



The Power of Global Collaboration
Defense | Government | Industry | Academia

Mobile: Thinking Outside the Course

3 August 2011

Panel Discussion



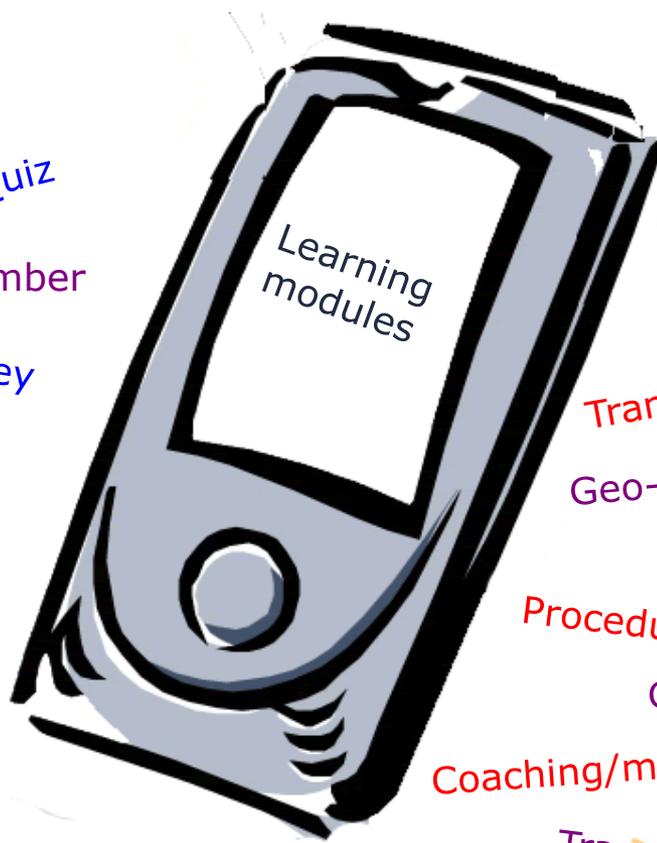
Introductions



- Judy Brown, ADL
- Erin Gibbens, TSWG
- Rebecca Clark, DAU
- Jason Haag, ADL



It is Much More than Just Courses Mobile Learning Opportunities



- Evaluation
- Location specific
- Field guide
- Quiz
- Review/remember
- Alerts
- Survey
- Geo-blogging
- Audio recordings
- On-demand access
- Reporting
- Reference
- Simulation
- Conferencing
- Job aid/check list
- Decision support
- Assignments
- Presentations
- Contextualized learning
- Poll
- Just-in-time
- Micro learning
- Feedback
- Video recordings
- Note taking
- Transcription
- Test
- Geo-exploration
- Reminders
- Capture/share/document
- Updates
- Procedures
- Game-based learning
- Coaching/mentoring
- Organization
- Translation
- Augmented reality



Five Moments of Learning Needs



- When learning for the first time
- When wanting to learn more
- When trying to remember
- When things change
- When something goes wrong



Dr. Conrad Gottfredson

Where do you feel that mobile capabilities are the MOST appropriate? When...

1. Learning for the first time
2. Wanting to learn more
3. Trying to remember
4. Things change
5. Something goes wrong

Erin Gibbens

Senior Program Analyst

Training Technology Development (TTD) Subgroup
Combating Terrorism Technical Support Office (CTTSO)
Technical Support Working Group (TSWG)



Mobile Learning is...

- Most useful when identified as a need through an analysis – ISD best practices still apply!
- Most effectively used as performance support or as a supplement to existing training
- Personal – available at time of need, user-organized, and improves individual performance or solves need
- Convenient – easy to find, access, and use
- Not a fad – It is happening now, whether we want it to or not. Mobile learning is the way of the future...



Mobile Courseware...

