Blend but Don’t Break: Introducing the TEC-VARIETY AND R2D2 Models

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The Best of Beethoven
https://www.youtube.com/watch?v=W-fFHeTX7QK

May 6, 2020
IU FAMILY ENSEMBLE - HAIL TO OLD IU, Indiana University
3:18 (video): https://www.youtube.com/watch?v=ynxylm-hF3I

April 3, 2020
Performances canceled, musicians find a way to lift every voice: From elementary school to large symphonies, Annie Aguiar, USA Today

Video (44 Seconds): http://curtbonk.com/corona2.html

March 26, 2020
What the World Needs Now is Love
Students at the Boston Conservatory at Berklee created a social distancing rendition of ‘What the World Needs Now is Love’
https://www.youtube.com/watch?v=qv7jI5ACHCw

April 14, 2020
900-Strong Singapore Virtual Choir sings Home (Dick Lee)
https://www.youtube.com/watch?v=gsKStc2fF&feature=youtu.be
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Poll #1: Have you reflected on your teaching philosophy or approach during COVID-19?
   a. Yes many times and I am dramatically changing my philosophy statement.
   b. Yes many times and I am taking action (meeting people, reading more, attending webinars like this, etc.).
   c. Yes, I thought about it a couple of times and I am tweaking it.
   d. Not sure. I’m kinda brain dead right now.
   e. No, my teaching philosophy is basically the same.

Poll #2: Have you even been to an e-learning or online learning conference, institute, or summit?
   a. Yes many times.
   b. Yes, once or twice.
   c. No, but I want to go.
   d. No. And I am not going to go.

June 10, 2020
Online Learning Is Not the Future
Peter C. Herman, Inside Higher Ed
https://www.insidehighered.com/digital-learning/views/2020/06/10/online-learning-not-future-higher-education-opinion

June 16, 2020
Sorry Not Sorry: Online Teaching Is Here to Stay
Flower Darby, The Chronicle of Higher Education
https://www.chronicle.com/article/Sorry-Not-Sorry/248993

March 19, 2020
COL announces a series of webinars on online learning
June 3, 2020
Contact North | Contact Nord Webinars
https://teachonline.ca/webinars

March 3, 2020
Keep Teaching, Indiana University
https://keepteaching.iu.edu/strategies/index.html

April 25, 2020
(SuperTravelinEdMan)
STARLINK programs on Online and Blended Learning and the Web 2.0
October 2008-January 2010
https://www.youtube.com/playlist?list=PLHcReRoW2lxOrKfYXJyy3y462IOcBobX

March 21, 2020
Silver Lining for Learning
https://silverliningforlearning.org/
https://www.youtube.com/channel/UC9XEsh89qrIlpmVVpQt_aA/live

May 25, 2020
El Futuro de la Educación K-12,
Dr. Edgar Leon, Caribbean University, Puerto Rico
https://youtu.be/zXyoaIgbxI8
https://www.youtube.com/watch?v=zXyoaIgbxI8&feature=youtu.be

Blended Learning

- Face-to-Face Learning
- Blended Learning
- Online Learning

13
14
15
16
17
18
Classifying K-12 Blended Learning
Heather Staker and Michael B. Horn, May 2012

“Blended learning is any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace.”

Blended Model #1. Face-to-Face Primary
(online is for remediation of supplement)

Blended Model #2. Rotation
(students alternate FTF and Online instruction)

Blended Model #3. Flex
(curriculum primarily online with instructors available FTF)

Blended Model #4. Online Lab
(lab or field experience component of course is online)

Blended Model #5. Bookend
(first and last part of the course is online and middle portion is FTF)
Blended Model #6. Anchor
(start with FTF or what students are familiar with and then move to online; or the opposite and start online and move to F2F)

Needed: New Models of Motivation and Engagement

Poll: What did Jean-Luc Picard say?

Poll #3: Have you ever taught a blended (face-to-face and online) course?
- a. Yes many.
- b. Yes, just a couple.
- c. No, but I taught one or more technology enhanced ones.
- d. No but I am willing to try.
- e. No and I like it that way.

Poll #4: Have you ever taught a fully online course?
- a. Yes, many.
- b. Yes, just a couple.
- c. No, but I taught one or more blended ones.
  - a. No but I am willing to try.
  - b. No and I like it that way.

