



## Blended Learning A to Z: Myths, Models, and Moments of Magic

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## What I will discuss...

1. Definitions of blended learning
2. Advantages and disadvantages
3. Models of blended learning
4. Examples of blended learning
5. Implications for blended learning



## Part 1. Handbook of Blended Learning (HOBLe)


- University of Phoenix, Capella University, JIU, National University
- Microsoft, IBM, Sun, Cisco, Macromedia, Oracle, WebCT
- The World Bank, the DOD in USA
- In Canada: York University and the University of Calgary
- Other universities in Japan, Korea, Malaysia, Singapore, China, NZ, South Africa, Israel, Mexico, Australia, Wales, England, USA




## Blended Learning: Two Parts

1. Models and Frameworks
2. Problems and Solutions (i.e., examples)

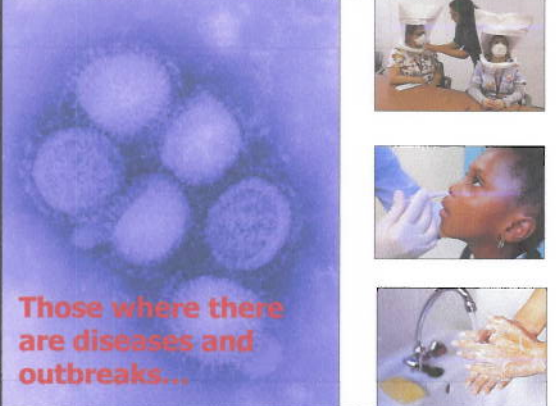
**(When do blends make sense?)**



## Snowmegeddon, DC winter of 2010



## Those where there are diseases and outbreaks...



## Blended Learning Defined and Explained

**Myth #1: People will know what I am saying when I say "blended learning."**  
**Myth #2: Blended is the same as "hybrid."**  
**The Sloan Consortium**

Proportion of content delivered online	Type of Course	Typical Description
0%	Traditional	Course with no online technology used - content is delivered in writing or orally.
1 to 29%	Web facilitated	Course which uses web-based technology to facilitate what is essentially a face-to-face course. Might use Blackboard or WebCT to post the syllabus and assignments, for example.
30 to 79%	Blended/Hybrid	Course that is a blend of the online and face-to-face course. Substantial proportion of the content is delivered online, typically uses online discussions, typically has some face-to-face meetings
80+%	Online	A course where the vast bulk of the content is delivered online. Typically has no face-to-face meetings.

**Myth #3: Knowing "how much" to blend is vital.**  
**Range of Blends in Pew Cases**

**KEY**

- Technology enhanced
- ▲ Reduced F2F contact time
- Entirely Distributed
- ▲ Optional F2F sessions

Source: Graham, C. R., & Allen, S. (2005). Blended learning: An emerging trend in education. In C. Howard & J. V. Boettcher & L. Justice & K. D. Schenk & P. L. Rogers & G. A. Berg (Eds.), *Encyclopedia of Distance Learning* (pp. 172-179). Hershey, PA: Idea Group Inc.

**Myths #4: Blended learning is easy to define.**  
**Myth #5: Blended learning is hard to define.**  
**Blending Online and F2F Instruction**

- "Blended learning refers to events that combine aspects of online and face-to-face instruction" (Rooney, 2003, p. 26; Ward & LaBranche, 2003, p. 22)

	Traditional F2F	Mixed Reality	Computer-mediated
Space	Live (physical F2F)		Virtual (distributed)
Time	Live Synchronous (very short lag time)		Asynchronous (long lag time)
Fidelity	High (rich all senses)	Medium (e.g., audio only)	Low (text only)
Humanness	High Human / No Machine		No Human / High Machine

**(Graham, 2006)**

### Historical Emergence of Fully Online and Blended (Graham, 2006)

**Past** (mostly separate systems)

**Present** (increasing convergence of blended systems)

**Future** (convergence of blended systems)

**Myth #6: Blended learning works everywhere.**  
**Where is Blended Beneficial?**

- Large Classes (spanish, intro psych, algebra, elementary statistics, biology)
- Classes with working students
- Students spread over a distance
- Classes with certification
- Classes with need for standardization
- New requirements for a profession
- Writing intensive classes
- Theory classes