- Mobile learning should not replace existing or potential instructor-led, computer/web-based or other types of courses/training...
 - Unless there is an *identified need*. If there is an identified need, direct conversion is not recommended. If there is a need for...
 - existing training to be mobile, consider giving the user the option between original and mobile format, and redesign
 - new training to be mobile, consider if it should also be offered in another format (ILT, CBT, etc)
- Why not replace existing training (without a need)? No identified need = user frustration. Identified need = buy-in (with a little work)
- Why redesign for mobile delivery? Consider early computer-based training...was it effective? well-received? Why / why not?



Choosing Mobile for Learning

When the solution to a problem is not necessarily “training” ...consider:

- **Performance Support** – QR code on equipment provides instructions for use, video demonstrations, troubleshooting information, etc.
- **Job Aids** – mobile guidebooks in the form of quick reference app (book needs parceled/reorganized), ePub (book as-is), etc.
- **Video/Podcasts** – motivation, demonstration, comparison, etc.
- **Informal Learning** – 70/20/10 Model - 70% of what we know is learned informally...mobile devices create opportunities to facilitate informal learning – Lessons learned, sharing data, collaboration, seeking support



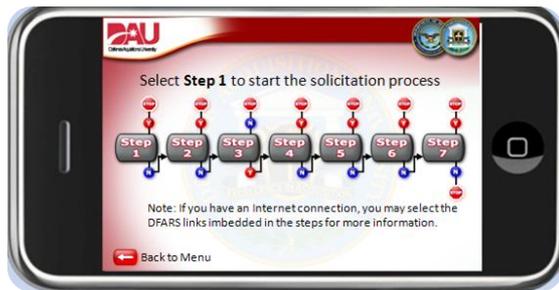


Rebecca Clark



Program Manager
Courseware, Gaming and Simulation
Mobile Initiative Lead

Defense Acquisition University



The World is already Mobile



- People are mobile
 - Travel (Business and Personal)
 - Telework
 - Conferences
 - Stuck in meetings
 - Stuck on metros
- Devices are mobile
 - **Because people are mobile and carry them!**

