Workshop: Education 20/20: En"vision”ing the LAST Principles You’ll Ever Need (15:10-17:00)

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Talk Overview
1. Education 20/20 and the Role of the Instructor
2. First and Last Principles of Instruction
3. 4 E-Learning Ages
4. Megatrends of Learning: Engagement, Access, and Customization (30 ways that learning is changing…)
5. Future Trends and Ideas

Education 20/20

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)
From Instructor as Credit Manager and Court Room Judge

1. Instructor as Counselor

2. Instructor as Consultant

3. Instructor as Conductor

4. Instructor as Course Ambassador
The Creation of Effective Learning Environments

April, 2016
Instructional Design in Higher Education, Gates Foundation and Intentional Futures

July 29, 2016
Reimagine Your Learning Space: Starbucks Your Classroom!

Poll: Who wants one of these? Starbucks

Bonk’s 20 Last Principles of Teaching/Instruction

Merrill’s First Principles of Teaching/Instruction

Sterile, industrial-era rows aren't very attractive or motivating. Even more, I've become convinced that traditional educational settings dull the senses...I believe the "Starbucks" environment will promote that freedom and movement. Freedom is the key ingredient to social-emotional well-being and deeper learning. Rows and columns constrict. They hold and stifle. That is the truth. That is the reality in many U.S. classrooms today. But no longer in mine. Never again.
1. The Principle of Flexibility
http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html

2. The Principle of Convenience
http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html

3. The Principle of Collegiality
http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html

4. The Principle of Cheerfulness and Optimism
http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html

5. The Principle of High Expectations
http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html

6. The Principle of Choice and Options
http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html
7. The Principle of Empowerment and Autonomy

August 8, 2017
Professor’s plan to let students grade themselves gets an F
Paul LeBlanc, CNN

8. The Principle of Support and Feedback

9. The Principle of Spontaneity

10. The Principle of Organization
11. The Principle of Sharing

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

12. The Principle of Nontraditional Learning

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

13. The Principle of Passion and Inspiration

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

14. The Principle of Relevance and Meaningfulness

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

15. The Principle of Trial and Error (i.e., it is ok to fail)

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

16. The Principle of Expanded Resources

http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html
The World is Open: How Web Technology Is Revolutionizing Education

17. The Principle of Human Connectedness

18. The Principle of Cognitive Apprenticeship

19. The Principle of Purpose and Vision

20. ??? (what is missing)
Clearly... Learning is Changing!

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

The Evolution of E-Learning (All 7 year cycles)

Phase III, 2008: The Age of MOOCs (First MOOC Offered).
Phase IV, 2015: The Age of Personalization.

30+ Ways Learning is Changing: The Mega Trends

How Learning is Changing: Mega Trend #1. Learner Engagement
August 17, 2016

Learning is More Hands-On

Research: 3D Printing Market to Double by 2020
Joshua Bolkan, Campus Technology

May 31, 2017

Learning is More Digital and Resource Rich

Enticing Students to Read Again
Ellen McCracken, The Chronicle of Higher Education
Digital Dubliners—a guide to Joyce’s stories written for students by students, will bring a new reading experience to today’s classrooms.
https://digitaldubliners.com/about/

July 19, 2017

HoloLens Assists in Live Surgery

Tommy Palladino, Next Reality
Numerous examples exist of doctors and surgeons using virtual reality to plan surgeries. The device has even been used to view reference images during a procedure and share it with a remote audience in real-time.
Original Video: https://www.youtube.com/watch?v=27s2oeAaQI4

May 18, 2017

Learning is More Immersive

Google Cardboard

Google Expeditions Adds Augmented Reality for Classrooms
Sri Ravipati, THE Journal
https://thejournal.com/articles/2017/05/18/google-expeditions-adds-augmented-reality-for-classrooms.aspx
http://curtbonk.com/thejournal27.html
38 Seconds
http://curtbonk.com/thejournal38.html
1:10
http://curtbonk.com/thejournal.html

February 7, 2017 (Engagement)

Learning is More Social

YouTube takes on Facebook with mobile live
Jefferson Graham, USA Today

February 27, 2017 (Engagement)

Learning is More Immersive

Augmented and Virtual Reality Spending to Double in 2017, Sri Ravipati, THE Journal
Worldwide: “Forecast for AR/VR market to reach $15.0 billion in 2017 — up 130.5 percent from the $6.1 billion spent in 2016. Furthermore, AR/VR spending is expected to accelerate over the next several years, achieving a compound annual growth rate (CAGR) of 198 percent over the 2015-2020 forecast period and reaching $143.3 billion in 2020.”

