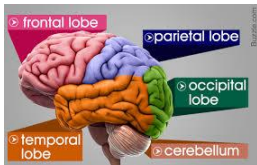


Masterclass Part II: Ultra-Engaging Learning With Technology: Introducing the TEC-VARIETY and R2D2 Models

Curtis J. Bonk, IST Professor

Indiana University

cjbonk@indiana.edu; <http://curtbonk.com/>



1

Needed: New Models of Motivation and Engagement



2

October 22, 2019 Indian students wear boxes on their heads during exam to prevent cheating

Jessie Yeung, CNN

<https://amp.cnn.com/cnn.ampproject.org/c/a/amp.cnn.com/cnn/2019/10/21/india/student-box-cheating-intl-hnk-scl/index.html>



3

March 20, 2015 Bihar cheating scandal: What parents in India will do for good grades

Kunal Sehgal, CNN

<https://www.cnn.com/2015/03/20/asia/india-cheating-parents-school-tests/index.html>

Bihar cheating scandal: What parents in India will do for good grades

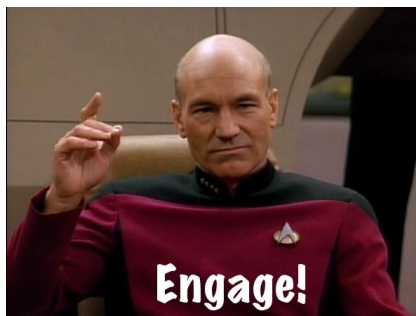
By Kunal Sehgal, CNN

Published 12:15 PM CDT, 19 March 2015



4

Poll: What did Jean-Luc Picard say?



5

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.



6

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.



7

Part 1: Introducing the TEC-VARIETY Model (Motto: It's better than the "TEC-MONOTONY" Model)

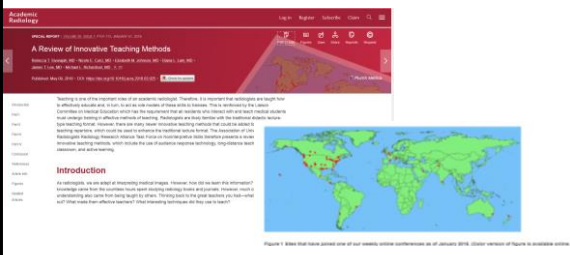
<http://tec-variety.com/>
<http://tec-variety.com/TEC-VARIETY-Chinese.pdf>



8

May 9, 2018 A Review of Innovative Teaching Methods Academic Radiology

<https://med.nyu.edu/departments-institutes/innovations-medical-education/>

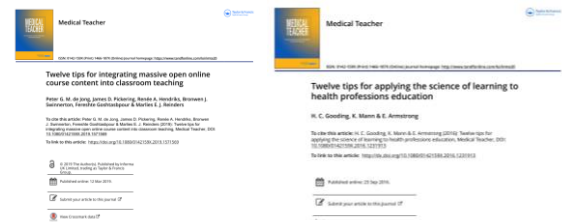


9

March 2019 Twelve tips for integrating massive open online course content into classroom teaching

The Medical Teacher

https://www.researchgate.net/publication/331694465_Twelve_tips_for_integrating_massive_open_online_course_content_into_classroom_teaching



10

March 2019 Twelve tips for integrating massive open online course content into classroom teaching

MedEdPublish

https://www.researchgate.net/publication/331694465_Twelve_tips_for_integrating_massive_open_online_course_content_into_classroom_teaching



11

2019

Rachel H. Ellaway Technology-enhanced Learning

Understanding Medical Education: Evidence, Theory, and Practice, Third Edition.
Edited by Tim Swanwick, Kirsty Forrest and Bridget C. O'Brien.
© 2019 The Association for the Study of Medical Education (ASME). Published
2019 by John Wiley & Sons Ltd.

Technology-enhanced Learning 141		
BOX 10.1 Learning activity types and associated mediating technologies		
	Example activities	Examples of mediating technologies
Content activities	Read, explain, reflect, remember, synthesise	Knowledgebases such as Wikipedia, eBooks, note taking and mind mapping tools
Abstraction activities	Presentations, storytelling, analogies, tours	PowerPoint, YouTube, podcasts, podcasts
Design activities	Practice, discovery, games, simulations	Case-based simulations, virtual patients, games, e-learning, virtual task trainers
Group-type activities	Finders, jigs, puzzles, research, original work	Discussion boards, Twitter, blogs, wikis, social media
Search activities	Discuss, collaborate, observe others, reflect on own ability	Quizzes, test banks, summative games, simulations
Test activities	Challenge, perform, assess, evaluate, provide feedback	Encounter logging, portfolios, CVs, analytics, professional development management systems
Collection activities	Logging, tracking, storing, organising, reporting	

Source: Adapted from Horton [5].

