

Technology-Enhanced Learning: Popular Frameworks for Powerful Learning

**Curtis J. Bonk, IST Professor
Indiana University**

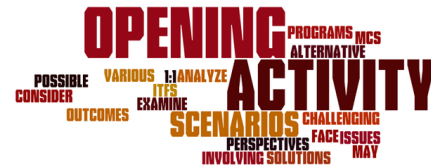
cjbonk@indiana.edu; <http://curtbonk.com/>



1

Opening Activity #1:

Type Answer in the Chat Window:
What is your favorite online learning activity?



2

Opening Activity #2:

Type Answer in the Chat Window: What is your
favorite type of learning technology today...?



3

Poll #1. Warm-up question: How are you today?

- A. I feel so great, I could be superwoman and superman.
- B. I feel really good, thank you.
- C. A little tired but still fine and ready to learn from this session.
- D. Not sure yet but I am glad to be here today in this webinar.
- E. Not fully here nor there since I have some personal issues that need to be sorted out.
- F. Overwhelmed and feeling like I am lost in a lost world.
- G. Other.

4

Poll #2: Have you ever taught a blended learning or HyFlex 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.



5

Poll: Have you reflected on your teaching philosophy or learning approach during the pandemic?

- 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.



6

Personal Transformations



7

PART 1

8

June 17, 2021

How can higher ed move blended learning forward?

Jessca Rowland Williams, eCampus News

<https://www.ecampusnews.com/2021/06/17/how-can-higher-ed-move-blended-learning-forward/>



How can higher ed move blended learning forward?

Jessca Rowland Williams, Ph.D., Director, eCampus News
June 17, 2021
A new resource can help higher education faculty optimize blended learning strategies and options.



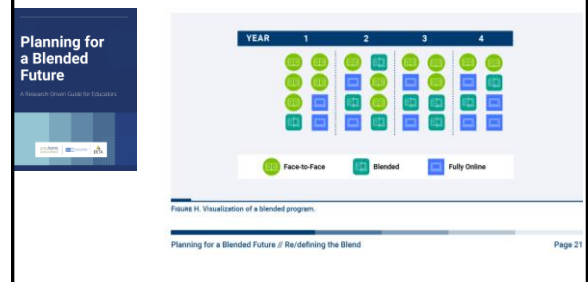
Figure 1: Four-quadrant model of learning illustrating a continuum of blended learning options.

9

June 17, 2021

Planning for a Blended Future: A Research-Driven Guide for Educators

<https://www.everyleamereverywhere.org/resources/planning-for-a-blended-future/>



10

June 17, 2021

Planning for a Blended Future: A Research-Driven Guide for Educators

<https://www.everyleamereverywhere.org/resources/planning-for-a-blended-future/>



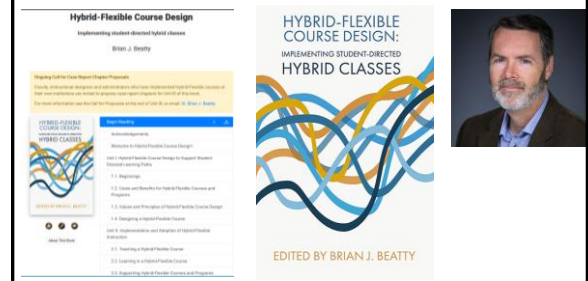
Figure 1: The pedagogical shift from instructor-led to student-centered.

11

June 17, 2021

Free Book: Hybrid-Flexible Course Design

<https://edtechbooks.org/hyflex>



12

Fall 2021**Hybrid Modality: HyFlex Teaching**

<https://instructionalcontinuity.georgetown.edu/pedagogies-and-strategies/hybrid-hyflex-teaching/>
 In a HyFlex course, courses are delivered both in person and online at the same time by the same faculty member. For any given class meeting, some students might participate in person, while others might participate at the same time online, made possible by a combination of cameras, microphones, displays, and other technology in the classroom.



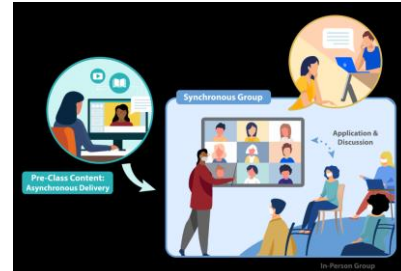
Some considerations for Concurrent or HyFlex Teaching and Learning

The physical campus constraints and health guidelines will make teaching in a HyFlex environment in the fall a challenge.
 * Maintaining social distancing poses a challenge in the fall. The number of students in the classroom will be limited to 50 and masks will need to be worn.

13

Fall 2021**Hybrid Modality: HyFlex Teaching**

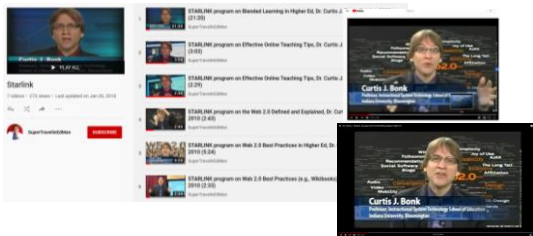
<https://instructionalcontinuity.georgetown.edu/pedagogies-and-strategies/hybrid-hyflex-teaching/>
 HyFlex (a term coined by [Brian Beatty](#)) stands for a combination of "hybrid," meaning alternating between face-to-face meetings and remote interactions, and "flexible," meaning students move between these participation options.



14

April 25, 2020
What is Blended Learning
STARLINK programs on Online and Blended Learning and the Web 2.0
October 2008-January 2010

<https://www.youtube.com/playlist?list=PLHckR6W2i0rK7YKxy3y40Zvcc0wxf>



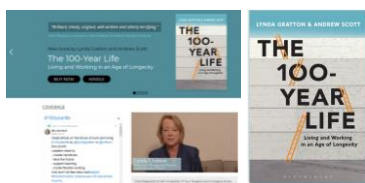
15

Clearly...
Learning is Changing!


16

July 24, 2018
The 100-Year Life: Living and Working in an Age of Longevity
Lynda Gratton and Andrew Scott

<http://www.100yearsifc.com/>
<https://www.amazon.com/100-Year-Life-Living-Working-Longevity/dp/1543624634>



17

January 20, 2022
Francis and Dionne Najafi 100 Million Learners Global Initiative
Video (2:07):

https://vimeo.com/667987472?embedded=true&source=vimeo_logo&owner=13433234
<https://thunderbird.asu.edu/lifelong-learning/100-million-learners>



- Global Leadership in the Fourth Industrial Revolution
- Customer Experience and Digital Marketing in a Global World
- Global Entrepreneurship and Sustainable Business
- Data Analytics and Digital Transformation in a Global World
- Global Financial Accounting