May 18, 2017

HoloLens Assists in Live Surgery

Tommy Palladino, Next Reality
Numerous examples exist of doctors and surgeons using virtual reality to plan surgeries. The device has even been used to view reference images during a procedure and share it with a remote audience in real-time.

Video #1: 1:09: http://curtbonk.com/hololens.html
Video #2: 1:37: http://curtbonk.com/hololens2.html

07/19/2017

HoloLens Assists in Live Surgery

Numerous examples exist of doctors and surgeons using virtual reality to plan surgeries. The device has even been used to view reference images during a procedure and share it with a remote audience in real-time.
### May 14, 2018 (Engagement)
**Learning is More Adventurous**
Aaron Doering, Chasing Seals, TEDx

http://chasingseals.com/
https://twitter.com/chasingseals

![Percentage of Arctic Ice in Early March](image)

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### July 22, 2016 (Engagement)
**Learning is More Game-like**
When Pokémon Goes to Campus: The Good, the Bad, and the Ugly
Gabriel Sandoval, Chronicle of Higher Education

http://chronicle.com/article/When-Pokemon-Goes-to-Campus-The-Good-the-Bad-and-the-Ugly/237219?cid=trend_au&elqTrackId=c60af7ea6da640ec98d260eb7af9ef66&elq=95ace8ab293b4a5ead1a353c0e6f0dfc&elqaid=9961&elqat=1&elqCampaignId=3667

Pokemon Go players converged last week on the U. of Nebraska at Lincoln’s Memorial Stadium, which officials had opened to the animated-monster hunters. The hit augmented-reality game has prompted many colleges to jump on the bandwagon.

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### August 8, 2017
**Learning is More Game-like**
ShortSims
http://www.shortsims.com/
Clark Aldrich clark@clarkaldrichdesigns.com

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### August 23, 2016 (Engagement)
**Learning is More Collaborative**
e.g., reef videoconferencing (Great Barrier Reef, Australia)

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### March 21, 2018 (Engagement)
**Learning is More Collaborative**
Chatterbox
The overall winner in the competition was Chatterbox, an online language school powered by refugees
https://wearechatterbox.org/

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### February 17, 2016 (Engagement)
**Learning is More Mobile**
World’s Cheapest Smartphone at $3.67
Samsung is hoping to have 10,000 apps by the time the Gear S3 launches this fall.
August 3, 2017
Learning is More Immediate…
See the exquisite fossil that revealed the colors of a giant armored nodosaur
Ben Gaurino, The Washington Post

May 9, 2017 (Access)
Learning is More Immediate…
Meet Zuul, the new dinosaur species named after ‘Ghostbusters’ demon
Traci Watson, USA Today

March 27, 2018
Learning is More Immediate…
Ancient Amazon: Discovery of 81 New Archaeological Sites Rewrites History of Americas Before Columbus
Katherine Hignett, Newsweek
http://www.newsweek.com/amazon-rainforest-glyphs-research-columbus-861960

November 19, 2015 (Access)
Learning is More Immediate…
New daddy longlegs named after ‘Lord of the Rings’ character Smeagol, Mary Bowerman, USA Today

How Learning is Changing:
Mega Trend #2. Pervasive Access

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August 1, 2016 (Access)
Learning is More Ubiquitous
363 by Idea Group; Study Café Meeting Place; Idea Space (Seoul, Korea)
April 16, 2018
Learning is More Informal
World of active learning in higher ed
Formal and informal learning spaces transforming campuses internationally
Sherrie Negrea, University Business, May 2018
https://www.universitybusiness.com/article/world-active-learning-higher-ed

April 16, 2018
Learning is More Informal
World of active learning in higher ed
Formal and informal learning spaces transforming campuses internationally
Sherrie Negrea, University Business, May 2018
https://www.universitybusiness.com/article/world-active-learning-higher-ed

August 5, 2015 (Access)
Learning is More Informal
Shubham Jaglan (10 years old) Overwhelmed by “Dream” Return Home After Double World Championship
Disha Chopra, NDTV Sports

March 18, 2018 (Access)
Learning is Video-Based
EdTech is having a renaissance, powered by the emerging world
Mick Butcher, TechCrunch

February 15, 2017 (Engagement)
Learning is More Synchronous
Shindig, Future Trends Forum, Bryan Alexander
https://bryanalexander.org/the-future-trends-forum/
http://www.shindig.com/
http://events.shindig.com/event/ftf-anniversary

February 19, 2018
Learning is More Online (Access)
Grade Increase:
Tracking Distance Education in the United States
Joshua Kim, Inside Higher Ed
http://onlinelearningsurvey.com/reports/gradeincrease.pdf
http://www.onlinelearningsurvey.com/highered.html
November 1, 2017
Learning is More Online (Access)
Indiana University, Office of Online Education

May 7, 2014 (Access)
Learning is More Global
CNA – Speaking Exchange (video chats)

PCB Brazil and the CNA language school network are launching the Speaking Exchange project, which connects CNA students in Brazil with Americans living in retirement homes.

