

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

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Who Needs Blended and Online Learning?

Guess Who?



Athletes and Performers

Going the Distance, Elizabeth Millard, University Business, March 2011



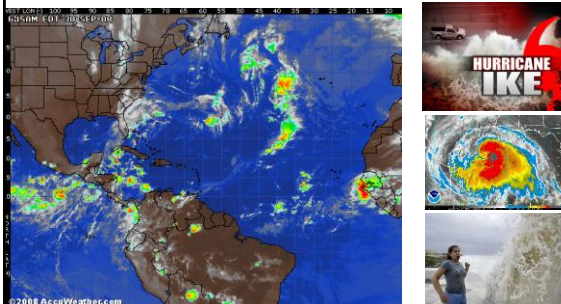
When making decisions about athletic training decisions, athletes should make sure and consult with their coach. For more information on this topic, visit www.athletesandperformers.com.



Those where there are diseases and outbreaks...



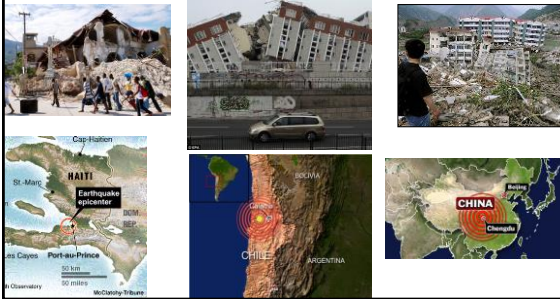
Those in hurricanes (e.g., Katrina, Ike, etc.)!



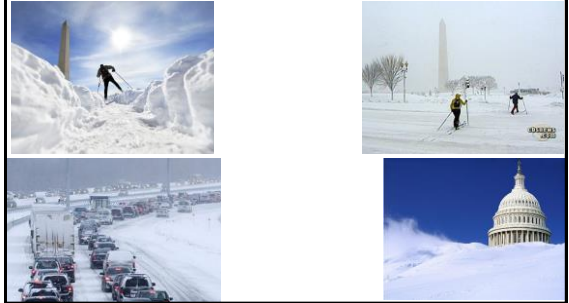
Those effected by volcanos, April 15-16, 2010...



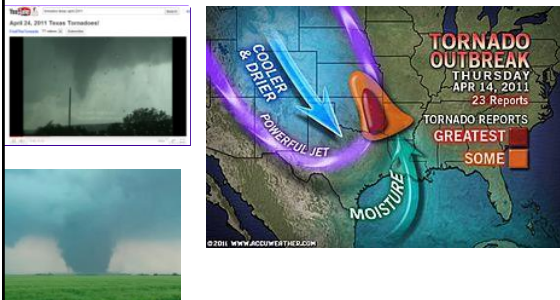
Those in earthquakes (e.g., Chile, China, Haiti)...



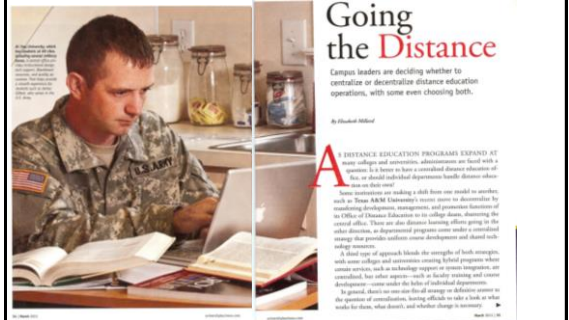
Those in Snowmegeddon, DC winter of 2010



Those avoiding going outside during a tornado (April 24, 2011)



Those in the Military! Going the Distance, Elizabeth Millard, University Business, March 2011



ARMY MILITARY

The Military uses advanced modeling and simulations to provide realistic training environments that allow servicemembers to practice skills and decision making in situations that would be costly or dangerous to emulate in the real world. The Military often uses realistic computer-generated battlefield models and other forms of simulations to support joint-force training. Such models can be used to practice the movement or coordination of forces, for example.

Military Training

Joint Combat Training **Infantry Training**

PRACTICAL EXERCISES

In many career fields, practical exercises provide valuable hands-on experience that enables the students to gain proficiency and confidence performing a particular set of skills. Practical exercises are an important part of many training programs, especially those involving scientific, technical, mechanical or maintenance-and-repair skills.