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 (i.e., it emerges from needs, inner strivings, and personal curiosity for growth)"


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**Part 1:**

Introducing the TEC-VARIETY Model
(Motto: It’s better than the “TEC-MONOTONY” Model)

http://tec-variety.com/

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**Examples of TEC-VARIETY**

1. Risk
   - Low Risk
   - High Risk

2. Time
   - Easy to Embed
   - Extensive Planning

3. Cost
   - Free or Inexpensive
   - Enterprise Licenses

4. Student-Centered
   - Low
   - High

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**April 3, 2017**

1. Tone/Climate:
   A. Sli.do (students get a code; e.g., 9801)

   https://www.sli.do/

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**April 11, 2020**

1. Tone/Climate:
   B. Threaded Video Discussions and Questions (e.g., Flipgrid)

   https://techcrunch.com/2018/06/18/microsoft-acquires-social-learning-platform-flipgrid/
1. Tone/Climate:
   C. Instructor Course Introductions
   Lynne Innes (Scotland):  [https://vimeo.com/35645285](https://vimeo.com/35645285)

2. Encouragement, Feedback:
   A. Poll Everywhere, BlogPoll, MicroPoll
   Connect students across campuses
   (School of Medicine, Flinders University)
   [https://www.polleverywhere.com/case-studies/distributed-learning](https://www.polleverywhere.com/case-studies/distributed-learning)

   B. Voice/Audio Feedback

   C. Online Practice Tests and Interactive Flash Cards (e.g., Pharmacy, OT, etc.)

   D. Video Tutorials, Demonstrations, and How-To’s

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3. Curiosity, Intrigue, Unknowns:
   A. Multimedia News
   New Telco Tower Announced For Sabah Village After Student Taking Online Exams In Tree Goes Viral, Kirat Kaur, TRP News

   Veveonah Mosibin, a foundation student at Universiti Malaysia Sabah (UMS) had to take her online exams atop a tree to get a strong enough internet connection. (Credit: Veveonah M/YouTube)
January 9, 2020
3. Curiosity, Intrigue, Unknowns:
B. Scientists put 3D glasses on cuttlefish and showed them film clips. The results were surprising (Cuttlefish eyes have well-developed depth perception)
Ryan Prior, CNN

April 29, 2020
3. Curiosity, Intrigue, Unknowns:
C. 101-year-old woman born during the 1918 flu pandemic beats coronavirus
Kudos Yancy-Bragg, USA Today

April 17, 2017
3. Curiosity, Intrigue, Unknowns:
D. 1st woman to officially run Boston Marathon does it again, 50 years later
Emanuella Grinberg, CNN, USA Today

March 2, 2020
3. Curiosity, Intrigue, Unknowns:
F. Newly launched Collections Online increases access to Eskenazi Museum of Art's works
Barbara Brosher, IU Press
https://news.iu.edu/stories/2020/03/iub/inside/02-eskenazi-museum-of-art-launches-collections-online.html

June 27, 2020
4. Variety, Novelty, Fun, Fantasy:
A. Create Animated Presentations
Animaker is a cloud-based do-it-yourself video maker. Free version provides a lot of characters, props, transitions, and background images. Example in Turkish: https://youtu.be/LS20lCbozBQ?t=737
February 27, 2020
4. Variety, Novelty, Fun, Fantasy:
B. Game Show Style Presentations
Susie Gronseth, University of Houston
https://www.youtube.com/watch?v=ZFXlVA6s_n0&feature=youtu.be

February 21, 2017
4. Variety, Novelty, Fun, Fantasy:
E. My classroom is like a,”
http://wheeldecide.com/

October 10, 2018
4. Variety, Novelty, Fun, Fantasy:
G. FutureMe.org
Write a letter to the future
https://www.futureme.org/

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

4. Variety, Novelty, Fun, Fantasy:
D. Random Lists
(Random.org—clocks, coins, playing cards, dice, integers, passwords, jazz scales, lists, sequences, etc.)
Random.org
Coin Flipper
Dice Roller
List Randomizer
Random.org

Fall 2018 R546
4. Variety, Novelty, Fun, Fantasy:
F. Kahoot!
https://getkahoot.com/
January 14, 2019