March 27, 2017 (Access)
Learning is More Free and Open
Beyond Free: Harnessing the resonant value in open and collaborative practices for the public good
David Porter, CEO, eCampus Ontario, Open Education Ontario Summit

https://www.slideshare.net/David_Porter
https://www.ocls.ca/events/open-education-ontario

April 6, 2017 (Access)
Learning is More Free and Open
Indiana University's eText program saves students over $3.5 million (Program makes digital textbooks cost less and do more, grows 56 percent),
Indiana University Newsroom

https://itnews.iu.edu/articles/2017/indiana-universitys-etext-program-saves-students-over-3-5-million.php

May 8, 2018
Free textbooks? Federal government is on track with a pilot program.

https://sparcopen.org/our-work/open-textbooks-fy18/

April 6, 2018 (Access)
Learning is More Free and Open
Indiana University's eText 101: Are your students paying too much for textbooks?
May 3, 2017
Learning is More Free and Open
4 out of 5 Companies Have Hired a Coding Bootcamp Graduate
Sri Ravipati, Campus Technology

June 20, 2016 (Access)
Learning is More Direct from Experts (e.g., The Expert Café)
http://expertscafe.com/

March 21, 2018
Learning is More Direct from Experts
TeachMeNow
TeachMeNow is a gig-economy platform for teachers. This marketplace connects teachers, experts, and mentors to students. The technology combines scheduling, payments and live virtual sessions that can connect on any device. Tens of thousands of teachers can create their own online businesses, with some earning over $100,000 last year. In addition, schools and companies including Microsoft use TeachMeNow software to create their own branded online learning communities.
https://teachmenow.com/

September 25, 2017
Learning is More Direct from Experts
Professors Have Taken Over the MOOCs: How open online learning is changing
Joshua Kim, Inside Higher Ed
https://www.insidehighered.com/blogs/technology-and-learning/professors-have-taken-over-moocs

How Learning is Changing:
Mega Trend #3. Customization

February 22, 2017 (Access)
Learning is Self-Directed
Digital citizenship lessons from a 9-year-old with 18,000 Twitter followers, Alan November, eSchool News
http://www.eschoolnews.com/2017/02/22/av-digital-citizenship-twitter/
June 13, 2016 (Access)
Learning is Self-Directed
Nine-Year-Old Anvitha Vijay is the Youngest Developer at WWDC (age 9)
(Apple Worldwide Developers Conference), Gadgets

May 12, 2017 (Customization)
Learning is More Modifiable
The Future of Collaboration Spaces Encompasses Video Interactive, Mobile, Julie Johnston, IU, Campus Technology

July 17, 2017

March 2, 2018
The Architecture of Ideal Learning Environments
Emelina Minero, Edutopia

January 9, 2017
Learning is More On Demand
Jill Watson, Round Three

May 9, 2018
Learning is More on Demand
Battle of the Brains:
We asked Google, Alexa and Siri 150 questions to see who's smartest
Jefferson Graham, USA Today
May 9, 2017 (Customization)
Amazon Echo Show brings chatty Alexa to a two-way, video touchscreen
Edward C. Baig and Elizabeth Weise, USA Today
https://www.usatoday.com/story/tech/reviews/2017/05/09/amazon-echo-show-touchscreen-video-alexa/101448844/

February 19, 2018
Erica, the humanoid robot, is chatty but still has a lot to learn
Jefferson Graham, USA Today

Poll: Who gets blended drinks at Starbucks?
Poll about who gets blended drinks at Starbucks.

March 23, 2017 (Customization)
Learning is More Personal
Arizona State U Launches Open, Adaptive Lessons on Space Exploration
Rhea Kelly, Campus Technology
http://www.agmoocs.in/
April 20, 2015 (Customization)
Learning is More Massive
250 MOOCs and Counting: One Man’s Educational Journey, Chronicle of Higher Education
http://chronicle.com/article/250-MOOCsCounting-One/229397/?cid=at
If the MOOC movement has faded, nobody told Jima Ngei. Mr. Ngei, who lives in Port Harcourt, Nigeria, has completed and passed 250.