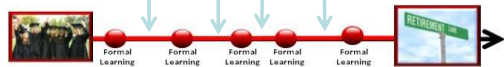
ROLE PLAYING

The Military uses role-playing exercises to teach decision making in complex situations involving people representing a variety of positions. In these exercises, students adopt a specific assigned role and other actors/participants may be brought in to represent different roles, personalities, motivations and backgrounds.

Site Electronic Training **Environmental Health and Safety Training** **Medic Training** **Combat Training**

24/7 Online Learning Support

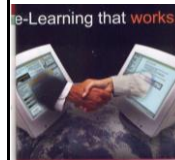
DAU provides learning and job support assets needed to "Fill the Gaps" supporting learning "On the Job"



Reflection Back 10 Years



Blended Learning in the Army



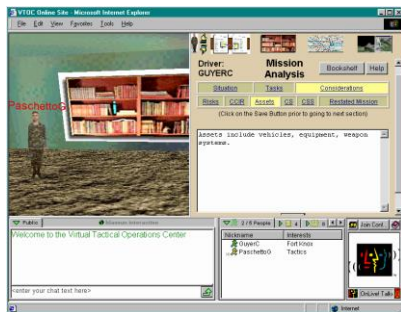
Virtual Tactical Operations Center (VTOC)



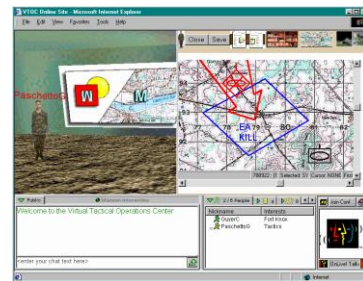
Collaborative Online Writing: Peer-to-Peer Document Collaboration



Document Sharing in the VTOC



Maps in the VTOC



Move Back to Today

Self-Structured Learning

Department of the Army, United States of America (2011, January 15). The U.S. Army Learning Concept for 2015. TRADOC Pam 525-8-2.
<http://www.tradoc.army.mil/tubs/pams/tp525-8-2.pdf> (72 pages).
 Video (Army Learning Concept 2015): <http://www.youtube.com/watch?v=KD9NGAV3-3k> (4:26 minutes)

Some Characteristics of a Learner-Centric 2015 Learning Environment

- Context-based, facilitated, problem-solving team exercises
- Blended Learning (combination of self-structured and instructor-led)
- Adapted Learning, Intelligent Tutors
- Mobile Learning, all Modules
- Assessments, Analytics (Pre & Post-test)
- Tracking & Feedback (Personalized)
- Enables Career-Long Learning - Supports a Learning Army

Figure 3-3. Learner-centric 2015 learning environment

Video (Army Learning Concept 2015) Technology in the Classroom
<http://www.youtube.com/watch?v=KD9NGAV3-3k> (4:26 minutes)

Video (Web-based Land Navigation Trainer Tutorial)
 Land Nav for the Masses, Lauren Biron, Defense News, June 19, 2013
<http://www.youtube.com/watch?v=8-WY9nazoGU> (6:16 minutes)
<http://www.defensenews.com/article/20130619/TSI/306190025/Land-Nav-Masses>

What I will discuss...

1. Definitions of blended learning
2. Myths of blended learning
3. Models of blended learning
4. Examples of blended learning

Myth #1: If you read the enough research you will be able to know the impact of blended learning.

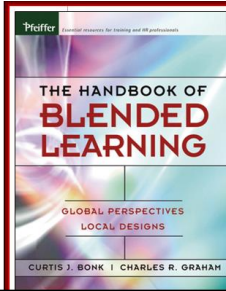
1. Improved Pedagogy
 - More interactive instead of transmissive
 - Authentic, real world, etc.
2. Increased Access/Flexibility
3. Increased Cost Effectiveness


Does Your Blended Learning Recipe Work Better on Paper?

