

Optimizing Safety Training Retention



May 22, 2019 | Richard Tobin

About SafetyNow

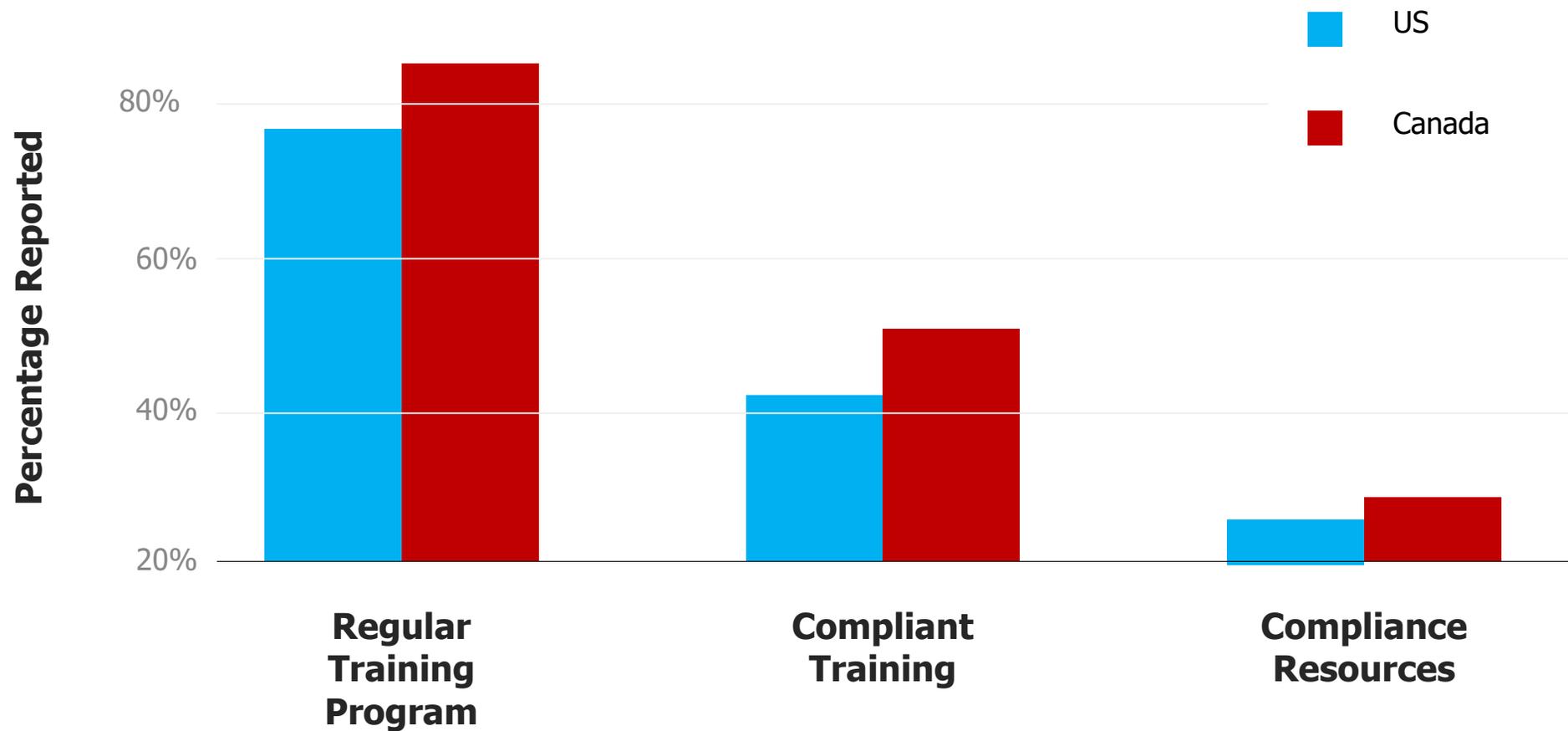
- We've been in the safety business since 1929 and we are proud of our legacy and the impact we've had on tens of thousands of organizations throughout North America.
- CEO for past 3 years, University of Edinburgh MBA, research for Microsoft, Google, Baidu, Allstate, Sterling Commerce and more...