18



19



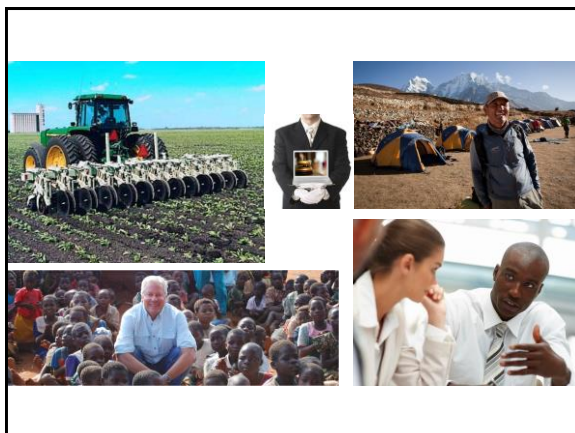
20



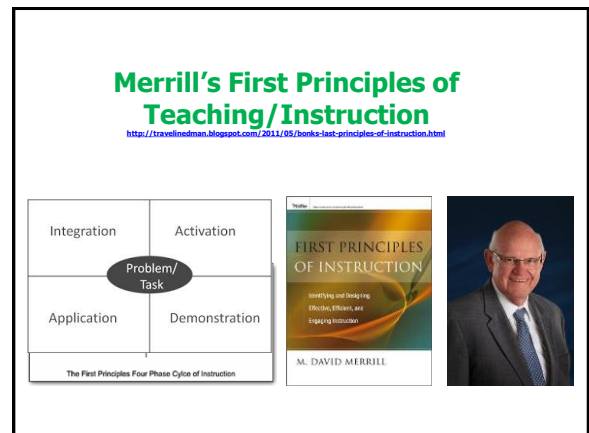
21



22



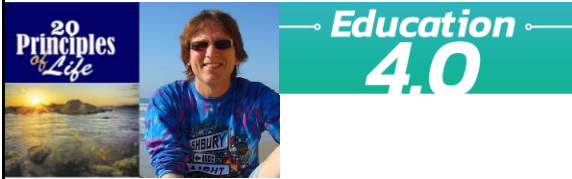
23



24

Bonk's Last Principles of Teaching/Instruction (Education 4.0?)

<http://travellinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>
<http://www.apprisaethai.com/articles/education-4-0/>



25

Bonk's 20 "Last" Principles of Instruction (LAST = Learning Activation System Template)

<http://travellinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>

Flexibility Support and Feedback Choice and Options
 Convenience Spontaneity Nontraditional Learning
 Collegiality Organization Passion and Inspiration
 Cheerfulness and Optimism Sharing Relevance and Meaningfulness
 High Expectations Purpose and Vision Trial and Error (i.e., it is ok to fail)
 Empowerment and Autonomy Expanded Resources
 Human Connectedness #20 ???
 Cognitive Apprenticeship

26

2. The Principle of Convenience

<http://travellinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



27

6. The Principle of Choice and Options

<http://travellinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



28

7. The Principle of Empowerment and Autonomy

<http://travellinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



29

8. The Principle of Support and Feedback

<http://travellinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



30

9. The Principle of Spontaneity

<http://travellinedman.blogspot.com/2011/05/books-last-principles-of-instruction.html>



31

10. The Principle of Organization

<http://travellinedman.blogspot.com/2011/05/books-last-principles-of-instruction.html>



32

11. The Principle of Sharing

<http://travellinedman.blogspot.com/2011/05/books-last-principles-of-instruction.html>



33

13. The Principle of Passion and Inspiration

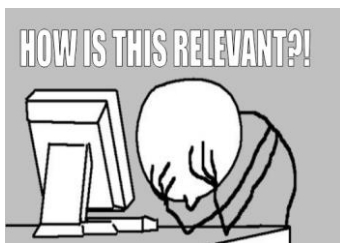
<http://travellinedman.blogspot.com/2011/05/books-last-principles-of-instruction.html>



34

14. The Principle of Relevance and Meaningfulness

<http://travellinedman.blogspot.com/2011/05/books-last-principles-of-instruction.html>



35

16. The Principle of Expanded Resources

<http://travellinedman.blogspot.com/2011/05/books-last-principles-of-instruction.html>



36

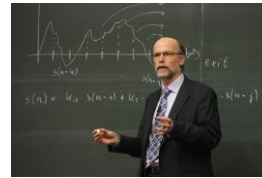
Bonk's 20 "Last" Principles of Instruction (LAST = Learning Activation System Template)

<http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



37

Education 3.0...Education 20/20



"In Education 3.0, classrooms would move away from lectures, such as this one, to having class time be spent on discussions and projects, using digital technology."

(Per Wikipedia: https://en.wikipedia.org/wiki/Education_3.0)

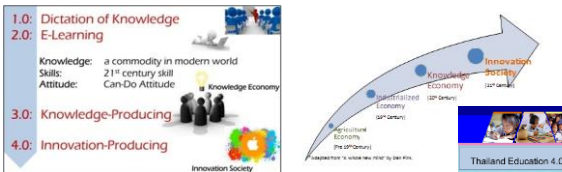
38

Now What is Education 4.0?

"Innovation-producing education. Learn more in:
Development of Individual Agency within a Collaborative,
Creative Learning Community"

<http://www.igi-global.com/dictionary/education-40/41755>

<https://thinc.in.th/engadmission/education4.html> (Chula Engineering)



39

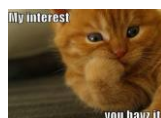


40

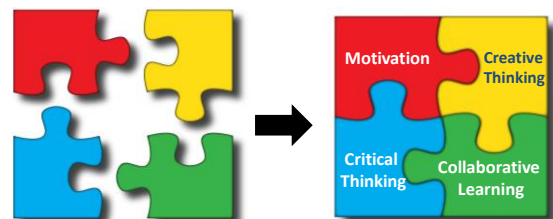
Poll #3:

Which topic are you most interested
in fostering or learning about?

- A. Creative thinking online
- B. Critical thinking online
- C. Collaborative learning and teamwork online
- D. Motivation

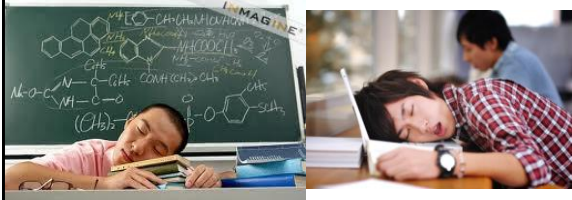


41



42

Needed: New Models of Motivation and Engagement



43

MOTIVATION



44

Introducing the TEC-VARIETY Framework

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

Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products



45

September 2022

Commonwealth of Learning

Khoo, E., & Bonk, C. J. (2022). *Motivating and Supporting Online Learners*. Burnaby, BC, Canada: Commonwealth of Learning. **Free book available:** <http://hdl.handle.net/11599/4481> and free course available: <https://colcommons.org/welcome/coursedetails/8>;

<https://www.colvee.org/>



46

September 23, 2022 Motivating and Supporting Online Learners

<https://colcommons.org/my-course>



47

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.



48

Intrinsic Motivation

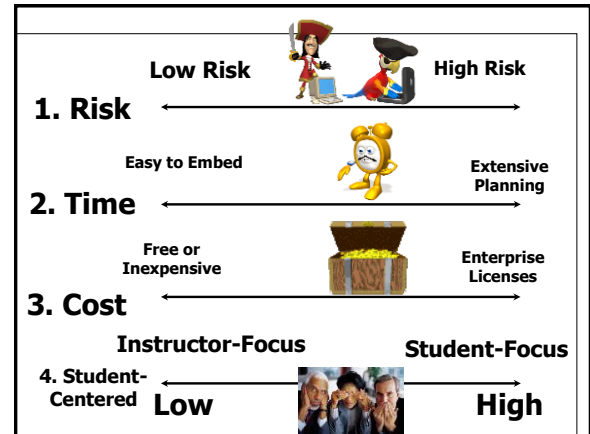
“...innate propensity to engage one’s interests and exercise one’s capabilities, and, in doing so, to seek out and master optimal challenges

(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.