**Examples of Blended Learning, Margaret Driscoll, e-Learning, March 2002**

- Put assessments/reviews online
- Follow-up in community of practice
- Put reference materials on Web
- Deliver pre-work online
- Provide office hours online
- Use mentoring/coaching tool
- Access experts live online
- Use e-mail and instant messaging



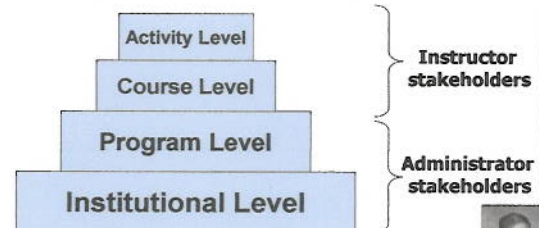
**Myth #7: People learn more in face-to-face settings than blended or fully online ones.**  
**Fully Online and Blended Learning Advantages**

1. Increased Learning (better papers, higher scores)
2. More effective pedagogy and interaction
3. Course access at one's convenience and flexible completion (e.g., multiple ways to meet course objectives)
4. Reduction in physical class or space needs, commuting, parking
5. Increased opportunities for human interaction, communication, & contact among students
6. Introverts participate more

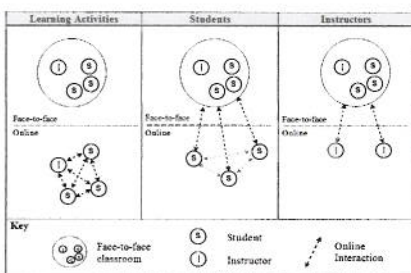


**Myth #8: Faculty can have a logical discussion with administrators about blended learning.**  
**Models of Blending**

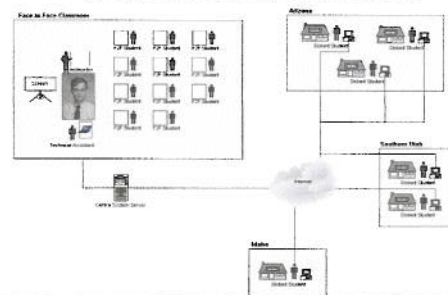
Blending occurs at the following four levels:

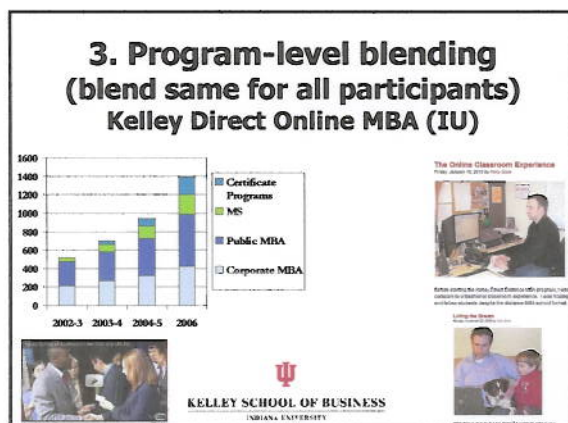


**1. Activity- and Course-Level Blends**  
 Blended learning systems: Definitions and directions (Osguthorpe & Graham, 2003)



**2. Course-Level Blend: Using CMS to blend distance and F2F learners**  
 (Rogers, Graham, et al., 2003)





### Categories of Blends

<b>A. Enabling Blends</b>	Enabling blends primarily focus on addressing issues of access and convenience; provide similar learning experiences.
<b>B. Enhancing Blends</b>	Enhancing blends allow for incremental changes to the pedagogy; additional or supplementary online resources.
<b>C. Transforming Blends</b>	Transforming blends are blends that allow for a radical transformation of the pedagogy and learner construction of knowledge.

