

Addressing Diverse Online Learner Needs and Motivation at the Compass Knowledge Summit

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Technology of the 1980s

Radio Shack TRS-80 Model III
 Introduced July 1980
 Price: US \$699 base model
 US \$2495 w/ 3.5", dual drives.
 CPU: Zilog Z-80, 2.62 MHz
 RAM: 4K, 48K max.
 Ports: Cassette tape, expansion, serial
 Display: 12-inch B/W monitor: 64 x 16 text
 Storage: 0, 1, or 2 internal 720K floppy drives
 External cassette @ 500 / 1500 baud
 BIOS in ROM, TRS-DOS on disk

COMMODORE 64
 THE PERSONAL COMPUTER WITH PROFESSIONAL POWER
 64 K

New technologies hit us everyday!

Poll #1: Who finds it hard to keep track of all the technology-related changes today???

Part I. Some Online Motivational Ideas

THE UNIVERSITY OF INDIANA THROUGHOUT INDIANA, IN...

We are not motivating students with the technologies that they love!

Ok, Million Dollar Question: How do you motivate online learners? What Words come to mind?

I even reflected on this for a moment...and then something magical happened...

The TEC-VARIETY Model 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

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**

1. Tone/Climate: A. Video Course Intros
(examples from Northern Virginia Community College and Indiana University KD (online MBA) program)

2. Encouragement, Feedback, etc.: A. Online Self-Testing (e.g., self study in vocabulary, anatomy, chemistry, dissection, etc.)

Upper Extremity Muscles

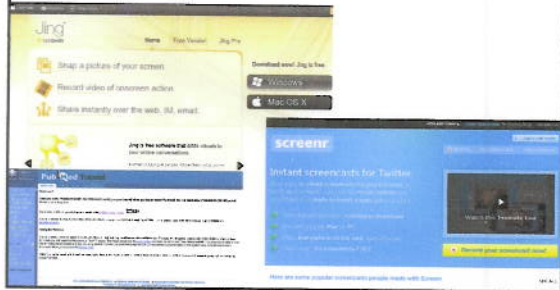
Which of the following are ANTONYMS for the word MAXIMUM?

- clear, undecomposable, fulsome, intelligible
- non-placer, treifful person
- retain, withhold, keep, hold
- make happy, cheer, mouse, please
- weakest, least, minimum, lesser

A B C D E

1 / 20

2. Encouragement, Feedback, etc.: B. Tutorials with Screen Capture (e.g., Jing, Screencr)



2. Encouragement, Feedback, etc.: C. Video Scenario Learning Accounting Interviews and Preparatory Course Review Modules (Franklin University, cost and forensic accounting course)



3. Curiosity, Fun: A. Online News (Giant jellyfish, Tiny T. rex, and Ardi)



3. Curiosity, Fun: B. Online Experiments (e.g., psychology)



4. Variety, Novelty: A. Synchronous Session with Guest Expert .MM



4. Variety, Novelty: A. Bridges to World of Expert and Practitioners (e.g., Watch or Listen to Online Conferences, Expert blogs, chats, interviews)



5. Autonomy, Choice:
A. Famous Person Web Explorations, Searches, Twitter Tracking, and Interviews
 (e.g., Thomas Friedman, NY Times reporter)

The image shows a screenshot of a web page for Thomas L. Friedman. On the left, there is a video player with the title "Intro: What is the Flat World?". On the right, there is a profile section for Thomas L. Friedman, including a photo and some text. The page is from New York Times.

5. Autonomy, Choice:
B. Online Cases (e.g., Mark Braun, IU)

The image shows a screenshot of an online pathology case study interface. It features a list of cases on the left and a grid of microscopic images on the right. The cases include: 1. A case of fever, 2. A man with chronic cough, 3. Middle-aged man with chest pain, 4. A man presents with fatigue, 5. The new symptoms of dyspnea, 6. New site abdominal pain, 7. A middle-aged man with stiffness, 8. This elderly man has chest pain, 9. A young woman with a breast mass, 10. An elderly man with a seizure, 11. A new symptom of delirium, 12. A woman with rapid breathing, 13. A young woman with stiffness, 14. A woman with recurrent diarrhea, 15. Man with enlarged lymph nodes, 16. A man with a sore throat, 17. A woman with a neck mass, 18. CBC review, 19. Leukemia Leucal, 20. This man and girl with a cough, 21. Unexplained weight, 22. Infectious Disease Tutorial, 23. Complicated Discussion Tutorial, 24. Histology related case, 25. Adult Brain Dissection.

