

Masterclass Part 1:
40+ Hyper-Engaging Strategies for Any
Class Size:
Low Risk, Low Cost, Low Time

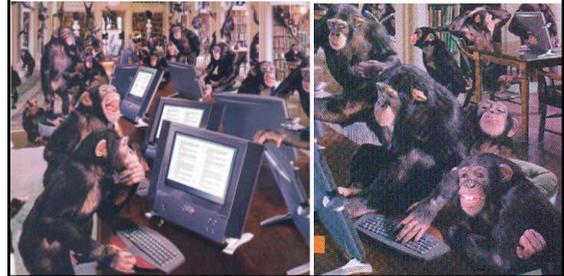
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100+ Engaging Collaborative and
Active Learning Ideas (note ideas
that will work (+), might work (?),
and will not work (cross off))

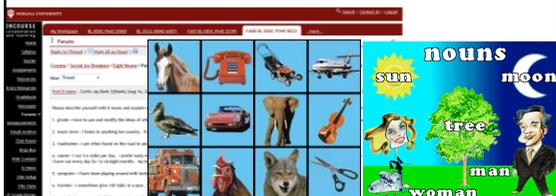


40 Hyper-Engaging Ideas



1. Ice Breaker #1:
Eight Nouns Activity

- Please describe yourself with 8 nouns and explain why those nouns apply to you. Also, reply to 2-3 peers in this class on what you have in common with them.



2. Ice Breaker #2:
Have You Ever...? And
Accomplishment Hunts

- Ask have your ever questions:
 - Swam in the ocean?
 - Been above Arctic circle?
 - Seen a rhino in a zoo?
 - Whitewater rafted...?



3. Ice Breaker #3: Goals and Expectations Charts (L = Cost, L = Risk, M = Time)

- What do you expect from this class, lesson, workshop, etc., what are your goals, what could you contribute?
- Write short and long terms goals down on goal cards and post to discussion forum.
- Write 4-5 expectations for this session.
- Expectations Flip Chart (or online forum):
- Debrief.



4. Online Café Question Exchange

- Have students leave you or their classmates questions online.
- Answer as many as you can.
- Peer to peer café for exchanging resources and sharing information.



5. Just in Time Teaching (online warm-up activities)

- Assign a problem before class.
- Evaluate solutions.
- Change class based on results.



Poll #1:

Which of these warm up and social ideas do you like best?

- Eight nouns
- Have you ever
- Goals and expectations
- Just in time teaching
- Online café



6. Internship, Practicum, Job, Workplace Internship, and Field Reflections



7. Reuse Online Discussion and Blog Transcripts

- Have students bring in their online discussions or to class.
- Look for key concepts embedded in the transcripts.
- Share or have competitions.



8. Structured Controversy Task



- Assign 2 to pro side and 2 to con side
- Read, research, and produce different materials
- Hold debate (present conflicting positions)
- Argue strengths and weaknesses
- Switch sides and continue debate
- Come to compromise
 - Online Option: hold multiple forums online and require to comment on other ones.

9. Pruning the Tree (i.e., 20 questions)



- Have a recently learned concept or answer in your head.
- Students can only ask yes/no types of questions.
- If guess and wrong they are out and can no longer guess.
- The winner guesses correctly.



10. One minute papers or muddiest point papers (L = Cost, M = Risk, M = Time)

- Have students write for 3-5 minutes what was the most difficult concept from a class, presentation, or chapter. What could the instructor clarify better.
- Send to the instructor via email or online forum.
- Optional: Share with a peer before sharing with instructor or a class.



11. Reflection Papers: Job Application and Trend Papers (3-4 page)

- Have students write papers about emerging trends in the field.
- Have them select topics from a list or suggest topics. Give sample papers.
- Perhaps have them present their trend and job applications papers to class.



12. Value Lines

- Pose question or issue
- Students mark down their feelings or votes
- Share votes and rationale with class
- Recast votes



← Caveat Emptor Industry Practice Ethics Codes Consumer Sovereignty Caveat Venditor →

* Profit Maximisation

* General Business Practice (Average across all firms)

* Codes of individual firms

* Capability

* Consumer Satisfaction



13. Best 3 Activity (Thiagi, personal conversation, 2003)

- After a lecture, have students decide on the best 3 ideas that they heard (perhaps comparing to a handout).
- Work with another who has 3 as well and decide on best 3 (or 4).
- Those pairs work with another dyad and decide on best 3 (or 4).
- Report back to class.