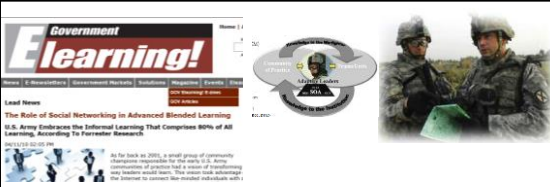
Recent Reports on Blended

The Handbook of Blended Learning: Global Perspectives, Local Designs (Berk & Graham)

<http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=AD495731>
<http://www.dtic.mil/cgi-bin/GetTRDoc?AD=AD495731>




 U.S. Army Research Institute for the Behavioral and Social Sciences
 Research Report 1893
 Training Digital Skills in Distributed Classroom Environments: A Blended Learning Approach
 Jennifer S. Tanker
 U.S. Army Research Institute
 David H. Middleton, Bruce C. Lefrancis, Christopher R. Simons, and Aron P. Furtak
 Northrup Grumman Corporation
 Amanda N. Gesselman
 Colorado State University
 Consortium Research Fellows Program
 March 2010
Approved for public release; distribution is unlimited.

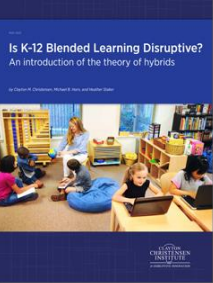


A new approach, like advanced blended learning (ABL), is needed that allows for rapidly creating current and relevant content and engaging students in courses with learners in units...deliberately and systematically adds the informal, experiential learning that is critical to improved human performance. The informal learning...complements, facilitates and reinforces formal. Second, advanced blended learning uses tools like professional forums and other Web 2.0 tools to integrate every aspect of the work and learning processes.

Is K-12 Blended Learning Disruptive

Heather Staker and Michael B. Horn, Innsight Institute, May 2013

<http://www.projectred.org/uploads/The-Rise-of-K-12-Blended-Learning.pdf>



About the authors

MICHAEL B. HORN is an educator and Executive Director of Education Policy at Innosight Institute. He led national implementation of disruptive innovation in public schools in the United States. He is currently an executive fellow at the Center for Innovation and Entrepreneurship at Stanford University.

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THE RISE OF K-12 BLENDED LEARNING

August 12, 2013 Blended Learning Improves Test Scores, Information Week

<http://www.purdue.edu/news/stories-03/13/130812>
<http://www.sacredheart.edu/>
<http://www.informationweek.net/algabra-effectiveness.html>



Blended Learning Improves Test Scores: Study

Kelly Sheridan

Ten Strategies to Improve Blended Course Design

Faculty Focus, July 26, 2013, Ike Shibley

<http://www.facultyfocus.com/articles/faculty-focus/ten-strategies-to-improve-blended-course-design/>



Ten Strategies to Improve Blended Course Design

Blended learning offers flexibility, accessibility, and a way to maximize the benefits of face-to-face interaction between instructor and student.

These courses empower, leverage often-great teaching opportunities in education and schools, that it is not enough simply to add technology to traditional courses online. New tools require new tactics, new assignments, and new ways of teaching.

Education that can be so engaging and motivating with increased learning opportunities and flexibility along with improved student success. Institutions who embrace these opportunities will discover that blended learning can revolutionize the world of education.


These are just a few of the ways that you can use blended learning. You can start with the ten strategies listed above. **Ten Strategies to Improve Blended Course Design**. This 50-page white paper will give you the insights you need to make the most of your blended courses. **Download**

1. A methodology for designing blended courses

- Make for creating opportunities to learn in and out of the classroom
- Methods for engaging students in learning
- Methods for ensuring both high- and low-achieving opportunities
- Methods for ensuring engagement
- Opportunities to use technology to increase the value of face-to-face learning

ADDIE: The Classic [early 1970's] ADDIE: Analysis, Design, Development, Implementation, and Evaluation Online Learning Insights, May 28, 2013

http://onlinelearninginsights.wordpress.com/2013/05/28/addie-the-classic-instructional-design-model-for-online-courses/?amp;_track=track_views&utm_source=facebook&utm_medium=social&utm_campaign=2013-05-28-addie-the-classic-instructional-design-model-for-online-courses

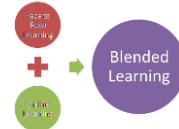


Blended Learning Defined and Explained



Myths #2: Blended learning is easy to define.
Myth #3: Blended learning is hard to define.
Blending Online and F2F Instruction

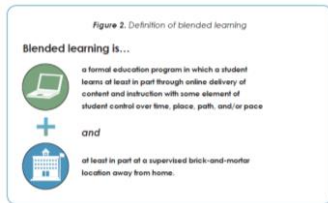
“Blended learning refers to events that combine aspects of online and face-to-face instruction” (Rooney, 2003, p. 26; Ward & LaBranche, 2003, p. 22)



Classifying K-12 Blended Learning Heather Staker and Michael B. Horn, May 2012

<http://www.projectred.org/uploads/The-Rise-of-K-12-Blended-Learning.pdf>

“Blended learning is any time a student learns at least in part at a supervised brick-and-mortar location away from home *and at least in part* through online delivery with some element of student control over time, place, path, and/or pace.”