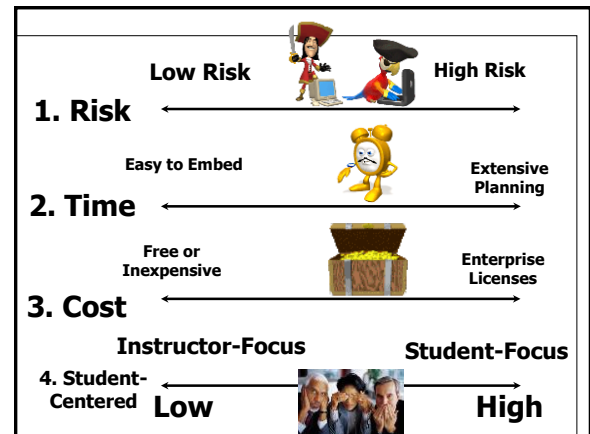
12

January 2020
Special Issue
Journal of Applied Instructional Design
(JAID)

<https://www.jaid.pub/vol-9-issue-1-2020>



13



14

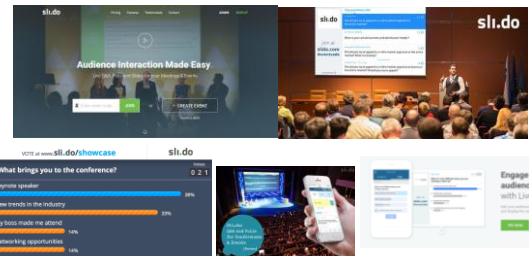
Examples of TEC-VARIETY



15

April 3, 2017
1. Tone/Climate:
A. Sli.do

<https://www.sli.do/>

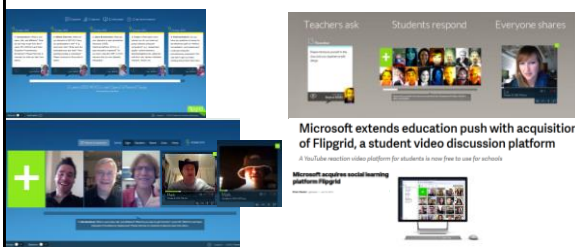


16

June 18, 2018
1. Tone/Climate:
B. Threaded Video Discussions and Questions
(e.g., Flipgrid)

Microsoft acquires social learning platform Flipgrid,
 Brian Heater, TechCrunch

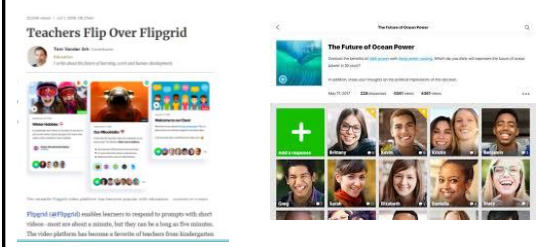
<https://techcrunch.com/2018/06/18/microsoft-acquires-social-learning-platform-flipgrid/>



17

July 1, 2019
1. Tone/Climate:
C. Threaded Video Discussions and Questions
Teachers Flip Over Flipgrid
Tom Vander Ark, Forbes

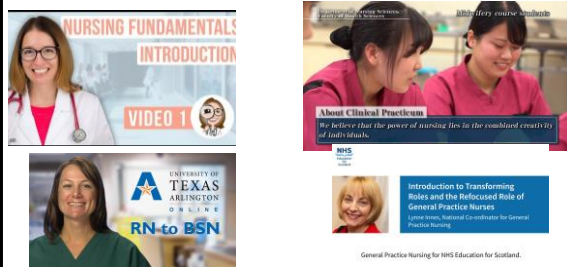
<https://www.forbes.com/sites/tomvanderark/2019/07/01/teachers-flip-over-flipgrid/#7d2f5831641a>



18

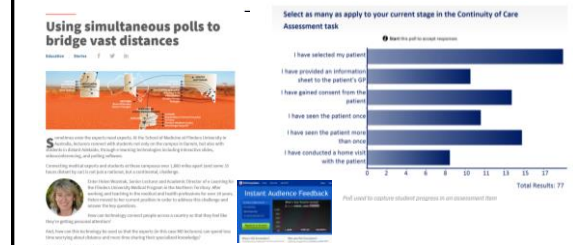
1. Tone/Climate: D. Instructor Course Introductions

Lynne Innes (Scotland): <https://vimeo.com/356645285>



19

2. Encouragement, Feedback: A. Poll Everywhere, BlogPoll, MicroPoll Connect students across campuses (School of Medicine, Flinders University)



