# Blend but Don't Break:
## Introducing the TEC-VARIETY and R2D2 Models

**Curtis J. Bonk, IST Professor**
**Indiana University**
cjbonk@indiana.edu; http://curtbonk.com/

1

## Opening Activity #1:
**Type in the Chat Window: What is one new pedagogical idea that you thought of or designed during the pandemic...**
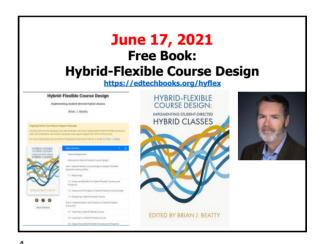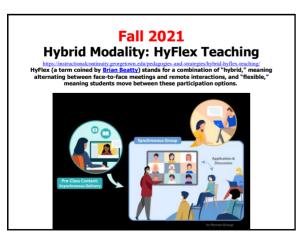
2

## June 17, 2021
**Planning for a Blended Future:**
**A Research-Driven Guide for Educators**
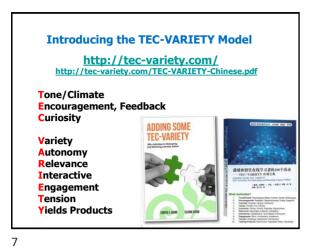https://www.everylearnereverywhere.org/resources/planning-for-a-blended-future/

3

## June 17, 2021
**Free Book:**
**Hybrid-Flexible Course Design**
https://edtechbooks.org/hyflex

4

## 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.**

5

## Poll #1: What did Jean-Luc Picard say?

6

## Introducing the TEC-VARIETY Model

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

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

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



7

---

### September 2022
## Commonwealth of Learning
Khoo, E., & Bonk, C. J. (in production). *Motivation and Supporting Online* Learners. Burnaby, BC, Canada: Commonwealth of Learning.
**https://www.col.org/**



8

---



**Low Risk** — **High Risk**
**1. Risk**

**Easy to Embed** — **Extensive Planning**
**2. Time**

**Free or Inexpensive** — **Enterprise Licenses**
**3. Cost**

**Instructor-Focus** — **Student-Focus**
**4. Student-Centered** **Low** — **High**

9

---

## Examples of TEC-VARIETY



10

---

## January 13, 2022
### 1. **T**one/Climate: **A.** Course Introductions
**(R678)** https://padlet.com/cmsmeltz/h6zbzpdfos6x19l
**(R511)** https://padlet.com/sunseol/b1yr49ljxwc6smkc



11

---

## April 11, 2022
### 1. **T**one/Climate: **B.** Warm-Up Exercises in Jamboard: What do you know about XYZ…?
https://jamboard.google.com/d/1kutzcHNUzi7bGATqL1zQmae9MfKuoURhtCGQqm_BM1Q/viewer?f=3



12

---

**March 7, 2022**
**1. T**one/Climate:
**C. Brainstorming MOOC Perceptions in Padlet**
https://padlet.com/basdogan2/ywl19ct98styolbw



13

**September 24, 2020**
**1. T**one/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



14

**April 11, 2020**
**1. T**one/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/



15

**2. E**ncouragement, Feedback:
**A. Online Practice Tests and Interactive Flash Cards**
**http://quizlet.com/**



16

**June 6 and 27, 2022**
**2. E**ncouragement, Feedback:
**B. Microcredentials and Certificates**
Susan Manning, Ed.D, Director of Customer Education, Credly, eSchool News
https://www.ecampusnews.com/2022/06/06/the-macro-impact-of-microcredentials/



17

**June 30, 2022**
**Introducing the first-ever experiential, mobilemicro-learning courses (MLCs) Gnowbe**
https://learn.gnowbe.com/about



