Modular, Data-Driven, Adaptive: Future of Training

From the learning science company

Presented by

Geoff Broderick

Christina Yu

We exist to unlock the full potential of every learner

Do you face any of these learning challenges?

Mindset Change

How do I to ensure that my learning initiatives contribute to organizational success? We need to move beyond training for training's sake.

Distributed and Diverse Learners

We have learners across multiple locations. I need a cost effective way to deliver training anytime, anywhere, and in a manner that motivates and challenges my novices and veterans.

Time & Cost Constraints

My business partners continually need to do more with less. I need a way for my learners to spend less time on what they already know and master what they don't know.

Impact

We need data to confirm that the learning had impact. I need a solution that provides specific data on learner mastery and proves a strong ROI.

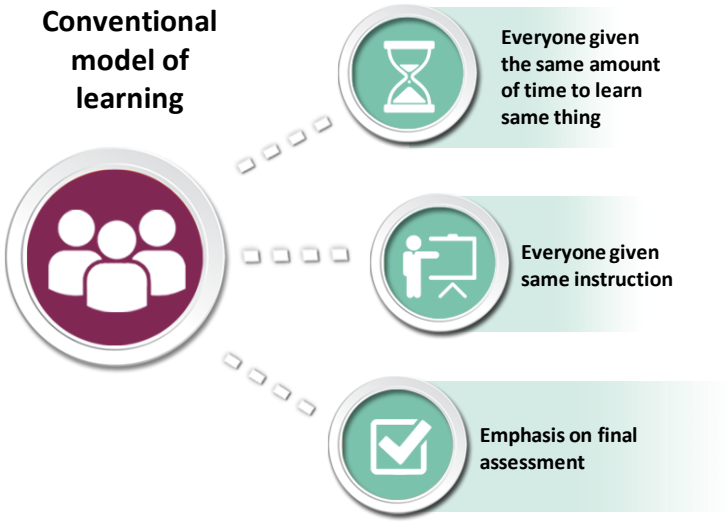
Authoring Agility

We need to make frequent updates to our learning content for changing business needs, regulations, policies or course improvements. How can I do this rapidly without revising an entire course?