Classifying K-12 Blended Learning Heather Staker and Michael B. Horn, May 2012

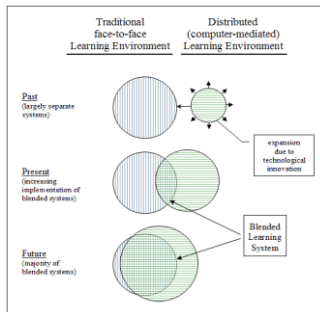
<http://www.projectred.org/uploads/The-Rise-of-K-12-Blended-Learning.pdf>

One critical part of the definition of blended learning is that it involves “some element of student control of time, place, path, and/or pace.” Digital Learning Now! describes each dimension:

- **Time:** Learning is no longer restricted to the school day or the school year.
- **Place:** Learning is no longer restricted to the walls of the classroom.
- **Path:** Learning is no longer restricted to the pedagogy used by the teacher. Interactive and adaptive software allows students to learn [in a method that is customized to their needs].
- **Pace:** Learning is no longer restricted to the pace of an entire classroom of students.

Source: “Roadmap for Reform.”
<http://digitalelearningnow.com/wp-content/uploads/2011/10/Roadmap-for-Reform.pdf>

Historical Emergence of Blended (Graham, 2006)

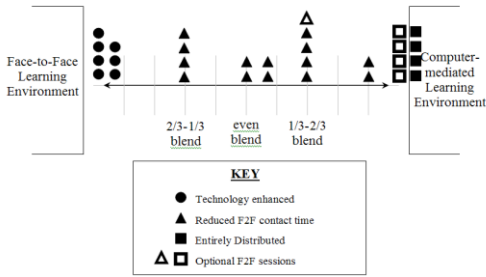


Myth #4: People will know what I am saying when I say “blended learning.”
Myth #5: Blended is the same as “hybrid.”
The Sloan Consortium

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



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.

Myth #7: Blended learning works everywhere.
Where is Blended Beneficial?

- Intro Classes (Spanish, psych, algebra, biology)
- AP Classes
- Classes with low success rates
- Classes with students working part-time
- Required classes
- Students are rural or spread over a distance
- Classes with certification or standardization
- Classes with new requirements or standards
- Writing intensive classes, theory classes, etc.
- Lab classes?

Examples of Blended Learning

- Put assessments/reviews online
- Online discussions
- Online labs
- Put reference materials on Web
- Deliver pre-work online
- Provide office hours online
- Use mentoring/coaching tool
- Access experts live online



Myth #8: People learn more in face-to-face settings than blended or fully online ones.

Fully Online and Blended Learning Advantages

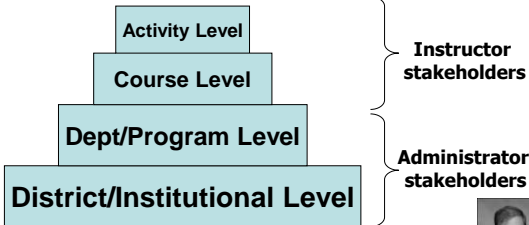
1. Increased Learning (better papers, higher scores)
2. More effective pedagogy and interaction
3. Course access at one's convenience and flexible completion (e.g., multiple ways to meet course objectives)
4. Reduction in physical class or space needs, commuting, parking, etc.
5. Increased opportunities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



Myth #9: Instructors can have a logical discussion with administrators about blended learning.