49

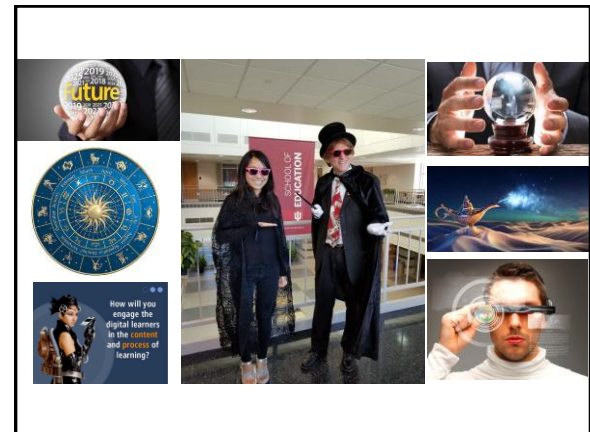


50

Examples of TEC-VARIETY

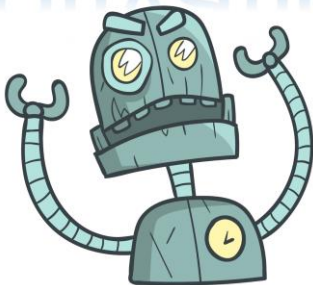


51



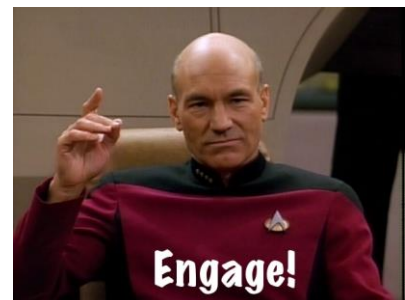
52

Motivation



53

Poll: What did Jean-Luc Picard say?



54

January 13, 2022
1. Tone/Climate: A. Course Introductions

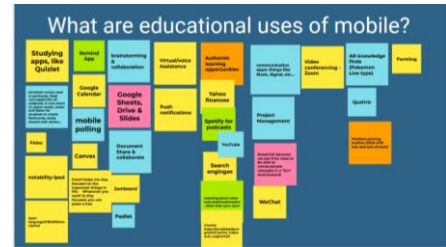
(R678) <https://padlet.com/cmsmeltz/h6zbpdfos6x19l>
 (R511) <https://padlet.com/sunseol/b1yr49lixwc6smkc>



55

April 11, 2022
1. Tone/Climate: B. Warm-Up Exercises in Jamboard: What do you know about XYZ...?

https://jamboard.google.com/j/3kxach90u756k1gLAQme9P8RueRnR0Qem_3PQ2q?view=7c-3



56

March 7, 2022
1. Tone/Climate: C. Brainstorming MOOC Perceptions in Padlet

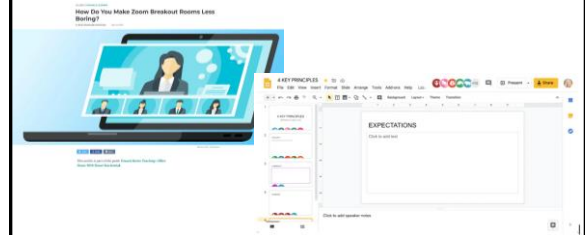
<https://padlet.com/basdogan2/vywl19ct98stvolbw>



57

September 24, 2020
1. Tone/Climate: D. Breakout Rooms
 How Do You Make Zoom Breakout Rooms Less Boring?, Expectations, Share a link, Introductions

Bonni Stachowiak (Columnist), Ed Surge
<https://www.edsurge.com/news/2020-09-24-how-do-you-make-zoom-breakout-rooms-less-boring>



58

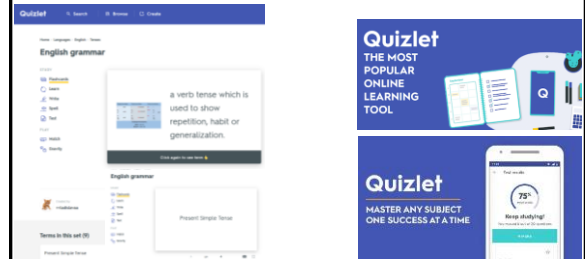
April 11, 2020
1. Tone/Climate: E. Threaded Video Discussions and Questions (e.g., Flipgrid)

Ed Tech with Adam: <https://www.youtube.com/watch?v=hysv0PwqsFs>
<https://techcrunch.com/2018/06/18/microsoft-acquires-social-learning-platform-flipgrid/>



59

2. Encouragement, Feedback: A. Online Practice Tests and Interactive Flash Cards
<http://quizlet.com/>

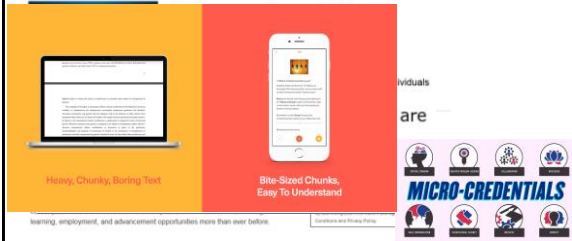


60

June 6 and 27, 2022

2. Encouragement, Feedback: B. Microcredentials and Certificates

Susan Manning, Ed.D, Director of Customer Education, Credly, eSchool News
<https://www.eschoolnews.com/2022/06/06/the-power-of-microcredentials/>
<https://learn.gnowbe.com/about>



61

July 8, 2022

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

Dinosaur discovered in Argentina suggests why many prehistoric predators had small arms
Wyatte Grantham-Phillips, USA TODAY
<https://www.usatoday.com/story/news/world/2022/07/08/new-dinosaur-species-argentina-moraxos-gigas/10011589062/>



62

July 26, 2021

3. Curiosity, Intrigue, Unknowns: B. Use Something in the News

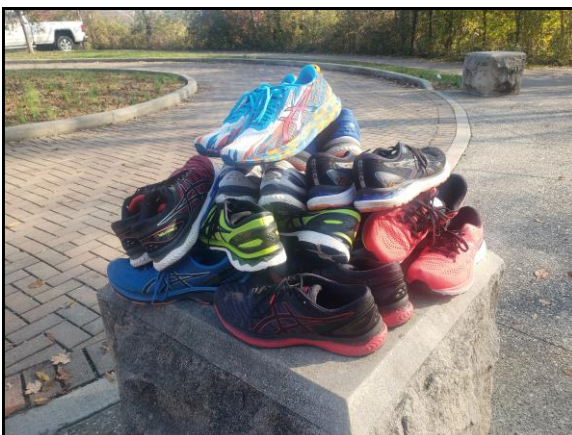
Almost 500 Days into His Run Streak,
 Eddie Gieda Shows Us Love Knows No Limits
 Tanya Russell, Runners World
<https://www.runnersworld.com/runners-stories/a36867448/eddie-gieda-run-streak/>



63



64



65

October 2, 2021

4. Variety, Novelty, Fun, Fantasy: A. Reverse Brainstorming in Jamboard

<https://jamboard.google.com/d/1uF5b2O3dvcFVfO5qhaTxxGCLQ3xP-mIGPvF7kdjKA4/viewer?f=5>



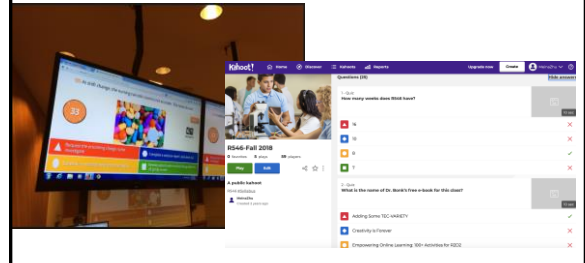
66

February 27, 2020
4. Variety, Novelty, Fun, Fantasy:
B. Game Show Style Presentations
 Susie Gronseth, University of Houston
https://www.youtube.com/watch?v=ZFXIVAGz_no&feature=youtu.be



67

Fall 2018 R546
4. Variety, Novelty, Fun, Fantasy:
C. Kahoot! Competitions
<https://getkahoot.com/>