14. PMI (Plus, Minus, Interesting) (L = Cost, L = Risk, M = Time)

- After completing a lecture, unit, video, expert presentation, etc. ask students what where the pluses, minuses, and interesting aspects of that activity.

What's good +	What's bad -	What's interesting ?



Cool Stuff

Poll #2:

Pick one of these critical thinking activities you might use?

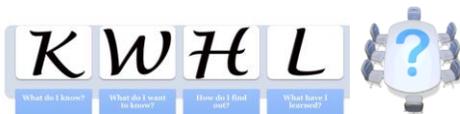
- Internship, practicum, or job reflections
- Discussion transcript and blog reflections
- Structured controversy
- Pruning the tree
- Minute papers
- Best 3



15. K-W-L or K-W-H-L (L = Cost, L/M = Risk, M = Time)

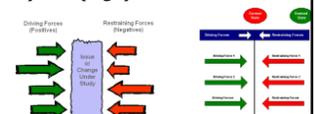
At the end of a unit, student presentation, videotape, expert presentation, etc., have student write down:

- What did you know?
- What do you want to know?
- What did you learn?
- H = How will we learn it?



16. Force Field Analysis on Problem (L = Cost, M = Risk, M = Time)

- Driving Forces:** list on left side of a paper, the forces that might help them solve a problem (the allies!).
- Restraining Forces:** list on the right, the forces that are working against them. What are the forces operating against the solution of the problem?
- Perhaps assign some value related to difficulty or importance and compare columns and make decisions (e.g., 0 (low) to 5 (high)).



17. Visual Thinking Exercises: Semantic Feature Analysis (L = Cost, L = Risk, L/M = Time)

- Have students note if an element or feature is present or absent. (evaluate with a + or - or ? on a grid) (e.g., different laptop computers, color/black white options, USB ports, Webcam, wireless, wireless mouse, carrying handle, 4 gig Ram, etc.)
- Share with class.

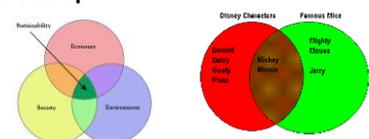
	meat eaters	plant eaters	fly	swim	walks on 2 legs	walks on 4 legs
T-Rex						
stegosaurus		✓				
apatosaurus						
triceratops						

SOURCES OF ENERGY

Source	1	2	3	4	5	6	7	8	9	10
1. Sun										
2. Wind										
3. Water										
4. Fossil Fuels										
5. Nuclear										
6. Geothermal										
7. Biomass										
8. Hydropower										
9. Solar										
10. Wind										

18. Venn Diagram

- Draw two or more circles with overlapping parts to represent different topics, theories, or concepts.
- Name features, components, principles, or ideas that make each concept or topic unique and put in parts that do not overlap.
- Name overlapping features, principles, or ideas that link each concept or topic and put in parts that do overlap.

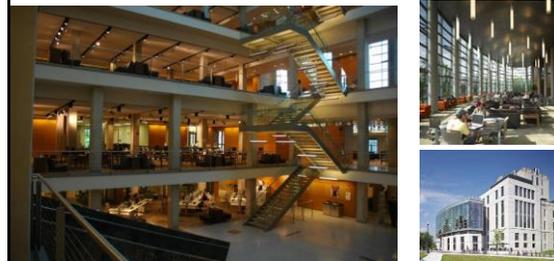


19. Two Heads vs. One (Thiagi, 1988)

- Everyone posts a 100 word summary of an article.
- Students pair up and produce a better 100 word summary.
- Their 3 summaries are read and rated by other groups.
- Groups rank them for 1 for best, 2 for 2nd best, and 3 for third.
- Pass back to original team.



20. Online Resource Library (ORL) or Library Day (e.g., The Thompson Library at Ohio State Univ.)



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

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

Famous quotations by William Shakespeare:

- The business of his face were ripe grapes.
- It is a wise father that knows his own child.
- Friendship is constant in all other things. Save in the office and affairs of love.
- We know what we are, but know not what we may be.

Quotes about Shakespeare

Reproduced by author

- But Shakespeare's Magic could not copy'd be.
- Within that Circle none durst walk but he.
- John Dryden, The Tempest (1667), Prologue
- Dante and Shakespeare divide the world between them. There is no third.
- T. S. Eliot (1919-1920)
- Not sequent centuries could hit

22. Just Suppose and What If? (L = Cost, L = Risk, M = Time)

- Imagine a situation or scenario and reflect on the consequences.
- "Just suppose that the entire world will get access to the Web?"