Jima Ngei: “I had this unrelenting fear that this miracle of free access might evaporate soon.”

August 12, 2016 (Customization)
A Life of Happiness and Fulfillment
Indian School of Business, Rajagopal Raghanathan

October 1, 2017
Learning is More Massive
Introduction to Open Education edX
https://www.edx.org/course/introduction-open-education-utarlingtonx-link-oex
June 15, 2017
Learning is More Massive
Massive List of MOOC Providers Around The World K-MOOC / Korea
(Where to Find MOOCs: The Definitive Guide to MOOC Providers)
Class Central, Dhawal Shah
https://www.class-central.com/report/mooc-providers-list/

January 11 and August 23, 2017
Learning is More Massive
Topnotch online English teacher earns nearly $3 million a year
Wu Yan, China Daily
http://www.chinadaily.com.cn/china/2017-01/11/content_27920747.htm

March 3, 2017 (Customization)
Learning is More on Modular edX Expands MicroMasters Programs With Data Science (“nanodegrees”) Digital Leadership and More, Sri Ravipati, Campus Technology
January 9, 2018
Learning is More on Modular
MIT launches MITx MicroMasters in Principles of Manufacturing
MIT Open Learning

January 9,
2018

Learning is More on Modular
MIT launches MITx MicroMasters in Principles of Manufacturing

July 1, 2015 (Customization)
Chapter 14: Creating a Temporary Spontaneous Mini-Ecosystem through a MOOC
Paul Kim and Charlie Chung, Stanford University
Figure 2. Twitter thread announcing the MOOC

June 14, 2016 (Customization)
Chapter 15: Learning About MOOCs by Talking to Students
Charles Severance, Univ. of Michigan
Anuar Lequerica, Class Central

MOOCs and Open Education Around the World

30+ Ways Learning is Changing:
Recapping the Three Mega Trends:
Engagement, Access, and Customization
Needed: New Models of Motivation and Engagement

Framework #1: TEC-VARIETY for Online Motivation and Retention
1. Tone/Climate: Psych Safety, Comfort, Belonging
2. Encouragement, Feedback: Responsive, Supports
3. Curiosity: Fun, Fantasy, Control
4. Variety: Novelty, Intrigue, Unknowns
5. Autonomy: Choice: Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting
7. Interactive: Collaborative, Team-Based, Community
8. Engagement: Effort, Involvement, Excitement
9. Tension: Challenge, Dissonance, Controversy
10. Yields Products: Goal Driven, Products, Success, Ownership

Introducing the free “TEC-VARIETY” Framework...
http://tec-variety.com/

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.

Examples of TEC-VARIETY

April 3, 2017
1. Tone/Climate:
   A. Sli.do
   https://www.sli.do/
**November 10, 2016**

1. **Tone/Climate:**
   B. Threaded Video Discussions and Questions (e.g., Flipgrid)
   - [http://flipgrid.com/#429f88c5](http://flipgrid.com/#429f88c5)
   - [Flipgrid: The Power of Student Voice](https://vimeo.com/188210645)

**February 8, 2015**

2. **Encouragement, Feedback:**
   A. Class Discussion Recap Wordle

**November 29, 2017**

3. **Curiosity, Surprise, Intrigue, Unknowns:**
   A. Summary and Comparison Maps
   - [A Map Showing How Much Time It Takes to Learn Foreign Languages: From Easiest to Hardest](http://www.openculture.com/2017/11/a-map-showing-how-much-time-it-takes-to-learn-foreign-languages-from-easiest-to-hardest.html)

**January 31, 2018**

3. **Curiosity, Intrigue, Unknowns:**
   B. Dinosaur Discoveries
   - 'Holy Grail' of dinosaur fossils discovered in Egyptian desert

**April 17, 2017**

3. **Curiosity, Intrigue, Unknowns:**
   C. 1st woman to officially run Boston Marathon does it again, 50 years later
   - [Emanuella Grinberg, CNN, USA Today](http://bleacherreport.com/articles/2721985-julia-hawkins-sets-100-meter-dash-record-for-women-100-years-or-older)
April 3, 2017
4. Variety, Novelty, Fun, Fantasy:
A. Kahoot!
https://getkahoot.com/
July 31, 2017
I’m in ‘Kahoots’ with Technology in the Classroom
Cassandra OSullivan Sachar, Faculty Focus