68

4. Variety, Novelty, Fun, Fantasy:
E. 99 Second Quotes and Set Time Presentations
 (L = Cost, M = Risk, M = Time)

- Everyone brings in a quote that they like from the readings
- You get 99 seconds to share it and explain why you choose it in a sync chat
- Options
 - Discussion wrapped around each quote
 - Link or debate quotes online



69

July 18, 2020
5. Autonomy, Choice:
A. Enroll in a MOOC and Reflect (e.g., see Class Central)



70

5. Autonomy, Choice:
B. Reflect on Podcasts and Webcasts



71

March 11, 2022
5. Autonomy, Choice:
C. Explore Open Educational Resources Museum Computer Network Inc. (MCN)
<https://mcn.edu/a-guide-to-virtual-museum-resources/>



72

73

5. Autonomy, Choice:

D. Nominate Quotes (e.g., Shakespeare)

- **Students can explore online quotes (Wikiquote).**
- **Suggest best ones.**
- **Respond to other suggestions.**



74

6. Relevance, Meaningfulness:

A. Language Lessons Online

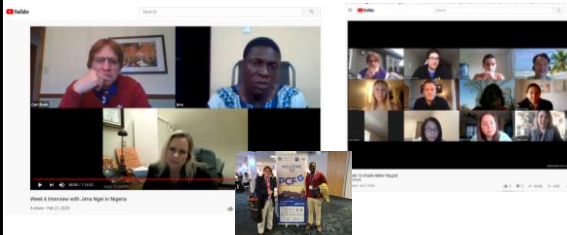
e.g., BBC Learning English, Duolingo, Babbel, SpanishPod, etc.
(Zixi Li & Curt Bonk, June 2022, Duolingo Research)
<http://www.bbc.co.uk/learningenglish>



75

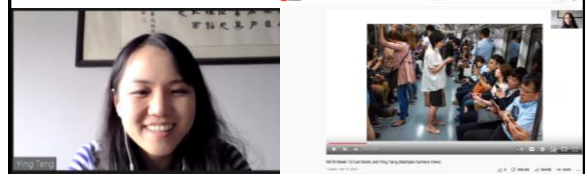
April 6 and 28, 2020
6. Relevance, Meaningfulness:
B. Weekly Guest Expert Chats

SMILE, Paul Kim Stanford, <https://youtu.be/bfJDS1hVLU>
February 22, 2020, Jima Ngei in Nigeria (1 hour 15 minutes)
Video: <https://youtu.be/sM6VMsfQJXc>



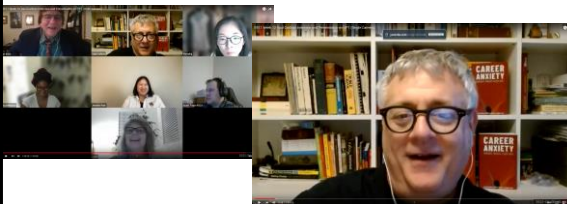
76

April 10, 2022
Recorded Author and Researcher Interviews
 Ying Tang, Southwest China University (mobile learning)
<https://www.youtube.com/watch?v=bsYbiiij5qv8>



77

April 5, 2022
R511 Week 12 Saul Carliner Interview and
Presentation on HPT
<https://youtu.be/ZWI-RJSmG2M>

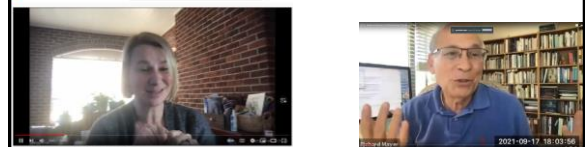


78

**Expert, Researcher, or Live Author
Interviews and Discussions**

Students might read the biography or resume of the guest as well as available articles, books, and other resources about this person. Next, the guest might respond to questions from the class based on these resources.

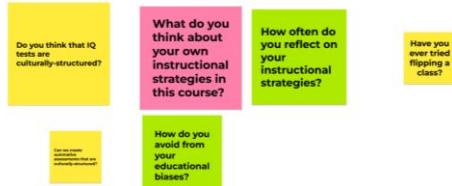
April 4, 2022, R678 Guest Vanessa Dennen at FSU on Social Media
<https://www.youtube.com/watch?v=-OT2UYE4XRU>
 September 17, 2021, Expert chat session with Richard Mayer
 (1:17:47): <https://youtu.be/pVo7IRsbqkA>



February 14, 2022
6. Relevance, Meaningfulness:
C. Questions for Guests in Jamboard or an AMA (Ask Me Anything)

https://jamboard.google.com/d/1BW2G83aIVq035h5x1dNaMwOo_2RUcNTUuo7mri5Eie/viewer?l=2

Bloomington Group #1
 "Ask Curt Anything" About Instructional Strategies



79

February 28, 2022
6. Relevance, Meaningfulness:
D. Past, Present, and Future Panels
 R678 with Tom Reeves, Tom Reynolds, Veronica Acosta, and Okhwa Lee
<https://youtu.be/BUu9vFDqjxw>



80

November 27, 2021
6. Relevance, Meaningfulness:
E. Guest Chats Playlists, R511, Fall 2021
<https://youtube.com/playlist?list=PLHcReRoW2hxPeQcA1LKHnj11IMPlpKWp>



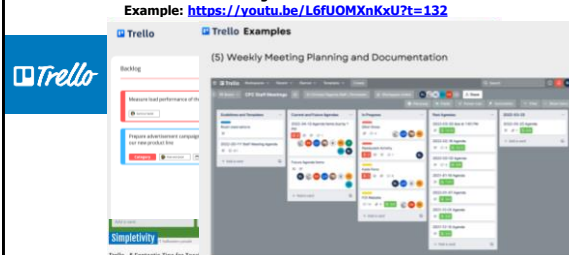
81

Pedagogical Uses of Shared Online Videos

1. Watch and write review papers
2. Watch and look for themes or common issues
3. Draft educational change models, frameworks, or systems
4. Interview prior participants
5. Draft mini-chapters based on episodes into a book
6. Write future trends papers
7. Remix episodes
8. Tag, rank or categorize the episodes
9. Online discussion forums on episodes
10. Online role play or debate different episodes

82

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/L6fUOMXnKxU?t=132>



83

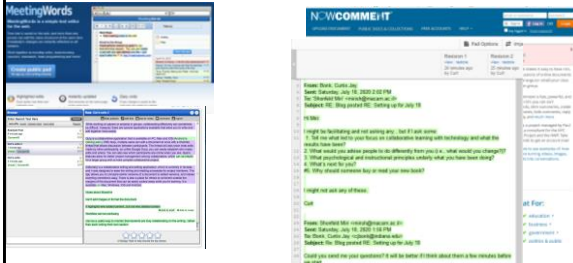
February 7, 2022
7. Interactive, Collaborative:
B. Team Article Summaries in Jamboard
<https://jamboard.google.com/d/1X0XGkFNUCJBvVo7aYhd6N73NZ08cV60F>
 Week Article #6 Themes and Questions



84

7. Interactive, Collaborative: C. Negotiate Meanings Online

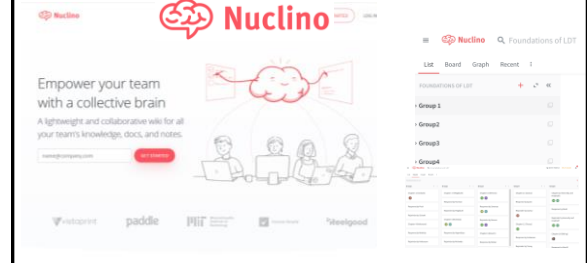
(e.g., MeetingWords: <http://meetingwords.com/>)
<http://blogs.elon.edu/technology/6-collaborative-writing-applications-for-group-projects-or-papers/>
 Also: Google Docs, NowComment, etc. (MixedInk and PiratePad are no more)
 e.g., <https://nowcomment.com/documents/131228>