Poll #3: Which of these exploration and creativity activities did you like best?

- A. K-W-L or K-W-H-L
- B. Online Resource Library (ORL)
- C. Just Suppose or What If
- D. Nominate quotes
- E. Force Field Analysis
- F. Two Heads vs. One



23. Wet Ink or Freewriting (L = Cost, M = Risk, M = Time)

Writing without reflecting or lifting your pen for a set period of time.

- Just imagine: imagine you have created a highly active teaching situation...What do you see? Can students wonder, question, speculate, take risks, active listening??? How is creativity fostered here? Describe environment. Physically, mentally, emotionally, etc...



24. Metaphorical thinking (L = Cost, M = Risk, M = Time)

- how is my class like:
 - a prison, a beehive, an orchestra, ghetto,
 - expedition, garden, family, herd, artist's palette,
 - machine, military camp, Olympic games, hospital, theater, etc.



25. Reverse Brainstorming (L = Cost, L = Risk, M = Time)

- Generating ideas to solve the reverse of a particular problem, issue, or concern.
- More is better and the wilder the better.
- Hitchhiking or piggybacking as well as combining ideas is encouraged. However, there is no evaluation of ideas allowed.
- For example, How can we decrease the use of active learning ideas in college settings?



Poll #4: Almost Half-Way... Please Share the Best Two Ideas so Far (Think: which can you use?)



26. Online Scholar Debate Panel or Symposium

- Instead of role play, form online debate panels or symposia on particular topics.
- Set the time for each debate or open it up for an entire week.
- Or bring in expert guests for the debate or panel.



27. Online Role Play Personalities

- List possible roles or personalities (e.g., coach, questioner, optimist, devil's advocate, etc.)
- Sign up for different role every week (or for 5-6 key roles during semester)
- Perform within roles—try to refer to different personalities



28. Six Hats (Role Play)

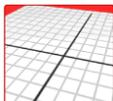
(De Bono, 1985; Karen Belfer, 2001, Ed Media)

- **White Hat:** Data, facts, figures, info (neutral)
- **Red Hat:** Feelings, emotions, intuition, rage...
- **Yellow Hat:** Positive, sunshine, optimistic
- **Black Hat:** Logical, negative, judgmental, gloomy
- **Green Hat:** New ideas, creativity, growth
- **Blue Hat:** Controls thinking process & organization



29. Morphological Synthesis (L = Cost, M = Risk, M = Time)

- Write features of one item down the horizontal column.
- Write features of another item down the vertical.
- Look at intersection for new item or concept.



30. Numbered Heads Together

- Assign a task and divide into groups (perhaps 4-6/group and count off 1-4).
- Perhaps assign group names or hold competition between them.
- Discuss problem or issue assigned.
- Instructor calls on groups & numbers.

(Online Option: assign numbers and ask certain one to do different things.)



Poll #5: Which of these creative and collaboration activities did you like best?

- Six hats role play
- Online scholar debate
- Role play personalities
- Metaphorical Thinking
- Reverse Brainstorming
- Wet Inking or Freewriting



31. Jigsaw

- Form home/base groups of 4-6 students.
- Student move to expert groups in forums.
- Share knowledge in expert groups and help each other master the material.
- Come back to base group to share or teach teammates.
- Students present ideas FTF or in a **synchronous webinar** or are individually tested; there are no group grades.



32. Phillips 66 (Buzz Groups)

- Assign topic (e.g., review readings for this week).
 - Students work in groups of 6 for 6 minutes on a particular problem.
 - After 6 minutes, stop discussion.
 - Share with class.
- Online Option: assign teams to discuss articles for 1-2 days before an online lecture. Warm up activities!



33. Human Graph

- Class lines up: (1-5)
- 1 = Strongly agree,
- 3 = neutral,
- 5 = strongly disagree
- e.g., this workshop is great!
- In a videoconference or synchronous session, have students line up on a scale (e.g., 1 is low and 5 is high) on camera according to how they feel about something (e.g., topic, the book, class).



34. Different Strokes (Thiagi, 1988)

- Have students create a summary of the readings: 1 page, 2 page, 10 question, an outline, a visual, a list of key points, a flowchart, a mind map, a slogan, a bumper sticker.
- Share and compare.
- Discuss.

