Driving Retention: Using Technology to Support Learning Science

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Driving Retention

Using Technology to Support Learning Science

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Why are we here?

“People are generally going about learning in the wrong ways.”

Make It Stick
2014 - Brown, Roediger, McDaniel
Challenges to Training

- Low “Knowledge Check” interactivity
- Limited hand-on experience
- Dictated Pace
- Time/Scheduling commitments
- Lack of follow-up post event
- Low SME Interactivity*
- “Check the box” perception*
Massed Learning

Instructor-Led E-Learning = Cramming

“Mr. Osborne, may I be excused? My brain is full.”
Recalled content from learning is rapidly lost due to non-use.
Strategies to promote transfer

- Context
- Informed Instruction
- Problem-Solution
- Experience Foundation
- Reinforcement
Strategies to promote retention

- Spaced Learning
- Active Recall
- Interleaving
What is Spaced Learning?

- Delivery of small, repetitive learning experiences
- Delivery separated over time
- Reinforce previous learning
- Build new information
- Proven to improve retention
Spaced Learning

- Spaced learning is a form of micro-learning.
- All micro-learning is not spaced learning.
Build Over Time

Repeating over time builds retainable knowledge
Why aren’t we doing it?

- Tracking
- Management
- Development Effort
- Interoperability
How can xAPI help?

- Tracking learning outside the LMS
- Ability to analyze learner behavior
- Adapt learning to the user
The Process

Credentialing, Delivery & Management

- What is our content? cmi5 or xAPI “package”
- How do we get our actor? embedded token
- How do we schedule frequency? LMS/LXP
- How is learning notification delivered? SMS or email
- How do we follow up? SMS/email/reporting
Delivery

LMS -> Mailer -> LRS -> Learner

Wait for it…
What is Active Recall?

- Stimulate memory
- Testing effect
- Flash Cards
- xAPI Profile

https://github.com/adlnet/xapi-authored-profiles/tree/master/flashcards
What is Interleaving?

- Discriminative Contrast
- Academic & Motor Skills

How can xAPI help?

- Mixed Practice
- Vary Topics/Methods
- Contextual Interference
- Elaborative Rehearsal

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References

- https://www.td.org/insights/spaced-learning-an-approach-to-minimize-the-forgetting-curve
- https://risc-inc.com/spaced-learning-cmi5-xapi/
Thank You!

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