5. Autonomy, Choice:
A. Enroll in a MOOC and Reflect
(e.g., see Class Central)

B. Tracking the Life of a Medical Professional
(e.g., biography.com)

C. Design Multimedia Glossaries
P540 Final Assignment: Nate Wynne, Supersized Personal Course Glossary
http://natewynne1982.wix.com/p540courseglossary
Umida Khikmatillaeva, Dec. 2011, P540
http://learningplanet.shutterfly.com/

D. Flipping the Classroom
(video lectures online)

June 28, 2020

From: edX <news@edx.org>
Sent: Sunday, June 28, 2020 10:04 AM
To: Bonk, Curtis Jay <cbonk@indiana.edu>
Subject: There’s a summer learning adventure for everyone
(Beer Matters, June 3, 2020, Karl Brown, UW-W)

Poll #5: Any light bulbs going off in you head so far?

a. Yes definitely...many of them...pop...pop...pop!
b. Yes, several times.
c. Yes maybe!
d. Not yet (but hopefully soon...)
e. No. Darn it my brain is not working today.
f. There’s no hope with this idiot presenting.
April 6 and 28, 2020

6. Relevance, Meaningfulness:

A. Weekly Guest Expert Chats

February 22, 2020, Ilma Ngei in Nigeria (1 hour 15 minutes)
Video: https://youtu.be/4M6VMsQXc

6. Relevance, Meaningfulness:

B. Professional Development Videos

Edgar Leon, Puerto Rico, Marisol Hernández Hermina, Animaker
https://app.animaker.com/animo/2h5b0Hz2gxURJ5x4/?shareid=view%7C2h5b0Hz2gxURJ5x4

6. Relevance, Meaningfulness:

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

March 20, 2018

6. Relevance, Meaningfulness:

D. Editing Wikipedia Pages

Women’s-Studies Students Across the Nation Are Editing Wikipedia
Emma Kerr, The Chronicle of Higher Education
https://www.chronicle.com/article/Women's-Studies-Students/242866

6. Relevance, Meaningfulness:

E. Analyzing Online Raw Data (e.g., computer code, health data, financial statements)

June 27, 2020

7. Interactive, Collaborative:

A. Team Management and Project Coordination

Trello is a team management tool and list-making application to organize online group tasks easily. Trello is for teams to organize team work. However, teachers can use it to manage online group projects or homeschooling activities like in this Example: https://youtu.be/L8RUOMXmKsU?t=132

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April 6, 2020
7. Interactive, Collaborative:
   a. Interactive Oral Assessments
Interactive Orals as an alternate authentic assessment,
Danielle Logan, Griffith University
https://sway.office.com/yO7zb8m3IILWGi?ref=Link

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

7. Interactive, Collaborative:
   c. Negotiate Meanings Online
   (e.g., PiratePad: http://meetingwords.com/)
Meeti

7. Interactive, Collaborative:
   d. Guest Speaker Quotes
(Rey Junco, February 25, 2013)

7. Interactive, Collaborative:
   e. Team Article Debates
Nuclino (like a wiki...may delete by mistake,
trial version, limited)

7. Interactive, Collaborative:
   f. Virtual Mobile (at Virtually Inspired)
virtual laboratory brings the opportunity for remote collaboration enabling students to conduct experiments, assess, interpret, evaluate, and exchange relevant technical information.
Susan Aldridge, Drexel: https://virtuallyinspired.org/portfolio/online-virtual-labs/

Fall 2019, R511
7. Interactive, Collaborative:
   E. Team Article Debates
Nuclino (like a wiki...may delete by mistake,
trial version, limited)

8. Engagement, Involvement:
   A. Storytelling Strategies for the Design of Branching Virtual Patient Simulations
Kira King et al., Kynectiv
https://253f0a53-1b62-48e5-b462-46af46495b45/filesusr.com/ugd/c9b0ce_1a0143633f894eca965378d23c9b72a4.pdf
8. Engagement, Involvement:
B. Healthcare Scenarios and Simulations

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

8. Engagement, Involvement:
D. Interactive Timelines
(Sutori, xtimeline, Preceden, TimeLineCurator, etc.)

July 23, 2019
8. Engagement, Involvement:
E. Explore Historical and Cultural Sites
Four World Heritage Sites in VR With MasterWorks
Sarah Hardman, New Learning Times

May 28, 2019
8. Engagement, Involvement:
F. Virtual Reality Comes to the Classroom
Beth McMurtrie, The Chronicle of Higher Education
https://www.chronicle.com/interactives/20190528-ImmersiveTech

