How to Motivate and Retain Learners Online

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March 26, 2020
What the World Needs Now is Love
Students at the Boston Conservatory at Berklee created a social distancing rendition of ‘What the World Needs Now Is Love’
https://www.youtube.com/watch?v=qv2JIS4ACWw

Poll #1: What time is it there?

- a. Early morning and I’m hungry!
- b. Late morning
- c. Lunch time
- d. Afternoon
- e. Early evening
- f. Late night
- g. Late late late (I should be in bed sleeping but I wanted to see Dr. Bonk)

Poll #2: Have you ever been to Canada?

- a. Yes many times.
- b. Yes, once or twice.
- c. No, but I want to go.
- d. No, I don’t understand the language.
- e. No. And I am not going to go.

Poll #3: Have you seen Dr. Bonk speak before?

- a. Yes more than once.
- b. Yes once.
- c. Not sure.
- d. No, but I am here now.
- e. No, and I prefer it that way. He’s rather boring.

Poll #4: Have you ever taught a fully online course?

- a. Yes, many.
- b. Yes, just a couple.
- c. No, but I taught one or more blended ones.
- d. No but I am willing to try.
- e. No and I like it that way.
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February 26, 2021
Ever have ‘Zoom fatigue?’ These are the causes and how to fix them, researchers say
Brett Molina, USA Today
https://www.usatoday.com/story/tech/2021/02/26/zoom-fatigue-causes-and-how-to-fix/6831569002/

October 5, 2020
Remote learning isn’t new:
Radio instruction in the 1937 polio epidemic
Katherine A. Foss, The Conversation

February 2, 2016
1960’s PLATO Computer System –
Computer Aided Learning CAI CBT CDC Control Data Educational
https://www.youtube.com/watch?v=tTmWcGhlXqA

Needed: New Models of Motivation and Engagement
20 New Roles of the Instructor

- Course Ambassador
- Conductor
- Concierge
- Consumer Advocate
- Change Catalyst
- Curator
- Counselor
- Care Giver
- Community Organizer
- Chemist
- Collaborator
- Coach
- Comedian
- Bonk’s 20 “Last” Principles of Instruction
  (LAST = Learning Activation System Template)
  http://travelinedman.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
- Sharing
- Human Connectedness
- Empowerment and Autonomy
- Cognitive Apprenticeship
  Trial and Error (i.e., it is ok to fail)
  Relevance and Meaningfulness

Poll: What did Jean-Luc Picard say?

Engage!

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.

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)

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

Examples of TEC-VARIETY

April 14, 2020
1. Tone/Climate: A. Virtual Choir Starters
900-Strong Singapore Virtual Choir sings Home (Dick Lee)
https://www.youtube.com/watch?v=psK61cafiE&feature=youtu.be
3:18 (video): https://www.youtube.com/watch?v=ynxylmhf3I

September 24, 2020
1. Tone/Climate: B. Breakout Rooms
How Do You Make Zoom Breakout Rooms Less Boring?, Expectations, Share a link, Introductions
Bonni Stachowiak (Columnist), Ed Surge
https://www.youtube.com/watch?v=rR1mhGmBBek&feature=emb_logo
https://colab.plymouthcreate.net/resource/non-boring-zoom-breakout-groups/

April 3, 2017
1. Tone/Climate: C. Anonymous Voting
Sli.do (students get a code: e.g., 9801)
https://www.sli.do/

April 11, 2020
1. Tone/Climate: D. Threaded Video Discussions and Questions (e.g., Flipgrid)
https://techcrunch.com/2018/06/18/microsoft-acquires-social-learning-platform-flipgrid/
1. **Tone/Climate:**

   **E. Instructor Course Introductions**
   Lynne Innes (Scotland): [https://vimeo.com/356645285](https://vimeo.com/356645285)

2. **Encouragement, Feedback:**
   **A. Poll Everywhere, BlogPoll, MicroPoll**
   Connect students across campuses (School of Medicine, Flinders University)
   [https://www.polleverywhere.com/case-studies/distributed-learning](https://www.polleverywhere.com/case-studies/distributed-learning)

   **B. Voice/Audio Feedback**

   **C. Online Practice Tests and Interactive Flash Cards (e.g., Pharmacy, OT, etc.)**

   **D. Video Tutorials, Demonstrations, and How-To’s**
   (Jing, GoView, Screen, Overstream, Screencast-o-Matic: [http://tec-variety.com/TEC-Variety_links-examples-resources.pdf](http://tec-variety.com/TEC-Variety_links-examples-resources.pdf))