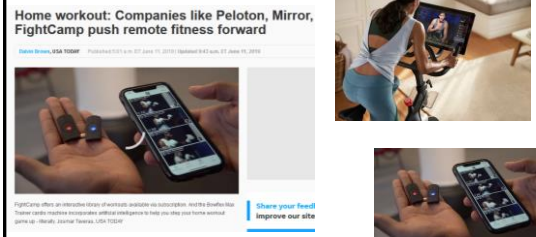
20

2. Encouragement, Feedback: B. Voice/Audio Feedback Vocaroo: <http://vocaroo.com/>



21

June 11, 2019 2. Encouragement, Feedback: C. Home workout: Companies like Peloton, Mirror, FightCamp push remote fitness forward Davin Brown, The USA Today <https://www.usatoday.com/story/tech/2019/06/11/how-5-g-wearables-and-ai-help-bring-smart-gyms-your-home/1331406001/>



22

January 23, 2020 3. Curiosity, Intrigue, Unknowns: A. How dangerous is the Coronavirus? Podcast, Sky News, UK

<https://news.sky.com/story/coronavirus-uk-made-plague-game-downloads-soar-in-china-amid-virus-outbreak-11915754>

Whole podcast: <http://curtbonk.com/coronapodcast.html>
First 2 minutes of video: <http://curtbonk.com/corona-2min.html>
First 2 minutes of podcast: <http://curtbonk.com/coronapodcast-2min.html>



23

May 19, 2011 3. Curiosity, Intrigue, Unknowns: B. Outbreak Trailer

<https://www.youtube.com/watch?v=AgZ5p0Jn0>



24

May 22, 2019

3. Curiosity, Intrigue, Unknowns:

C. This Japanese secret to a longer and happier life is gaining attention from millions around the world
Klen Mogi, CNBC

<https://www.cnbc.com/2019/05/22/the-japanese-secret-to-a-longer-and-happier-life-is-gaining-attention-from-millions.html>
 Bppl: <https://www.amazon.com/Little-Book-Japan-secret-Japanese/dp/1786489031>



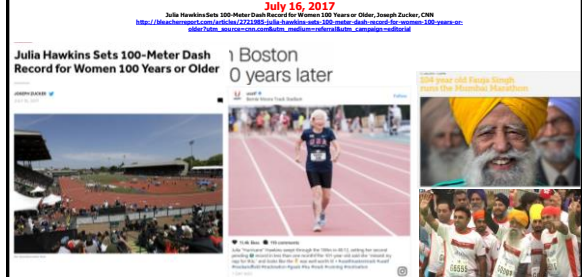
25

April 17, 2017

3. Curiosity, Intrigue, Unknowns:

D. 1st woman to officially run Boston Marathon does it again, 50 years later
Emanuela Grinberg, CNN, USA Today

<http://www.cnn.com/2017/04/17/us/boston-marathon-kathrine-switzer-tmd/index.html>



26

3. Curiosity, Intrigue, Unknowns:

E. 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



27

January 7, 2016

3. Curiosity, Intrigue, Unknowns:

F. Google Cardboard saves baby's life
CNN, Elizabeth Cohen

<http://www.cnn.com/2016/01/07/health/google-cardboard-baby-saved/index.html>

Google Cardboard saves baby's life

By Elizabeth Cohen, CNN Senior Medical Correspondent
 Updated 6:08 PM ET, The January 7, 2016



28

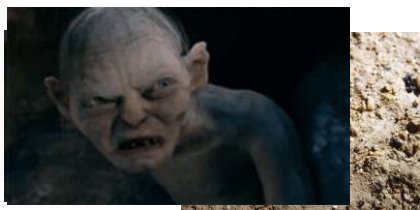
November 19, 2015

3. Curiosity, Intrigue, Unknowns:

G. New Discoveries in Science...

New daddy longlegs named after 'Lord of the Rings' character Smeagol, Mary Bowerman, USA Today

<http://www.usatoday.com/story/news/science/2015/11/19/new-daddy-longlegs-named-after-lord-of-the-rings-character-smeagol/7302386/>



29

January 9, 2020

3. Curiosity, Intrigue, Unknowns:

H. Scientists put 3D glasses on cuttlefish and showed them film clips. The results were surprising
Ryan Prior, CNN

<https://www.cnn.com/2020/01/09/us/3d-glasses-cuttlefish-scn-tmd/index.html>

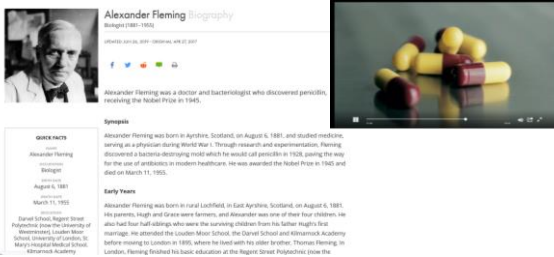


30

5. Autonomy, Choice:

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

<https://www.biography.com/scientist/alexander-fleming>



37

5. Autonomy, Choice:

C. Design Multimedia Glossaries

P540 Final Assignment: Nate Wynne, Supersized Personal Course Glossary
<http://natewynne1982.wix.com/p540courseglossary>

Ozgur Ozdemir, December 2012
<http://r685glossary.shutterstock.com/>

Umidia Khikmatillaeva, Dec. 2011, P540
<http://learningplanet.shutterstock.com/>



38

Poll:

Any light bulbs going off in your head so far...?