Using a special recording system, Hamilton College created a virtual-reality experience for students in a conducting class. Heather Buchman, a music professor, first recorded a performance using 3-D audio and video. (Andrew Droll)

Students later practiced conducting the virtual orchestra by wearing a special headset through which the sound of the orchestra changes as they turn their head. (Ben Salzman)

Unlike VR headsets, augmented-reality glasses allow users to see the world around them, opening up possibilities for shared learning experiences. A group of students could gather around a virtual heart as their professor takes it apart to show them the components. (Microsoft)
9. Tension, Challenge, Controversy, etc.: A. Controversial Issue Debates

Pros & Cons: Universal Healthcare

- Pros:
  - Universal healthcare
  - No more need for an emergency fund
  - Access to healthcare for everyone

- Cons:
  - Health costs rise
  - Three healthcare costs
  - Medical care can be expensive

May 11, 2020
9. Tension, Challenge, Controversy, etc.: C. What is smileUP & How to use it?
SMILE, Stanford
https://www.youtube.com/watch?v=pblU8sSALWo

June 27, 2020
9. Tension, Challenge, Controversy, etc.: D. Solve Wicked Problems
Designed to organize reflective consensus building on wicked problems in small teams
Georgia Tech, Reflect
https://reflect.gatech.edu/

November 1, 2019
9. Tension, Challenge, Controversy, etc.: E. Implementing the ViewPoint Role-Playing Simulation Tool in a "Leadership Crisis Challenge"
Center for Academic Innovation, University of Michigan
https://news.umich.edu/students-thrown-into-real-world-scenarios-with-viewpoint-an-educational-simulation-tool/

10. Yields Products, Goals: A. Database Collection Tools
Article Databases in Pinterest
September 3, 2017
Yields Products, Goals:
B. Mindmap Recaps of Online Discussions
Mindmap of Week 2 of R511

June 27, 2020
10. Yields Products, Goals:
D. Design Products (students created infographics, brochures, timelines)
Canva is an online design program that does not require much design skills. You can design professional looking brochures, infographics, PPTs, flyers, and syllabus for free.

April 23, 2020
10. Yields Products, Goals:
C. Student Timelines
Where are They Now? Emerging Learning Technology

April 29, 2020
10. Yields Products, Goals:
E. Wikibook Chapters
Part IV: Environments and Tools: Online Learning Communities R678: Emerging Learning Technologies
Amanda Zwirecki and Ashia Williams

10. Yields Products, Goals:
F. Student Website Development
R511 Final Projects, December 12, 2017
Rob Elliot, Patrick Walsh, Erin Milanesi, R511, December 2016
http://relliott.net/istconstruction/index.php
http://educbasdogan.wixsite.com/511final

Make Commitments:
Stop and Share in Chat Window:
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 motivational principle do you see as the most crucial online?

1. Tone/Climate
2. Encouragement, Feedback
3. Curiosity
4. Variety
5. Autonomy
6. Relevance
7. Interactive
8. Engagement
9. Tension
10. Yields Products

Part II: The R2D2 Model: Read, Reflect, Display, Do...

Question: How can technology address diverse learner needs?

The R2D2 Model
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.

January 20, 2016
Read 1a. Listen to Podcasts (e.g., preventive medicine podcast, NPR: https://www.npr.org/tags/206695374/preventive-medicine)
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.
April 13, 2016
Reflect 2b. Interpreting Interactive Graphs and Infographics
How much rainforest in that chocolate bar?
Tech billionaire announces $250 million in cancer immunotherapy funding, Jayne O'Donnell, USA Today

July 5, 2018
Reflect 2c. Vialogues
EdLab Seminar--Engaging Educators with Digital Collections
Vialogue, Sara Hartman, New Learning Times
https://newlearningtimes.com/cms/article/5426/how-academic-publishing-is-changing-in-the

Reflect 2d.
Online Role Play or Debate (e.g., documentary production)

Reflect 2e.
Student Life Advice Cases
British Medical Association (BMA)
https://www.bma.org.uk/features/masteringmedicalschool/

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

Display 3a. Embedding Royalty Free Images
e.g., Pixabay (royalty free images)
https://pixabay.com/images/search/nurse/
Display 3b. More Royalty Free Images
Medical Graphics in Creative Commons