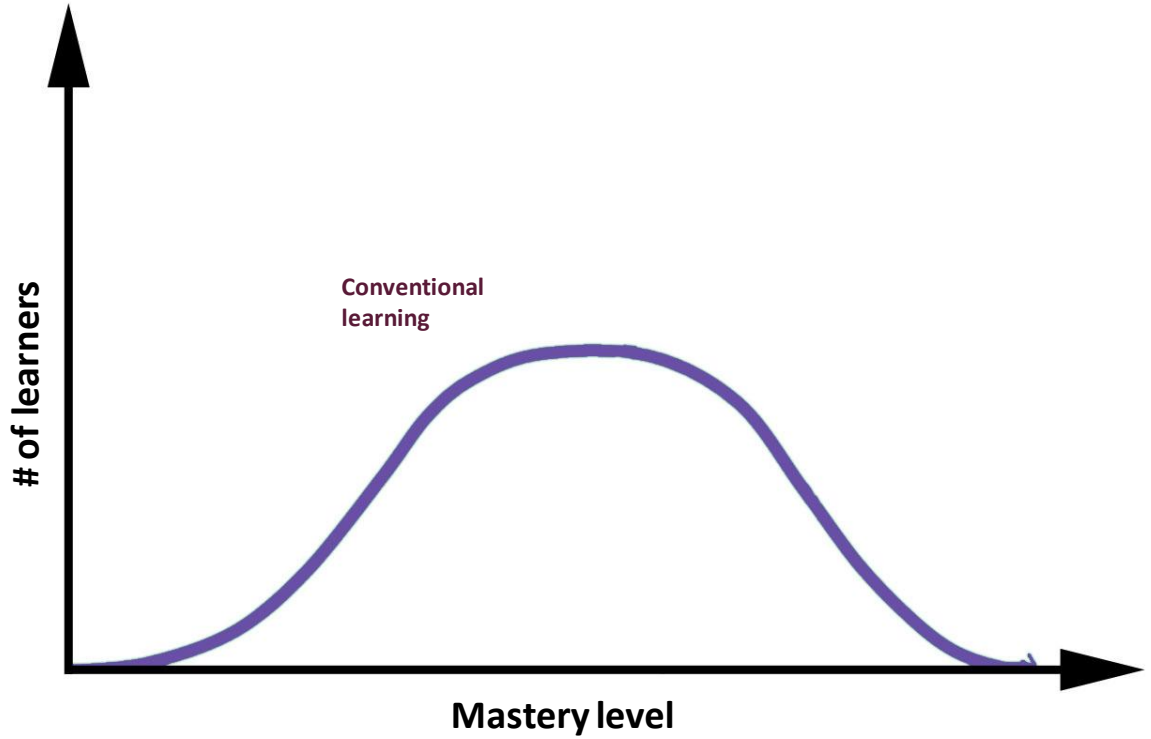
One-size-fits-all, sage-on-the-stage…

Image source:
https://nkilkenny.wordpress.com/category/blogs/

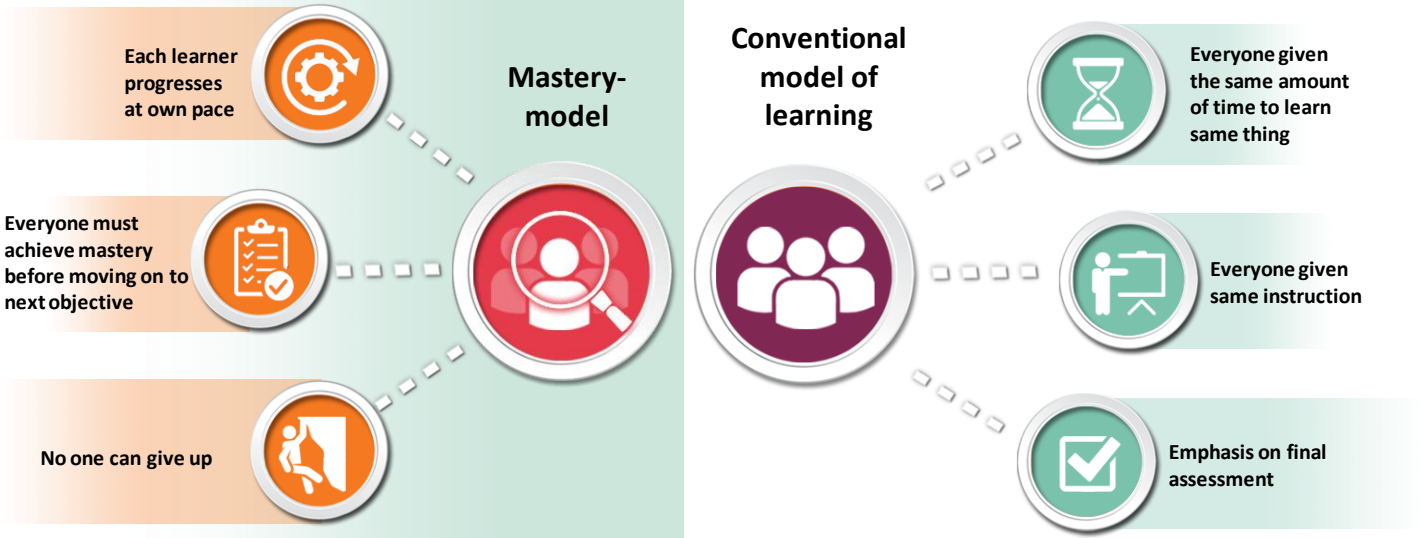
Principles of conventional learning



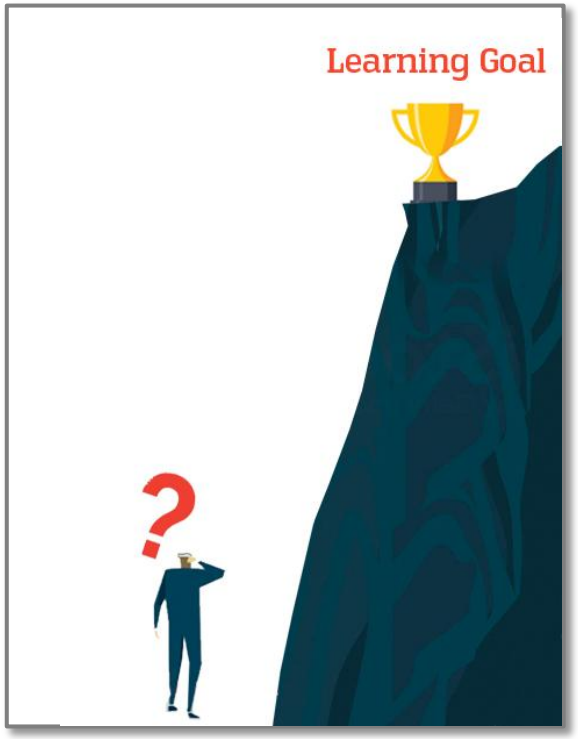
Conventional learning standard outcomes

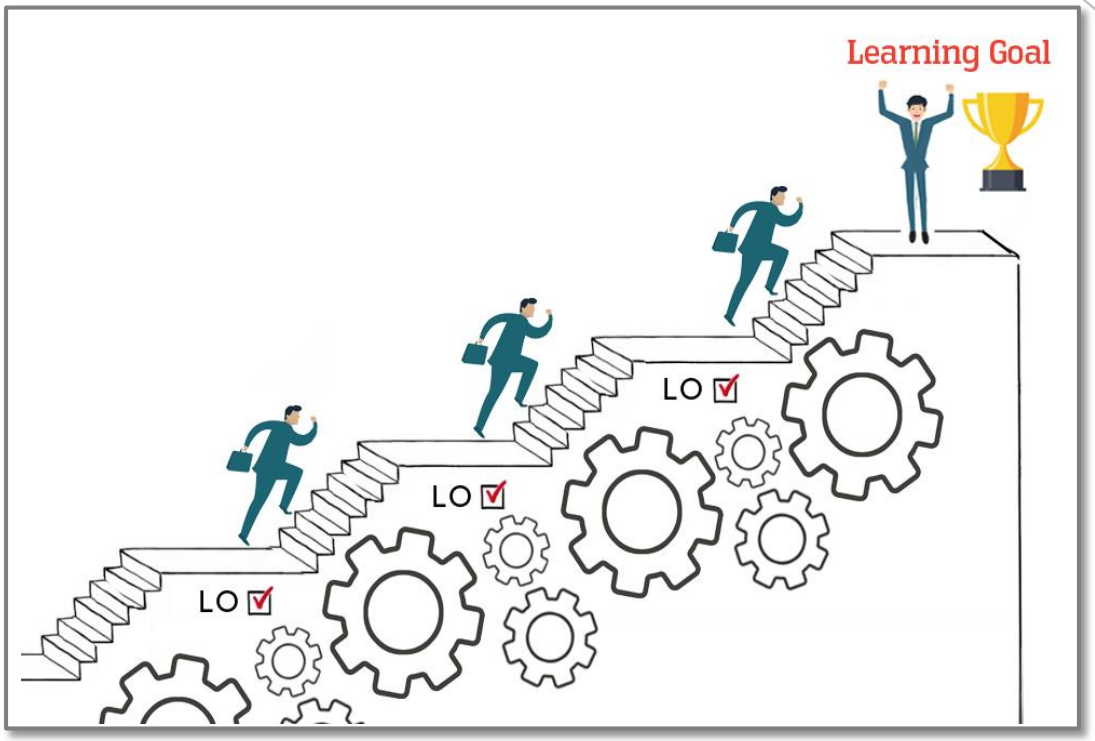