### Myth #9: There is a best model of blended.

**AMA Special Report, Effectively Implementing a Blended Learning Approach**  
(Steven Shaw & Nicholas Igneri, 2006)

AMA at Work: lifelong learning, lifelong growth

Source: American Management Association, AMA at Work

### 4. Institutional-level Blending

(Brian Linquist, University of Phoenix)

- Completely online courses
- Residential F2F courses
- Blended Courses
  - **Local Model** = 5 week courses with first and last week F2F
  - **Distance Model** = 5 week courses with half first and half last week F2F (the last meeting of one course is coordinated to be back-to-back with the first meeting of the next 5 week course)

### The IBM Four Tier Learning Blended Model.

Blending Learning for Business Impact – IBM’s case for learning success. Nancy Lewis, VP, & Peter Orton, IBM

1. Performance Support & Best Practice Reference  
QuickNotes, WebCasts, Web Books, Best Practice Repositories, Wiki Pages & Objects

2. Interactive Learning - Simulation  
CaseCases, Simulations, Scenario based problem solving

3. Collaborative Learning  
Live Virtual & Asynchronous programs, e-Labs, Communities of Interest, Practice and Purpose

4. Learning Labs  
Learning Labs, Classrooms, Mentoring, Role Playing, Coaching

### Myth #10: If you read the enough research you will be able to know the impact of blended learning.

- 1. Improved Pedagogy**
  - Interactive vs. Transmissive environments
  - Authenticity integration into work
- 2. Increased Access/Flexibility**
  - Reduced seat time courses – UCF M courses
- 3. Increased Cost Effectiveness**
  - Corporate: ROI – IBM 47:1, Avaya, Microsoft
  - Higher Ed: PEW Grants

**Part II: 13 Teaching Problems and 25 Blended Learning Solutions**



**Problem Situation #1: Brief FTF Experiences**

- Face-to-face (FTF) experiences are brief, one-week journeys. Need to need to build self-confidence, create social supports, teams, camaraderie, etc.

**Ok, Million Dollar Question: What can you do in 1 week?**



**Blended Solution #1+.**

**Sample Activities for Brief Meetings**

1. Assign web buddies, email pals, critical friends based on interests, confidence, location, etc.
2. Ice breakers—paired introductions, corners.
3. Solve case in team competitions with awards.
4. Test technology in a lab.
5. Assign teams and exchange info for small teams using text messaging.
6. Library (digital and physical) scavenger hunt.
7. Do a podcast documenting the meeting.
8. Have everyone create a blog on the experience.
9. Open an e-portfolio for each student
10. Brainstorm how might use technology in program.

**Problem Situation #2: Student Absenteeism**

- Students miss class to attend a conference or event or a personal problem arises. Or students asks to watch the class a second time.






**Blended Solution #2. Post Courses or Course Components in Oncourse, YouTube, or iTunes (e.g., Berkeley)**



### Problem Situation #3: Facilities and Time

- Limited facilities or rooms for teaching. Or students cannot make it to class every week or are working full time.

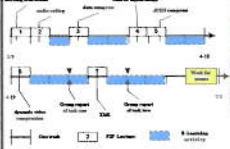




### Blended Solution #3. Stream or Webcast Lectures (Tegrity, Echo360, Mediasite, etc.)








### Blended Solution #4. Alternating F2F and Online Classes

- Freshman English at BYU: Students are required to meet F2F once a week instead of three times a week. Same in a multimedia class at Beijing Normal University (BNU)

### Problem Situation #4: Web Supplemental Activities

- Fail to finish class discussion or other activity in time. Or desire to integrate the Web more in your face-to-face instruction or outside of class. Want to provide course resources and activities for students to explore.

### Blended Solution #5. Supplemental Lectures (e.g., Academic Earth)

Free online video courses from leading universities.



### Blended Solution #6. Supplemental Shared Online videos (e.g., YouTube)



### Blended Solution #7. Online Research Channels (Research Channel, UChannel)

### Blended Solution #8. Online Portal Explorations

### Blended Solution #9. Open Source Photography (e.g., Flickr, Everstockphoto.com; courses on Winter Olympics, photography, motivation, geography, culture, meteorology, physics, etc)

### Blended Solution #10. Open Ed Resources & OpenCourseWare (e.g., MIT OpenCourseWare)

### Problem Situation #5: Student Learning Control

- Want to give students more control and ownership over their own learning. Want to foster student generative learning or being authors of their own knowledge.