October 5, 2016
4. Variety, Novelty, Fun, Fantasy:
B. Online Test/Quiz Review Games
(e.g., Jeopardy Rocks)
https://www.jeopardy.rocks/r511merve/

July 26, 2017
5. Autonomy, Choice:
B. Sign up for a MOOC
Beer Matters: Free Online Class With Meetups
(September 6, 2017-October 21, 2017),
Karl Brown, Assistant Professor of History
http://www.uww.edu/ce/beer-matters
https://www.gazettextra.com/20150921/uw_whitewater_teacher_explores_links_between_germans_beer_politics
brownk@uww.edu
Video: http://www.youtube.com/watch?v=01A1

Jan. 20, Oct. 13, & Nov. 2016 (Zoom)
6. Relevance, Meaningfulness:
A. Weekly Guest Expert Chats
RS11 Chat with Mike Molenda, IU

December 8, 2015
4. Variety, Novelty, Fun, Fantasy:
C. Random Lists
(Random.org—clocks, coins, playing cards, dice, integers, passwords, jazz scales, lists, sequences, etc.)

July 31, 2017
I’m in ‘Kahoots’ with Technology in the Classroom
Cassandra OSullivan Sachar, Faculty Focus
6. Relevance, Meaningfulness:
   B. Case-Based Learning: Instructor Cases
      (e.g., Mark Braun, IU)
   C. 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-Studies-Students/242866

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.

7. Interactive, Collaborative:
   A. Guest Speaker Quotes
      (Rey Junco, February 25, 2013)
   B. Negotiate Meanings Online
      (e.g., PiratePad: http://meetingwords.com/)
      MeetingWords, Google Docs, NowComment, MixedInk
   C. Backchannel Chat
      (Today’sMeet)
      https://todaysmeet.com/R678_Emerging_Learning_Technologies

7. Interactive, Collaborative:
   C. Backchannel Chat (Today’sMeet)
      https://todaysmeet.com/R678_Emerging_Learning_Technologies

7. Interactive, Collaborative:
   C. Backchannel Chat (Today’sMeet)
      https://todaysmeet.com/R678_Emerging_Learning_Technologies

8. Engagement, Involvement:
   A. Learning Chemistry in Virtual Reality,
      Sarah Hardman, New Learning Times
      All: http://curtbonk.com/chemistry-vr.html
      1:38 video: https://vialogues.com/vialogues/play/38337/
      All: http://curtbonk.com/chemistry-vr-1.html
      01:41: http://curtbonk.com/chemistry-vr-2.html
8. Engagement, Involvement:
   B. Interactive Labs and Simulations
   http://phet.colorado.edu/en/simulation/energy-slide-park

February 14, 2018
8. Engagement, Involvement:
   C. Maps
   This map shows where more Americans are willing to support free speech
   The Monkey Cage, The Washington Post

July 28, 2017
9. Tension, Challenge, Controversy, etc.:
   A. Modern medicine breathes new life into virtual training
   Videos
   00:11: http://curtbonk.com/vr-medicine.html
   00:27-00:30: http://curtbonk.com/vr-medicine2.html
   00:37-00:56: http://curtbonk.com/vr-medicine3.html
   1:01-1:29: http://curtbonk.com/vr-medicine4.html

February 28, 2018
9. Tension, Challenge, Controversy, etc.:
   B. Reflect on and Debate News
   Did Homo erectus speak?
   Daniel Everett, Bentley University, Aeon
   https://aeon.co/essays/tools-and-voyages-suggest-that-homo-erectus-invented-language

9. Tension, Challenge, Controversy, etc.:
   C. Controversial Issues Online Debates
   Yes, Mr. President, We Remade Our Atlas to Reflect Shrinking Ice
   Christine Dell’Amore, National Geographic, August 3, 2015

10. Yields Products, Goals:
    A. Database Collection Tools
    Design Article Database in Pinterest,
    Meina Zhu and Jennifer Weebeck
    https://www.pinterest.com/zhumeina0000/emerging-learning-technology/
    https://www.pinterest.com/jennifertwebeck/emerging-learning-technologies/
September 3, 2017
Yields Products, Goals:
B. Mindmap Recaps of Online Discussions
Mindmap of Week 2 of R511

March 12, 2016
10. Yields Products, Goals:
C. Student Generated Timelines, Taxonomies, and Concept Maps
R678 John Falchi, Timeglider, An Abbreviated History of Distance Education