Scary Safety Facts

1. \$38K – average direct cost of a workplace accident or injury – NSC
2. \$192k – average indirect cost of a workplace accident or injury – NSC
3. Average fatality has costs 10-20x
4. 1 in 35 – significant injuries per workplace accidents & incidents
5. 3/100 – Non-fatal workplace injuries per 100 FTE
6. 16 workplace fatalities every day in North America
7. Over 90% of safety managers do not know if training is working – C-suite is demanding transparency and reporting
8. Attendance is not verification that training was learned and sunk in

Story of Safety Training



Story of Safety Training

- **80%** of safety managers are only doing instructor-led safety training
- **84%** of companies have safety meetings at least monthly (34% have daily or weekly meetings)
- The biggest challenges to safety training are 1) **keeping employees engaged**, 2) **program administration**, 3) **communicating the value** to management, and 4) **maintaining consistency** in safety training across departments
- **96.3%** of safety professionals believe that blended learning is superior to any one format – the variety improves engagement, comprehension and retention
- The most effective safety training formats outside of safety meetings are **on the job safety interventions** (74.6%), followed by **online learning courses** (40.6%)

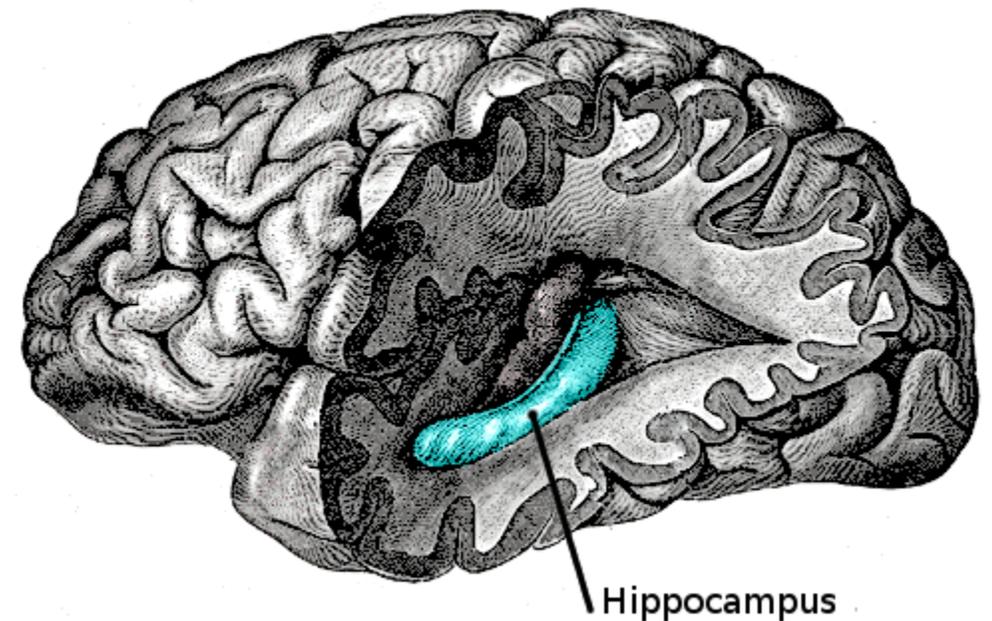


HOW WE LEARN – BUILDING RETENTION

A Cognitive Psychology Primer

Memory & The Brain

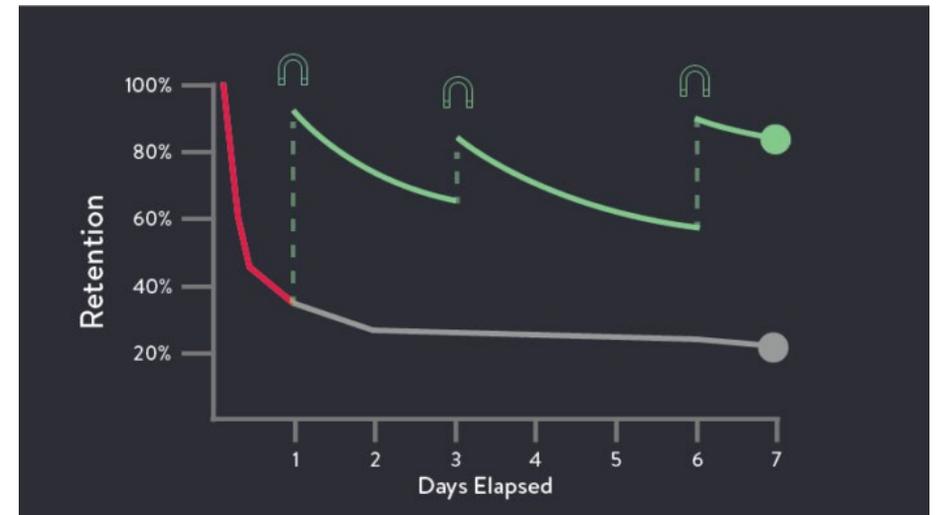
In 1953, William Beecher Scoville removed a 2 inch piece of brain tissue from the brain of Henry Molaison to treat epilepsy – as a result, he could no longer form new memories.