Models of Blending

Blending occurs at the following four levels:



Myth #10: There is a best model of blended.
AMA Special Report, Effectively Implementing a Blended Learning Approach
 (Steven Shaw & Nicholas Ignieri, 2006)



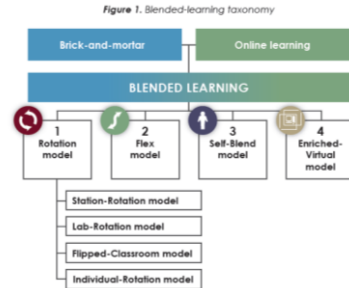
Source: American Management Association, AMA at Work

10 Blended Learning Models



Classifying K-12 Blended Learning

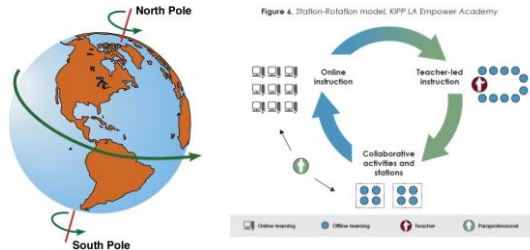
Heather Staker and Michael B. Horn, May 2012
<http://www.illustrativemathematics.org/illustrative/wp-content/uploads/2012/05/Classifying-K-12-Blended-Learning2.pdf>



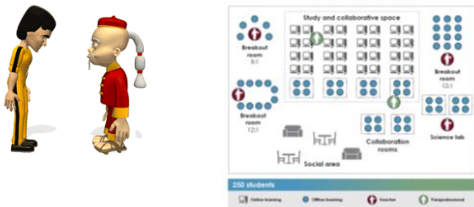
Blended Model #1. Face-to-Face Primary
 (online is for remediation of supplement)



Blended Model #2. Rotation
 (students alternate FTF and Online instruction)



Blended Model #3. Flex
 (curriculum primarily online with instructors available FTF)

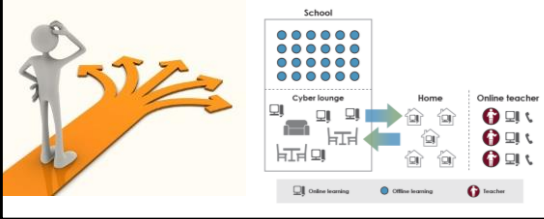


Blended Model #4. Online Lab
 (lab or field experience component of course is online)



Blended Model #5. Self-Blend (students decide on which courses they take online or which portion of the course is online)

Figure 11. Self-Blend model, Quakertown Community School District

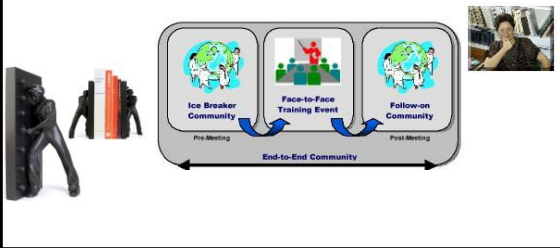


Blended Model #6. Online Driver (now: "Enriched Virtual Model") (courses primarily online and physical facilities used to supplement or as needed)

Figure 12. Enriched-Virtual model, Albuquerque eCADEMY



Blended Model #7. Bookend (first and last part of the course is online and middle portion is FTF; AMA Special Report, Blended Learning Opportunities, Alison Rossett (2006))



Blended Model #8. Anchor (start with FTF or what students are familiar with and then move to online)



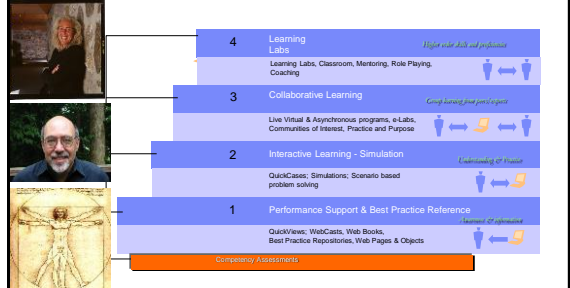
Blended Model #9. Field (combine FTF and online as needed...mix and match)

Table 1. What Might Go in the Blend

Live face-to-face (formal) <ul style="list-style-type: none"> Instructor-led classroom (F2F) Workshops Coaching, mentoring On-the-job (OTJ) training Work-based problems 	Live face-to-face (informal) <ul style="list-style-type: none"> Collegial relationships Work teams Apprenticeships
Virtual collaboration/synchronous <ul style="list-style-type: none"> Live re-learning classes Feedback, mentoring Instant messaging, SMS 	Virtual collaboration/asynchronous <ul style="list-style-type: none"> Email Online communities and discussion boards Listserve Blogs, wikis, podcasts
Self-paced learning (print, CD/DVD, electronic, wireless) <ul style="list-style-type: none"> Online modules Online resource links Simulations and scenarios Assessments and self-assessments Workbooks, readings 	Performance support <ul style="list-style-type: none"> Online help systems Print job aids Online knowledge databases Documentation Performance support tools