85

Fall 2019, R511 7. Interactive, Collaborative: D. Team Article Debates

Nuclino (like a wiki...may delete by mistake)
<https://www.nuclino.com/>

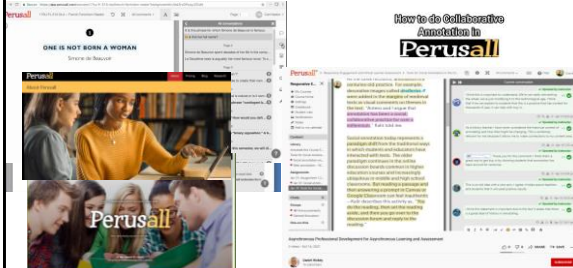


86

June 3, 2020

7. Interactive, Collaborative: E. Collab Annotation and Group Reading (Perusall)

How to Do Collaborative Annotation and Group Reading in Perusall for Online or Blended Classrooms
 EdTech with Adam: <https://www.youtube.com/watch?v=edb9IEComp>
<https://perusall.com/>

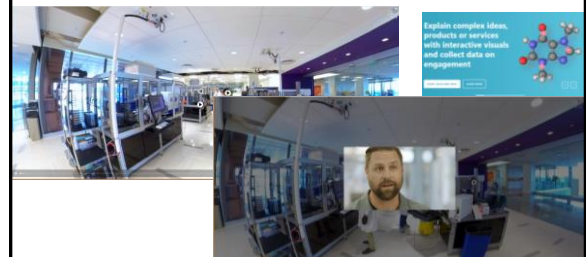


87

April 11, 2022

8. Engagement, Involvement: A. Embedding Links (i.e., ThingLink)

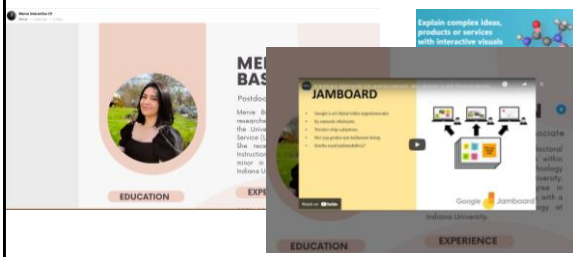
(360 instructional video, teaching some experiments in an advanced science lab.)
<https://www.thinglink.com/mediacard/1264679527141867522>



88

April 11, 2022 Embedding Links (i.e., ThingLink)

<https://www.thinglink.com/mediacard/1264679527141867522>



89

May 2, 2022 8. Engagement, Involvement: B. NASA Science Lessons

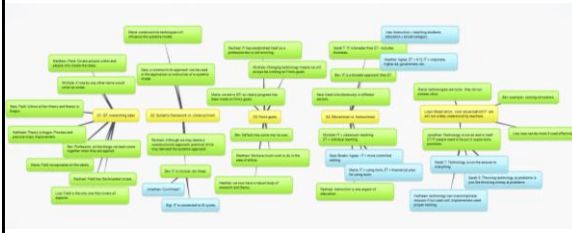
<https://www.nasa.gov/stem/nextgenstem/sun-toolkit.html>
<https://www.nasa.gov/stem/nextgenstem/webb-toolkit.html>
<https://www.nasa.gov/stem/nextgenstem/index.html>



90

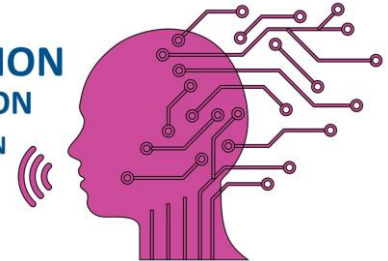
September 3, 2017
10. Yields Products, Goals:

D. Mindmap Recaps of Online Discussions
Mindmap of Week 2 of R511



97

MOTIVATION
MOTIVATION
MOTIVATION
MOTIVATION
MOTIVATION



98

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

What motivates?

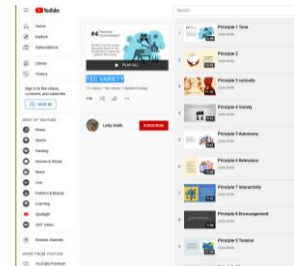
1. **Tone/Climate:** Psychological Safety, Comfort, Sense of Belonging
2. **Encouragement:** Feedback, Responsiveness, Praise, Supports
3. **Curiosity:** Surprise, Intrigue, Unknowns
4. **Variety:** Novelty, Fun, Fantasy
5. **Autonomy:** Choice, Control, Flexibility, Opportunities
6. **Relevance:** Meaningful, 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

99

November 18, 2021
TEC VARIETY

10 Explanatory Videos, Linda Smith

<https://youtube.com/playlist?list=PLGodJQq20AHBKkIp7LE75BjpygxVeHd4K>

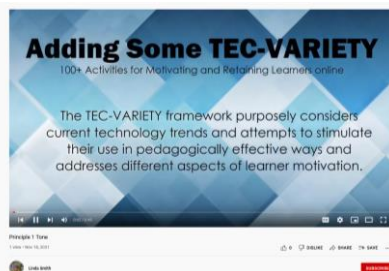


100

November 18, 2021
TEC VARIETY

10 Explanatory Videos, Linda Smith

<https://youtube.com/playlist?list=PLGodJQq20AHBKkIp7LE75BjpygxVeHd4K>



101

Poll #4: Any light bulbs going off in you head so far?

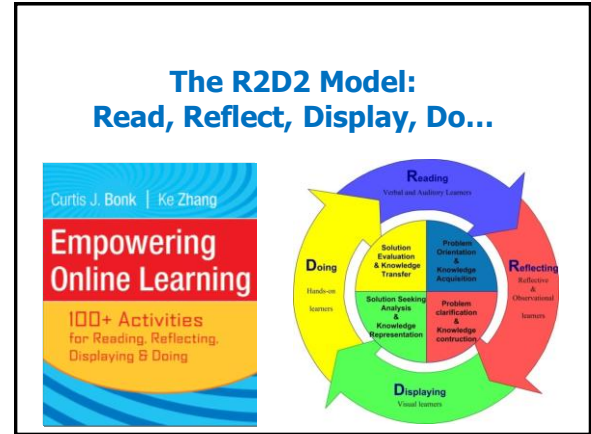
- a. Yes definitely...many of them...pop...pop...pop!
- b. Yes, several times.
- c. Yes maybe!
- d. Not yet (but hopefully soon...)
- e. Nope. Darn it my brain is not working today.
- f. There's no hope with this idiot presenting.



102



103



104

The R2D2 Model

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

105

1. Auditory or Verbal Learners

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

106

Read 1a. Listen to Podcasts
(e.g., Educational: <https://discoverpods.com/educational-podcasts/>)

107

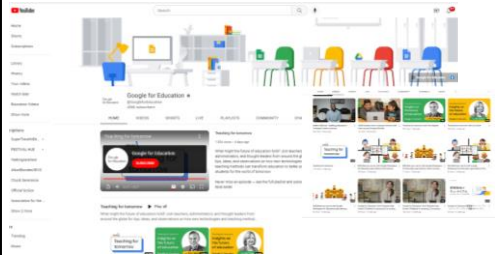
November 20, 2022
10 Educational Podcasts (You Need To Listen To)
<https://collegeinfo geek.com/best-podcasts/>

108

November 21, 2022

Google for Education

<https://www.youtube.com/c/AdobeForEducation/videos>
<https://www.youtube.com/watch?v=1hnEtr7Lkt4>



109

August 24, 2022

Boundless Life's Communities and Education for Digital Nomads, Michael Horn

<https://www.youtube.com/watch?v=HMPJEddKkU&t=83s>
<https://www.youtube.com/@michaelhorn>
<https://michaelhorn.substack.com/p/boundless-lifes-communities-and-education>



110

June 15, 2022

Leaders & Legends of Online Learning, Dr. Mark Nichols' Podcast

<https://onlinelearninglegends.com/podcast/062-dr-george-veletsianos/>
 In this episode, Open Polytechnic of New Zealand Executive Director Dr. Mark Nichols chats with Dr. George Veletsianos, Royal Roads University in Victoria, British Columbia. George talks about his history and research in online education, and his ongoing challenges to the false dichotomy of online and in-person learning.