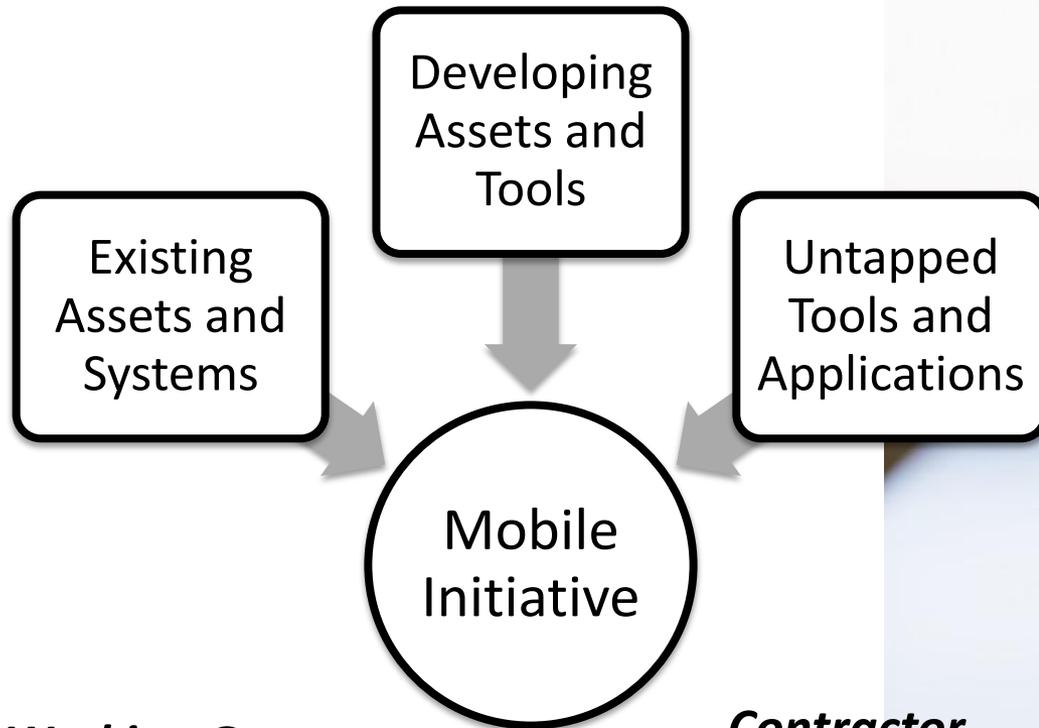
Implementing

- Get Started!
 - Low hanging fruit
- Leadership Support
- Make it a key initiative
- Infuse into current “toolkit”
- Allow rogue efforts!
- Take ideas from anyone

Mobile



Approach – divide and conquer



***Working Group
Support and
Experiments***

***Contractor
Support and
Experiments***

“Infuse” mobile options

Better - “We are developing a new learning product – let’s consider mobile as we conduct our upfront analysis”

Vs.

Typical - “We need mobile learning. Go create 5 new mobile learning products.”



Design

Differently

~~Cramming
20 hour online
course into a
mobile device~~



Performance Support Tools



Augment current courses



Collaboration & Sharing

Mobile Thoughts



<http://daumobiledemos.wordpress.com>

Examples Outside the Course

Jason Haag



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Certification and Licensure Exam Prep



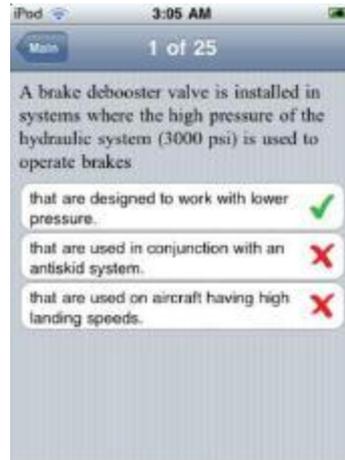
Tech 2000 - CCVP Certification
Cisco Certified Voice Professional



McSnyder Software - American Radio Relay League - Amateur Radio License Exams



Tekk Innovations - FAA Aviation Maintenance Technician General Knowledge Exam Prep



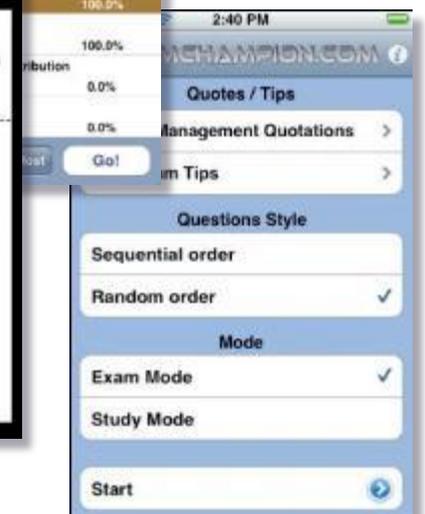
Upward Mobility - CompTIA+ Certification Exam Prep



ITIL V3 Foundation Certified Project Manager

Allen Resources - CFA Exam Level III 2010 2,100+ CFA Exam Questions

Total Questions	Total Answered	Percent Correct
8	0	0.0%
Asset Allocation		
65	0	0.0%
Fixed Income Portfolios		
510	5	100.0%
Fixed Income Derivatives		
337	5	100.0%
Equity Portfolio Management		
21	1	100.0%
Global		
100	0	0.0%
International		
100	0	0.0%
Real Estate		
100	0	0.0%
Statistics		
100	0	0.0%
Technical Analysis		
100	0	0.0%
Valuation		
100	0	0.0%

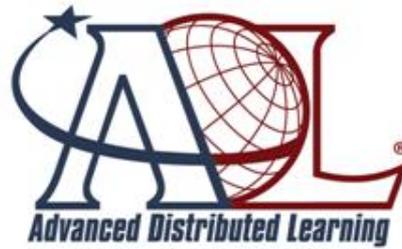


PMCHAMPION - PMP Exam





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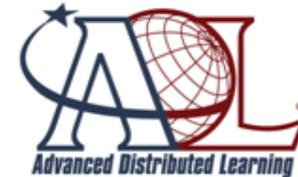
Connecting Soldiers with Digital Applications (CSDA)