**QUESTION
TECHNOLOGY**



35. One Visual Exercises

- Tell students to bring in one visual representing their outside readings.
- Have students become the instructors using that visual.



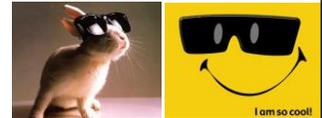
36. 99 Second Quotes and Set Time Presentations (L = Cost, M = Risk, M = Time)

- 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



37. Cool Resource Provider (Bonk, 2004)

- Have students sign up to be a cool resource provider once during the semester.
- Have them find additional paper, people, electronic resources, etc.
- Share and explain what found with class.



38. Just-In-Time Syllabus

(Raman, Shackelford, & Sosin)
<http://ecedweb.unomaha.edu/jits.htm>

Syllabus is created as a "shell" which is thematically organized and contains print, video, and web references as well as assignments. (Goals = critical thinking, collab, develop interests)
e.g., To teach or expand the discussion of supply or elasticity, an instructor might add new links in the Just-in-Time Syllabus to breaking news about rising gasoline prices.



39. Volunteer Technology Demos (Bonk, 1996)

- Take students to a computer lab.
- Have students conduct a technology demonstration that relates to something from the class (replaces an assignment).
- Include handout
- Debrief



40. Poster Sessions and Gallery Tours

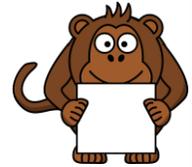
- Have students create something--flowchart, timeline, taxonomy, concept map.
- Have half of the students present for 15-20 minutes and then reverse roles.
- Post these in the course management system.
- Discuss, rate, evaluate, etc.



Poll #6:

Which of these learner-centered activities did you like best?

- A. Human Graph
- B. Phillips 66
- C. Volunteer technology demos
- D. Cool resource provider
- E. 99 Second quotes
- F. One Visual



A Ten Item Bonus



41. Critical Friend, Think-Pair-Share, or Turn To Your Partner and Share

- Pose a question, issue, activity, etc.
- Students reflect or write on it.
- Then they share views with assigned partner and share with class.
 - Online Option: assign email pals, Web buddies, or critical friends.



42. Planted Questions (Active Learning, Silberman)

- Choose questions that will help guide my lesson and write them out on note cards sequentially with a cue on them.
- Prior to the lesson pass the cards and explain to the students who you gave cards to about the cues.
- Then during the implementation of the lesson perform cues to get students to ask questions which guide lesson.
- Debrief at end.



43. Index Match Cards (Active Learning, Silberman)

- Make an equal amount of note cards, half with questions and the other half with the answers to the questions.
- Mix up and give each student a card.
- The exercise is to find you match.
- After they find their match, go around the class and go through questions and answers.



44. Talking Chips

- Pass out poker chips to students; perhaps give each 2 red ones, 2 blues ones, and 2 white ones.
- Students use a red chip when they ask a question; a blue chip when they make a statement; and a white chip when they answer a question someone has raised.
- When out of chips, they can no longer talk.



45. Cooperative Teaching Scripts

- Read different passages
- Put out of sight
- One person summarizes the content of first passage and the other asks clarifying questions
- Work together to develop analogies, images, etc. to learn
- Repeat steps for other article
- Read passage that did not read



46. One Stray-Three Stay

- Give a task to small groups of students.
- Assign one person as spy or pirate to see the answers of other students (one stray-three stay method) and share with group.



47. One Stay-Three Stray

- Group assigns one person from their group to stay behind and share product or ideas with others who visit their poster or station (one stay-three stray method).



48. Talking String

(L = Cost, L = Risk, L = Time)

- State what hope to gain from this workshop (or discuss some other issue) as wrap string around finger; next state the names of previous people and then state their reasons.



49. Psychic Massage (a closer activity) (L = Cost, M = Risk, L = Time)

- Divide in teams of 3-5.
- In alphabetical order of first names have someone turn his or back to the group
- Team members must make positive, uplifting statements about that person behind his or her back but loud enough for others to hear them.
- One minute per person.



50. Stand and Share



1. Present a question.
2. When know the answer, stand up to indicate to the instructor that you have an answer.
3. Wait until all are standing.
4. Call on one at a time.
5. When you give an answer or hear you answer given, you can sit down (unless you have an additional answer).