### Blended Solution #11. Cross-Institutional Wikibook Project (e.g., IU and the University of Houston)

### Problem Situation #6: Preparedness for the Profession

- Students are not prepared for their professions when they graduate. Or want to better apprentice students into their chosen profession. What to provide opportunities to work with practitioners, experts, mentors, and coaches in authentic learning environment.

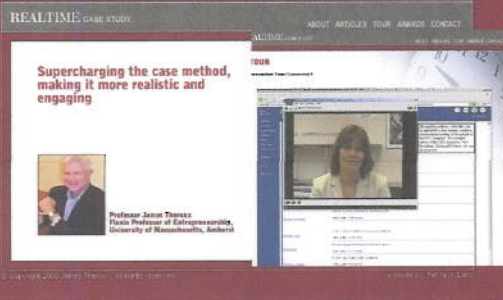


**THE REAL WORLD**

### Blended Solution #12. Online Professional Development (e.g., STARLINK, [www.starlinktraining.org](http://www.starlinktraining.org))



### Blended Solution #13. Real World Problems (PBL online): Real-time Cases

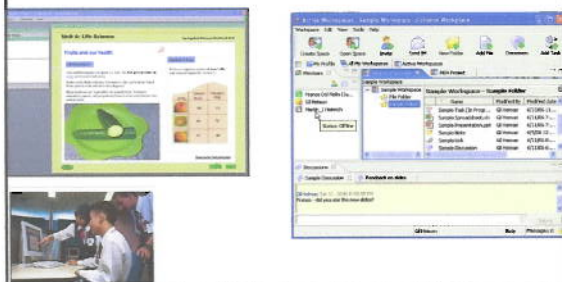


### Problem Situation #7: Collaborative Skill Deficit

- Students need collaboration and teamwork skills. Want to build virtual teaming skills in class activities or work with learners in other locales or situations.



### Blended Solution #14. Working In Virtual Teams (e.g., Collanos, SharePoint, Google Docs)



### Blended Solution #15. Online Role Play (Tulane University, Exercise for Renewable Energy, Freeman Sch. of Business, roles include power traders, electric utility analyst, independent power producers & utility dispatchers)





**Problem Situation #8: Student Reflections and Connections**

- Students are not connecting content. They are just turning pages and going through the motions. Minimal student reflection is seen.



**Blended Solution #16. Expert Video Reflections and Scaffolds online (forensic accounting, psychiatry, counseling, etc.)**



**Blended Solution #17. Watch or Listen to Online Conferences**



**Problem Situation #9: Learning Community**

- There is a preference for creating an online learning community in order to increase student learning and retention in the program. Such a community might be in a single class or across a series of classes.



**Blended Solution #18. Create an Online Community (e.g., in Ning, Google Groups, or Yahoo Groups)**



**Blended Solution #19. Accessing mobile Experts (e.g., online happiness network)**



**Problem Situation #10:  
Need to Visualize Content**

- Content is highly visual in nature and difficult to simply discuss in class. Or students have a preference for visual learning.



**Blended Solution #20. Simulations and Virtual Worlds Online (e.g., OpenSimulator [http://opensimulator.org/wiki/Main\\_Page](http://opensimulator.org/wiki/Main_Page))**



**Problem Situation #11:  
Need for Hands-On Learning**

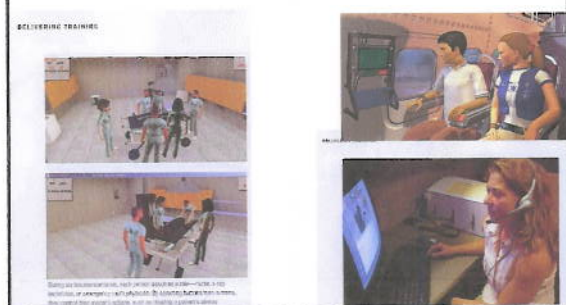
- To learn the material requires that students try it out in a lab or real-world situation. Or students prefer hands-on learning activities.