- Phase 1 - Testing smartphones for non-combat use (training, tech manuals, administrative tasks)
- Phase 2 - Testing on the combat environment (performance support, communications, tracking friendly & enemy forces, sending reports)



text4baby.org



- Free mobile information service
- Promote maternal and child health
- Texting BABY (or BEBE for Spanish) to 511411
- Free SMS text messages each week, timed to their due date or baby's date of birth
- Government, corporations, academic institutions, professional associations, tribal agencies and non-profit organizations





Text4baby | Message Content

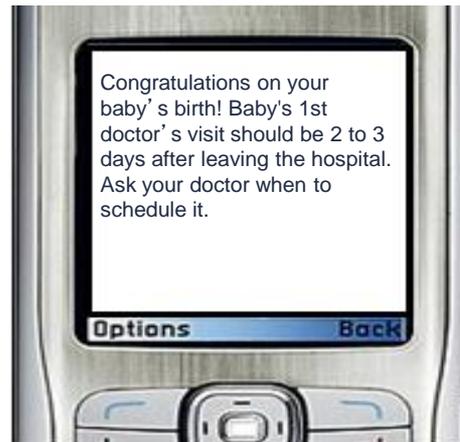
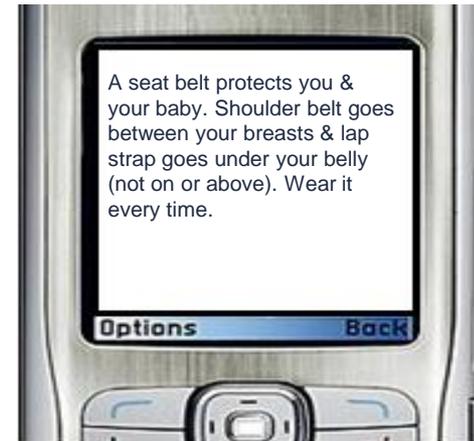


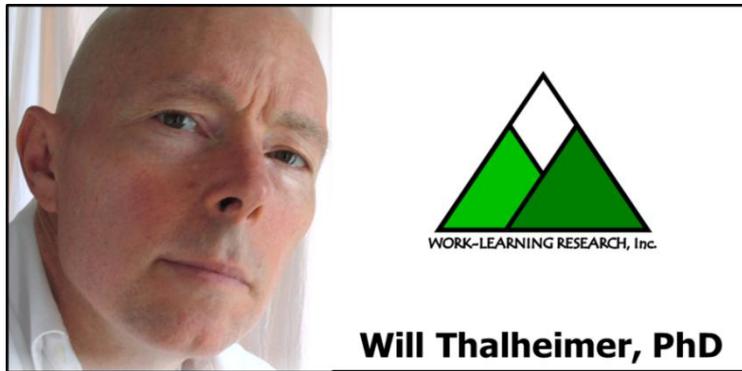
Content

- Health Care Access
- Immunization
- Nutrition
- Prenatal Care
- Drugs and Alcohol
- Emotional Wellbeing
- Smoking Cessation
- Labor & Delivery
- Breastfeeding
- Mental Health
- Car Seat Safety
- Safe Sleep
- Oral Health
- Pregnancy Symptoms
- Exercise
- Developmental Milestones

Content developed by HMHB in collaboration with HHS, CDC, NICHD, HRSA, BabyCenter, physicians and nurses.

Sample Messages





Will Thalheimer, PhD



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Question – Who will perform better on May 4th?

