

الإمارات العربية المتحدة
وزارة التربية والتعليم
MOE TRAINING

New Trends for Seamless Transition to Hybrid Learning in K-12:
Introducing the TEC-VARIETY and R2D2 Models

Curtis J. Bonk, Professor
Indiana University
cjbok@indiana.edu; <http://curtbonk.com/>

منتدى الخليج العربي السادس للمعلمين 2020
التعلم الهجين

المنتدى الخليجي العربي السادس

1

August 22, 2020
Trend #1: Best Practice Examples and Supplemental Resources
Blended in Action; Raise Your Hand Texas
<https://www.raiseyourhandtx.org/foundation/blended-in-action>

Profiles of Blended Learning Districts

Mineola ISD, Pasadena ISD, Point Isabel ISD, Bound Rock ISD, Spring Branch ISD, Temple ISD

2

July 26, 2020
Educating All Learners
An alliance dedicated to equity for complex learners
<https://www.educatingalllearners.org/>
Resources and Guidance for Educators
<https://www.educatingalllearners.org/for-educators>
<https://www.educatingalllearners.org/educator-resources>

EDUCATING ALL LEARNERS DURING THE COVID-19 DISASTER

Resources and Guidance

Being Socially Isolated With Mental Health

Communication: Mental Health Coping Strategies

3

August 10 to September 13, 2020
Trend #2: Free Courses/MOOC Supplements
Learning to Learn Online
Contact North/Nord and Athabasca University
Video Intro: 3:02
<http://contactnorth.litlo.ca/>

LEARNING TO LEARN ONLINE

From Contact North/Contact Nord and Athabasca University

ATHABASCA UNIVERSITY

4

November 9, 2019
Greetings from Nepal,
Baman Kumar Ghimire
Teacher, Motherland Secondary School, Pokhara

Certificate Distribution Ceremony

3rd October 2019

3rd October 2019

5

November 26, 2019
Courses for a Cause:
MOOC Contributions to a "Better Place for All"
(Marianne Krasny et al., 2020)

CLEAN SEAS

CLEAN SEAS

6

July 31, 2020
Khan Academy aims to give 'strategic supplement'
 Brett Molina, USA Today
<https://www.usatoday.com/story/tech/2020/07/30/khan-academy-ceo-sal-khan-prepping-fall-virtual-learning/5525480002/>

Q&A: Khan Academy CEO Sal Khan on the new school year and virtual learning
 Brett Molina, USA TODAY
 Updated 3:54 p.m. ET Jul. 30, 2020




Problem Solved

Streaming video: Tips to keep kids engaged during coronavirus

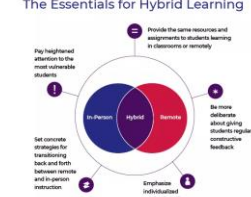
7

July 22, 2020
Trend #3: New Educational Models
How to Balance In-Person and Remote Instruction
 Mark Lieberman, Education Week
<https://www.edweek.org/ew/articles/2020/07/23/how-to-balance-in-person-and-remote-instruction.html>

How to Balance In-Person and Remote Instruction



The Essentials for Hybrid Learning




Source: Education Week reporting

8



9

Bonk's 20 "Last" Principles of Instruction (LAST = Learning Activation System Template)
<http://travelledman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



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

10

July 25, 2020
Silver Lining for Learning
<https://silverliningforlearning.org/>
<https://www.youtube.com/channel/UC9XKsh89qr71pmVpQT-aA/live>



Initial 3D

Episode 21: Immersive Simulations and Virtual Assessments

Episode 22: Using VR and Chat GPT for Immersive Learning

11

August 23, 2020
Trend #4: Tips and Guidelines
Catlin Tucker blog
<https://catlintucker.com/>



Asynchronous vs. Synchronous: How to Design for Each Type of Learning

This school year will look very different for most teachers. Some are beginning entirely online and others are returning to school on a modified schedule where they will only see students in person a couple of days a week. In the meantime many teachers are asking, "How should I spend my limited time with students in the classroom or in video conferencing sessions? What is the best use of that time?"