3. **Curiosity, Intrigue, Unknowns:**

   **A. Scientists put 3D glasses on cuttlefish and showed them film clips. The results were surprising (cuttlefish eyes have well-developed depth perception)**
   Ryan Prior, CNN
April 17, 2017
3. Curiosity, Intrigue, Unknowns:
B. 1st woman to officially run Boston Marathon does it again, 50 years later
Emanuella Grinberg, CNN, USA Today
July 16, 2017
Julia Hawkins Sets 100-Meter Dash Record for Women 100 Years or Older
Joseph Zucker, CNN
http://bleacherreport.com/articles/2721985-julia-hawkins-sets-100-meter-dash-record-for-women-100-years-or-older
July 7, 2017
3. Curiosity, Intrigue, Unknowns:
C. Multimedia News
(e.g., This may be the oldest surviving Photo of a human, November 7, 2014, CNN, Brandon Griggs; But this image, taken in Paris, France, in 1838)
February 6, 2021
3. Curiosity, Intrigue, Unknowns:
D. A Natural Work of Art May Be Hiding Among Indian Cave Masterpieces
Joshua Sokoi, The New York Times
https://www.nytimes.com/2021/02/05/science/india-cave-art-fossil.html
December 4, 2020
3. Curiosity, Intrigue, Unknowns:
E. Mysterious monoliths are appearing across the world. Here’s what we know.
Constance Grady, Vox
https://www.vox.com/culture/22062796/monoliths-utah-california-romania
January 26, 2021
3. Curiosity, Intrigue, Unknowns:
F. News Discoveries
Was This Dinosaur More Subaquatic; Killer or Giant Wading Bird?
June 27, 2020
4. Variety, Novelty, Fun, Fantasy:
A. Create Animated Presentations
Animaker is a cloud-based do-it-yourself video maker. Free version provides a lot of characters, props, transitions, and background images. Example in Turkish: https://youtu.be/l52iPh06BQc?list=F37
February 27, 2020
4. Variety, Novelty, Fun, Fantasy:
 B. Game Show Style Presentations
Susie Gronseth, University of Houston
https://www.youtube.com/watch?v=ZFXlVA6z_no&feature=youtu.be

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

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

Random.org

Random.org

Fall 2018 R546
4. Variety, Novelty, Fun, Fantasy:
F. Kahoot!
https://getkahoot.com/

October 10, 2018
4. Variety, Novelty, Fun, Fantasy:
G. FutureMe.org
Write a letter to the future
https://www.futureme.org/
July 18, 2020
5. Autonomy, Choice:
A. Enroll in a MOOC and Reflect (e.g., see Class Central)

5. Autonomy, Choice:
B. Tracking the Life of a Medical Professional (e.g., biography.com)
https://www.biography.com/scientist/alexander-fleming

5. Autonomy, Choice:
C. Design Multimedia Glossaries
P540 Final Assignment: Nate Wynne, Supersized Personal Course Glossary
http://natewynne1982.wix.com/p540courseglossary
Ozgur Ozdemir, December 2012
http://r685glossary.shutterfly.com/
Umida Khikmatillaeva, Dec. 2011, P540
http://learningplanet.shutterfly.com/

Poll #5: 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.

April 6 and 28, 2020
6. Relevance, Meaningfulness:
A. 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

6. Relevance, Meaningfulness:
B. Professional Development Videos
Edgar Leon, Puerto Rico, Marisol Hernández Hermína, Animaker
https://app.animaker.com/animo/2h5b0Hz2gxURJ5x4/?shareid=view%7C2h5b0Hz2gxURJ5x4
6. Relevance, Meaningfulness:
C. Case-Based Learning: Instructor Cases
(e.g., Mark Braun, IU)

March 20, 2018
6. Relevance, Meaningfulness:
D. Editing Wikipedia Pages
Women’s-Studies Students Across the Nation Are Editing Wikipedia
Emma Kerr, The Chronicle of Higher Education

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?