18

**August 28, 2021**
**2. E**ncouragement, Feedback:
**C. I**nteractive Kahoot Quizzes

19



**July 8, 2022**
**3. C**uriosity, Intrigue, Unknowns:
**A. Multimedia News**
Dinosaur discovered in Argentina suggests why many prehistoric predators had small arms
**Wyatte Grantham-Philips**, USA TODAY
https://www.usatoday.com/story/news/world/2022/07/08/new-dinosaur-species-argentina-meraxes-gigas/10011585002/
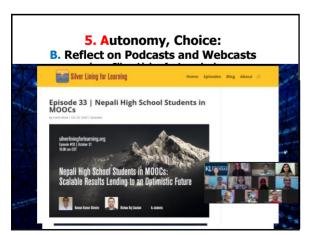
20



**October 2, 2021**
**4. V**ariety, Novelty, Fun, Fantasy:
**A. Reverse Brainstorming** in Jamboard
https://jamboard.google.com/d/1uf5b2OJdvciFVIO5qhaIxuGCLQ3xP-mIGPvF7kdjKA4/viewer?f=5

21



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

22



**5. A**utonomy, Choice:
**B. Reflect on Podcasts and Webcasts**

23



**September 13, 2022**
The Learning Hack, Great Minds on Learning
**Donald Clark**
https://greatmindsonlearning.libsyn.com/
**Why Should Podcasts be Used in Learning?**
**Donald Clark, OER22**
https://oeb.global/oeb-insights/why-should-podcasts-be-used-in-learning/

24

**Pedagogical Uses of the Silver Lining for Learning Videos**

1. Watch 1 or more SLL episodes and write review or reflection papers.
2. Watch 5 or more episodes and look for themes or common issues.
3. Draft educational change models, frameworks, or systems.
4. Assign students to interview one or more prior SLL participants.
5. Draft mini-chapters based on 10 or more of these interviews into a book.
6. Invite one or more SLL participants to class for a chat or interview.
7. Based on one or more SLL shows have class draft a set of future trends papers.
8. Remix episodes with the most informative aspects of 3 or more videos to create a theme video.
9. Hold online discussion forums on various episodes.
10. Create online role play or debate activities based on different episodes.
11. Have students interview (i.e., a follow-up) one of more of the people from an SLL show for a second set of videos or a set of reflection papers.
12. Assign students to categorize, tag, rank, or organize the SLL videos.

25

---

**6. Relevance, Meaningfulness:**
**A. Language Lessons Online**
e.g., BBC Learning English, Duolingo, Babbel, SpanishPod, etc.
(Zixi Li & Curt Bonk, June 2022, Duolingo Research)
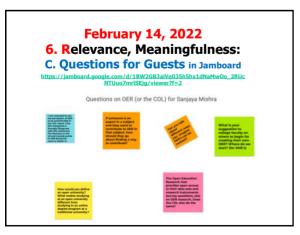http://www.bbc.co.uk/learningenglish



26

---

**April 6 and 28, 2020**
**6. Relevance, Meaningfulness:**
**B. Weekly Guest Expert Chats**
SMILE, Paul Kim Stanford, https://youtu.be/bfJDsI1hVLU
February 22, 2020, Jima Ngei in Nigeria (1 hour 15 minutes)
Video: https://youtu.be/sM6VMsfQJXc



27

---

**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/pVo7IRsbgkA
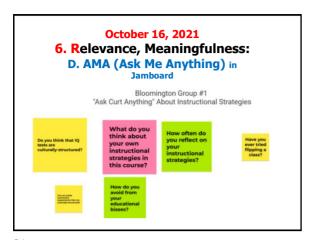


28

---

**February 14, 2022**
**6. Relevance, Meaningfulness:**
**C. Questions for Guests in Jamboard**
https://jamboard.google.com/d/1BW2GB3aiVg035h5hx1dNaMwOo_2RUc
NTUuo7mrlSEjg/viewer?f=2

Questions on OER (or the COL) for Sanjaya Mishra



29

---

**Expert Life Stories**

The guest expert might detail different stories or situations that he or she has encountered related to a certain topic of the class. Students in the class can comment on them and ask questions as needed.