Mastery-based Learning: Progress depends on mastery rather than seat-time

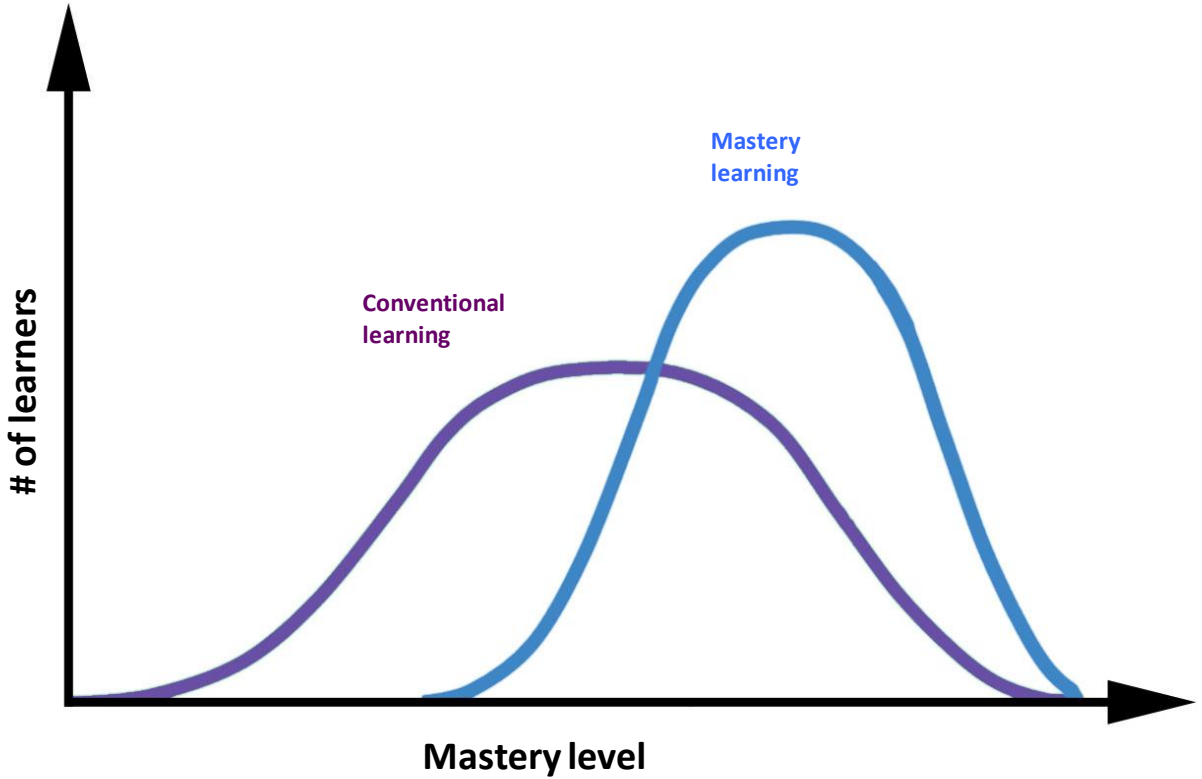


Conventional learning vs. mastery-learning



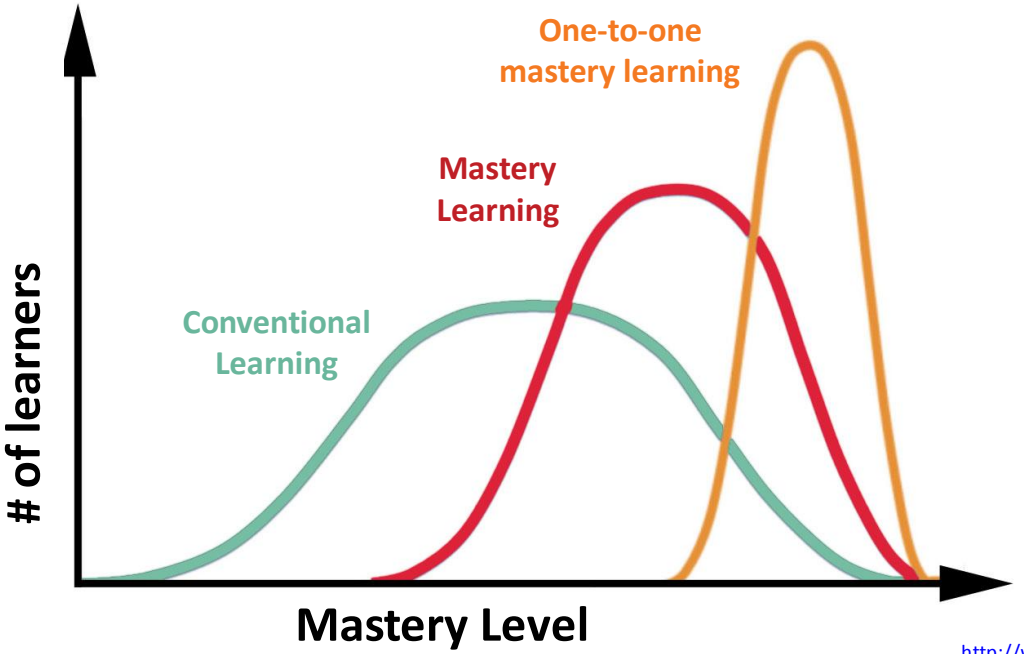


Conventional vs. mastery learning outcomes



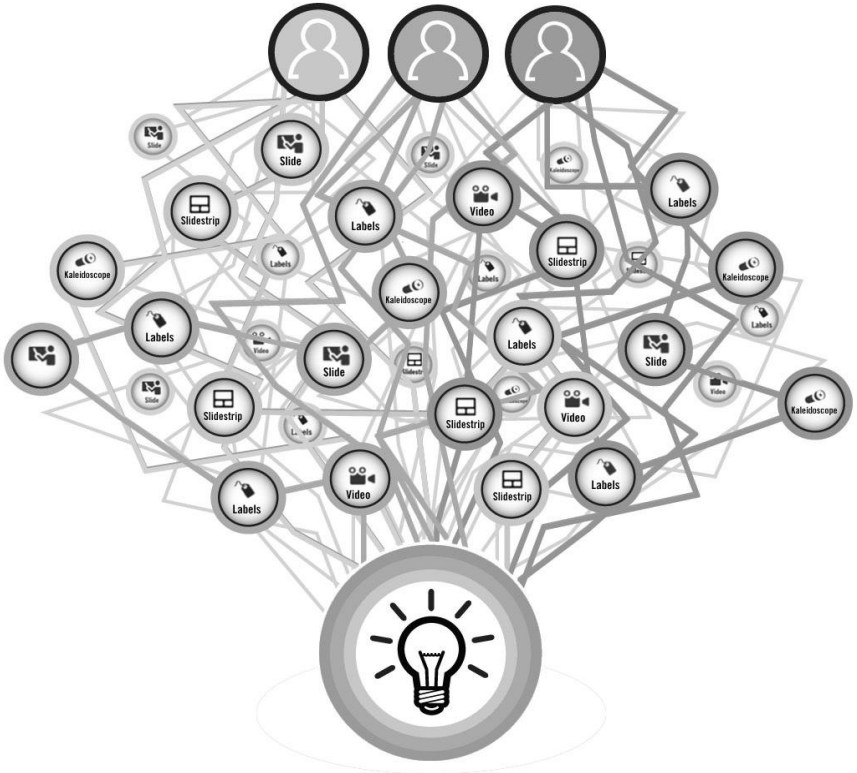
One step further: each learner achieves mastery in their own way