111

November 21, 2022

The Daniels on Research

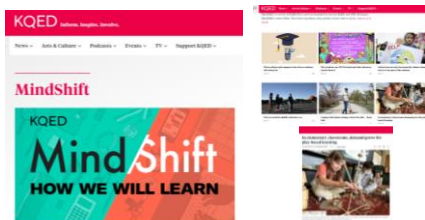
<https://www.learningscientists.org/podcast-episodes>
<https://www.youtube.com/watch?v=9uPNUXSW1DM>



112

November 21, 2022 MindShift: How we will learn

<https://www.kqed.org/mindshift/562551-in-elementary-classrooms-demand-grows-for-play-based-learning>



113

Silver Lining for Learning (SLL) Videos/Webcasts



114

October 23, 2021
Silver Lining for Learning
Episode #80: Hosts Reflect



115



116



117

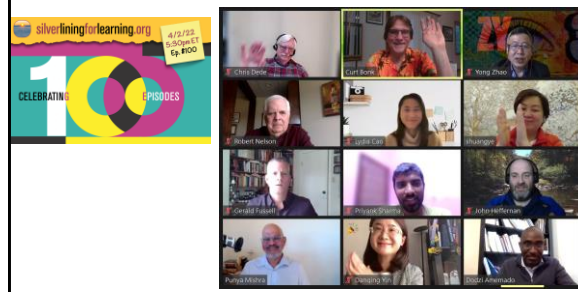
#82. Video Life and Learning in the Metaverse (1 hour):

https://www.youtube.com/watch?v=wbSJH1dhnX4&feature=emb_logo



118

April 2, 2022
Silver Lining for Learning
Episode #100: Best of Guests



119

Activity:
Type Answer in the Chat Window: How
can you use podcasts in your class...



120

Pedagogical Uses of Podcasts

1. Replace some course readings.
2. Podcast reenactments.
3. Use of podcasts to back up different sides of debates or to start debates.
4. Remix episodes and explore themes and common issues.
5. Support asynchronous discussion.
6. Add multimedia component to student papers.
7. Interview the podcast hosts and guests.
8. Identify new discoveries and trends in the field.
9. Favorite podcast show competitions.
10. Supplement class lectures or presentations.

121

Activity:

Type Answer in the Chat Window: What are the benefits of using podcasts in your class...



what?

122

Pedagogical Benefits of Podcasts

(Palenque, 2016, Journal of Instructional Research)

1. Promotes active listening.
2. Expands vocabulary.
3. Support active, social, and creative aspects of learning.
4. Provides opportunities for reflection.
5. Aligns with self-paced and independent learning.
6. Helps chunk learning and connect to what you know.
7. Fosters audience awareness and social cognition
8. Potential for audio feedback to learners.
9. Provides alternative to reading.
10. Fosters planning skills.

123

March 21, 2020

Read 1b. Read Blogs



124

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



125

Reflect 2a. Big Issue Reflections and What-If Reflections

(Big Questions Online (BQO))

(e.g., [Can a Living Creature Be as Big as a Galaxy?](https://www.bigquestionsonline.com/))

<https://www.bigquestionsonline.com/>

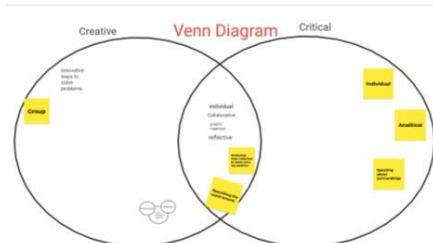
Forestry & Society Forests of the U.S.--Questions

- What are some major species of eastern forests? Describe them.
- What are some major species of western forests? Describe them. What are some major species of southwestern forests? Describe them. Compare the productivity of temperate forests with tropical and boreal forests.
- Describe the ownership pattern of forestland in the US. What were the major laws that determined US forest land policy? What did they do for US forest policy?

126

September 4, 2021 Reflect 2b. Venn Diagrams in Jamboard

<https://jamboard.google.com/d/1uF5b2O3dvcjFVIO5qhaTxuGCLQ3xP-mIGPvF7kdjKA4/viewer?f=5>



127

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

<ul style="list-style-type: none"> Controller/Executive Director/CEO/Leader Connector/Relator/Linker/Synt hesiser Decider/Judge/Settler Devil's Advocate/Critic/Censor Reflector/Thinker/Speculator/Observer/Watcher Warrior/Debater/Arguer/Conqu eror/Bloodletter Idea Squelcher/Biased/Preconceiver Slacker/Slough/Slag Surfer/Dude 	<ul style="list-style-type: none"> Artist/Idea Person/Visionary/Muse Planner/Predictor/Guesser/Flow harter Organizer/ Starter/Founder/Initiat or Questioner/Ponderer/Protester Adventurer/Discoverer/Explorer/Traveler Mediator/Negotiator/Compromise r/Peacemaker Watchdog/Evaluator/Measurer Creative Energy/Inventor/Generator/Brain stormer 	<ul style="list-style-type: none"> Optimist/Open-minded/Idealist Robotic/Information Dumper/Spock-like Absent Minded/Stungler/Dense/Amless Coach/Facilitator/Inspirator/Tra iner Guide/Mentor/Teacher/Scaffol der Humanitarian/Do Gooder/Fund Raiser Funny/Humorless/Comic/Witty Advisor/Responder/Helper/Tut or Worldly/Wiseperson/Sage/Gur u/Spiritual Leader
---	--	--

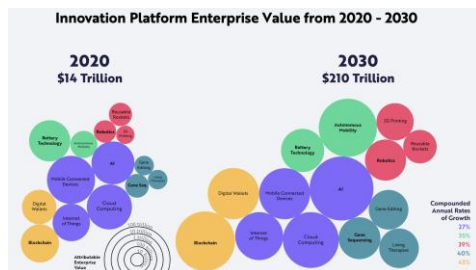


Example 2: Scaffolding...in the form of structuring the online environment and engagement e.g. reflective roles, self-coding, timely-engagement of instructors or otherwise you have "serial monologues."

128

November 25, 2021 Reflect 2d. Interpreting Interactive Graphs and Infographics

ARK Invest
<https://ark-invest.com/articles/portfolio-construction/equity-market-cap-associated-with-innovation/>



129

3. Visual Learners

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



130

March 31, 2022 Display 3a. Short Educational Videos: Anchored Instruction/Macrocontext TEDE, BBC News, and New York Times

<https://www.ted.com/> and <https://www.youtube.com/c/BBCNews/featured>



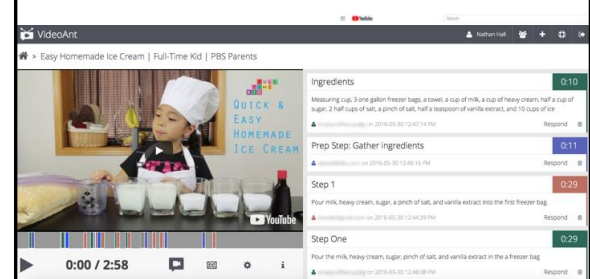
131

Display 3b. Video Annotation and Commenting Tools

VideoAnt (Free): <https://ant.umn.edu/> (Univ. of Minnesota)

<https://www.youtube.com/watch?v=1S0E2aQkyZl>

Edpuzzle (Free): <https://www.youtube.com/watch?v=L62wAxzEM>



132

[illegible]

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.