(October 12, 2021, R511 Week 8 Interview with Kyle Peck Single Camera
(1:10:38): https://www.youtube.com/watch?v=ycKFA6x-f-Q



30

5

**October 16, 2021**
**6. Relevance, Meaningfulness:**
**D. AMA (Ask Me Anything) in Jamboard**



31

**February 28, 2022**
**6. Relevance, Meaningfulness:**
**E. Past, Present, and Future Panels**
R678 with Tom Reeves, Tom Reynolds, Veronica Acosta, and Okhwa Lee
https://youtu.be/BUu9vFDqixw



32

**November 27, 2021**
**6. Relevance, Meaningfulness:**
**F. Guest Chats Playlists, R511, Fall 2021**
https://youtube.com/playlist?list=PLHcReRoW2lxPeQcA1LKHnjl1lMPllpKWp



33

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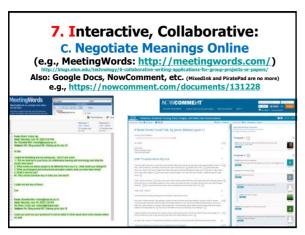
1. Watch and write review papers
2. Watch and look for themes or common issues
3. Draft educational change models, frameworks, or systems
4. Interview prior participants
5. Draft mini-chapters based on episodes into a book
6. Write future trends papers
7. Remix episodes
8. Tag, rank or categorize the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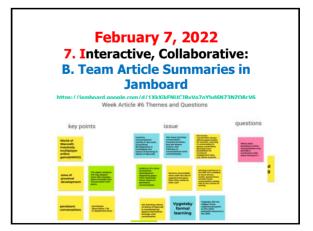9. Online discussion forums on episodes
10. Online role play or debate different episodes

34

**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



35

**February 7, 2022**
**7. Interactive, Collaborative:**
**B. Team Article Summaries in Jamboard**
https://jamboard.google.com/d/1XkXikFNUCJBvVq7qYhd6N73NZQ8cV6
Week Article #6 Themes and Questions



36

**7. I**nteractive, 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**



37

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



38

**June 3, 2020**
**7. I**nteractive, 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=edb9IECompA
https://perusall.com/



39

**April 11, 2022**
**8. E**ngagement, Involvement: **A. Embedding Links (i.e., ThingLink)**
**(360 instructional video, teaching some experiments in an advanced science lab.)**
https://www.thinglink.com/mediacard/1264679527141867522



40

**May 2, 2022**
**8. E**ngagement, 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



41

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



42

7

**9. T**ension, Challenge, Controversy, etc.:
**B. Virtual Sharing Walls Competitions**
e.g., Padlet  (A collaboration and discussion board)
August 27, 2021, **What is Education 3.0?**
https://padlet.com/basdogan2/ywl19ct98styolbw



43

**10. Y**ielding Products:
**A. Class Project: Video, Podcast Show,
Documentary, Website, Animation, Song, etc.**
https://app.animaker.com/animo/2h5b0Hz2gxURJ5x4/?shareid=view%7C2h5b0Hz2gxURJ5x4



44

**April 23, 2020**
**10. Y**ields Products, Goals:
**B. Student Generated Timelines, Taxonomies,
and Concept Maps** (Sutori, xtimeline, Preceden, Timeline.js,
TimeLineCurator, Time Mapper, etc.)
http://timeglider.com/t/50843d8903a48008?min_zoom=1&max_zoom=100
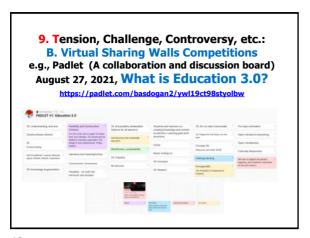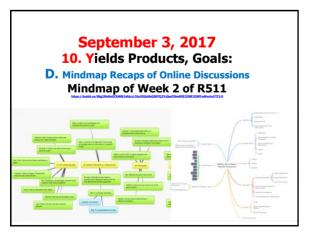https://time.graphics/line/356a1211435318430fa1741b50d7552c



45

**June 27, 2020**
**10. Y**ields Products, Goals:
**C. Design Products (students created infographics,
brochures, timelines)**
Canva is an online design program that does not require