One step further: outcomes two standard deviations better

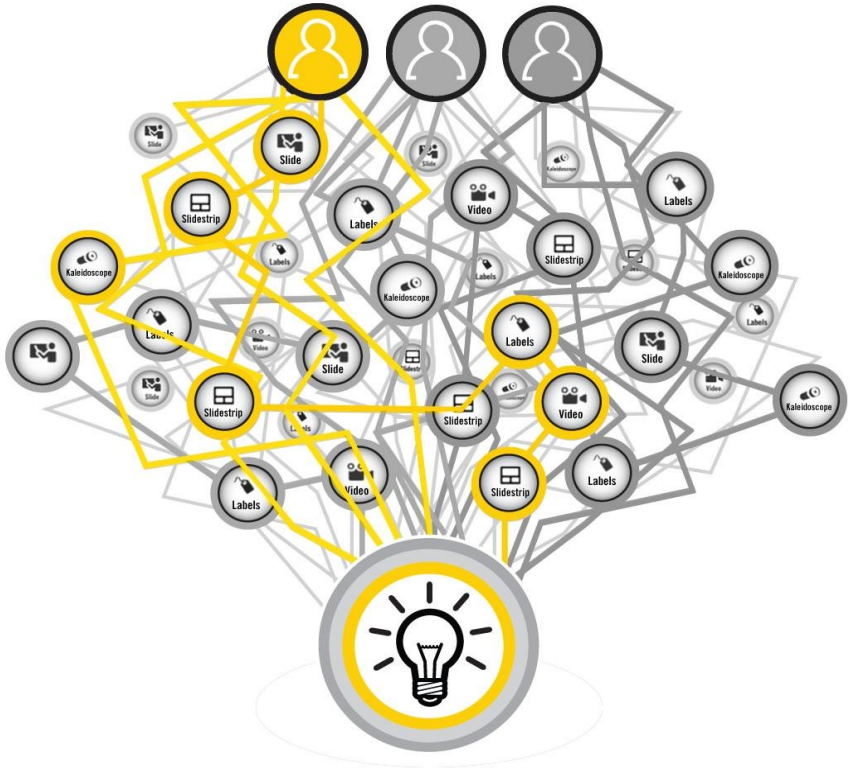


http://web.mit.edu/bosworth/MacData/afs.course/5/5.95/readings/bloom-two-sigma.pdf