Forgetting Curve

The Forgetting Curve describes how the brain's ability to retain information decreases over time.

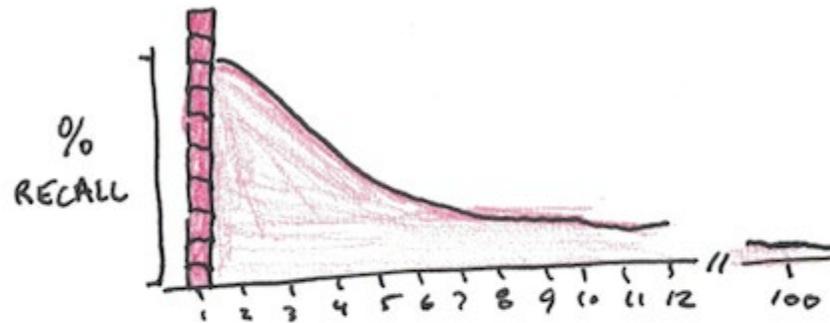
Hermann Ebbinghaus created the curve back in 1885.



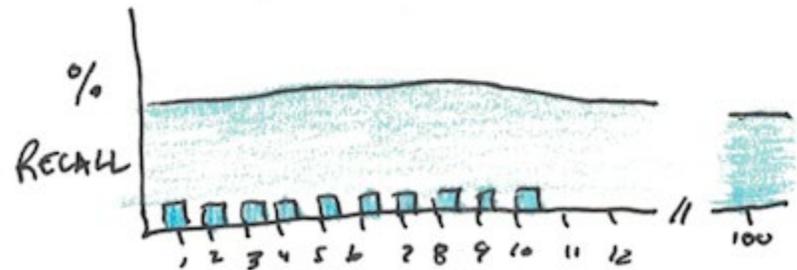
Spacing Effect

THE SPACING EFFECT

10 EXPOSURES
IN A ROW



10 EXPOSURES
OVER 10 DAYS

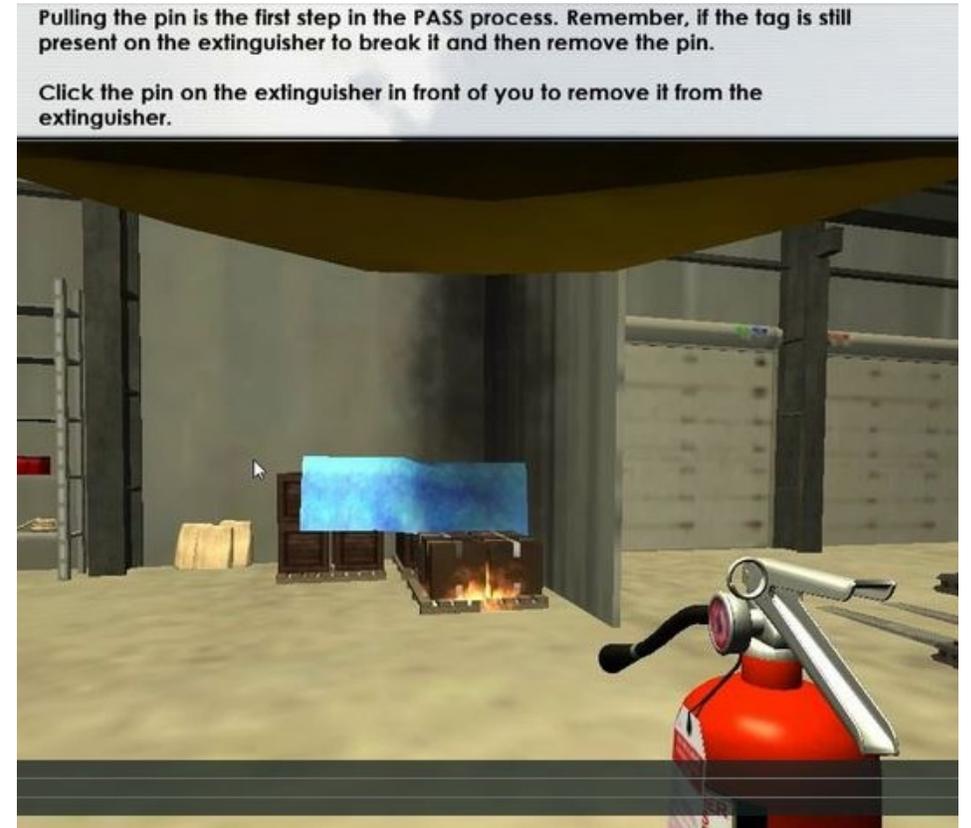


*data is hypothetical

Mom was right,
incremental
practice every
day is the best
way

Gaming & Situational Effects

- New research into memory and learning highlight the value of games and gamification in improving learning, recall and retention
- Gaming can be important in recreating the situational awareness associated with the original learning.



Seven Sins of Memory

- **TRANSIENCE**
- ABSENTMINDEDNESS
- BLOCKING
- MISATTRIBUTION
- SUGGESTIBILITY