TEC-VALENTY Recap

What motivates?
1. Trust CREATE: Psychological Safety, Control, Sense of Belonging
2. Encouragement: Feedback, Reappraisals, Praise, Support
3. Curiosity: Surprises, Intrigue, Unforeseen
4. Yarn: Excitement, Fun, Tinkering
5. Autonomy: Choice, Control, Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting
7. Interactivity: Collaboration, Team-Based, Community
8. Engagement: Effort, Involvement, Investment
9. Testability: Challenges, Development, Controversy
10. Tasking/Produce: Goal-Driven, Vaporous Vision, Ownership

The R2D2 Method
1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)

Model #2: The R2D2 Model:
Read, Reflect, Display, Do...

1. Auditory or Verbal Learners
• Auditory and verbal learners prefer words, spoken or written explanations.
February 14, 2018
Read 1a. Reading Online News
Tracing the tangled tracks of humankind’s evolutionary journey
Hannah Devlin, The Guardian

February 11, 2018
Read 1b. Online Referenceware
The Magical Power of Dictionaries
Alberto Manguel, The Chronicle of Higher Education
https://www.chronicle.com/article/The-Magical-Power-of/

May 28, 2015
Read 1c. Immediate Science and Open Access Science
Ancient jawbones put new species on the human family tree,
researchers say,
Laura Smith-Spark, CNN
http://www.nature.com/nature/journal/v521/n7553/full/nature14448.html

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 2a. Interpreting Interactive Graphs and Infographics
How much rainforest in that chocolate bar?
Global Forest Watch, Nancy Harris, Octavia Payne and Sarah Moss

Reflect 2b. Big Issue Reflections
(Big Questions Online (BQO)), Feb 3, 2015
(e.g., Can a Living Creature Be as Big as a Galaxy?)
https://www.bigquestionsonline.com/
October 6, 2016
Reflect 2c. What-if Reflections
What if Aaron Burr had missed Alexander Hamilton?, Thomas Fleming, CNN

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

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

Display 3b. Weekly 1 minute Video Updates (e.g., Pinkcasts from Daniel Pink)
http://www.danpink.com/pinkcast/

January 8, 2017
Display 3c. Summary and Comparison Maps
#GeoawesomeMapOfTheDay
https://twitter.com/geoawesomeness
https://www.instagram.com/p/BNwgvJfDAq3/
https://twitter.com/search?q=GeoawesomeMapOfTheDay&src=hash

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.
December 12, 2017
Do 4a. Online Website and Video Recaps
R511 Student Final Projects
Matthew Willey: https://sway.com/QGdiCv7p64DFBe8A?ref=Link
Rachael Zehner Kiani: https://razeiher.wixsite.com/razeiherhome

Do 4b. Student Website Development
R511 Final Projects, April 2016
IT and HPT Comparison (Website), Doug Hsu
http://dougandindira.wix.com/r511finalproject
“IST Construction, Co.” Rob Elliot, Patrick Walsh, Erin Milanese, R511, December 2016
http://relliott.net/istconstruction/index.php
http://teachbasdogan.wixsite.com/511final

March 11, 2018
Do 4c. PBL in Puerto Rico
http://sites.google.com/iu.edu/pbl-in-puerto-rico/home

Poll: Which Model or Framework do you Prefer?
http://tec-variety.com/

Poll: Who now wants one of these?
Starbucks

What motivates?
1. Transition: Psychologically Stable, Content, Sense of Belonging
2. Engagement: Feedback, Relevance, Power, Support
3. Competence: Relevance, Unleash, Predictability
4. Valuing: Choice, Control, Readiness, Opportunities
5. Meaningfulness: Meaningful, Autonomy, Interest
6. Engagement: Collaboration, Team-Based, Community
7. Challenge: Challenge, Ownership, Experiential
8. Meaningful: Meaningful, Autonomy, Interest
9. Learning: Learning, Ownership, Experiential
10. Fast-paced: Goal-Oriented, Professional Vision, Ownership

WHAT'S NEXT?
Final Poll: Who is now interested in Education 20/20...?

We are entering a jumping off point...
(South University of Science and Technology of China, Wednesday June 10, 2015)

Things are heating up...

Education 20/20 is coming within reach!

Remember for Education 20/20 to make an impact:
“I cannot do this alone.”
“I cannot do this alone.”
“I cannot do this alone.”

Any Questions or Comments?

Slides at: TrainingShare.com
Papers: PublicationShare.com
Free book: http://tec-variety.com/
Email: curt@worldisopen.com