Poll #7: Stop and Share: Top Three Things Learned!

More Bonus Items



Masterclass Part 2: Adding Some TEC-VARIETY for Online Motivation and Retention

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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.



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.



Poll #8: Million Dollar Question:
What words come to mind when I say
that I want to motivate learners?



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



在线学习动机与激励:
TEC-VARIETY 模型

—激励和留住在线学习者的 100 个活动

作者: Curtis J Bonk & Elaine Khoo II

1. Risk ← Low Risk → High Risk



2. Time ← Easy to Embed → Extensive Planning



3. Cost ← Free or Inexpensive → Enterprise Licenses



4. Student-Centered ← Instructor-Focus → Student-Focus

Low → **High**



Examples of TEC-VARIETY

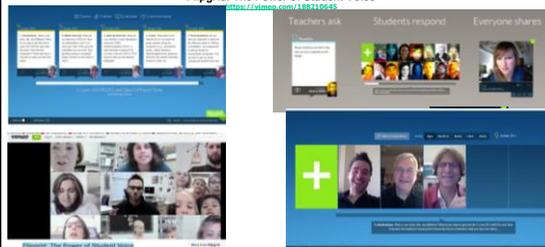


November 10, 2016

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

<http://flipgrid.com/#429f88c5>

Flipgrid: The Power of Student Voice



February 19, 2017

**3. Curiosity, Intrigue, Unknowns:
F. New Theories in the News**

**We thought New Zealand was an island nation.
Scientists say it's the tip of a 'hidden continent.'**

Avi Seik, The Washington Post

<http://www.denverpost.com/2017/02/19/new-zealand-zealandia/>

We thought New Zealand was an island nation. Scientists say it's the tip of a 'hidden continent.'



Poll #9:

Which of these ideas might you use?

- A. Threaded video discussions (e.g., Flipgrid)
- B. Voice/Audio feedback (Vocaroo)
- C. Something in the news
- D. Summary and Comparison Maps
- E. Immediate Science
- F. Crowdsourced Science



October 5, 2016

**4. Variety, Novelty, Fun, Fantasy:
A. Online Test/Quiz Review Games**
(e.g., Jeopardy Rocks)

<https://www.jeopardy.rocks/r511merve/>



February 17, 2017

**5. Autonomy, Choice:
A. Explore Online Databases**
(e.g., OER World Map)

<https://oerworldmap.org/>



December 8, 2015

**5. Autonomy, Choice:
B. Design Multimedia Glossaries**

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

Ozgur Ozdemir, December 2012

<https://r68glossary.shutterstock.com/>

Umida Khikmatillaeva, Dec. 2011, P540

<http://learningplanet.shutterstock.com/>



Poll #10:

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

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



8. Engagement, Involvement:
B. Videos with Test Questions (e.g., TEDEd)
 (Lessons about every single element on the periodic table)

http://ed.ted.com/periodic-table-video_source=TED-Ed-Subsci/Share&utm_campaign=523155&aid=5011_09_119_19_2013&utm_medium=email&utm_term=.0_1aac0a681932d105&aid=50793203



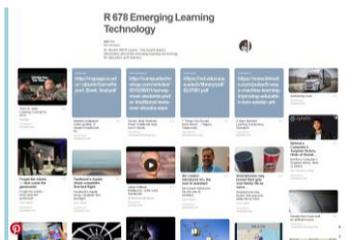
December 13, 2016
9. Tension, Challenge, Controversy, etc.:
A. Controversial Issue Debates
 Librarians for Instructional Technology, Latrice Booker, RS11, Fall 2016

<http://bookerl2000.wixsite.com/librariansfor/cognitivism>
 8211 Milliken Video How to Create an Authentic Environment in a Content-Driven School? 8211, Nick and Rob
https://www.youtube.com/watch?v=8c2_4C7_c0M&list=PL68



10. Yields Products, Goals:
A. Database Collection Tools
 Design Article Database in Pinterest,
 Meina Zhu and Jennifer Weebeck

<https://www.pinterest.com/zhu.meina000/r-678-emerging-learning-technology/>
<https://www.pinterest.com/jenniferweebeck/emerging-learning-technologies/>



March 12, 2016
10. Yields Products, Goals:
B. Student Generated Timelines, Taxonomies, and Concept Maps

R678 John Falchi, Timeglider, An Abbreviated History of Distance Education
http://timeglider.com/r/508438993a89087min_scom=1&max_zoom=100



Poll #12:
Which of these ideas might you use?