**Blended Solution #21. Scenario Learning (Option 6, Bloomington, IN)**



**Blended Solution #22.  
Educational Simulations**



**Blended Solution #23. Online Experiments (e.g., psychology)**

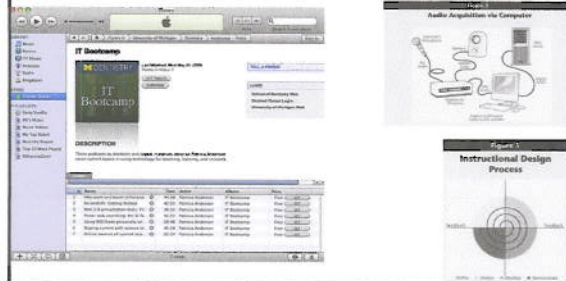


### Problem Situation #12: Preference for Auditory Learning

- The content is heavily verbal or words. Or students have a preference to listen to a lecture or hear an instructor deliver a lecture.



### Blended Solution #24. Podcasting Medical Lectures (School of Dentistry, University of Michigan)

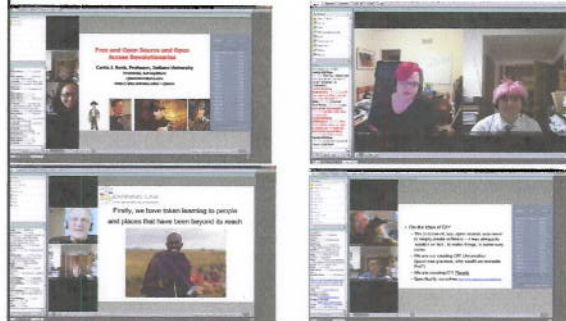


### Problem Situation #13: Lack of Instructor Presence

- Students need to see or hear from the instructor. They need a sense that the instructor is supporting their learning. They prefer face-to-face but are willing to try online.



### Blended Solution #25. Archive Synchronous Session



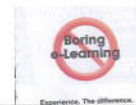
### Trends, Implications, and Challenges for Blended Learning

1. Faculty and students are more mobile.
2. Students more choices.
3. Student expectations rise.
4. Greater self-determined learning.
5. More corporate university partnerships.
6. Courses increasingly modular.
7. Less predefined schedules.
8. When teaching less clear; when learning less clear.




### Again, this talk covered...

1. Definitions of blended learning
2. Advantages and disadvantages
3. Models of blended learning
4. Examples of blended learning
5. Predictions for blended learning
6. Challenges for blended learning



**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.



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




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



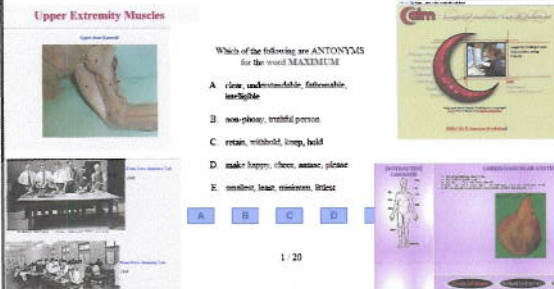
**The TEC-VARIETY Model for Online Motivation and Retention**

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. Tone/Climate: A. Video Course Intros**  
 (examples from Northern Virginia Community College and Indiana University KD (online MBA) program)  
 Yun Yun Chow, Open U Malaysia, Making Art Lessons Come Alive with Web 2.0  
<http://www.youtube.com/watch?v=B09rqJD1Gxo>



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



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

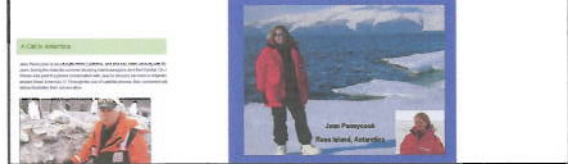


**3. Curiosity, Fun: A. Online Games**  
 (e.g., public health; the POD game  
 Points-of-Dispensing (PODs))



**4. Variety, Novelty:**  
**A. Expert Chats**

1. Agree to a weekly chat time.
2. Bring in expert for discussion or post discussion topics or issues.
3. Summarize or debrief on chat discussion.



**5. Autonomy, Choice: A. Online Literature Search**  
 (Class Google Jockeys)  
 (links to text, soundtracks, video clips, etc.)



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



**5. Autonomy, Choice: B. Explore supplemental Health Resources**  
 (portals, referatories, & repositories)



**6. Relevance, Meaningfulness:**  
**A. Online Simulations and Demonstrations**  
 (e.g., self study in anatomy or chemistry, virtual autopsy, dissection, etc.)