- A. Yes definitely***
- B. Yes maybe!
- C. Not yet (but hopefully soon...)



39

(Zoom Meetings)

6. Relevance, Meaningfulness:

A. Weekly Guest Expert Chats

R511 Chat with Mike Molenda, IU



40

6. Relevance, Meaningfulness:

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



41

May 11, 2018

6. Relevance, Meaningfulness:

C. Lab Discoveries

Meaningful Learning: Importance in Medical Education

shiftkiya.com
<https://shiftkiya.com/meaningful-learning-importance-medical-education/>



42

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/Chronicle-3-Chronicle-Students/241066>

College students take to Wikipedia to rewrite the wrongs of Internet science



Women's-Studies Students Across the Nation Are Editing Wikipedia



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

43

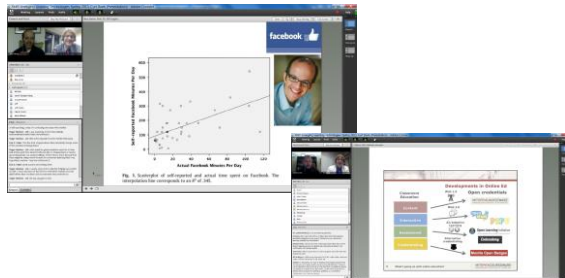
7. Interactive, Collaborative:
A. Negotiate Meanings Online

(e.g., PiratePad: <http://meetingswords.com/>)
<http://libsonline.edu/technology/6-collaborative-writing-applications-for-group-projects-or-pages/>
 MeetingWords, Google Docs, NowComment, MixedInk



44

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



45

7. Interactive, Collaborative:
C. Virtual Mobile (at Virtually Inspired)

virtual laboratory brings the opportunity for remote collaboration enables students to conduct experiments, access, interpret, evaluate, and exchange relevant technical information.

<https://virtuallyinspired.org/portfolio/online-virtual-labs/>



46

Sept. 8 -12, 2019
7. Interactive, Collaborative:
D. Share knowledge and best practices

AL RAYYAN MUNICIPALITY, Qatar - A New Jersey Army National Guard Soldier discusses a Tactical Combat Casualty Care (TCCC) scenario with members of the Qatari Emiri Land Forces (QELF) during a subject matter expert exchange held



47

7. Interactive, Collaborative:
E. Serious Gaming

A Serious Game for Massive Training and Assessment of French Soldiers Involved in Forward Combat Casualty Care.
 Percy Military Teaching Hospital, Department of anesthesiology and intensive care, French Military Health Service, Clamart.



48

7. Interactive, Collaborative: G. Mobile Multimedia Exam Practice Top Smartphone Apps to Improve Teaching, Research, and Your Life

By Jeffrey R. Young, January 2, 2011, Chronicle of HE

Peter H. Abrahams, a professor of clinical anatomy at the University of Warwick, in England, recently released a video reference-manual app called **Aspects of Anatomy for the iPhone**. The software quizzes students by presenting them with medical scenarios, and asks them to name the relevant body part...It includes 38 short films of Dr. Abrahams guiding viewers through anatomical models of human organs



An app called Aspects of Anatomy brings fresh insights into the YouTube app. Designed by a professor at the U. of Warwick, in Britain, the software includes three-to seven-minute videos. Medical students can, say, review a dissection of the thorax and upper limb while on a break.

49

May 21, 2018, David Vergun, Army News Service

8. Engagement, Involvement: A. Mobile App First Responder Casualty Care Simulation, Training and Instrumentation recently prototyped a user-friendly medical app called the Tactical Combat Casualty Care All Combatant Cognitive Trainer, or TC3 ACCT. The new app provides a consistent, but personalized presentation of TC3 material to each learner on any mobile device



50

Tactical Combat Casualty Care training during Exercise Mobility Guardian 2019, Sept. 12-15.

8. Engagement, Involvement:

B. Cross-Disciplinary Training

'wounded' training mannequin during the Tactical Field Care phase of the Tactical Combat Casualty Care course at Fairchild Air Force Base, Washington, Sept. 12, 2019.



51

2019

8. Engagement, Involvement: C. Healthcare Scenarios and Simulations High Fidelity Simulations

<https://www.healthysimulation.com/high-fidelity-simulation/>
<https://www.healthysimulation.com/birth-simulator>

High Fidelity Simulation



Birth Simulator



High fidelity simulation is a healthcare education methodology that involves the use of realistic and life-like simulation environments to train healthcare professionals. Simulation environments are used to train healthcare professionals in a safe and controlled environment. These simulation environments are used to train healthcare professionals in a safe and controlled environment. These simulation environments are used to train healthcare professionals in a safe and controlled environment.