- BIAS
- PERSISTENCE

Building Blocks of Retention

1. Engagement
2. Resonance
3. Short & Discreet
4. Visual, Auditory, Situational, Sensory
5. Spacing
6. Testing
7. Reinforce
8. Repeat

Building Neural Networks



IT STARTS WITH ENGAGEMENT

Technology is a tool, not a pneumatic solution.



MORE SCARY FACTS

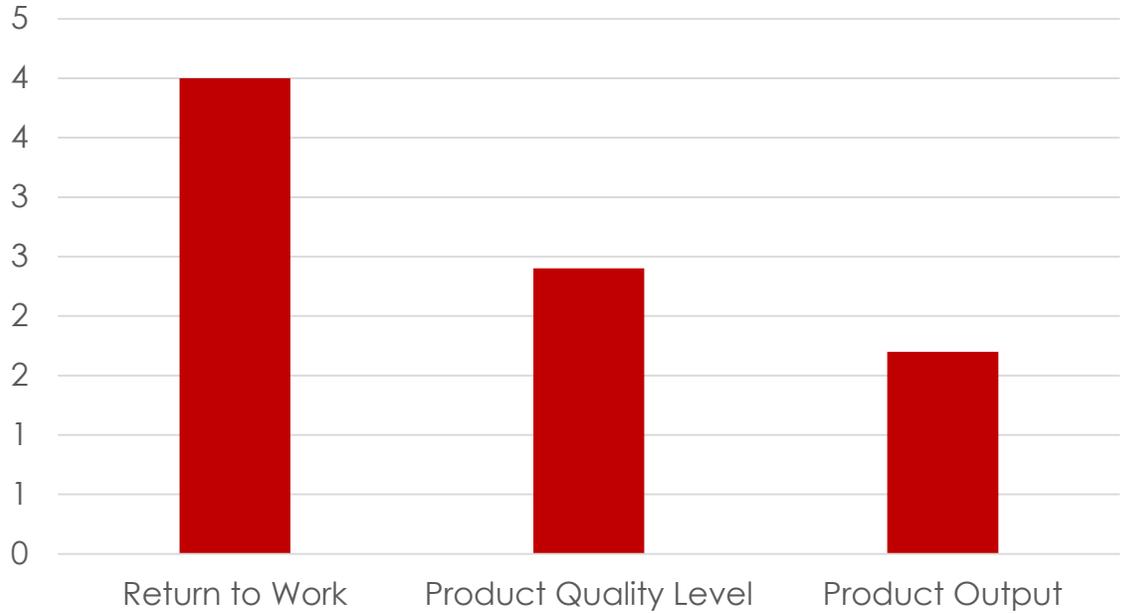
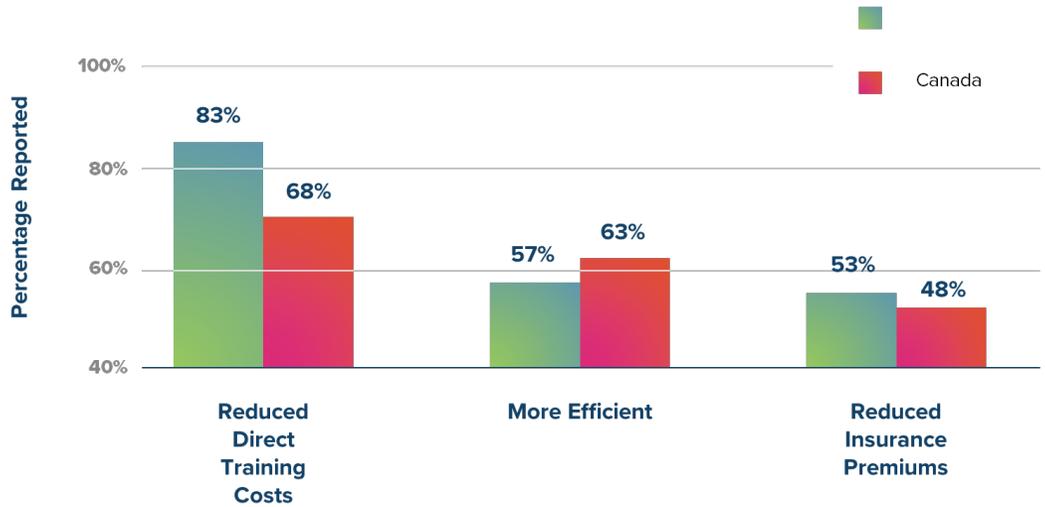
1. **\$154k** – average settlement for civil case in Canada
 2. **\$671k** – average settlement for civil case in USA
 3. **\$27k** – average legal cost for civil case in Canada
 4. **\$61k** – average legal cost for civil case in USA
- **Compliance is not a guarantee** of zero accidents & incidents and the associated costs, but it is the minimum required criteria the court and government uses to acknowledge the due diligence defence