The image shows two screenshots of online anatomy resources. The top screenshot is a virtual dissection interface with a 3D model of a human torso and various anatomical labels. The bottom screenshot shows a virtual autopsy simulation with a 3D model of a human body and various anatomical labels.

**6. Relevance, Meaningfulness:**  
**B. Shared Online Video (e.g., TED: technology, entertainment and design)**

The image shows a screenshot of a TED talk video player. The video shows a speaker on stage presenting a 3D model of a hand. The TED logo is visible in the bottom left corner.

**6. Relevance, Meaningfulness:**  
**C. Virtual Tours and Timelines**  
 (i.e., HyperHistory; <http://simile.mit.edu/timeline/>)

The image shows two screenshots. The left screenshot is a virtual tour of Oxford, featuring a 3D model of the city and various landmarks. The right screenshot is a timeline visualization showing a sequence of events and dates.

**7. Interactive, Collaborative:**  
**A. Collaborative Documents (Google Docs) and Bookmarking (Diigo, Delicious)**

The image shows two screenshots. The left screenshot is a Google Docs interface showing a document being edited. The right screenshot is a Diigo interface showing a list of bookmarks and a search bar.

**7. Interactive, Collaborative:**  
**B. Google Docs, Ning, Google Groups, MSN Groups, Yahoo Groups, Diigo, etc.**

The image shows two screenshots of social networking and collaboration platforms. The left screenshot is a Ning page showing a community page with various posts and images. The right screenshot is a Google Groups page showing a search results for 'healthcare'.

**8. Engagement, Effort:**  
**A. Synchronous Learning**

The image shows a screenshot of a synchronous learning session interface. It features a live session window on the left, a discussion board on the right, and a central area for multimodal interactions. The text 'Multimodal Interactions' is overlaid on the image.

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

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

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

Students to protest human body exhibit

Maggie Yoerra  
 Issue date: 3/5/05 Section: News

**9. Tension, Challenge, etc.:**  
**B. Electronic Guests & Mentoring**  
 (Simon Fraser University News:  
<http://www.sfu.ca/mediapr/news/2001/Sept8/hightech.html>)

**9. Tension, Challenge, etc.:**  
**C. Controversial Science** (e.g., *Ida* (a transitional species) 47-Million-Year-Old *Darwinius Masillae* Fossil the Missing Link? (wowOwow, May 20, 2009)

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

<http://www.youtube.com/watch?v=xwS1ryPzsQ>  
[http://www.youtube.com/watch?v=x3FJy4Pn\\_E](http://www.youtube.com/watch?v=x3FJy4Pn_E)  
<http://www.youtube.com/watch?v=eD1awpaSuP0>

### TEC-VARIETY Model for Online Motivation and Retention

**Tone/Climate**  
**Encouragement, Feedback**  
**Curiosity**

**Variety**  
**Autonomy**  
**Relevance**  
**Interactive**  
**Engagement**  
**Tension**  
**Yields Products**



### Poll #1: How many ideas did you get so far?

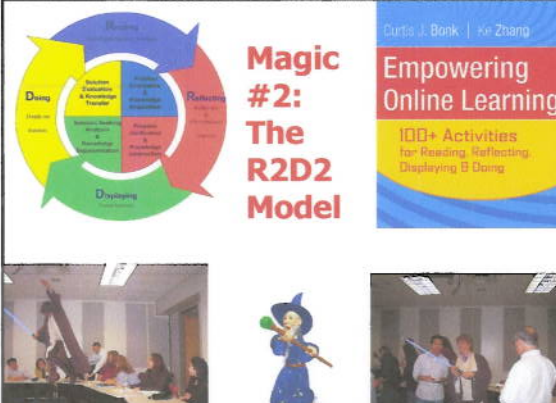
- 0 if I am lucky.
- Just 1.
- 2, yes, 2...just 2!
- Do I hear 3? 3!!!!
- 4-5.
- 5-10.
- More than 10.