First, let's be clear about the difference between asynchronous and synchronous learning.

Asynchronous Learning
 Occurring at different times

Synchronous Learning
 Occurring at the same time and in

Synchronous Learning Activities



Asynchronous Learning Activities



12

July 23, 2020**6 ways to be more inclusive in a virtual classroom**

Flower Darby, Chronicle of HE

<https://www.chronicle.com/article/6-quick-ways-to-be-more-inclusive-in-a-virtual-classroom>

1. Provide course content in 2 formats.
2. Allow options on how students complete assignments.
3. Give choice in final project.
4. Reach out to help students.
5. Use picture to depict how feeling.



13

August 5, 2020**Fostering an Inclusive Classroom**

Tracie Marcella Addy, Derek Dube and Khadijah A. Mitchell, Inside Higher Ed

<https://www.insidehighered.com/advice/2020/08/05/small-steps-instructors-can-take-build-more-inclusive-classrooms-opinion>

1. Provide more instructional supports.
2. Eliminating expensive course materials.
3. Including alternative assignments (for sick).
4. Survey about tech access, preferences, and special needs (get to know them).
5. Consider flipped class model



14

July 27, 2020**Online Classroom Management: Five Tips for Teachers in Transition**

Jeff Liscandrello, Room To Discover

<https://inelearninglab.com/>

1. Test the technology.
2. Involve students in establishing norms.
3. Emphasize engagement—polls, breakouts, explore, etc.
4. Connect with small teams of students
5. Proceed slowly in comfort zone.



Online Classroom Management: Five Tips for Teachers in Transition

15

August 24, 2020**Transitioning to Blended**

Curt Bonk

1. Get to know your students!
2. Don't apologize too often.
3. Don't treat online as inferior.
4. Welcome everyone in with enthusiasm.
5. Different format but same students.
6. Provide scaffolds, tutorials, and other supports.
7. Create short authentic videos.
8. Foster volunteerism.
9. Communicate clearly and a lot.

Griffith Institute report finds 40 per cent of school students disengaged



16

August 24, 2020**Transitioning to Blended**
(Various Authors)

1. Model positive attitude.
2. Provide students with checklists.
3. Set routines (stick to a schedule).
4. Offer flexibility.
5. Give learning environment advice.
6. Survey about technology at home.
7. Explain purpose and debrief and reflect.
8. Encourage real world learning.



17

August 2015**Best Practices in K-12 Online and Hybrid Courses**

Hanover Research

<https://www.gssaweb.org/wp-content/uploads/2016/04/Best-Practices-in-K-12-Online-and-Hybrid-Courses.pdf>

1. Start slowly: fun, easy, and supportive.
2. Focus on engagement.
3. Require student reflections
4. Establish norms.
5. Make expectations clear.
6. Respond to students in a timely manner.
7. Grade timely.
8. Create challenging assignments.

Online programs used for coronavirus-era school promise results. The claims are misleading



18

Introducing the TEC-VARIETY Model

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

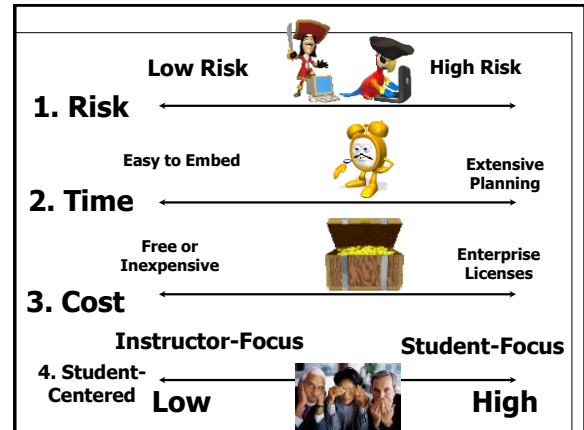
Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products

在线学习动机与激励:
 TEC-VARIETY 模型



19



20

1. Tone/Climate: A. Instructor Course Introductions



21

August 2, 2020

1. Tone/Climate:

B. Threaded Video Discussions and Questions
 (e.g., Flipgrid; ask students to explain *how* they would solve a math problem, write a story, or complete a task and they can watch their peers' videos to hear how their classmates approached the same problem, prompt, or task.)