SCARIEST FACTS

1. **70%** of traditional safety training is **forgotten in the first 24 hours** – Over 90% in the first 5 days
2. **Over 90% of safety managers do not know if training is working** – C-suite is demanding transparency and reporting
3. **Attendance is not verification that training was learned and sunk in**

BETTER SAFETY TRAINING GETS ROI

Better Safety Training Helps



Muscle Memory

We've all had those terrible moments, whether just before making a wedding speech or delivering a presentation at work, when our minds have gone completely blank.

Now scientists are one step closer to understanding why we have developed such a counterproductive (and embarrassing) response to stress.





IT WORKS

**THE RIGHT INTERVENTION AND THE RIGHT
TECHNOLOGY SAVES TIME & MONEY;
INCREASES ENGAGEMENT; AND IMPROVES
LEARNING**

IT DOESN'T TAKE MORE EFFORT, IT TAKES A BETTER PHILOSOPHY

210% increase





17% revenue increase



ABERDEEN

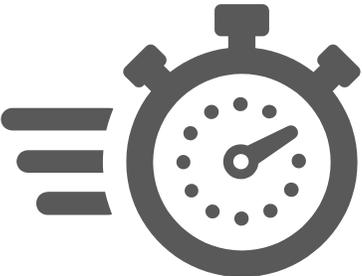
GROUP

A Harte Hanks Company