46

**September 3, 2017**
**10. Y**ields Products, Goals:
**D. Mindmap Recaps of Online Discussions**
**Mindmap of Week 2 of R511**
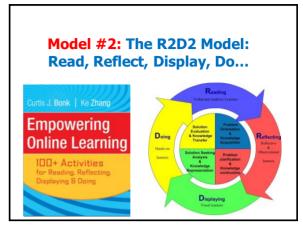https://bubbl.us/Mjg2MzMxOC84MjYzNjcxL2UyODQzMzQ0NTQ2YzQwZ0lmNDE3ZWE3OWY=Mm3mYTI3-X



47

**Poll #2: Any light bulbs going off
in you head so far?**

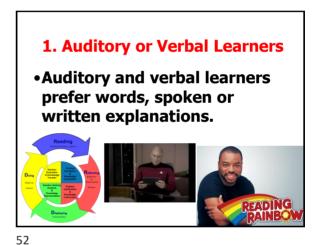a. Yes definitely…many of them…pop…pop…pop!
b. Yes, several times.
c. Yes maybe!
d. Not yet (but hopefully soon…)
e. Nope. Darn it my brain is not working today.
f. There's no hope with this idiot presenting.



48

8

## Make Commitments:
### Stop and Share in Chat Window:
**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

49

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

Curtis J. Bonk | Ke Zhang
**Empowering Online Learning**
100+ Activities for Reading, Reflecting, Displaying & Doing

50

## The R2D2 Model

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

51

## 1. Auditory or Verbal Learners

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

52

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

Climate Cast
OVERHEARD
encyclopedia womannica
MPRnews

53

## March 21, 2020
### Read 1b. Read Blogs

NEW ENGLAND FORESTRY FOUNDATION
75 YEARS

54

9

**Read 1c. Twitter Fed Class Discussions**
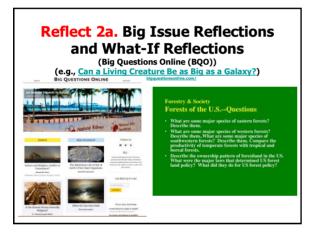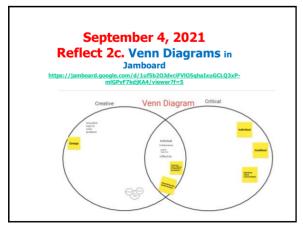(e.g., BBC Learning English:
https://twitter.com/bbcle?lang=en )

55

# 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**
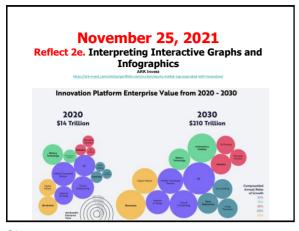
56

**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?)

57

**September 4, 2021**
**Reflect 2b. K-W-L in Jamboard**
https://jamboard.google.com/d/1Kj1vX4iXa2RgES0H58IaB_cW-LieoEUzMDDFj88eP00/viewer?f=4

58

**September 4, 2021**
**Reflect 2c. Venn Diagrams in Jamboard**
https://jamboard.google.com/d/1uf5b2OJdvciFVIO5qhaIxuGCLQ3xP-mlGPvF7kdjKA4/viewer?f=5