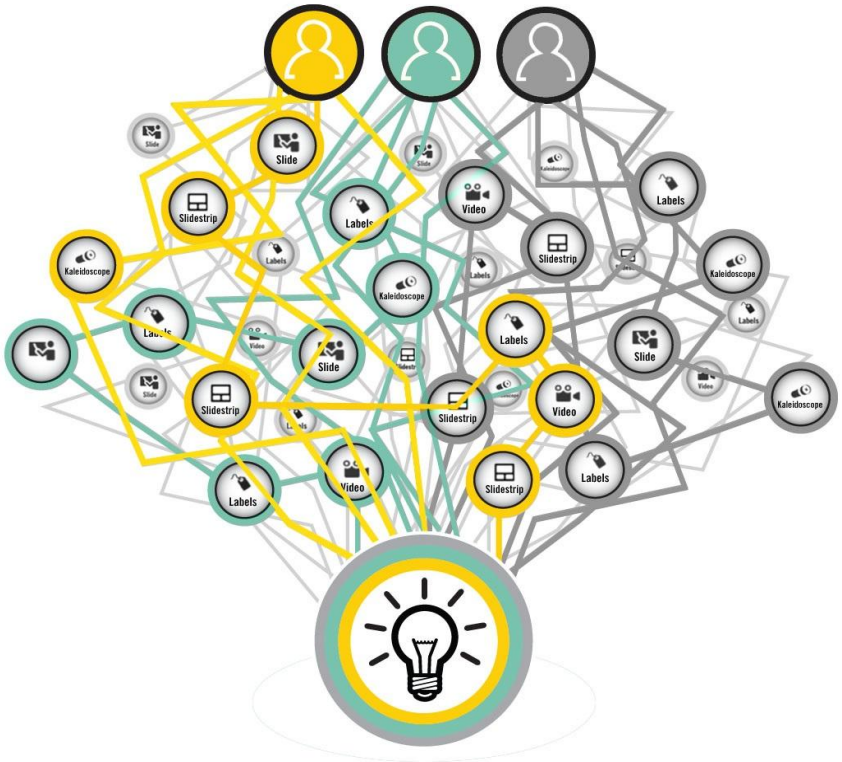
Mastery meets personalization and scale



Each learner reaches mastery in their own way



Each learner reaches mastery in their own way

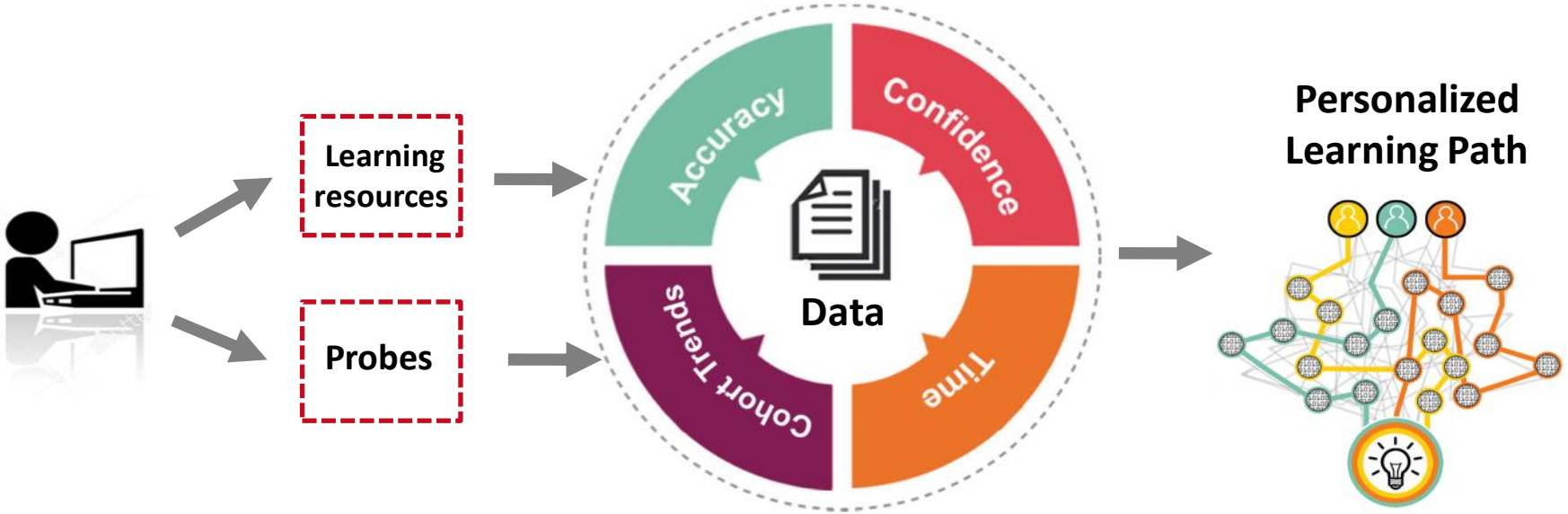


A personalized path for every learner

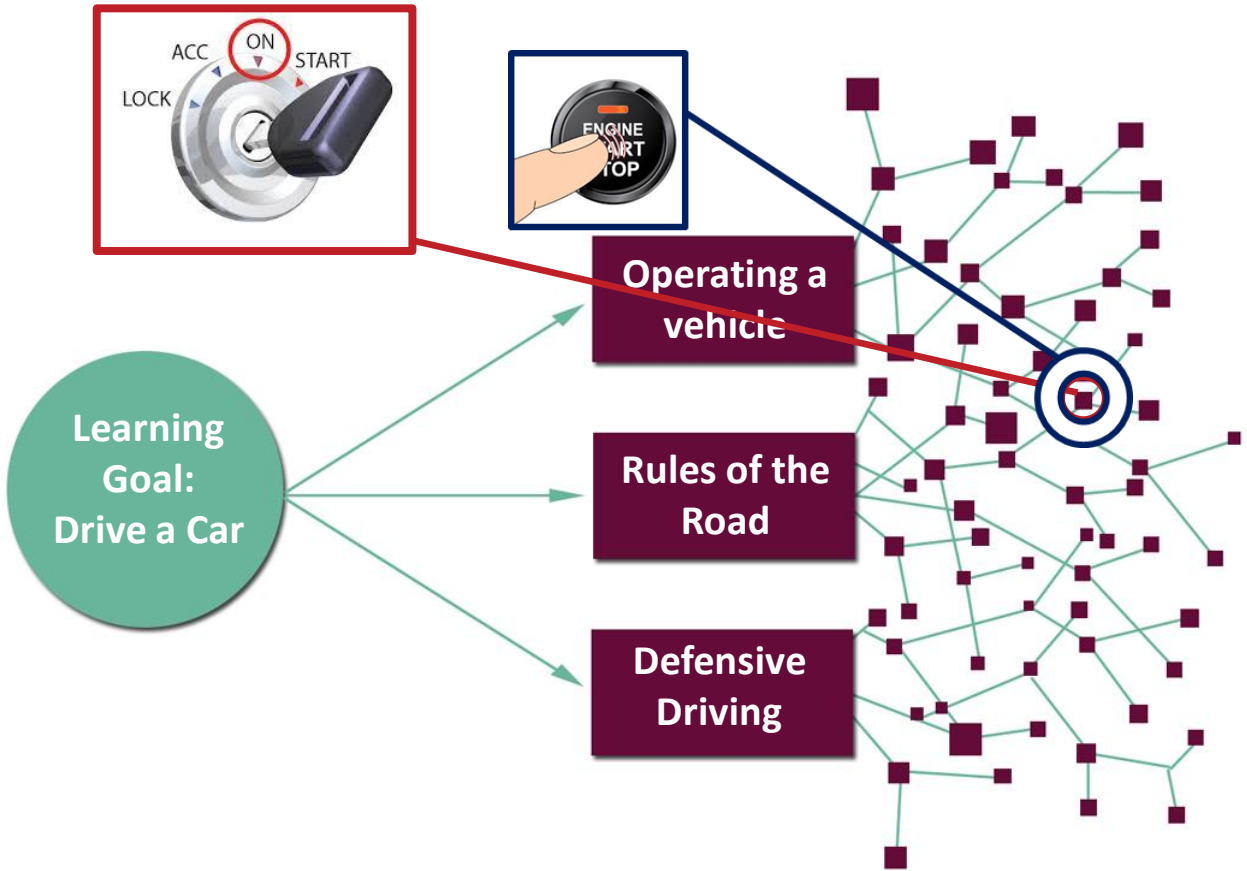
Adaptive technology uses AI to *personalize* learning for each individual

- **Metacognitive Theory**
- **The Theory of Deliberate Practice**
- **The Theory of Fun for Game Design**
- **Ebbinghaus Forgetting Curve**