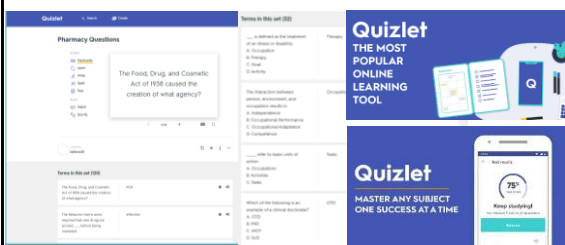
Ed Tech with Adam: <https://www.youtube.com/watch?v=hysv0PwgsFs>
<https://techcrunch.com/2018/06/18/microsoft-acquires-social-learning-platform-flipgrid/>



22

2. Encouragement, Feedback: A. Online Practice Tests and Interactive Flash Cards (e.g., Pharmacy, OT, etc.)

<http://quizlet.com/>



23

2. Encouragement, Feedback: B. Video Tutorials, Demonstrations, and How-To's (videos, tutorials, etc.)

(Jing, GoView, Screener, Overstream, Screencast-o-Matic, TikTok, etc.)
 EdTech with Adam channel:
<https://www.youtube.com/channel/UCyLzXEMGgbuzNX9rPQumDQ>

**Learning is everything,
 everything is learning.**



24

July 7, 2020

3. Curiosity, Intrigue, Unknowns:

A. New Discoveries

"Tiny bug slayer": Meet the pint-size ancient ancestor of dinosaurs discovered in Madagascar
 Ryan W. Miller, USA Today

<https://www.usatoday.com/story/news/science/2020/07/07/tiny-bug-slayer-ancestor-tiny-had-furcy-skin/5389075021/>
 Video: 53 seconds

"Tiny bug slayer": Meet the pint-size ancient ancestor of dinosaurs discovered in Madagascar



"Crazy beast" lived among last of dinosaurs



25

July 2, 2020

3. Curiosity, Intrigue, Unknowns:

B. Web Resource Scavenger Hunts

<https://catlintucker.com/2020/07/8-ideas-designed-to-engage-students-online/>

The Virtual Junior Geography Hunt
 Read an issue of The World Journal and complete the scavenger hunt below.

Find the following items:

1. An article about the Eiffel Tower, its history, its location, and its significance. Write the title of the article and a sentence summary.
2. An animal animal fact. Explain the fact in your own words.
3. The item, name, or person featured in "The World is Bigger". Write the item, name, or person, the year that it happened, and describe what you learned.
4. An event that happened in another part of the world. Write the city, country, and what happened.
5. The "big idea" issue. What is being debated? What is your opinion on this topic?
6. The "big idea" section. What is the topic being debated? What is the "big idea"?
7. A quote about the item. What fact did you learn about it?
8. A story about the item. What fact did you learn about it?
9. A tip for something kids can do to stay safe. Write the tip, the activity, and why you would enjoy it. Why or why not?
10. A word you don't know. Write the word and the definition. (Find it on the internet.)

Present your findings in this column. Read the directions carefully to ensure you get credit for each item.

SCAVENGER HUNT

26

4. Variety, Novelty, Fun, Fantasy:

A. Poll Everywhere, Zoom Polling, MicroPoll

Girls + data is a non-profit 501(c)(3) that hosts data camps, interactive workshops, and seminars where different analytics tools are used to teach kids about the data life-cycle, from database to the dashboard. The program culminates in a project that allows the participants to tell a story with data. To date, girls + data has educated over 450 kids at 17 events across the nation.