52

January 2020

8. Engagement, Involvement: D. Storytelling Strategies for the Design of Branching Virtual Patient Simulations

Kira King et al., Kynectiv

https://253f0a53-bb62-46af-b493-b4548f4d5d90.filesusr.com/ugd/c9b0ce_1a0143633f894eca955378d22c9b72ae4df

Figure 1. Storytelling strategies for the design of branching virtual patient simulations.



Storytelling Strategies for the Design of Branching Virtual Patient Simulations

Kira King, Kynectiv
Kynectiv is a leading provider of virtual patient simulation solutions for healthcare organizations. Kynectiv's virtual patient simulation solutions are designed to provide healthcare professionals with a realistic and immersive learning experience.

Abstract: Virtual patient (VP) simulation is a leading and innovative approach for healthcare education. VP simulation is a leading and innovative approach for healthcare education. VP simulation is a leading and innovative approach for healthcare education. VP simulation is a leading and innovative approach for healthcare education.

Keywords: Virtual patient simulation, storytelling, branching, virtual patient simulation, healthcare education, virtual patient simulation, healthcare education, virtual patient simulation, healthcare education.

53

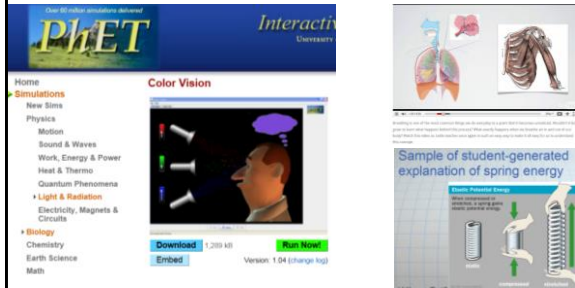
8. Engagement, Involvement: E. Healthcare Scenarios and Simulations



54

8. Engagement, Involvement: F. Interactive Labs and Simulations

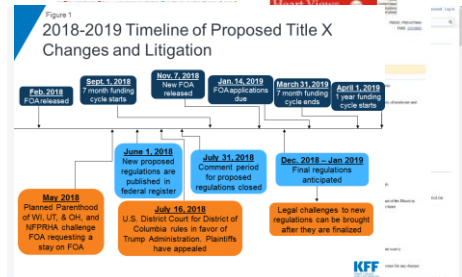
<http://phet.colorado.edu/en/simulation/energy-skate-park>



55

8. Engagement, Involvement: G. Interactive Timelines

(Dipity, xtimeline, Simile, TimeLineCurator, etc.)



56

July 23, 2019 8. Engagement, Involvement: I. Explore Historical and Cultural Sites

Four World Heritage Sites in VR With MasterWorks
Sara Hardman, New Learning Times
<https://newlearningtimes.com/articles/63385/explore-four-world-heritage-sites-in-vr-with>



57

May 28, 2019 8. Engagement, Involvement: J. Virtual Reality Comes to the Classroom

Beth McMurtrie, The Chronicle of Higher Education
<https://www.chronicle.com/interactives/20190528-immersiveTech>

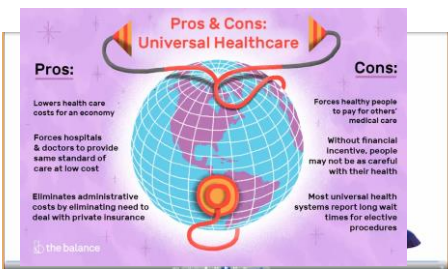


Using a special recording system, Hamilton College created a virtual-reality experience for students in a conducting class. Heather Buchman, a music professor, first recorded a performance using 3-D audio and video. (Andrew Groll)

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)

58

9. Tension, Challenge, Controversy, etc.: A. Controversial Issue Debates



59

9. Tension, Challenge, Controversy, etc.: B. Embodied VR Experiences

<https://embodiedlabs.com/labs> One example is pasted below.

Topic: End of Life Conversations
Summary: The learner will embody Clay Crowder, a 66-year-old veteran with stage IV, incurable lung cancer. Learning Outcomes: Experience what it is like to receive "bad news" from your doctor, and discuss your options. Have conversations with your family and members of the healthcare team about transitioning to hospice care. Get assistance from the hospice care team in understanding your symptoms and conflicts that may occur within your family. See the physical changes inside your body as it nears the end of life. Experience what may happen at the end of your life.



Embodied VR Experiences

Our innovative, research-based VR experiences allow learners, staff, and trainees to embody a person with a specific condition and learn what it's like to walk in their shoes.