6. Relevance, Meaningfulness:
A. Tour an Online Oil Drilling Site or Role Play Situations (i.e., BP)

The image is a collage of images related to oil drilling and role-play situations. It includes a map of the Gulf of Mexico, an offshore oil rig, a person in a role-play scenario, and a screenshot of a website with a map of the Gulf of Mexico.

6. Relevance, Meaningfulness:
B. 60 Second Recap, Jenny Sawyer
<http://www.60secondrecap.com/>
 Actress to students: Lend me your earbuds!
 English major, 24, rambunctiously recaps the classics in 60-second Web videos; By Greg Toppo; USA TODAY, September 2009

The image shows a screenshot of a 60-second recap video player. The video is titled "3: the plot, part 1" and features Jenny Sawyer. The player interface includes a video player, a title, and a description.

7. Interactive, Collaborative:
A. Online Language Learning
 (Skype, MSN, ECpod, Mixxer, Livemocha, Babbel, KanTalk etc.)

The image is a collage of images showing online language learning activities. It includes a person using a headset, a person using a laptop, and a screenshot of the SpeakENG Course website.

7. Interactive, Collaborative:
B. Collaborative Groups (Ning, Google Groups, MSN Groups, Yahoo Groups)

The image is a collage of images showing collaborative group interfaces and logos. It includes logos for Ning, Google Groups, and MSN Groups, along with screenshots of group pages.

7. Interactive, Collaborative:
C. Collaborative Documents (Google Docs)

The image shows a collage of Google Docs-related content. At the top left, there's a 'Google docs' logo and a list of features: 'Create and share your work online', 'Instant document preview', 'Full screen editing and viewing', 'New design options', 'Full screen presentation', and '11MB'. Below this is a 'Google docs Snacks' window with a menu: File, Edit, View, Insert, Format, Tools, Help. A table lists various cuisines and their associated dishes:

Cheese	Sausage	Crackers
1. Muesli	2. Summer	3. Ritz
3. Cheddar	4. Breakfast	5. Triscuit
4. Swiss	6. Kebab	7. Garden
5. Mozzarella	8. Mortadella	9. Maltin Toast
6. Edam	9. Salami	10. Wheat Thins
7. Gouda	10. Sweet Potato	11. Swedish

Other elements include a 'Google Docs & Spreadsheets' logo and a pie chart visualization.

8. Engagement, Effort:
A. Synchronous and Asynchronous Events (e.g., Breeze + Video + Online Forum + Online Papers) ...MM

This collage illustrates various digital learning and communication methods. It includes screenshots of video conferencing (Zoom), online forums, and digital documents. A prominent image shows a woman's face in a video call window. Other elements include a 'd2l' logo and a 'A Look Carbon' document.

8. Engagement, Effort:
B. Flash, 3-D Visualization, & Laboratory Software

This collage features educational software and 3D visualizations. It includes a '3D visualization' of a molecule, a '3D visualization' of a human body, and a '3D visualization' of a laboratory setup. Other elements include a '3D visualization' of a cell, a '3D visualization' of a protein, and a '3D visualization' of a DNA molecule.

8. Engagement, Effort:
C. Tour a Museum (e.g., British Museum, Smithsonian, Louvre)

This collage shows virtual museum tours. It includes screenshots of the British Museum website, the Smithsonian website, and the Louvre website. Other elements include a virtual tour of the Mona Lisa and a virtual tour of the Louvre's interior.

8. Engagement, Effort:
D. Basic Acoustics of Musical Instruments (University of New South Wales)

This collage focuses on the acoustics of musical instruments. It includes a screenshot of a website titled 'Acoustics of Musical Instruments' with a list of instruments: Violin, Viola, Cello, Double Bass, Trumpet, Trombone, Saxophone, Clarinet, Flute, Piccolo, Oboe, Bassoon, Tenor Saxophone, Baritone Saxophone, Euphonium, Tuba, Drums, Percussion, and Piano. Other elements include a photograph of a woman and a screenshot of a website titled 'Acoustics of Musical Instruments'.

9. Tension, Challenge, etc.:
A. Ethical Debates

This collage features news articles and ethical debates. It includes a screenshot of a news article titled 'North Korea demands apology, reparations from Japan over colonization', a screenshot of a news article titled 'Students to protest human body donor', and a screenshot of a news article titled 'The world's longest bridge drive'. Other elements include a screenshot of a news article titled 'BODY WORLDS' and a screenshot of a news article titled 'The world's longest bridge drive'.