- A. Interactive map timelines
- B. Facebook course page (or Pinterest)
- C. Issue challenges, role plays, and debates
- D. Student designed course recap videos
- E. Student created websites
- F. Interactive timeline tools
- G. Videos with test questions



Commitments:
Stop and Share:
 Which principle(s) of TEC-VARIETY will you use?

- T**one/Climate
- E**ncouragement, Feedback
- C**uriosity

- V**ariety
- A**utonomy
- R**elevance
- I**nteractive
- E**ngagement
- T**ension
- Y**ields 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

Masterclass Part 3:

Where are You R2D2?: Addressing Diverse Online Learner Needs with the Read, Reflect, Display, and Do Model

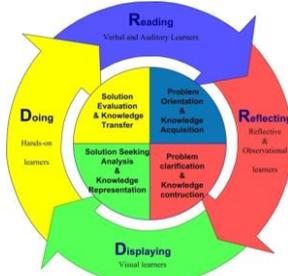
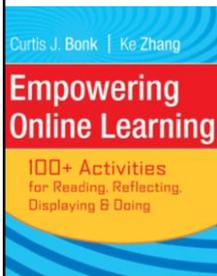
Curt Bonk, Professor, Indiana University
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<http://mypage.iu.edu/~cjbonk>



Addressing Learning Styles with R2D2



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



The R2D2 Method

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



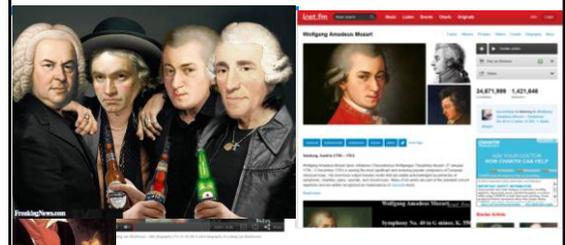
1. Auditory or Verbal Learners

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



Read 1a.

Reading Life Histories (OER, bio.com; Mozart: <http://www.mozartproject.org/>)
<http://www.biography.com/people/bob-marley-9399524>



May 28, 2015
Read 1b. Open Access Scientific Reports/Studies
 New species from Ethiopia further expands Middle Pliocene hominin diversity, Nature
<http://www.cnn.com/2015/05/28/africa/ethiopia-fossil-hominin-ancestor/index.html>
<http://www.nature.com/nature/journal/v521/n7553/full/nature14448.html>



ARTICLE
 New species from Ethiopia further expands Middle Pliocene hominin diversity

Abstract Hominin fossils from Ethiopia have a record of African hominid diversity, with the oldest hominid fossils from the Middle Pliocene (3.5–3.0 Ma) and the most recent from the Middle Pliocene (3.5–3.0 Ma). The discovery of a new species from Ethiopia further expands Middle Pliocene hominin diversity. The new species, *Australopithecus bahrelghazali*, is distinguished from *A. africanus* by its larger braincase, larger teeth, and more robust skull. The new species is distinguished from *A. africanus* by its larger braincase, larger teeth, and more robust skull. The new species is distinguished from *A. africanus* by its larger braincase, larger teeth, and more robust skull.

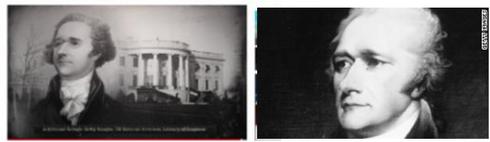
2. Reflective and Observational Learners

- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives




October 6, 2016
Reflect 2a. What-if Reflections
 What if Aaron Burr had missed Alexander Hamilton?, Thomas Fleming, CNN
<http://www.cnn.com/2016/10/06/politics/alexander-hamilton-aaron-burr-duel-missed/index.html>

What if Aaron Burr had missed Alexander Hamilton?