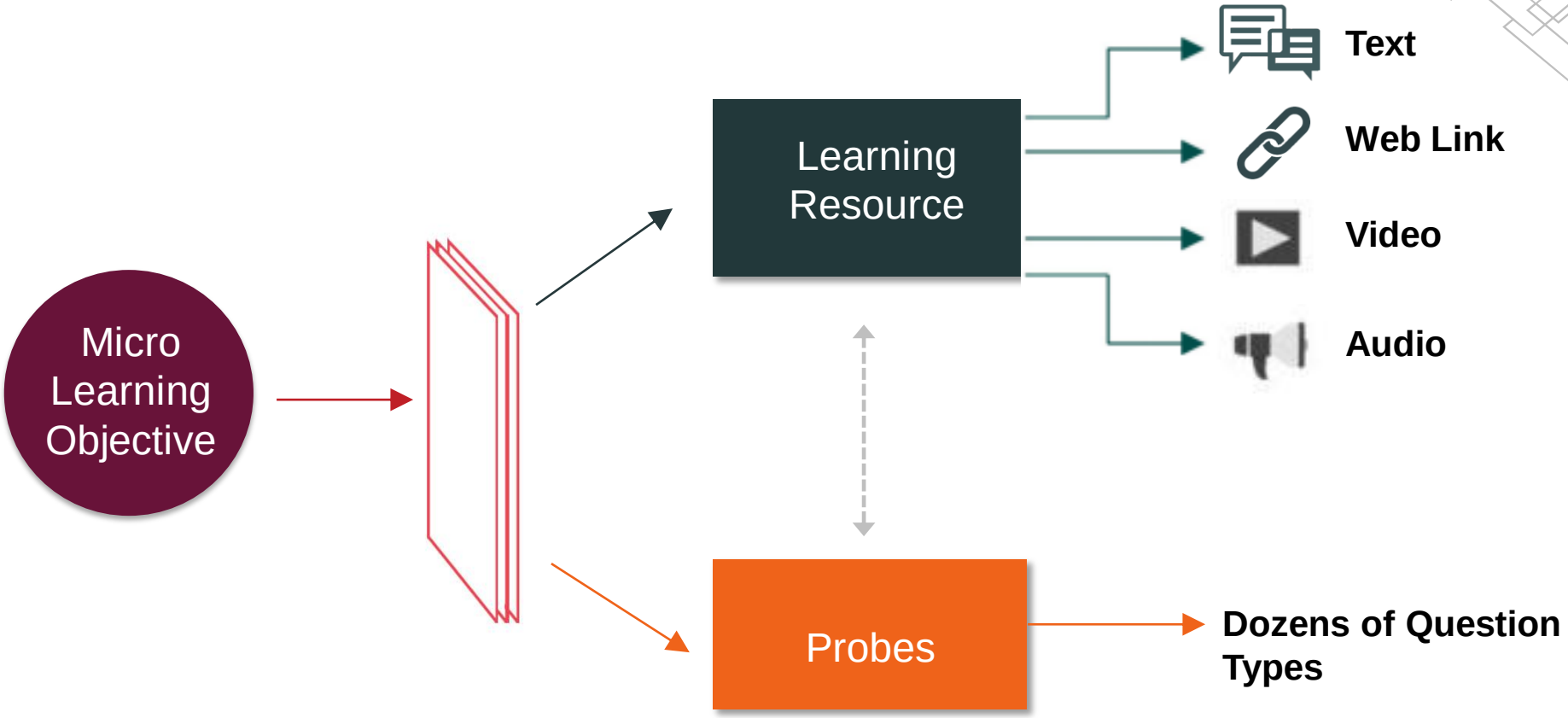
Real-time delivery based on each learner's behavior and performance



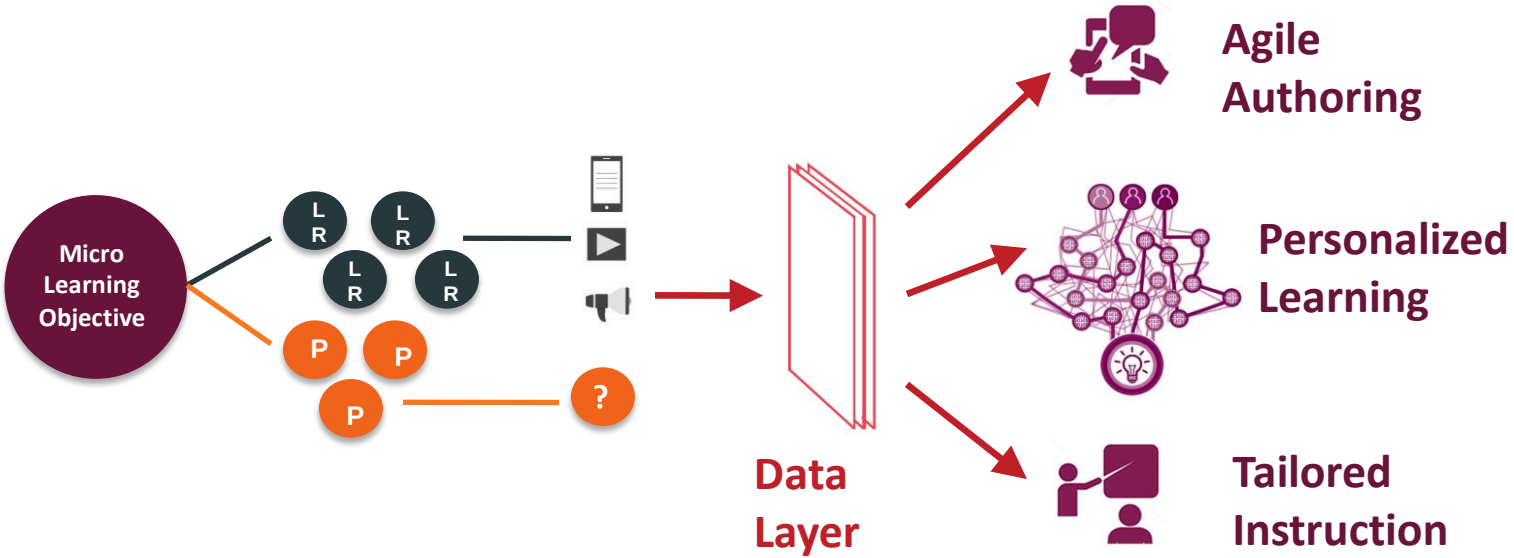
What does this mean for content? Break large goals down