Adapted from Rossett, Douglas, & Prater, 2003, July

Blended Model #10. Degrees of Humanness (rely on computer-based feedback and interaction at first and switch to human feedback later on)



Framework for organizational development through training

Assess, Learn, and Apply

(Copyright Microsoft, Ziob & Mosher, 2006; Handbook of Blended Learning)

Microsoft Products and Services for Lifelong Learning

Part II: 10 + 10 Blended Learning Solutions

The Blended Learning Electrician

BLENDED LEARNING
This unique approach includes instructor-led hands-on training, lectures, eLearning and web based evaluation and instruction.

[LEARN MORE ABOUT BLENDED LEARNING](#)

Online Labs for the Blended Learning Electrician

Electrical Program

EMPOWER YOUR CLASSROOM
BLENDED LEARNING

Online PD for the Blended Learning Electrician

The need for this course:

Even the best electricians can make an occasional mistake!

VIRTUAL REALITY

Mobile Apps for the Blended Learning Electrician

ELECTRICIAN'S HELPER

Single Test: Locked Rotor Current

Table 210.19

Rated Horsepower: 50
Rated Voltage: 277 V
Name Plate Code Letter: D
Calculate: LRC 810.5 A

Pick Wire Type: 12
Pick AWG: 2 ALUM 10
Pick THW or THHN THHW CU AL
Pick THW THHW ALUM 8
Pick THW THHW CU 4

EMPOWER YOUR CLASSROOM
BLENDED LEARNING

DC Theory Course (Lesson Menu)

The Blended Learning platform or Learning Management System (LMS) is the next level of learning and engages the student in the classroom:

- Dynamic simulations
- Virtual safety scenarios
- Effective interactive exercises
- **Real-world scenarios**
- Instant assessment feedback (e.g., student time in system, other class stats)

The Blended Learning platform is efficient and empowers the instructors by creating a more effective learning experience:

- All homework questions, electronic media, and student activity is managed by this system
- Flexible in allowing the instructor to tailor the class according to the student's needs
- Reduces homework review time
- Increase time to utilize labs and other non-homework activities
- Active learning environment for the apprentices
- **Utilize online simulators where expensive equipment is not available or as precursors to physical labs is now achievable.**

Blended Solution #1. Short Video Animations and Reflections (e.g., Ohm's Law)

Blended Solution #2. In-depth Immersive Activities (e.g., Test and Measurement Academy)

Blended Solution #3. Virtual Safety Training

Blended Solution #4. General Information Animations

Phase Tape and Conductor Color			
Phase Tape and Conductor Color			
CONDUCTOR	480/277V WYE	240/120V DELTA WYE	240/120V DELTA WYE
PHASE A	BLACK	RED	RED
PHASE B	RED	ORANGE	ORANGE
PHASE C	BLUE	YELLOW	YELLOW
NEUTRAL	WHITE	WHITE-GREEN	WHITE-GREEN
GROUND	GREEN	GREEN	GREEN
ISOLATED GROUND	GREEN-YELLOW	GREEN-YELLOW	GREEN-YELLOW

Blended Solution #5. Electronics News Blog Readings and Reflections

<http://www.electronics-lab.com/blog/>

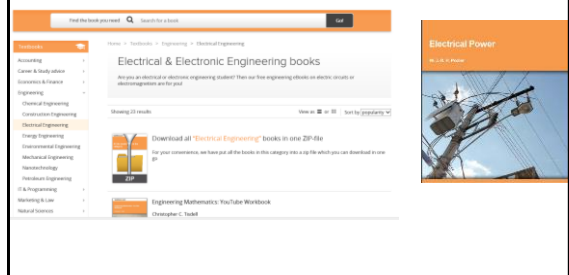


Blended Solution #6. Podcast Show Reflections

<http://www.podbean.com/podcast-detail?pid=28181>



Blended Solution #7. E-books and Online Articles



Blended Solution #8. Online Role Play or Debate

(Tulane University, Exercise for Renewable Energy, Freeman Sch. of Business, roles include power traders, electric utility analyst, independent power producers & utility dispatchers)



Blended Solution #9. Anchor Course Concepts and Activities in Brief Shared Online Videos



Blended Solution #10. Online Practice Tests and Quizzes

What about Military Blended Learning?