Our Approach to VR Storytelling

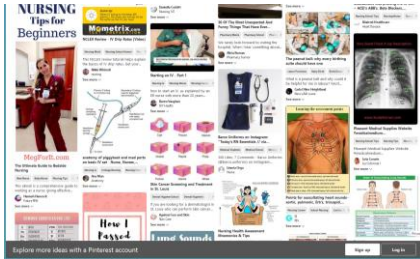


60

10. Yields Products, Goals:

A. Database Collection Tools

Article Databases in Pinterest



61

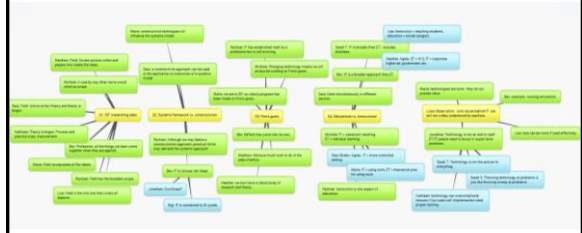
September 3, 2017

Yields Products, Goals:

B. Mindmap Recaps of Online Discussions

Mindmap of Week 2 of R511

<https://www.mindmaprecaps.com/2017/09/03/mindmap-of-week-2-of-r511/>



62

10. Yields Products, Goals:

C. Goal Setting Tools

(e.g., I Done This, Milestone Planner, and 43 Things)



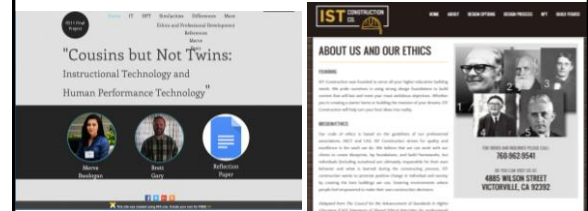
63

10. Yields Products, Goals:

D. Student Website Development

R511 Final Projects, December 12, 2017

"IST Construction, Co."
Rob Elliot, Patrick Walsh, Erin Milanesi, R511, December 2016
<http://relliott.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>



64

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?

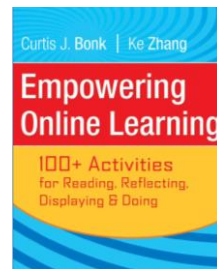
1. Tone/Climate: Psychological Safety, Comfort, Sense of Belonging
2. Encouragement: Feedback, Responsiveness, Praise, Supports
3. Curiosity: Surprise, Intrigue, Unknowns
4. Variety: Novelty, Fun, Fantasy
5. Autonomy: Choice, Control, Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting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



65

Part II: The R2D2 Model:

Read, Reflect, Display, Do...



66

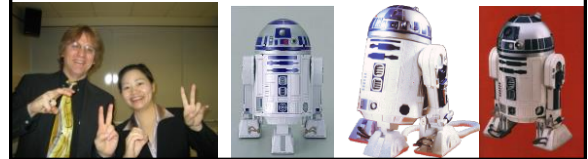
Question: How can technology address diverse learner needs?



67

The R2D2 Model

1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)



68

1. Auditory or Verbal Learners

- Auditory and verbal learners prefer words, spoken or written explanations.



69

Read 1a. Choose from Online Tidbits Holistic Health and Fitness

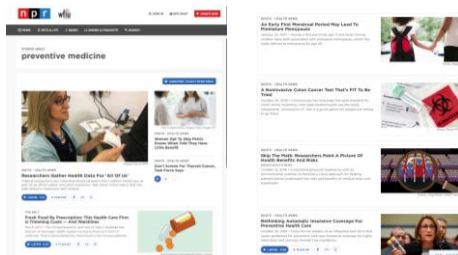
https://www.army.mil/article/191402/army_launches_holistic_health_and_fitness_initiative



70

January 20, 2016 Read 1b. Listen to Podcasts (e.g., preventive medicine podcast, NPR:

<https://www.npr.org/tags/206695374/preventive-medicine>)



71

January 23, 2019 Read 1c. Listen to News Podcasts How dangerous is the Coronavirus?

Podcast, Sky News, UK

<https://news.sky.com/story/coronavirus-uk-made-plague-game-downloads-soar-in-china-amid-virus-outbreak-11915754>

Whole podcast: <http://curtbonk.com/coronapodcast.html>

First 2 minutes of video: <http://curtbonk.com/corona-2min.html>

First 2 minutes of podcast: <http://curtbonk.com/coronapodcast-2min.html>

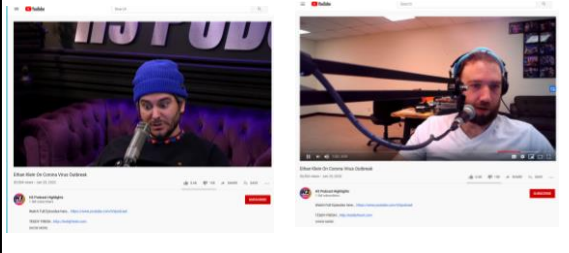


72

January 25, 2020

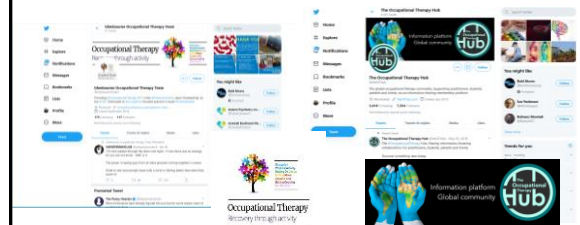
**Ethan Klein On Corona Virus Outbreak
H3 Podcast Highlights**

<https://www.youtube.com/watch?v=Ag2Sgo7lbn0>



73

Read 1d. Twitter Fed Class Discussions
(e.g., OT:
<https://twitter.com/glenbourneteam>)



74

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



75

February 24, 2019

Reflect 2a. Big Issue Reflections
Can Students Handle the Big Questions?