Reflect 2b. Interpreting Infographics
August 5, 2015
 How much rainforest in that chocolate bar?
 Global Forest Watch, Nancy Harris, Octavia Payne and Sarah Mann
<http://blog.globalforestwatch.org/2015/08/how-much-rainforest-is-in-that-chocolate-bar/>

Land-Use Change Emissions in Miles Driven

2,000 Ha of cleared rainforest = 1.5B miles driven by 1 passenger car = 58,819 trips around the earth



WORLD RESOURCES INSTITUTE

3. Visual Learners

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

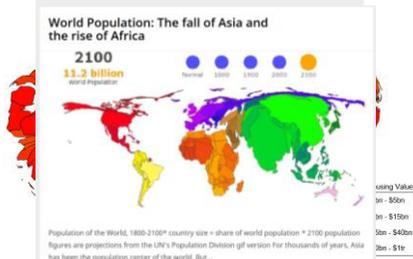



Display 3a. Virtualize Words Used
 (e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out)



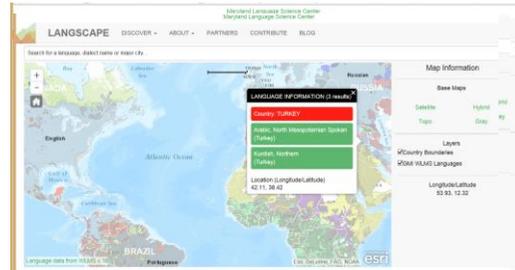
Display 3b. Map Animations
Yes, Mr. President, We Remade Our Atlas to Reflect Shrinking Ice

Christine Dell'Amore, National Geographic, August 3, 2015
<http://metraco.com/category/cartograms/>



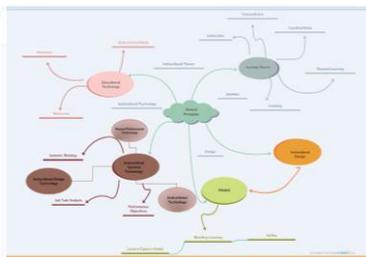
March 24, 2015
Display 3c. Maps of Languages
Langscape, Language at Maryland

<https://language.science.umd.edu/beyond-umd/langscape>
<http://theweek.com/articles/545768/cool-interactive-map-lets-explore-worlds-languages>
<http://langscape.umd.edu/map.php>



Display 3d. (April 28, 2015)
Concept Mapping and Timeline Tools
 (Bubl.us, Cmap, Gliffy, Spicynodes, or Mindomo)

<http://www.spicynodes.org/index.html>



March 2, 2016
Display 3e. Weekly 1 minute Video Updates

(e.g., Pinkcasts from Daniel Pink)
<http://www.danpink.com/pinkcast/>

Pinkcast 2.

Advice from Adam Grant: Look for "disagreeable givers"



4. Tactile/Kinesthetic Learners

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



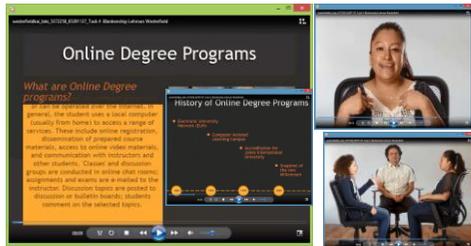
Do 4a. Goal Setting Tools

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



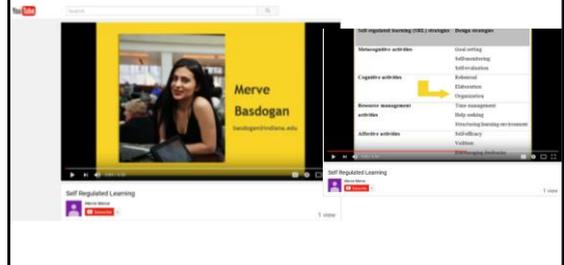
October 26, 2016
Do 4b. Student Created Marketing and Explanatory Videos

R511, Kai Westerfield, Jennifer Blankenship, And Colbi Lehman, Online Degree Programs, (11:54) Go Animate



October 26, 2016
Do 4c. Student Exploration Video

R511, Merge Basdogan, Self-Regulated Learning (6:08)
<https://www.youtube.com/watch?v=61FopGmk1c&features=youtu.be#t=3.346833>



Poll #13: 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, Supports
3. Curiosity: Surprise, Intrigue, Unknowing
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, Investment, Involvement
9. Tension: Challenge, Dissonance, Controversy
10. Yielding Products: Goal Driven, Purposeful, Vision, Ownership

Poll #14: 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.



Poll #15: Three Words from this Session...?

e.g., "I am happy!" and... My minions are happy!



Any Questions or Comments?

Slides at: TrainingShare.com
 Papers: PublicationShare.com
 Free book: <http://tec-variety.com/>
 Dr. Curt Bonk – CJBonk@Indiana.edu