<http://www.youtube.com/watch?v=KD9NGAV3-3k> (4:26 minutes)

Blended Solution #11. Virtual Worlds

(e.g., Dr. Monica Rankin's class, UT Dallas, Cuban Revolution)
<http://www.youtube.com/watch?v=D4uBhZN9Qos>

Old Way: Physical Mock-Ups

<http://journals.tdl.org/jvwr/article/viewArticle/2113>



Figure 1. 1983 Submarine Attack Center Design Prototype Evaluation. Navy personnel and engineers collaborate using physical mockups before construction. These mockups were non-

New Way: Virtual Worlds

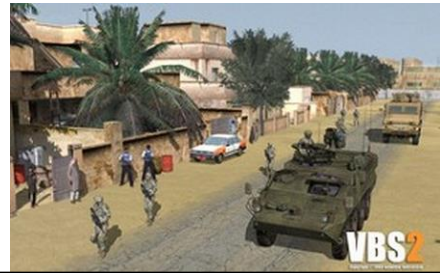
<http://journals.tdl.org/jvwr/article/viewArticle/2113>

Blended Solution #12. Specific Skill Training (e.g., soldiers gain education and promotion points through Skillssoft)

Blended Solution #13. Tactical Maneuver Training and Executive Coaching



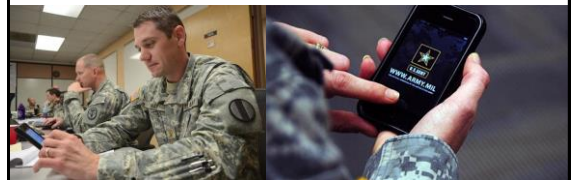
Blended Solution #14. Simulation Games



Blended Solution #15. Online Gunnery Course (Artillery Ballistics Concepts Trainer; e.g., how to process fire mission messages)



Blended Solution #16. Mobile E-Learning



Blended Solution #16 (Continued). Just in Time or On-Demand Learning



Blended Solution #17. Videoconferencing in Remote Lands




(e.g., The seminar was structured on a series of videoconferences and virtual classes on e-learning platform, organized by the Major of the Health and Veterinary Corps of Italian Army Lorenzo TIDU, Veterinary of the Task Force South of the Regional Command West, which is strongly involved in the specific field in favor of populations of the villages in the province of Farah.)



Blended Solution #18. Language Training




HAWAII ARMY WEEKLY

Online language training ups the ante on promotion points
from October 27, 2011 by Lisa Lewis

This software application is mobile device, the first iPad platform, and is being available in the 2013 Military. Call it a hidden feature, but you can now earn promotion points by using the online feedback language training program developed by the U.S. Army.



Blended Solution #19. Mobile Dictionaries

English Dictionary HD
 Smart design
 Comprehensive content
 Powerful search
 Google Translate
 Unlimited word history
 Downloaded words

Blended Solution #20. Open Source Portals and Open Ed Resources

(e.g., Photography such as Flickr, Everystockphoto.com; for courses photography, motivation, geography, culture, meteorology, physics, etc.)

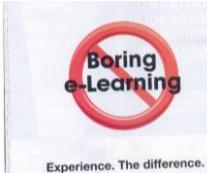



Learning the "hot lump"

U.S. Army Sgt. Ronald Cooper teaches a basic hand-to-hand combat move during a training session at the U.S. Army Center of Excellence, Fort Benning, Ga. (Photo by Sgt. David J. Smith)

Again, this talk covered...





1. 1 Definition of blended learning
2. 10 Myths of blended learning
3. 10 Models of blended learning
4. 10 + 10 Examples of blended learning



Experience. The difference.

Stand and Share Ideas

- Will Work: _____
- Might Work: _____
- No Way: _____

Any Questions?

 Slides at: TrainingShare.com
 Papers: PublicationShare.com
 Book: <http://worldisopen.com/>
 Email: curt@worldisopen.com




EMPOWER YOUR CLASSROOM
 BLENDED LEARNING