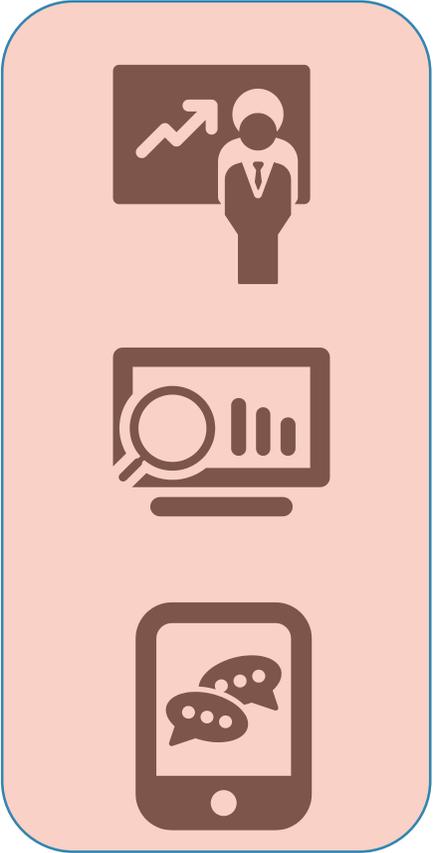
30% increase



REAL WORLD RESULTS



+15%



+18%



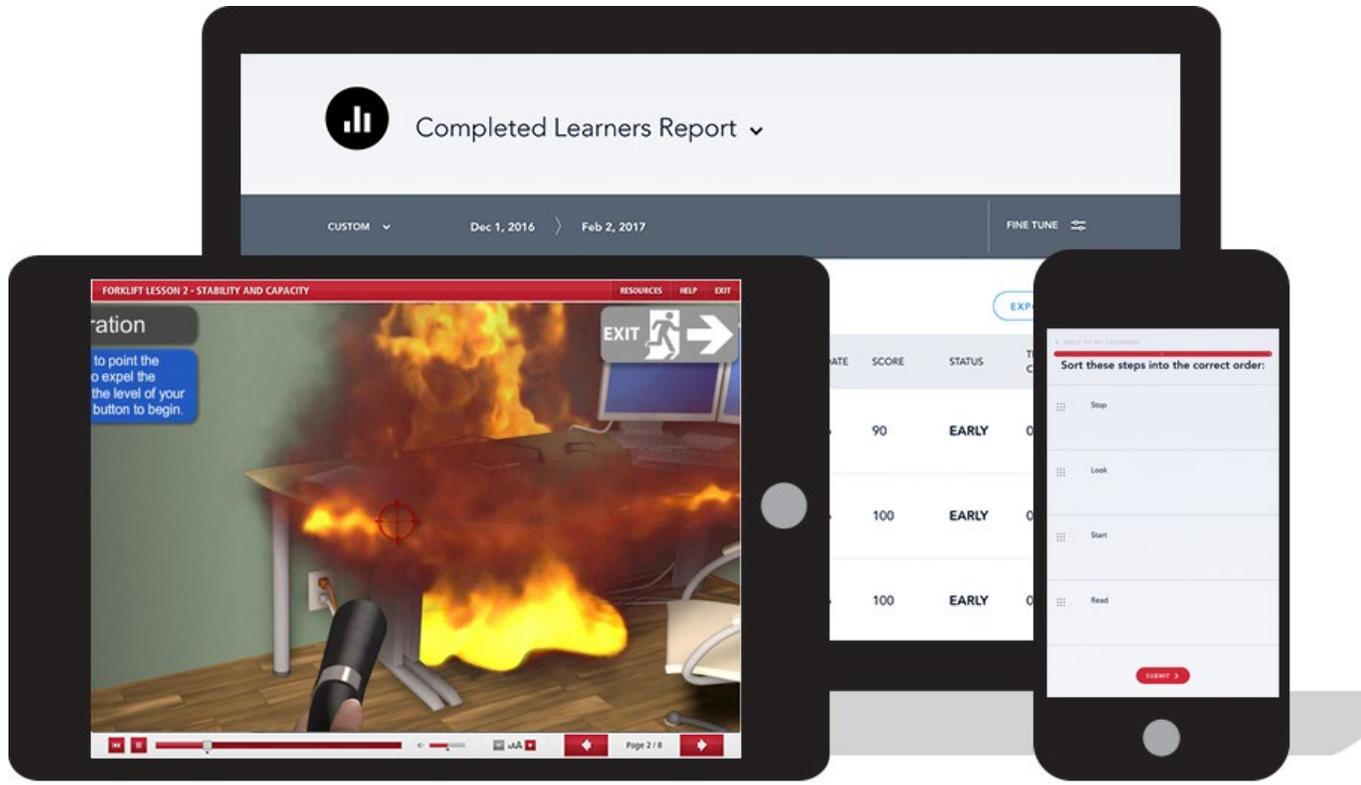
+12%





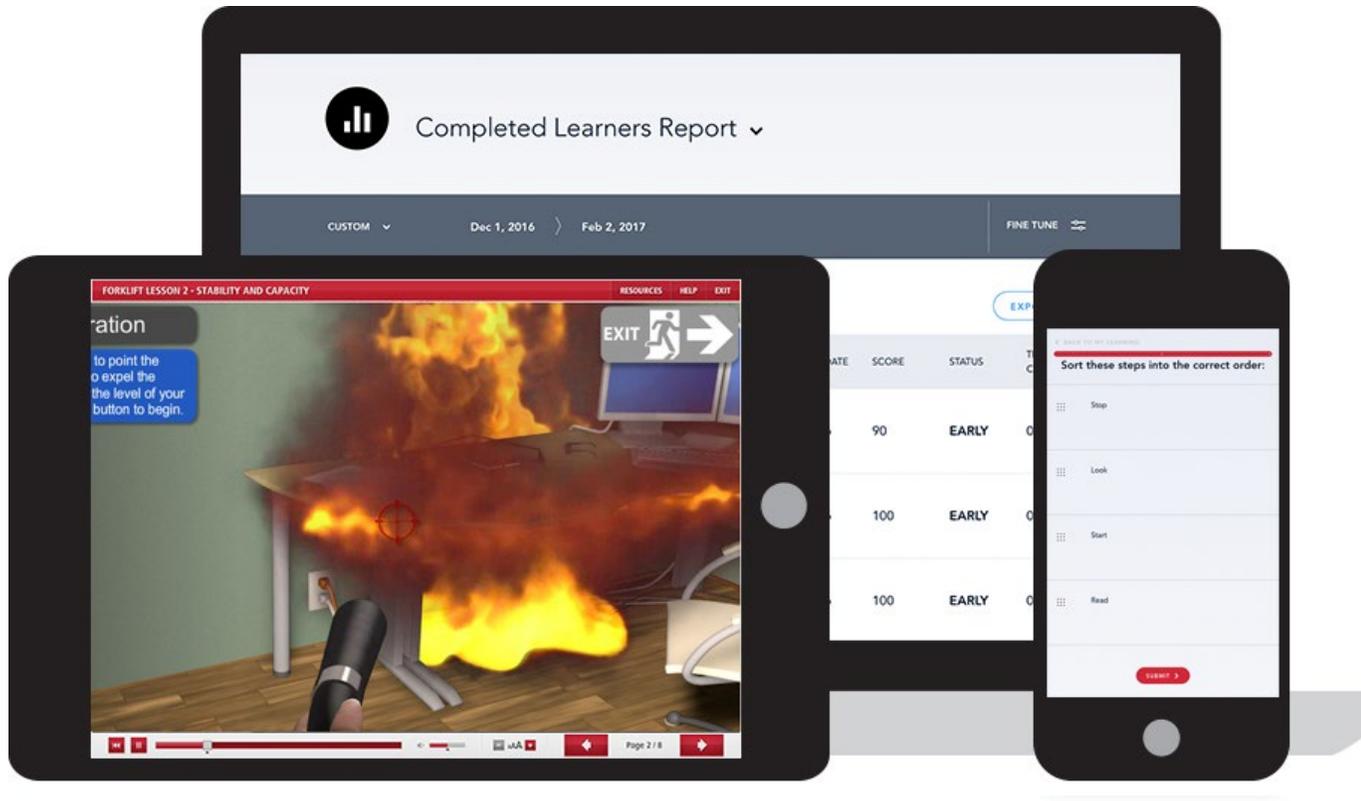
Costs of conventional instructor-led safety training

- 500 EMPLOYEES/AVERAGE HOURLY RATE OF \$35
- EACH EMPLOYEE MUST TAKE 1 HOUR OF INSTRUCTOR-LED SAFETY TRAINING/MONTH
- 6,000 HOURS/YEAR X \$35/HOUR = \$210,000
- PLUS, AN HOUR OF PRODUCTIVITY LOST PER EMPLOYEE/MONTH = ANOTHER 6,000 HOURS AND \$210,000
- TOTAL = \$420,000/YEAR