Display 3c. Short Educational Videos:
Anchored Instruction/Macrocontext
CNN, BBC, TED, TED-Ed, ForaTV, MedTube
(200,000 users, 20,000 records)

Display 3d. Animated Videos
Animated COVID-19 prevention video goes viral
Mandy Erickson, SCOPE Stanford Medicine
https://www.youtube.com/watch?v=UcFDdfueQRg

Display 3e. Video Teasers
G3 of Writing and Publishing Tips
https://youtu.be/4BGJRd5Aaoo

Display 3f. VR Takes You on a Tour of The Human Body
https://www.youtube.com/watch?v=16WwTf_UJM

Display 3g. Visual Depictions of Science
Migrations in Motion
http://maps.tnc.org/migrations-in-motion/#/19.00/-78.00
June 7, 2020
Display 3h. Animations of Data
World Mapper, COVID-19
https://worldmapper.org/map-animation-covid19/
https://www.youtube.com/watch?v=6uu1MGyjvpt

June 22, 2020
Display 3i. Animations of Data
Global Deaths Due to Various Causes and COVID-19
By Tony Nickonchuk
https://public.flourish.studio/visualisation/2562261/?fbclid=IwAR2iAZWYIvm14Q64wmNUu4cNFl418KGP4S_8XNJTMJWMAtOpdtBArtqQU_B0

Display 3j.
Concept Mapping and Timeline Tools
(Bubbl.us, Cmap, Gliffy, Spicynodes, or Mindomo)
http://www.spicynodes.org/index.html

April 30, 2020
Display 3k. Virtualize Words Used Word Clouds
I included Weeks 4 blended learning discussions (and 7):
Week’s discussion questions, Word cloud, including link
Number of times top 20 words were used in discussion; and link to complete list Graphic of
how words link to each other; and link to interactive tool List of “salient points” taken from
the discussion. All are de-identified
https://spark.adobe.com/page/RaAjco1BIeL2k/

April 30, 2020
Display 3L. More Word Clouds (e.g.,
Tagzedo, Tagul, WordSift, Word It Out):
Week 2 and 5 (13 and 14)
https://www.wordclouds.com/

May 17, 2020
Display 3m.
Sketch Talks and Presentations
Silver Lining for Learning, Session with Paul Kim
Meenu M Pillai, Freelance Designer at Multiple Corporations
Mumbai, Maharashtra, India
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. Case Decision Making (e.g., snake bite)

Do 4b. Sample Student Work
e.g., Interactive Archive/Gallery of best work (e.g., physical therapy, SDSU)

Do 4c. Demonstration Videos
Crane Makerspace, Tina Closser
https://www.youtube.com/channel/UCbeWfFd9g7pZ0JMBl9TBt5w?view_as=subscriber
https://sites.google.com/view/cranetech/home

Do 4d. Student Created Recap Videos
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
Kendal Rasnake (Is IT Right For You?): https://www.youtube.com/watch?v=MJ3GUDICIGw

April 29, 2020
Do 4e. Design a MOOC
Qualtrics, Tanner Phillips, Udemy
https://drive.google.com/file/d/1kITPdSYK9SV-8R3IndkaFtNhGQnc0/view
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.

Poll 8: Which pedagogical model or framework do you prefer?
- a. TEC-VARIETY
- b. R2D2
- c. Neither
- d. Both
- e. I will try to create some unique combo of the two.

Poll 9: Are you excited to try anything out that you heard today?
- a. Yes definitely...many of them...
- b. Yes, several of them.
- c. Yes maybe one!
- d. Not yet (but hopefully soon...)
- e. Nope. My brain is simply not working today.
- f. No...I am having Internet connection issues.

Poll #10: Does all this stuff that you heard give you a headache?
- a. Yes, but I am still excited to try things out.
- b. Yes, and I need some medicine and a break.
- c. Not sure.
- d. No, let’s go all day.
- e. No, let’s go another hour.
- f. No, it was just right.

Poll 11: Would you attend a Part 2 follow-up session?
- a. Definitely, Definitely, Definitely...
- b. Probably, Probably, Probably
- c. Maybe, Maybe, Maybe
- d. You got to be kidding...NO!
Poll 12: As a result of this session, are you going to be a more effective and more confident online instructor?

a. Definitely, Definitely, Definitely...
b. Probably, Probably, Probably,
c. Maybe, Maybe, Maybe
d. You got to be kidding...NO!

We are entering a jumping off point...