7. Interactive, Collaborative:
B. Negotiate Meanings Online
(e.g., PiratePad: http://meetingwords.com/)
http://blogs.elon.edu/technology/6-collaborative-writing-applications-for-group-projects-or-papers/
MeetingWords, Google Docs, NowComment, MixedInk

7. Interactive, Collaborative:
C. Guest Speaker Quotes
(Rey Junco)

7. Interactive, Collaborative:
D. Team Article Debates
Nuclino (like a wiki…may delete by mistake, trial version, limited)
7. Interactive, Collaborative:
E. Virtual Mobile (at Virtually Inspired)

Virtual laboratory brings the opportunity for remote collaboration enabling students to conduct experiments, access, interpret, evaluate, and exchange relevant technical information.
Susan Aldridge, Drexel: https://virtuallyinspired.org/portfolio/online-virtual-labs/

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

May 28, 2019

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

http://phet.colorado.edu/ndSimulation/energy-slide-jpark

8. Engagement, Involvement:
C. Virtual Reality Comes to the Classroom
Beth McMurtrie, The Chronicle of Higher Education
https://www.chronicle.com/interactives/20190528-ImmersiveTech

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

Students later practiced conducting the virtual orchestra by wearing a special headset through which the sound of the orchestra changes as they turn their head. (Jon Salmon)

May 28, 2019

8. Engagement, Involvement:
D. Virtual Reality Comes to the Classroom
Beth McMurtrie, The Chronicle of Higher Education
https://www.chronicle.com/interactives/20190528-ImmersiveTech

A group of students could gather around a virtual heart as their professor takes it apart to show them the components. (Microsoft)

October 20, 2020

8. Engagement, Involvement:
E. Interactive Timeline, The British Museum
https://britishmuseum.withgoogle.com/

Unlike VR headsets, augmented-reality glasses allow users to see the world around them, opening up possibilities for shared learning experiences. A group of students could gather around a virtual heart as their professor takes it apart to show them the components. (Microsoft)
February 6, 2021
8. Engagement, Involvement:
F. Watch This Billion-Year Journey of Earth’s Tectonic Plates
World Animation: [link]

March 2, 2021
9. Tension, Challenge, Controversy, etc.:
A. Controversial Issue Debates and Pro and Con Conversations
Brian Harding: [link]
S. Whittaker: [link]

November 1, 2019
9. Tension, Challenge, Controversy, etc.:
C. Implementing the ViewPoint Role-Playing Simulation Tool in a "Leadership Crisis Challenge"
Center for Academic Innovation, University of Michigan
[link]

May 11, 2020
9. Tension, Challenge, Controversy, etc.:
B. What is smileUP & How to use it?
SMILE, Stanford
[link]

January/February 2021
8. Engagement, Involvement:
G. Engaging Students in Online Learning Using Teacher Demonstration
By Dennie Wright, The Online Teacher, NSTA
[link]

10. Yields Products, Goals:
A. Database Collection Tools
Article Databases in Pinterest
September 3, 2017
Yields Products, Goals:
B. Mindmap Recaps of Online Discussions
Mindmap of Week 2 of R511

June 27, 2020
10. Yields Products, Goals:
D. Design Products (students created infographics, brochures, timelines)

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

March 2, 2021
10. Yields Products, Goals:
F. Student Prezi Presentations

April 23, 2020
10. Yields Products, Goals:
C. Student Timelines
(Sutori, xtimeline, Preceden, TimeLineCurator, etc.)
Where are They Now? Emerging Learning Technology
Timeline of emerging technologies from Dr. Bonk's Emerging Learning Technology course from the 1990, 2000, 2010, and 2020 classes
https://time.graphics/line/356a1211435318430fa1741b50d7552c

April 29, 2020
10. Yields Products, Goals:
E. Wikibook Chapters
Part IV: Environments and Tools: Online Learning Communities R678 - Emerging Learning Technologies
Amanda Zwirecki and Ashia Williams

Canva is an online design program that does not require much design skills. You can design professional looking brochures, infographics, PPTs, flyers, and syllabus for free.
Poll #7: Which motivational principle do you see as the most crucial online?

1. Tone/Climate
2. Encouragement, Feedback
3. Curiosity
4. Variety
5. Autonomy
6. Relevance
7. Interactive
8. Engagement
9. Tension
10. Yields Products

Question: How can technology address diverse learner needs?