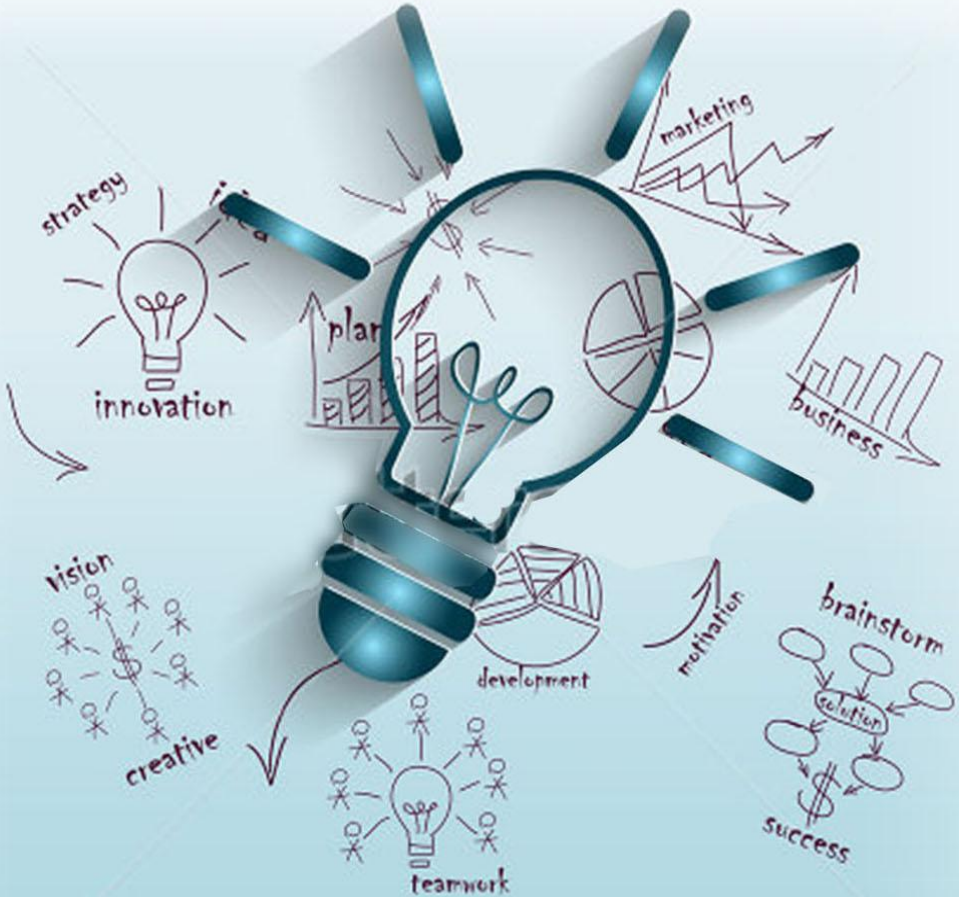
Align micro learning objectives with resources and probes



Unlock performance through a powerful data layer



What does this mean at the organizational level?



Adaptive learning unlocks organizational performance

Learners take ownership of their learning

Topic Scores

View the modules and sections you struggled with the most.
You can look up each challenging section for more study.

Missed Questions

View frequently missed questions.
You can practice questions you recently got wrong.

Most Challenging Learning Objectives

View the learning objectives that are the hardest for you.
You can look these up in your book in order to study them further.

Self-Assessment

View how aware you were of whether or not you knew the answers.
This awareness can help you study more effectively.

Tree of Knowledge

Watch your tree grow as you learn.

Practice Quiz

Here you can make your own practice quizzes.

RECHARGE

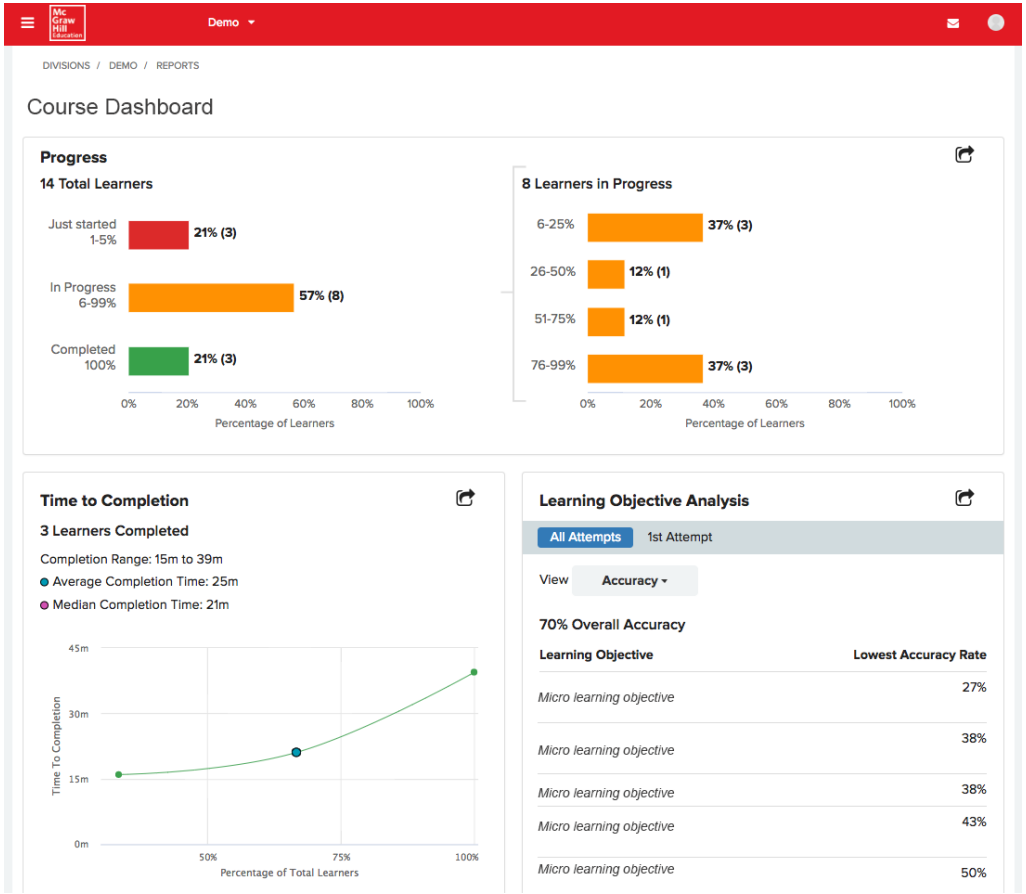
Trainers and managers make learning data actionable through reports

Authors and subject matter experts can continually refine content

Authors see real-time data on the effectiveness of content and questions

Learners can offer feedback

Measurement



Adaptive learning unlocks organizational performance

Measurement

Granular data to measure learning impact, identify potential areas of risk and gauge organizational readiness.

Mastery

Learners complete their learning confident that they have mastered the content.

Efficiency & Personalization

Learners proceed at their own pace and preferred modality of learning, while real-time personalization accounts for varying incoming skill sets & expertise.

Engagement

Real-time personalized learning paths and associated mastery leads to enhanced engagement with both the training and the company.