59

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

| | | |
|---|---|---|
| • Controller/Executive Director/CEO/Leader | • Artist/Idea Person/Visionary/Muse | • Optimist/Open-minded/Idealist |
| • Connector/Relator/Linker/Synthesizer | • Planner/Predictor/Guesser/Flowcharter | • Robotic/Information Dumper/Spock-like |
| • Decider/Judge/Settler | • Organizer/Starter/Founder/Initiator | • Absent Minded/Stumpler/Dense/Aimless |
| • Devil's Advocate/Critic/Censor | • Questioner/Ponderer/Protester | • Coach/Facilitator/Inspirator/Tramer |
| • Reflector/Thinker/Speculator/Observer/Watcher | • Adventurer/Discoverer/Explorer/Traveler | • Guide/Mentor/Teacher/Scaffolder |
| • Warrior/Debater/Arguer/Conqueror/Bloodletter | • Mediator/Negotiator/Compromiser/Peacemaker | • Humanitarian/Do Gooder/Fund Raiser |
| • Idea Squelcher/Biased/Preconceiver | • Watchdog/Evaluator/Measurer | • Funny/Humorous/Comic/Witty |
| • Slacker/Slough/Slug/Surfer Dude | • Creative Energy/Inventor/Generator/Brainstormer | • Advisor/Responder/Helper/Tutor |
| | | • Worldly/Wiseperson/Sage/Guru/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."**
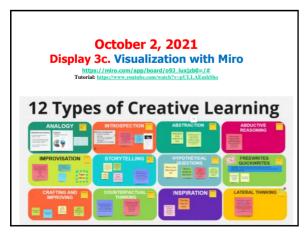
60

**November 25, 2021**
**Reflect 2e.** Interpreting Interactive Graphs and Infographics
ARK Invest
https://ark-invest.com/articles/portfolio-construction/equity-market-cap-associated-with-innovation/

Innovation Platform Enterprise Value from 2020 – 2030

61



# 3. Visual Learners

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

62



**March 31, 2022**
**Display 3a.** Short Educational Videos:
Anchored Instruction/Macrocontext
**TED**E, BBC News, and New York Times
https://www.ted.com/ and https://www.youtube.com/c/BBCNews/featured

63



**September 4, 2021**
**Display 3b.** PMI in Jamboard
https://jamboard.google.com/d/1Kj1vX4iXa2RgES0H58laB_cW-LieoEUzMDDFj88eP00/viewer?f=4

64



**October 2, 2021**
**Display 3c.** Visualization with Miro
https://miro.com/app/board/o9J_luxjzb0=/#
Tutorial: https://www.youtube.com/watch?v=pULLAEmhSho

65



**Display 3d.**
**Video Annotation and Commenting Tools**
VideoAnt (Free): https://ant.umn.edu/ (Univ. of Minnesota)
https://www.youtube.com/watch?v=1SOE2aQky2I
Edpuzzle (Free): https://www.youtube.com/watch?v=-L62wAxCzEM

66

## Display 3e.
### Collaborative Web and PDF Annotation Tools
**Hyothes.is (Free): https://web.hypothes.is/**
Note Anywhere: https://www.youtube.com/watch?v=g4AJeowd4Ho
**Adds virtual sticky notes to webpages**

67

## April 30, 2020
### Display 3f. More Word Clouds (e.g., Tagzedo, Tagul, WordSift, Word It Out):
**https://www.wordclouds.com/**

68

## 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.**

69

## April 23, 2020
### Do 4a. Demonstration Videos
### Crane Makerspace, Tina Closser
https://www.youtube.com/channel/UCbeWfFd9g7pZ0JMBl9TBt5w?view_as=subscriber
https://sites.google.com/view/cranetech/home
https://projects.raspberrypi.org/en/projects

70

## November 30, 2021
### Do 4b. Student Designed Websites
**https://curtis-mitchell-finalproject.squarespace.com/**

71

## November 18, 2021
### Do 4c. Student Explanatory Videos
### Linda Smith
https://youtube.com/playlist?list=PLGodJOq20AHBKkIp7LE7SBJpygxVeHd4K

72

12

**Do 4c. Student Book Projects**
e.g., Transformative Teaching Around the World

73

**September 4, 2021**
**R2D2 Recap…**
**Brainstorming in Jamboard**
https://jamboard.google.com/d/1Kj1vX4iXa2RgES0H58laB_cW-LieoEUzMDDFj88eP00/viewer?f=4

#1. R2D2 principles and theory

74

**Poll #3: 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!
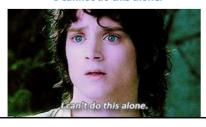4. Do I hear 3? 3!!!!
5. 4-5.
6. 5-10.
7. More than 10.

BRAINY IDEAS

75

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

76

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

I can't do this alone.

77

**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/

78