The R2D2 Model

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.
April 1, 2020
Read 1b. Read Blogs
Punya Mishra, Silver Lining for Learning
https://silverliningforlearning.org/the-value-of-school-part-1/

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

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?
Tech billionaire announces $250 million in cancer immunotherapy funding,
Jayne O'Donnell, USA Today

Reflect 2b. Collaborative Annotations and Discussions/Group Reading
Teachers can insert a two-column chart into a Google Document then copy and paste text in the left-hand column. Students can highlight keywords and phrases in the text and capture their annotations in the right-hand column.
VideoAnt (Free): https://ant.umn.edu/ (Univ. of Minnesota)

July 9, 2020
Reflect 2b. Collaborative Annotations and Discussions/Group Reading
Teachers can insert a two-column chart into a Google Document then copy and paste text in the left-hand column. Students can highlight keywords and phrases in the text and capture their annotations in the right-hand column.
VideoAnt (Free): https://ant.umn.edu/

3. Visual Learners
• Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.
Display 3a. Virtualize Words Used (e.g., Tagzedo, Tagul, WordSift, Word It Out)

April 30, 2020
More Word Clouds: Week 2 and 5 (13 and 14)
https://www.wordclouds.com/

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

April 25, 2020
(SuperTravelinEdMan)
STARLINK programs on Online and Blended Learning and the Web 2.0
October 2008-January 2010
https://www.youtube.com/playlist?list=PLHcReRoW2lxOrKfYXJyy3y40ZVccDcwEv

June 7, 2020
Display 3c. Animations of Data
World Mapper, COVID-19
https://worldmapper.org/map-animation-covid19/
https://www.youtube.com/watch?v=6uu1MGyGjvI

April 29, 2020
Display 3d. Animated Videos
Animated COVID-19 prevention video goes viral
Mandy Erickson, SCOPE Stanford Medicine
https://www.youtube.com/watch?v=UcFDdfueQRg
Display 3e. Medical Training Videos: Anchored Instruction/Macrocontext
MEDtube (200,000 users, 20,000 records)

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

March 16, 2020
Display 3g. Video Teasers
G3 of Writing and Publishing Tips
https://youtu.be/4BGJRD5AaoO

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

Do 4a. Case Decision Making (e.g., snake bite)

Do 4b. Sample Student Work
(e.g., Interactive Archive/Gallery of best work (e.g., physical therapy, SDSU)
April 23, 2020
Do 4c. Demonstration Videos
Crane Makerspace, Tina Closser
https://www.youtube.com/channel/UCbeWfFd9g7pJ2wRH1V15ySw?view_as=subscriber
https://projects.raspberry pi.org/en/projects

March 1, 2021
Do 4d. Student Designed Videos
M-Learning for K-12 Education
Tina Closser: https://www.youtube.com/watch?app=desktop&v=k4c2Rz4to9o
Amy Pagel: https://www.youtube.com/watch?v=5e5zF51BHjI
Crane Makerspace: https://sites.google.com/view/cranetech/home

April 29, 2020
Do 4e. Design a MOOC
Qualtrics, Tanner Phillips, Udemy
https://drive.google.com/file/d/1fkiTPUbDYiK91V-8R3odkxFytHiqQnc0/view

June 10, 2020
Learning in 2050
Edward J. Mahoney and Joshua Kim, Inside Higher Ed
https://www.insidehighered.com/higher-learning/inside/learning-innovation/learning-2050

Poll 7: 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.

Poll 8: Which pedagogical model or framework do you prefer?

- TEC-VARIETY
- R2D2
- Neither
- Both
- I will try to create some unique combo of the two.

Per Kim and Mahoney: “Where might we be in 2050? As we said, a lot can happen. We might see changes in how we use technology, and how students use technology engage in both curricular and co-curricular activities.”
**Poll #9: Are you excited to try anything out that you heard today?**

a. Yes definitely...many of them...
b. Yes, several of them.
c. Yes maybe one!
d. Not yet (but hopefully soon...)
e. Nope. My brain is simply not working today.
f. No...I am having Internet connection issues.

**Poll #10: Does all this stuff that you heard give you a headache?**

a. Yes, but I am still excited to try things out.
b. Yes, and I need some medicine and a break.
c. Not sure.
d. No, let’s go all day.
e. No, let’s go another hour.
f. No, it was just right.

**Poll 11: Would you attend a Part 2 follow-up session?**

a. Definitely, Definitely, Definitely...
b. Probably, Probably, Probably,
c. Maybe, Maybe, Maybe
d. You got to be kidding...NO!

We are entering a jumping off point...

The World is Open for you now...

Any Questions or Comments?

Slides at: TrainingShare.com

Papers: PublicationShare.com

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

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