Poll Everywhere Instant Audience Feedback

What's Your Favorite Animal?

100% 80% 60% 40% 20% 0%

LION TURTLE GRANDPA

Who uses Poll Everywhere?

Gamifying education: how girls + data uses Poll Everywhere to excite & educate kids about data



27

4. Variety, Novelty, Fun, Fantasy:

B. Kahoot!

<https://getkahoot.com/>

Kahoot!

How many weeks does World War I last?

10 15 20 25

What is the name of Dr. Benda's boss for this class?

Adding Name TEE-MASTERY

Creating a Poll

28

August 2, 2020

5. Autonomy, Choice:

A. Digital Choice Walls

10 Strategies Designed to Engage Elementary Students Online, Catlin Tucker

<https://catlintucker.com/>

Elementary Choice Board			
Select, Engage, Document + Create			
Finding Colors Outside Go outside and find the following colors around your home and draw pictures of the objects that have these colors in them. Yellow Green Red Purple Blue Brown	Letter 'W' Scavenger Hunt Go on a scavenger hunt around your house looking for items that start with the letter "W".	Math with Everyday Objects Use buttons, marbles, paper plates, or dried beans to create groups that add up to the following numbers. 5 3 8 9 7 10	Math with Everyday Objects Use buttons, marbles, paper plates, or dried beans to create groups that add up to the following numbers. 5 3 8 9 7 10
Listen to Story Choose a story to watch on YouTube . Write one sentence about the main character.	Vowel Hunt Find a newspaper or magazine to explore. Circle and highlight all of the vowel sounds.	Your Email Draw an email that reflects how you feel today and write a sentence about your email.	Crafty Fun Choose a craft activity to do. https://www.youtube.com/watch?v=... is a list of 25 crafting activities for elementary students.
Rhyming Find sets of objects in your house that rhyme and take pictures of these rhyming sets. See how many you can find!	Highlights Magazine Play the daily "Highlights Feature" activity in the online Highlights Magazine .		

29

August 2, 2020

5. Autonomy, Choice:

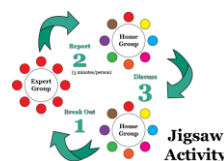
B. Virtual Jigsaw (group choice)

Catlin Tucker blog

10 Strategies Designed to Engage Elementary Students Online

8 Ideas Designed to Engage Students In Active Learning Online

<https://catlintucker.com/>



Resources to Explore	
Read	
Watch	
Listen	

30

July 18, 2020
6. Relevance, Meaningfulness:
A. Enroll in a MOOC and Reflect
 (e.g., see Class Central)



31

March 20, 2018
6. Relevance, Meaningfulness:
B. 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-Students-Edit-Wikipedia/23289>



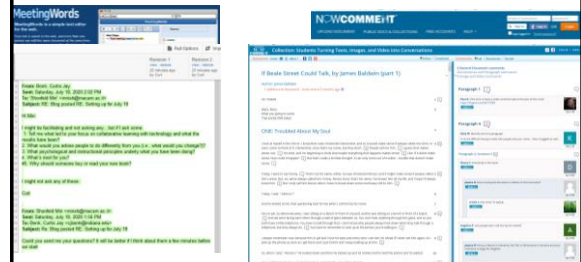
32

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>



33

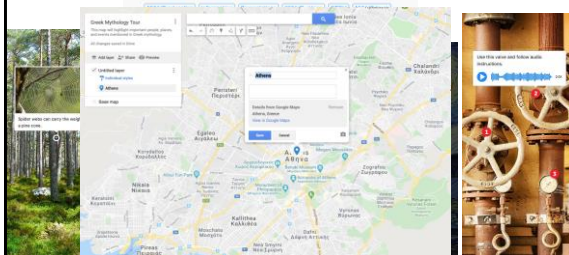
7. Interactive, Collaborative:
B. Negotiate Meanings Online
 (e.g., MeetingWords: <http://meetingwords.com/>)
<http://blogs.edn.edu/technology/6-collaborative-writing-applications-for-group-projects-or-papers/>
 Also: Google Docs, NowComment, etc. (MixedInk and PiratePad are no more)
 e.g., <https://nowcomment.com/documents/131228>