9. Tension, Challenge, etc.:
B. Electronic Guests & Mentoring...MM

10. Yields Products, Goals:
A. Student YouTube Products...MM

<http://www.youtube.com/watch?v=xjwStryPzsQ>
http://www.youtube.com/watch?v=x3FJy4Pn_E
<http://www.youtube.com/watch?v=eD1awpaSuP0>

10. Yields Products, Goals:
B. Video Blogs...MM

10. Yields Products, Goals:
C. Photo Festivals and Competitions (e.g., COFA at UNSW, Scrapblog, flickr, etc.)

TEC-VARIETY Model for Online Motivation and Retention

Tone/Climate
Encouragement, Feedback
Curiosity

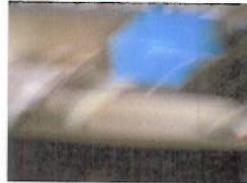
Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products

Poll #2: How many ideas did you get so far?

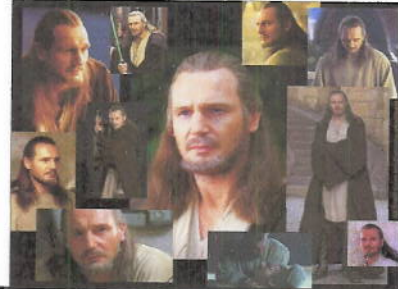
1. 0 if I am lucky.
2. Just 1.
3. 2, yes, 2...just 2!
4. Do I hear 3? 3!!!!
5. 4-5.
6. 5-10.
7. More than 10.

99 seconds: What have you learned so far?

- Solid and Fuzzy in groups of two to four



II. Addressing Diverse Learners



Model #2: The R2D2 Model

Empowering Online Learning
100+ Activities for Reading, Reflecting, Displaying & Doing

Curtis J. Bank | Ke Zhang

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 from Open Access Journals (e.g., PLOS)

The International Review of Research in Open and Distance Learning
A refereed e-journal to advance research, theory and best practice in open and distance learning worldwide

Alabama University

Read 1b. Course Announcements (e.g., Teaching with Twitter)

Read 1c. Podcast Paper Reflections

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

Reflect 2a. Critical Friend Blog Postings...MM

Reflect 2b. Expert and Domain Specific Blog Reflections (English, Health, Business, etc. blogs)

Reflect 2c. Analyze Online Cases (problems, solutions, etc.) ...MM

Reflect 2d. Workplace and Field Reflections...MM

Reflect 2e. Videos on Book Websites (e.g., Brain Rules, John Medina)

Reflect 2f. Topical Lectures from Famous People (e.g., Big Think; Academic Earth)

Reflect 2g. Life of a Scientist or Famous People Website (e.g., Brian J Ford, independent scientist)

<http://www.youtube.com/user/bellymonitor#p/u/a/vi/1JLhGmApqKjqr>

3. Visual Learners

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

Display 3a. Pubcasts! (videos of scientific papers and science)

NSF, the Public Library of Science, and the San Diego Supercomputing Center created a YouTube for scientists to help demystify important research papers. See SciVee.

Display 3b. Anchored Instruction Discussions (YouTube, CNN, BBC, TeacherTube, CurrentTV, Howcast, For a TV, Clip Chef, etc.)

Display 3c. Videos of the Periodic Table

Display 3d. Concept Mapping and Timeline Tools (VUE, Bubbl.us, Cmap, Freemind, Gliffy, Mindmeister, or Mindomo)

Display 3e. Timeline Tools (e.g., SMILILE from MIT, Learning Tools from UBC)

Display 3f. Online Portals of Rich Data United Nations Opens World Digital Library, Turning the Pages from the British Library, etc. (history, culture, literature, writing, art, etc.)

Display 3g. Weather-Related Visuals and Animations

Display 3h. Online History Portals and Resources (Civil Rights Digital Library and Amistad)

The screenshot shows the Civil Rights Digital Library website. It features a navigation menu on the left with categories like 'Home', 'About', 'Search', and 'Help'. The main content area includes a 'Welcome to the Civil Rights Digital Library' section with a photo of a man and a 'AMISTAD' section with a photo of a group of people. The website is designed with a clean, professional layout using a mix of red, green, and white colors.

Display 3i. Medical Animations and Videos (e.g., YouTube, CNN, BBC)

This display is a collage of various medical content. It includes a 3D anatomical model of a human body, a close-up of a surgical procedure, a fetus in a womb, and a hand holding a surgical instrument. The images are arranged in a grid-like fashion, showcasing different types of medical visualizations.