Beth McMurtrie, The Chronicle of Higher Education

<https://www.chronicle.com/article/Can-Students-Handle-the-Big/245753>

<https://godandgoodlife.nd.edu/syllabus/>

https://www.youtube.com/watch?time_continue=104&v=EMKbtSC3-2I



76

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

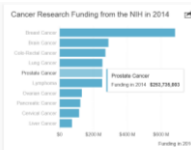
<http://www.usatoday.com/story/news/2015/04/13/tech-billionaire-announces-250-million-cancer-immunotherapy-funding/82821198/>

Land-Use Change Emissions in Miles Driven



<http://bit.ly/rainforest-chocolate>

WORLD RESOURCES INSTITUTE



Source: National Institutes of Health (NIH). Funding for cancer research, contract, and other health care research for the NIH.

[See more details](#)



77

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>

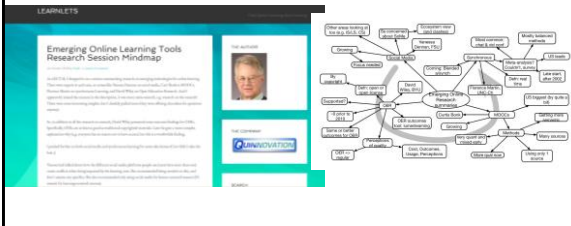


78

October 24, 2018 Reflect 2d. Session Recap Mindmaps Emerging Online Learning Tools Research Session Mindmap

Learnlets, Clark Quinn

https://blog.learnlets.com/2018/10/emerging-online-learning-tools-research-session-mindmap/?fbclid=IwAR11_8o6CXdpai2vft_nDq72EgDykziwM_Q8U9WMJlUqslwjlDa0_D9gl



79

2019 Reflect 2e. Student Life Advice Cases

British Medical Association (BMA)

<https://www.bma.org.uk/features/masteringmedicalschool/>



Listen to real life advice from fellow students, read our top tips on budgeting, and find out how we can help you to make the most of your time at medical school.

80

3. Visual Learners

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



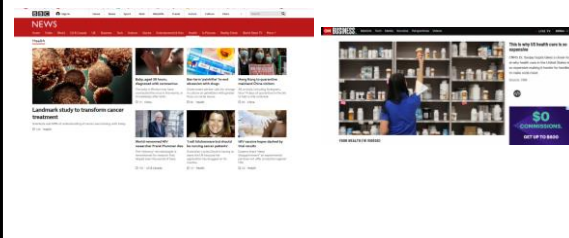
81

Display 3a. Virtualize Words Used (e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out)



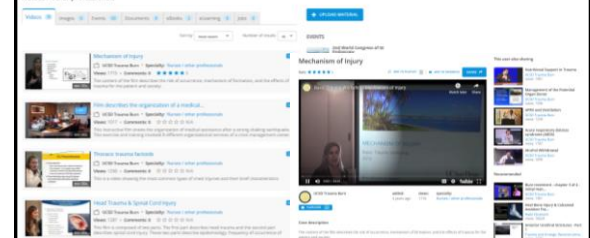
82

Display 3b. Short Educational Videos: Anchored Instruction/Macrocontext CNN, BBC, TED, TED-Ed, ForaTV



83

Display 3c. Medical Training Videos: Anchored Instruction/Macrocontext MEDtube (200,000 users, 20,000 records)



84

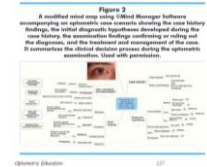
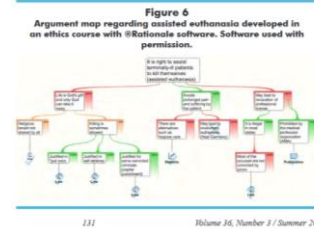
Display 3d.
Concept Mapping and Timeline Tools
 (Bubbl.us, Cmap, Gliffy, Spicynodes, or Mindomo)
<http://www.spicynodes.org/index.html>



85

Summer 2011
Teaching Critical Thinking
Optometric Education, 36(3)

https://journal.opted.org/articles/Volume_36_Number_3_Summer_2011.pdf



86

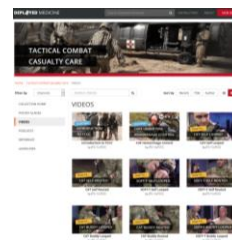
June 3, 2016
Display 3e. Explosion of Virtual Reality
VR Lets Med Students Experience What
It's Like To Be 74
 Elyse Wanshel, Huffington Post
<http://ht.ly/bSpe300XEPJ>