34

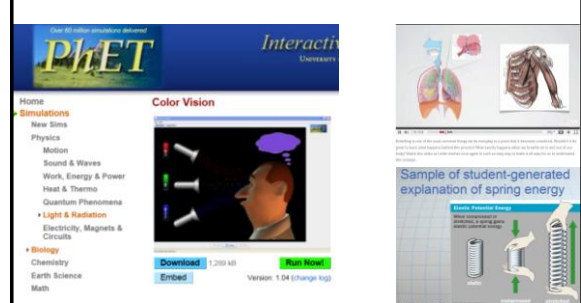
July 8, 2020
8. Engagement, Involvement: A. Interactive Maps
 (Thinglink: interactive map creator; Google Map Adventures)
<https://www.thinglink.com/>

(Thinglink (Freemium): Direct students to the discussions, assignments, course files, and syllabus. She added hyperlinks to pictures or videos to facilitate navigation. Thinglink makes any still picture interactive. You can put links into a picture and students easily navigate to necessary website. For example, it is used commonly for online history and geography courses.
 Students can chart the path of a story on a map, they can connect historical info they are learning to the geographic location where events took place, and students can design creative mathematical challenges.



35

8. Engagement, Involvement:
B. Interactive Labs and Simulations
<http://phet.colorado.edu/en/simulation/energy-skate-park>



36

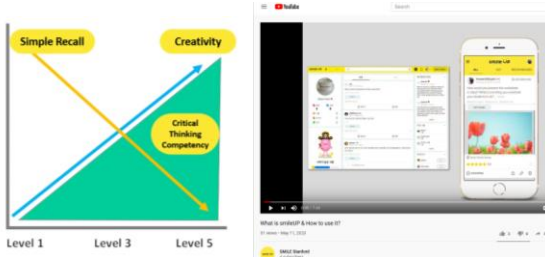
May 11, 2020

9. Tension, Challenge, Controversy, etc.:

A. What is smileUP & How to use it?

SMILE, Stanford

<https://www.youtube.com/watch?v=pblU8sSALWo>



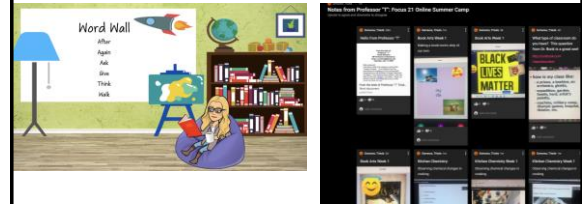
37

9. Tension, Challenge, Controversy, etc.:

B. Virtual Sharing Walls Competitions

e.g., Padlet (A collaboration and discussion board)

<https://padlet.com/samarast/urel07b3nwbuvib>



38

10. Yielding Products:

A. Class Project: Video, Podcast Show, Documentary, Website, Animation, Song, etc.

<https://app.animaker.com/animos/2h5b0Hz2qxUR35x4/7ahamid-view%7C2h5b0Hz2qxUR35x4>

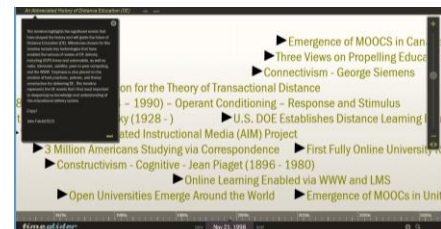


39

April 23, 2020

10. Yields Products, Goals:
B. Student Generated Timelines, Taxonomies, and Concept Maps (Sutori, xtimeline, Preceden, Timeline.js, TimeLineCurator, Time Mapper, etc.)

