1A lectures (24 students maximum); 3-2A lectures (24 students maximum); 2-3A lectures (24 students maximum)

IX. 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.)

X. Learning is More Personal
iPotty Aims To Entertain Toddlers During Toilet Training, Mashable, Kate Freeman (January 10, 2013)
http://mashable.com/2013/01/10/ipotty/

Poll #1: Is this a revolution in education today?
A. Yes...
B. No...

Poll #2: Do students ever sleep through your classes?
What was it that he said?

Ok, 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.
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.

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


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
Examples of TEC-VARIETY

1. Tone/Climate: A. Video Introductions, e.g., Flipgrid
   [http://flipgrid.com/#429f88c5](http://flipgrid.com/#429f88c5)

2. Tone/Climate: B. Share Visuals of Favorite Places
   (e.g., Panoramio, [http://www.panoramio.com/](http://www.panoramio.com/))

2. Encouragement, Feedback, etc.: A. Voice Feedback
   [http://vocaroo.com/l/s1COu5SkUdG2](http://vocaroo.com/l/s1COu5SkUdG2) (Tamkang U)

2. Encouragement, Feedback, etc.: B. Blog and Website Polling
   (e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)
2. Encouragement, Feedback, etc.: 
C. Quizlet (online quiz tools) 
http://quizlet.com/

2. Encouragement, Feedback, etc.: 
D. Create Screencasts 
(Jing, GoView, Screenr, slide from Zaid Ali Alsagoff [zaid.alsagoff@gmail.com])

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

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

5. Autonomy, Choice: 
A. Online Database Activities 
(e.g., WolframAlpha) 
http://www.wolframalpha.com/

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5. Autonomy, Choice: 
B. Demonstrate, Explore, and Share Websites 
Commonwealth of Learning, March 2013 
6. Relevance, Meaningfulness:
A. Video Scenario Learning
(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
http://www.youtube.com/watch?v=cJmosLSUgQ8&list=TLzymmALKW1TI

6. Relevance, Meaningfulness:
B. Design Multimedia Glossaries
Ozgur Ozdemir, December 2012
http://r685glossary.shutterfly.com
Umida Khikmatillaeva, Dec. 2011, PS40
http://learningplanet.shutterfly.com/

7. Interactive, Collaborative:
A. Collaboration and Discussion in Google Hangouts
(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. Combining Asynchronous and Synchronous Events (flipping classes)

8. Engagement, Effort:
http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline
8. Engagement, Effort:
also: Visualizing Emancipation

9. Tension, Challenge, etc.:
A. Game Show Final Project,  
April 25, 2011, Kim Seeber  
Website: http://mypage.iu.edu/~kseeber/web2.0technology.swf

9. Tension, Challenge, etc.:
B. Cage Match or Debate  
MOOCs at SXSWedu (Curt Bonk & Chuck Severance)  
http://soundcloud.com/sxswedu/cage-match-the-massive-open

10. Yields Products, Goals:
A. Final Product Video Summaries  
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

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 did Jean-Luc Picard say?
That’s right, Engage!

How can technology address diverse learner needs?

Framework #2: The R2D2 Model

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. Collect and Listen to Interactive Stories
(e.g., Meograph: [http://www.meograph.com/](http://www.meograph.com/))
Timelines with Oral Histories, Slavery and the Making of America
Time and Place, PBS
Read 1b. Listen to Open Access Podcast Shows (and write papers)

Read 1c. Grammar Checkers
(e.g., Grammarly, Ginger, GrammarCheck, PaperRater, and SpellCheckPlus)
http://www.grammarly.com/

Read 1d. Twitter Fed Class Discussions

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. Big Issue Reflections
(Big Questions Online (BQO)), January 8, 2013
(e.g., Do We Have Souls?)
https://www.bigquestionsonline.com/content/do-we-have-souls

Reflect 2b. Reflect on Virtual Timelines
(Dipity, xtimeline, Simile, etc.)
http://www.usatoday.com/story/life/movies/2013/04/10/harrison-ford-jackie-robinson/2001783/
?csp=34news
Reflect 2c. Cultural Blogs (e.g., Dr. Kim Foreman, San Fran State University, Come and See Africa Blog; http://comeandseeafrica.blogspot.com/)

3. Visual Learners

- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.

Display 3a. Virtualize Words Used (e.g., Wordle, Tagzeda, Tagul, WordSift, Word It Out)
http://shellyterrell.com/2010/02/12-word-cloud-resources-tips-tools/

Display 3b. 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

Display 3c. Videos for clinical education (Sungkyunkwan University School of Medicine, www.medu.edu.or.kr)

Display 3d. Time Revealed Interactive Maps Mapping the Dead: Gun Deaths Since Sandy Hook, Huffington Post, March 22, 2013
http://data.huffingtonpost.com/2013/03/gun-deaths
4. Tactile/Kinesthetic Learners

- Tactile/kinesthetic senses can be engaged in the learning process through role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.

Do 4a. Student Class Documentaries
Umida’s R546 Documentary Project
http://www.youtube.com/watch?v=EMLTzqCV_S

Do 4b. Student Mobile App Creation
The App Builder: http://www.theappbuilder.com/
Mintian Guo (April 2013): http://myapp.is/r685final

Do 4c. Singing YouTube Summaries
Daniel Halluska, P540, Fall 2011
http://www.youtube.com/watch?v=kO17r6osqw
Poll #3: What phase of the R2D2 Method did you get the most ideas from?
A. Read (Auditory and Verbal Learners)
B. Reflect (Reflective Learners)
C. Display (Visual Learners)
D. Do (Tactile, Kinesthetic, Exploratory Learners)

Poll #4: Any light bulbs going off in your head now...
A. Yes definitely
B. Maybe
C. No

Poll #4: Do you feel “MOTIVATED” to try any of this out?
A. Yes, R2D2
B. Yes, TEC-VARIETY
C. Yes, both
D. Neither

Stop and Share:
Three Words from Today’s Session!

Any Questions?
Try the R2D2 Model!
Try TEC-VARIETY too...
Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://worldisopen.com/
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