April 23, 2020

Do 4a. Demonstration Videos

Crane Makerspace, Tina Closser


https://www.youtube.com/channel/UCheWIF9pZ0ZMBt9TB18w7s?view_as=subscriber
<https://sites.google.com/view/cranetech/home>
<https://projects.raspberrypi.org/en/projects>

November 18, 2021

Do 4b. Student Explanatory Videos

Linda Smith

<https://youtube.com/playlist?list=PLGodJ0q20AHBKKIp7LE7SBJpygxVehd4K>



FOSTERS :

- Feedback
- Content review
- Challenge
- Skill evaluation
- Information retrieval
- Discrimination
- Insight
- Entertainment
- Suspense

principle 9-Tension

Principles & Tension
11 views · Nov 18, 2021

Like · Dislike · Share · Save · Report

Subscribe

October 3, 2022

Do 4c. Post STEM Projects

Chilbi Lights, Heejung An, William Paterson University
<https://padlet.com/anh21/q93rjb1j88cstnd1>

Poll #5: 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.



139

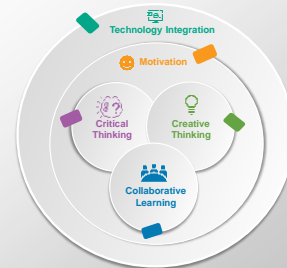
PART 5

140

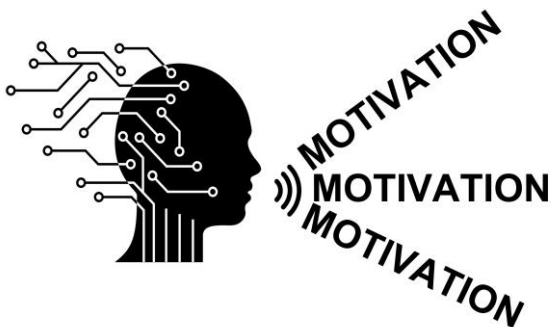
Framework #3
METC³
Educational Technology



141



142



143

MOTIVATION



144

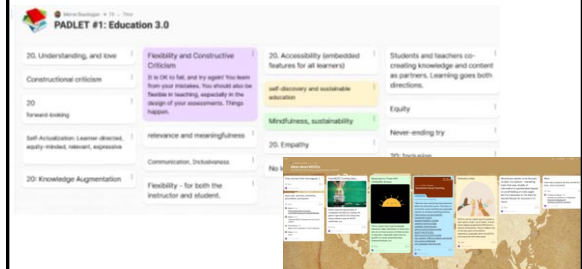
CREATIVE THINKING



145

August 27, 2021 Brainstorming in Padlet What is Education 3.0?

<https://padlet.com/basdogan2/vw19ct98styo1bw>



146

October 2, 2021 Visualization with Miro (Merve Basdogan)

https://miro.com/app/board/o9J_luxjzb0=/#
Tutorial: <https://www.youtube.com/watch?v=pULLAEhSho>

12 Types of Creative Learning



147

February 14, 2022 Questions for Guests in Jamboard or an AMA (Ask Me Anything)

https://jamboard.google.com/d/1BW2GB3aVq035h5h1dNaMwOo_2RUcNTUuo7mf5SEjg/viewer?l=2



148

CRITICAL THINKING



149

September 4, 2021 Pros and Cons in Jamboard

https://jamboard.google.com/d/1KJ1vX4iXa2RgES0H58iaB_cW-LieoUzMD0FJ88eP00/viewer?l=15

#7. What did you learn last week about R2D2 and TEC-VARIETY?



150

COLLABORATION



157

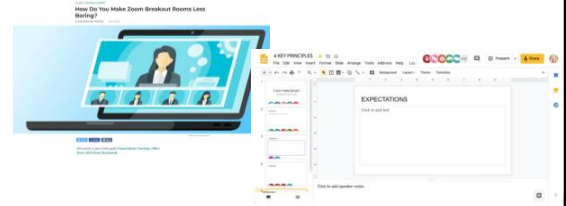
September 24, 2020

Breakout Rooms

How Do You Make Zoom Breakout Rooms Less Boring?, Expectations, Share a link, Introductions

Bonni Stachowiak (Columnist), Ed Surge

<https://www.articulate.com/news/2020-09-24-how-to-make-zoom-breakout-rooms-less-boring/>



158

February 7, 2022 Reflection Team Activities in Jamboard

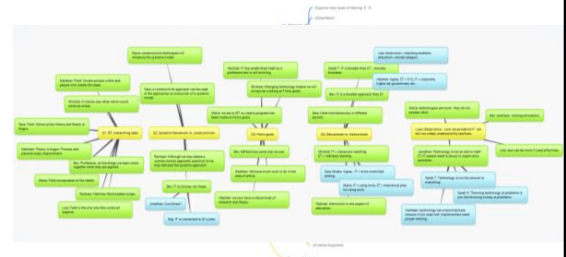
<https://jamboard.google.com/d/1XxxXkFNUCJ8vQg7qYd6N73NZQ8cV60Fc8KgcY7TneU/viewer?z=6>



159

February 27, 2022 Discussion Recap in Mindmeister

<https://www.mindmeister.com/map/21982593447c-2c3d92v6q0>



160

Poll #6: Will instructors be replaced by shared online video and audio?

- Definitely not!
- I will wait and see...
- Perhaps some instructors might.
- Most entry level instructors will likely be replaced.
- All instructors should fear losing their jobs.

161

Poll #7: Will instructors be replaced by ChatGPT and Generative AI?

- Definitely not!
- I will wait and see...
- Perhaps some instructors might.
- Most entry level instructors will likely be replaced.
- All instructors should fear losing their jobs.

162

Transformative Teaching Around the World:
Stories of Cultural Impact, Technology Integration, and Innovative Pedagogy
Curtis J. Bonk and Meina Zhu, USA



163

Preface: Before Making Impact
Curtis J. Bonk and Meina Zhu, USA



164

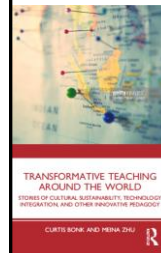
Professional Growth and Cross-Cultural Exchange:

A Glimpse into a Fulbright Program's Life-Long Impact on Global Educators
Jacob Butler, USA



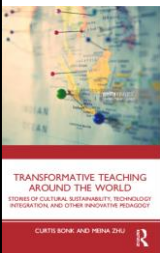
165

Transformative Teaching Around the World



166

Transformative Teaching Around the World



167

Poll #8: How many ideas did you get from this talk now?

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.



168



169

Reflection: How have you addressed diversity, equity, and inclusion in the past?