A. *Wide Spacing*

*Person who spends 18 hours (6/day) learning and **relearning** relevant material on Feb 3, Mar 3, April 3?*

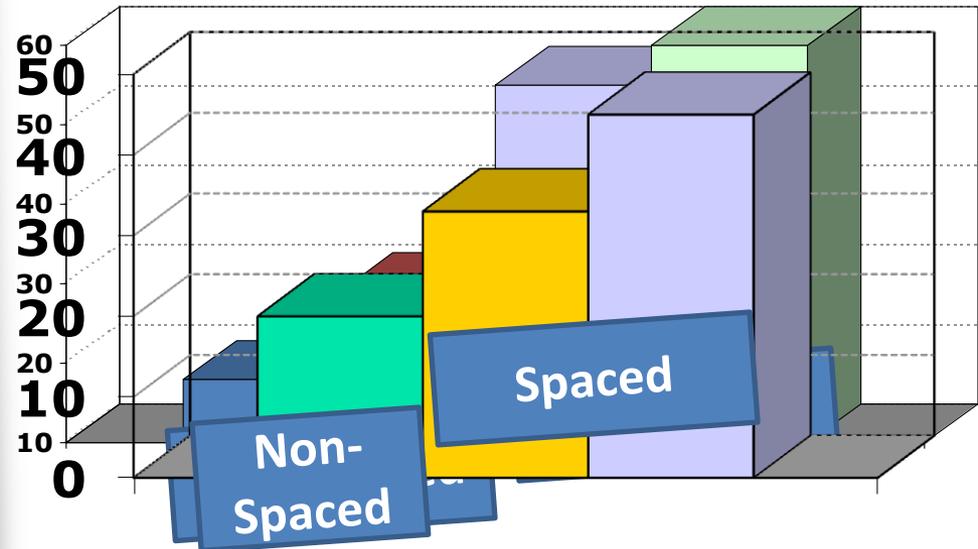
B. *Narrow Spacing*

*Person who spends 18 hours (6/day) learning and **relearning** relevant material on April 1, 2, and 3?*

c. *Both will perform about the same.*

“The spacing effect is one of the oldest and best documented phenomena in the history of learning and memory research.”

Harry Bahrick & Lynda Hall
Journal of Memory and Language



Dellarosa, D., & Bourne, L. E. (1985). Surface form and the spacing effect. *Memory & Cognition*, 13, 529-537. From Experiment 1.

Karpicke, J.D. & Roediger, H.L. (2007). Expanding retrieval practice promotes short-term retention, but equally spaced retrieval enhances long-term retention. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 33, 704-719.

Findings

1. Spaced repetitions are more effective than non-spaced repetitions.
2. Both presentations of learning material and retrieval practice opportunities produce benefits when utilized as spaced repetitions.
3. Spacing is particularly beneficial if long-term retention is the goal—as is true of most training situations. Spacing helps minimize forgetting.
4. How wide should spacings be? The ideal is that the spacing interval should be equal to the retention interval. If not possible, weeks are better than days, hours better than minutes. An overnight spacing has special benefits.
5. Spacing repetitions can hurt retrieval during learning events while it generates better remembering in the future (after the learning events).
6. Gradually expanding the length of spacings can create benefits, but these benefits generally do not outperform consistent spacing intervals.
7. One way to utilize spacing is to change the definition of a learning event to include the connotation that learning takes place over time—real learning doesn't usually occur in one-time events.

www.work-learning.com/catalog.html



Spacing Learning Over Time

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WORK-LEARNING RESEARCH, Inc.

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The “spacing effect” is one of the most reliable findings in the learning research, but it is, unfortunately, one of the least utilized learning methods in the workplace learning field.

Other than security, what is your biggest challenge to implementing mobile within your organization?

1. Resistance from leadership
2. Resistance from users
3. Infrastructure (Architecture) cannot handle
4. Don't know where to start with regard to technology, infrastructure, implementation
5. Don't know where to start with regard to need: how will it improve performance or what should I train
6. Other

What is the main advantage of mobile learning?

1. Personalization
2. Availability
3. Engagement
4. Time for reflection
5. Collaborative learning
6. Relevance



Questions & Discussion