### Magic #2: The R2D2 Model


Empowering Online Learning

100+ Activities for Reading, Reflecting, Displaying & Doing




### 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. Publishing in 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 Show Reflections

- Students listen to a podcast.
- Reflect on what they learned in an online forum.
- Students comment on each other's post.

### Read 1d. Podcast Research Reviews

### 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. Analyze Online Cases (problems, solutions, etc.)

### Reflect 2b. Workplace and Field Reflections

1. Instructor provides reflection or prompt for job related or field observations
2. If a large section class, divide into teams
3. Reflect on job setting or observe in field
4. Record notes on Web and reflect on concepts from chapter
5. Respond to peers
6. Instructor summarizes posts

**Reflect 2c. Free OpenCourseWare of Open Educational Resources (e.g., watch or Listen to Online Courses or Programs on Disaster Preparedness and other areas)**

The screenshot shows the website for the Center for Persons with Disabilities. The main heading is "Online Courses Address Emergency and Disaster Preparedness". Below this, there is a list of courses and a section for "On-line Courses for Independent Living Center Staff I". The website is blue and white with various icons and text.

**3. Visual Learners**

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

The diagram is a circular flowchart with four quadrants: 'Visual' (top), 'Auditory' (right), 'Reading/Writing' (bottom), and 'Kinesthetic' (left). Arrows connect the quadrants in a clockwise direction. To the right of the diagram is a globe and a photograph of a person wearing a space helmet.

**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

The screenshot shows the SciVee website. It features a video player with a woman speaking, and a list of scientific papers on the right side of the page. The website has a green and white color scheme.

**Display 3b. Anchored Instruction Discussions (YouTube, CNN, BBC, TeacherTube, CurrentTV)**

The collage consists of several video thumbnails from different sources. It includes a YouTube video thumbnail, a CNN news anchor, and other video content. The thumbnails are arranged in a grid-like fashion.

**Display 3c. World Trends and Indices (e.g. Worldmapper)**

The screenshot shows the Worldmapper website. It features a world map with data points and text about scientific research trends. The website has a blue and white color scheme.

**Display 3d. Medical Animations and Videos (find anchoring event: YouTube, CNN, BBC, TeacherTube, CurrentTV)**

The collage consists of several medical animation and video thumbnails. It includes a YouTube video thumbnail, a 3D human anatomy model, and other medical content. The thumbnails are arranged in a grid-like fashion.

### Display 3e. Videos of the Periodic Table

### Display 3f. Human Embryology Animations (Valerie O'Loughlin, Indiana University)

### Display 3g. Map Mash-ups

### Display 3h. Vodcast for Medical Training

### 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. Syllabus, Glossary, etc. in wiki: Students sign up for tasks (Ron Owston, York University)

### Do 4b. Medical Community Wikis

**AskDrWiki**  
A Medical Wiki with the goal of creating a collection online necessary for physicians, nurses, and medical students.

**Medical Specialties:** Cardiology | Pathology | Pediatrics | Radiology | Dermatology | Psychiatry | Pharmacology | Toxicology | Rheumatology | Vascular Medicine | Women's Health | Musculoskeletal and Connective Tissue

**Surgical Specialties:** Cardiac/Thoracic Surgery | General Surgery | Pathology | Plastic Surgery | Otolaryngology | Vascular Surgery | Radiology

**Medical School Subjects:** Anatomy | Pathology | Physiology | Biochemistry | Physical Diagnosis | Microbiology and Immunology | Epidemiology | Biostatistics | Evidence-Based Medicine | Pharmacology

### Do 4c. Survey Research and Market Analysis

(e.g., Mister Poll, MicroPoll, Zoomerang, SurveyShare)

**SurveyShare.com**  
The best survey software for fast, easy feedback.

**mister poll**  
Create Your Web Poll - Free

**micropoll**  
Create Your Web Poll - Free

**Zoomerang**  
Online Surveys by Zoomerang  
The best survey software for fast, easy feedback.

### Do 4d. Medical Simulations in YouTube and Second Life

**University of Kansas Medical Center's Use of Second Life**

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

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

### 99 Seconds Stop and Share: Top Three Things you can use!

### Questions and Comments

**Note: Bonk papers and talks at:**  
<http://www.publicationshare.com/>  
<http://www.trainingshare.com/>