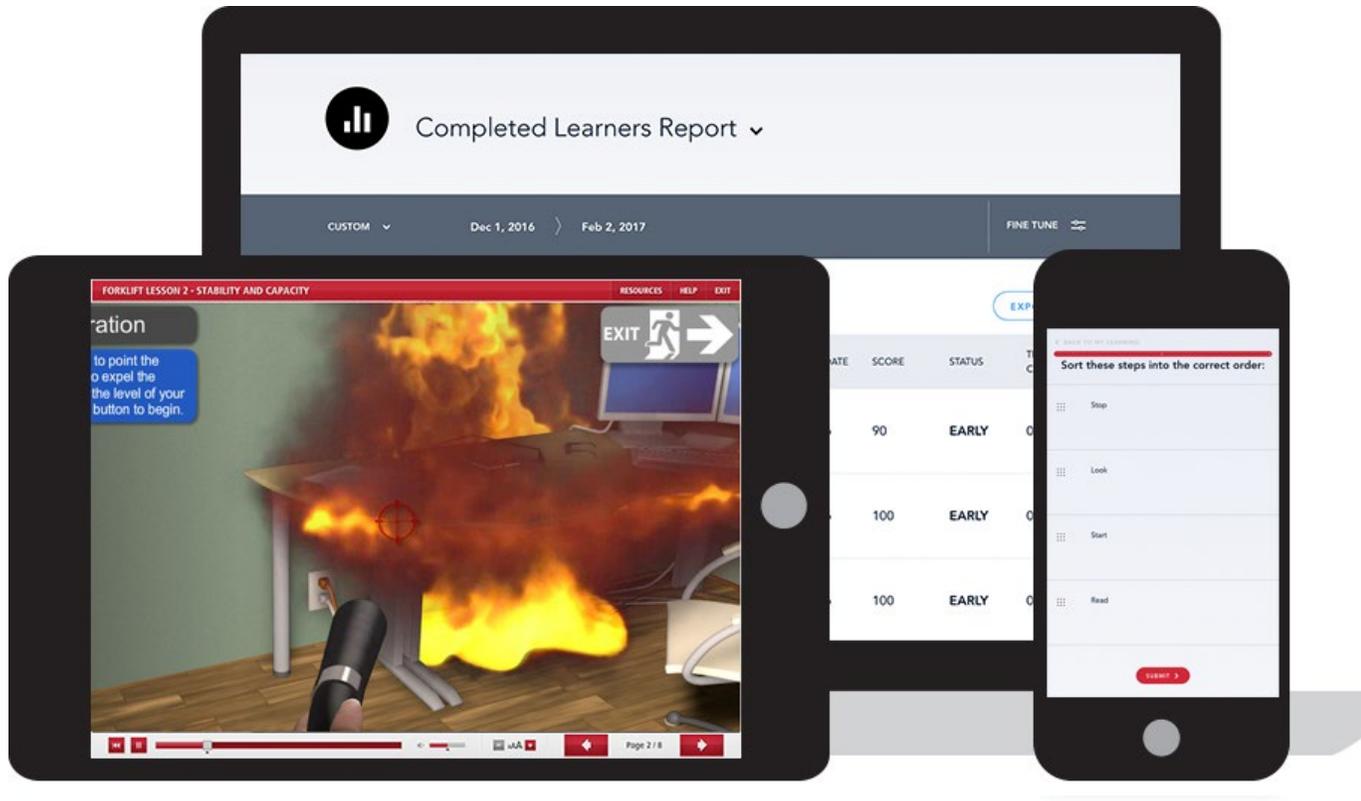
Just-in-Time Training

- YOUR EVERYDAY LOCAL HARDWARE STORE
- IN MOMENT TRAINING WITH MANAGER AND MOBILE COURSE ASSIGNMENT
- RETENTION QUIZZES (24 HOURS), 1 WEEK, 2 WEEK
- +80% REDUCTION IN NEAR MISSES
- +45% REDUCTION IN ACCIDENTS & INCIDENTS
- 0 FINES FROM INSPECTIONS
- REDUCED EMPLOYEE TURNOVER & ONBOARDING TIME



Near Miss Driving

- INTERNATIONAL REAL ESTATE COMPANY
- INTEGRATED NEAR MISS REPORTING VIA API
- RETENTION QUIZZES (24 HOUR, 1 WEEK, 2 WEEK, 3 WEEK)
- +5% INCREASE IN NEAR MISSES, +90 REDUCTION IN DIRECT RELATED NEAR MISSES
- +27% REDUCTION IN ACCIDENTS & INCIDENTS
- 0 FINES FROM INSPECTIONS
- REDUCED EMPLOYEE TURNOVER & ONBOARDING TIME
- REDUCED TRAINING COSTS BY +46% IN FIRST YEAR



Mobile Training

- LOGISTICS COMPANY
- UTILIZING DOWN TIME FOR TRAINING
- RETENTION QUIZZES (24 HOUR, 1 WEEK, 2 WEEK, 3 WEEK)
- +40% REDUCTION IN ACCIDENTS & INCIDENTS
- REDUCED TRAINING COSTS BY +67%
- REDUCED INSURANCE PREMIUMS BY \$1M IN FIRST YEAR