Virtual Reality Lets Med Students Experience What It's Like To Be 74



87

February 6, 2020
Display 3f. Training Videos and Podcast
for Medic Training (TCCC training--Tactical Combat
Casualty Care or TC3; videos, video tutorials, podcasts, apps.)
<https://www.deployedmedicine.com/market/11/category/6>



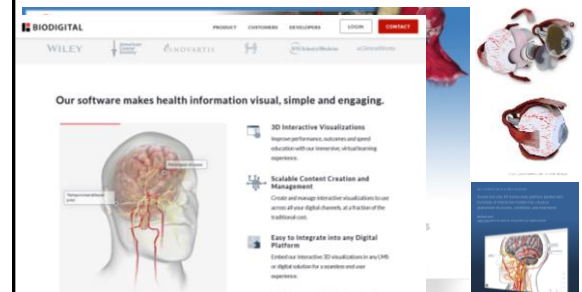
88

January 20, 2017
Display 3g. You VR Takes You on a Tour of
The Human Body
https://www.youtube.com/watch?v=LBWaj1f_UjM



89

Display 3h. Multimedia Supplements
Online Anatomy and Biology
<http://www.cyber-anatomy.com/>
<https://www.biodigital.com/>



90

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.



91

Do 4a. Hands-on Military Decision Making Simulated Natural Disaster Field Training Exercise Captains Career Course

<https://www.dvidshub.net/image/5343668/captains-career-course>



92

Do 4b. Case Decision Making e.g., snake bite



93

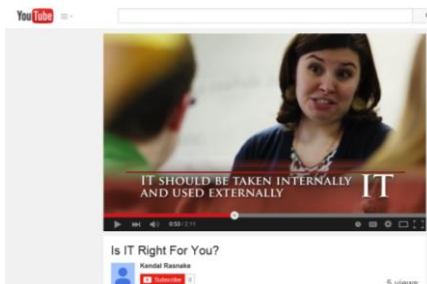
Do 4c. Sample Student Work e.g., Interactive Archive/Gallery of best work (e.g., physical therapy, SDSU)



94

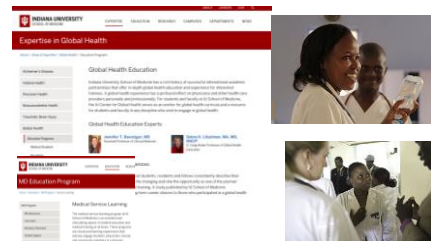
Do 4d. Student Created Recap Videos

Piercarlo Abate: <http://www.youtube.com/watch?v=-TURzH06aU>
 Qi Li, Gangname: <http://www.youtube.com/watch?v=7Q4296yZaU8&feature=youtu.be>
 Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=8cmCFW9W8>
 Kendal Rasnake (Is IT Right For You?): <https://www.youtube.com/watch?v=MJ3GUD1CIGw>
 Kimberly Vincent-Caplan: https://www.youtube.com/watch?v=6C2P_7f1L1A&feature=youtu.be



95

January 26, 2020 Do 4e. Medical Service Learning and Community Outreach Global Health Education, Indiana University <https://medicine.iu.edu/expertise/global-health/education/>



96

Poll: 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.



97

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



What motivates?

1. Tone/Climate: Psychological Safety, Comfort, Sense of Belonging
2. Encouragement, Feedback, Responsiveness, Praise, Support
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

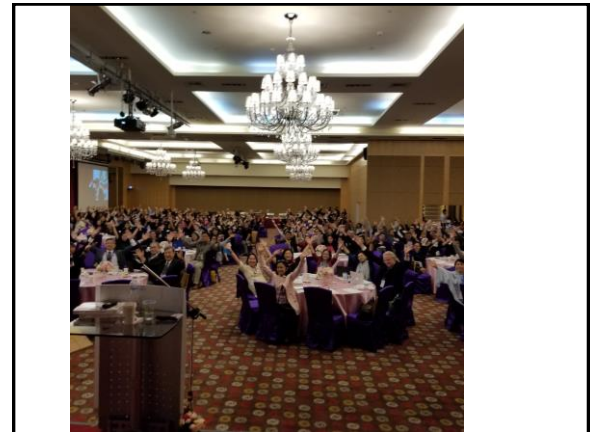


98

Poll: Excited or does all this give you a headache?



99



100

We are entering a jumping off point...

(South University of Science and Technology of
China, Wednesday June 10, 2015)



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Any Questions or Comments?

Slides at: TrainingShare.com

Papers: PublicationShare.com

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

Dr. Curt Bonk – CJBonk@Indiana.edu

<http://curtbonk.com/>



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