Display 3j. Download and Use Online 3D Sketches (Art, Drawing, Architecture, etc. Google SketchUp)

The screenshot shows the Google 3D Warehouse website. It features a search bar at the top and a main area displaying a 3D model of a bridge. The website includes navigation options like 'Image' and 'Map', and a 'Download Model' button. The interface is clean and user-friendly, with a focus on providing easy access to 3D models.

Display 3k. Virtual History (e.g., Archaeology from Brown University)

This display is a collage of virtual history content. It includes a classical building, a person in a historical setting, and a virtual archaeological site. The images are arranged in a grid-like fashion, showcasing different types of virtual history content.

Display 3L. Science/Medicine in Action (e.g., Foldit for Biology)

(puzzles that explain the shape that proteins fold into; the results can have huge impacts on scientific discoveries needed for Alzheimer's, AIDS, Cancer, etc.) <http://fold.it/portal/>
https://www.youtube.com/watch?v=sw6ic_w0YxI (visual excerpt from interview below: 1:23 minutes)
<http://www.youtube.com/watch?v=8ZLXwOgmsU8&feature=Player> (Stanford Project interview: 5 minutes)

The screenshot shows the Foldit website, which is dedicated to protein folding puzzles. It features a grid of puzzle thumbnails, each with a unique protein structure. The website includes a search bar and a 'Fold' button. The interface is designed to be engaging and interactive, encouraging users to solve complex protein folding puzzles.

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.

The diagram illustrates the learning cycle with four stages: 'Doing' (yellow arrow), 'Understanding' (blue arrow), 'Applying' (red arrow), and 'Evaluating' (green arrow). To the right of the diagram are several images showing tactile/kinesthetic learning activities, including a person in a white lab coat, a person in a white dress, and a person in a white shirt.

Do 4a. Wikibooks: International Collaboration (Web 2.0 and Emerging Learning Technologies (The WELT)) ...MM

Web 2.0 and Emerging Learning Technologies
From Wikibooks - the open-content textbooks collection

The image shows a screenshot of a Wikibooks page. On the left is a logo for 'Web 2.0 and Emerging Learning Technologies' featuring a play button, a Wi-Fi symbol, an '@' symbol, and a document icon. The main content area has a 'Table of Contents' with sections like 'Web 2.0 and Emerging Learning Technologies', 'Part I: Foundations', and 'Part II: Emerging Learning Technologies'. There is also a 'Projects in Progress' section.

Do 4b. Syllabus, Glossary, etc. in wiki: Students sign up for tasks (Ron Owston, York University) ...MM

The image shows a screenshot of a wiki page titled 'ISSUES IN DIGITAL TECHNOLOGY IN EDUCATION'. It includes a 'Table of Contents' with sections like 'Introduction', 'The Learning Technology Revolution', and 'Digital Technology in Education'. A photo of Ron Owston is visible on the right side of the page.

Do 4c. Survey Research and Market Analysis (e.g., Mister Poll, MicroPoll, Zoomerang, SurveyShare)

The image is a collage of three different survey tool interfaces. On the left is 'misterpoll.com' with a registration form. In the middle is 'micropoll.com' with a 'Create Your Web Poll - Free' button. On the right is 'Zoomerang.com' with a 'Create Your Survey' button.

Do 4d. Online Warm-ups Activities Just-In-Time-Teaching (JiTT)

The image features a large yellow graphic with the text 'JUST-IN-TIME TEACHING' in blue. To the right is a black and white photo of a man looking at a document. Below the graphic is a map of the United States with several states highlighted in red.

Do 4e. Podcast Productions and Virtual Performances for students of pronunciation class (e.g., Tzu-Su Chen, Taiwan)

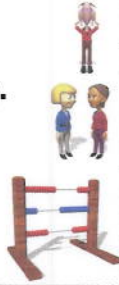
The image is a collage of various media related to podcasting and virtual performances. It includes several podcast covers, such as 'podomatic' and 'TWELEVE NIGHT LIVE PLAY'. There are also screenshots of virtual environments and video recordings.

Do 4f. International and Global Education and Competitions (e.g., Global Game Jams, online role play, Global Videoconferencing)

The image is a collage of photos showing various educational activities. It includes photos of people playing board games at a 'Global Game Jam', people in a virtual environment, and people participating in videoconferencing sessions.

Poll #3: How many ideas did you get from the second part of this talk?

- a. None—you are an idiot.
- b. 1 (and it is a lonely #).
- c. 2 (it can be as bad as one).
- d. 3-5
- e. 6-10
- f. Higher than I can count!



**Try the R2D2 Method!
Try TEC-VARIETY!
And hope for some magic!!!**

Sample papers :
<http://www.publicationshare.com/>
Archived talks:
<http://www.trainingshare.com/>