Presence of differences

DIVERSITY

Fair access, opportunity, and support

EQUITY

Genuine sense of belonging and value

INCLUSION

WordStream

170

Think Equity (and social justice, multicultural education, and culturally responsive education)...
Hammond, Z. (2017). *Distinctions of equity chart* [PDF file].
https://crtandthebrain.com/wp-content/uploads/Hammond_Full-Distinctions-of-Equity-Chart.pdf

MULTICULTURAL EDUCATION	SOCIAL JUSTICE EDUCATION	CULTURALLY RESPONSIVE EDUCATION
Focuses on celebrating diversity	Focuses on exposing the social patterns of racism that students experience	Focuses on improving the learning capacity of diverse students who have been marginalized educationally
Centers around meeting positive social interactions across difference	Centers around raising students' consciousness about inequity in everyday social, environmental, economic, and political situations	Centers around the effective & rigorous aspects of teaching and learning
Diversity and inclusion efforts live here	Anti-racist efforts live here	Efforts to improve learning live here
Concerns itself with equipping privileged students to multiple perspectives, and other cultures, for students of color, the focus is on creating harmonious relationships in the classroom	Concerns itself with creating a safe to recognize and challenge inequitable patterns and structures in society	Concerns itself with building cognitive capacity and academic mindset by pushing back on dominant narratives about people of color
Social Harmony	Critical Consciousness	Independent Learning for Agency

© 2017 Hammond, Z. All rights reserved. createdwithcanva.com

171

Think Inclusiveness...
Carnegie Mellon University: Strategies for Inclusive Teaching
<https://www.cmu.edu/teaching/designateach/teach/classroomclimate/strategies/index.html>

Strategies for Inclusive Teaching

- Establish guidelines for interaction
- Be transparent about expectations

172

More Inclusiveness...
University of Michigan: Inclusive Teaching Resources and Strategies
<https://crti.umich.edu/multicultural-teaching/inclusive-teaching-strategies>

Inclusive Teaching Resources and Strategies

CRIT Resources

Overview of Inclusive Teaching at the University of Michigan: This page discusses a wide range of resources for inclusive teaching.

Equity-Focused Teaching

Equity-Focused Teaching is a framework for teaching that centers on the experiences of marginalized students and aims to create a more equitable learning environment.

173

More and More Inclusiveness...
Columbia University Center for Teaching and Learning: Inclusive Teaching Resources and Strategies
<https://ctl.columbia.edu/resources-and-technology/teaching-with-technology/teaching-online/inclusive-teaching/>

Inclusive Teaching and Learning Online

Considerations for AI Tools in the Classroom

This new resource offers strategies to help instructors use AI tools, such as ChatGPT, along with thoughtful design to help students get the most out of their learning.

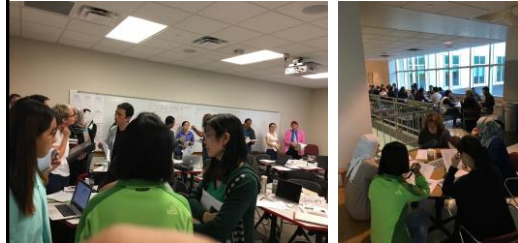
174

#6. Provide Multiple Examples (CMU)
(i.e., connect to those from different cultures, age groups, socio-economic backgrounds)



181

#7. Poll Encourage full participation (CMU)
(e.g., wait time, cards, random number generators, deck of cards, task structuring, sticky notes, etc.)



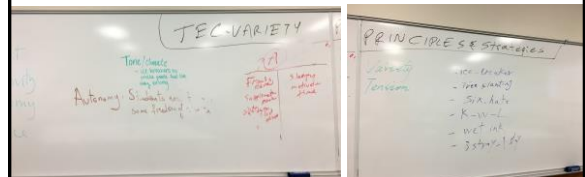
182

#8. Hold Cultural Events
(e.g., food, clothing, music, customs, poetry, etc.)



183

#9. Hold Start and End Class Sessions with Brainstormed Lists (and student voice and action)



184

#10. Recognize Class Accomplishments



185

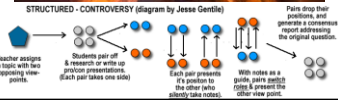
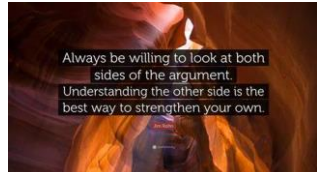
#11. Create Community and Sense of Belongingness (e.g., use breakout rooms)



186

#12. Embed Culturally Diverse Examples in Content and Foster Diverse Perspectives in Activities (CMU & UCSC)

(e.g., students take opposite sides of arguments)



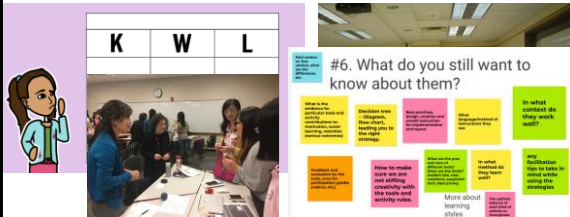
187

#13. Student Muddiest Points or Questions on the Material (CMU)



188

#14. Students Pose Questions (e.g., from blogs, journals, K-W-L, notes on readings, etc.)



189

#15. Students Ask Each Other Questions (e.g., think-pair-share question card trades, fishbowl, reciprocal questioning, etc.)



190

#16. Use Icebreakers Entire Semester

These can be activities or questions that are directly pertinent to course learning goals but give students opportunities to share from their individual experience. (UMich)



191

#17. Emphasize Big Picture, Relevance Value, or Larger Purpose of Tasks and Topics (CMU)



192

#18. Make Course Contents Accessible and Open (UCSC)
(OER such as podcasts, films, PDF documents, interactive websites, etc.)
(Readings: print, digital, text-to-speech, audiobooks, video, etc.)



193

#19. Make Use Asynchronous and Synchronous Options
(e.g., record any instructor lectures and guest visits)
(Columbia University)



asynchronous:

Discussion boards, quizzes, polls, email, digital documents, recorded audio or video, recorded slides with narration, self-paced courses.

synchronous:

Virtual classroom, live presentations, live text chat, instant messaging, live audio or video chat, live quizzes, live polling

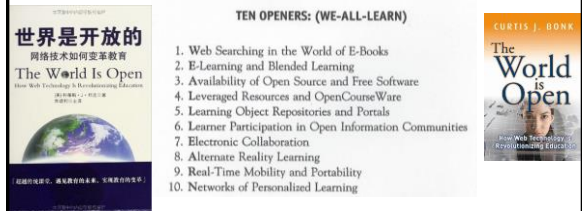
194

#20. Invite Student to Share Resources
(e.g., e-books, videos, blog posts, etc.) (Columbia University)



195

The World is Open:
How Web Technology Is Revolutionizing Education



TEN OPENERS: (WE-ALL-LEARN)

1. Web Searching in the World of E-Books
2. E-Learning and Blended Learning
3. Availability of Open Source and Free Software
4. Leveraged Resources and OpenCourseWare
5. Learning Object Repositories and Portals
6. Learner Participation in Open Information Communities
7. Electronic Collaboration
8. Alternate Reality Learning
9. Real-Time Mobility and Portability
10. Networks of Personalized Learning

196

The World is Wide Open!
(South University of Science and Technology of China, Wednesday June 10, 2015)



197



198

321 Recap or Summary**3 = Takeaways****2 = Things you knew already****1 = Question you have**

199

**Chat Window Sharing:
Three Words from this Session...?****e.g., "I am happy!" and...
"minions are happy!"**

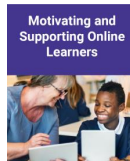
200

**We are entering a jumping
off point...**

201

**Remember...
"I cannot do this alone."****"I cannot do this alone."
"I cannot do this alone."
"I cannot do this alone."**

202

Any Questions or Comments?**Slides at: TrainingShare.com****(go to "Archived Talks")****Free book: <http://tec-variety.com/>****Papers: PublicationShare.com****Curtis J. Bonk, IST Professor****Indiana University****cjbonk@indiana.edu; <http://curtbonk.com/>**

203