<https://time.graphics/line/356a1211435318430fa1741b50d7552c>



40

Make Commitments:

Stop and Share in Chat Window:

Which principle(s) of TEC-VARIETY will you use?

<http://tec-variety.com/>

Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products

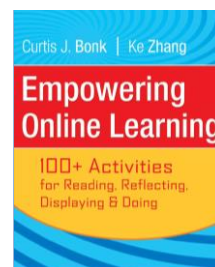
What motivates?

1. Tone/Climate: Psychological Safety, Comfort, Sense of Belonging
2. Encouragement: Feedback, Responsiveness, Praise, Supports
3. Curiosity: Surprise, Intrigue, Unknowns
4. Variety: Novelty, Fun, Fantasy
5. Autonomy: Choice, Control, Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting
7. Interactivity: Collaborative, Team-Based, Community
8. Engagement: Effort, Involvement, Investment
9. Tension: Challenge, Dissonance, Controversy
10. Yielding Products: Goal Driven, Purposeful Vision, Ownership



41

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



42

June 27, 2020

Read 1a. Concept Mapping with Storyline Online is a free literacy platform where kids can listen stories (where actors read to children).

<https://www.youtube.com/user/StorylineOnline>

43

Read 1b. Reading and Reviewing articles in Open Access Science Journals (e.g., DOAJ—Directory of Open Access Journals)

<https://doaj.org/>

Open access journals for kids:
<https://sciencejournalforkids.org/about-us.html>
<https://kids.frontiersin.org/>
<https://sciencejournalforkids.org/about-us.html>

44

Reflect 2a. Listen to Podcasts
 (e.g., Educational: <https://discoverpods.com/educational-podcasts/>)

45

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/> (Univ. of Minnesota)

How to do Collaborative Annotation in Perusall

46

April 29, 2020

Display 3a. Animated Videos

Animated COVID-19 prevention video goes viral

Mandy Erickson, SCOPE Stanford Medicine

<https://scopeblog.stanford.edu/2020/04/29/animated-covid-19-prevention-video-goes-viral/>
<https://www.youtube.com/watch?v=UcFDbueQ8g>

47

June 7, 2020

Display 3b. Animations of Data

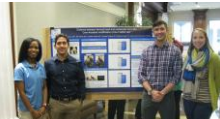
World Mapper, COVID-19

<https://worldmapper.org/map-animation-covid19/>
<https://www.youtube.com/watch?v=6uu1MGyGjvI>

48

Do 4a. Sample Student Work

e.g., Interactive Archive/Gallery of best work



49

August 6, 2020

Do 4b. Podcast Shows

Teen's Podcast explains COVID-19 to his peers

Janey Begley, USA Today, TC Palm

<https://www.tcpalm.com/story/165/2020/08/06/florida-youth-starts-podcast-explaining-covid-19-teens/3312120001/>



50

Poll: As a result of this session, are you going to be a more effective and more confident hybrid learning instructor?

- a. Definitely, Definitely, Definitely...
- b. Probably, Probably, Probably,
- c. Maybe, Maybe, Maybe
- d. No! No! No!



51

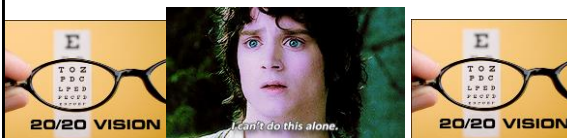
We are entering a jumping off point...



52

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

"I cannot do this alone."
"I cannot do this alone."
"I cannot do this alone."



53

Any Questions or Comments?

Slides at: [TrainingShare.com](https://www.trainingshare.com/)

Papers: [PublicationShare.com](https://www.publicationshare.com/)

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

تابعونا على مواقع التواصل الاجتماعي

MOE_UAETRAINING



Curtis J. Bonk, IST Professor
Indiana University

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



54