Agility

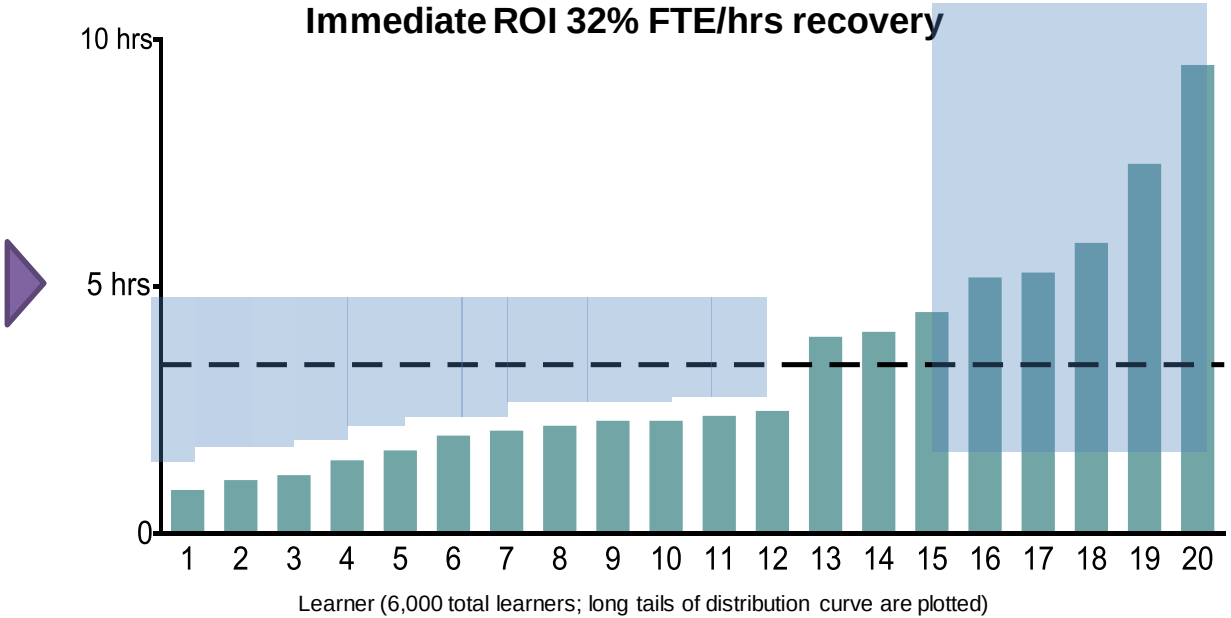
Micro-content assets and data collected within the adaptive data layer can be leveraged to quickly revise content and make new courses.

Mobile

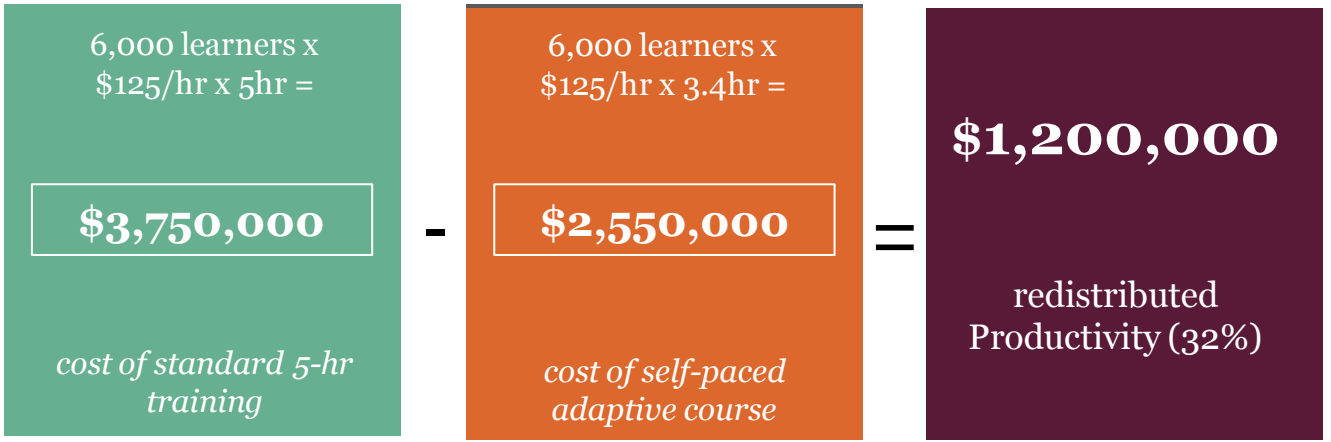
Learners can complete the training anytime, anywhere

Case Study: Global Professional Services Firm
5-hour course transitioned to the adaptive learning platform

6,000 Employees - Time to Mastery



ROI: What other factors can we consider here?



Although the anticipated time-to-completion for the course was 5 hours, the average learner finished in 3.4 hours, due to efficiencies provided by the adaptive algorithm, which focused learners on the areas where they struggled.

Case Study: Global Professional Services Firm
5-hour course transitioned to the adaptive learning platform

Mindset Change
No learners were left behind. Each learner achieved mastery at his or her own pace. All learners must demonstrate mastery to complete the program of study.

Diverse Learners
Learners joining the firm with significant previous experience (#1) and those with limited experience (#20) were each uniquely motivated and challenged on their personalized path to mastery.

Time & Cost
Learning time reduced by 32% from original course. One original 5-hour course, reduced to 3.4 hours when made adaptive, across 6,000 learners, delivered 9,600 hours of repurposed productivity back to the organization.

Impact
Click by click learning data at the learner and cohort level provided rich data to understand and act on organizational readiness.

Agility
Time spend on learning resources and associated learner performance provided actionable data to improve courses. Modular content also permitted rapid update and revision to learning materials.

Benefits of Adaptive for the Healthcare Industry

Key issues in healthcare

- Quickly changing landscape
- New technologies
- Diverse, distributed workforce
- Patients rights/advocacy

Key benefits of adaptive model

- 100% Mastery model, where proficiency is critical
- Meets needs of geographically distributed workforce
- Flexibility—adapts to changing content or needs

Benefits of Adaptive for the Retail Industry

Key issues in retail

- Disruption of traditional model with omnichannel retail
- Organization restructuring
- Layoffs/dissatisfied workforce

Key benefits of adaptive model

- Can provide new skills for new job functions, as needed
- Better engagement leads to boost in customer service and brand
- Meets learning needs of geographically distributed workforce

Benefits of Adaptive for the Hospitality Industry

Key issues in hospitality

- Need for brand consistency despite geographic dispersion
- High turnover requires frequent onboarding of new employees

Key benefits of adaptive model

- Rapid skilling of new workers satisfies demand
- Engagement leads to improved customer service
- Consistent training ensures brand promise

Benefits of Adaptive for the Professional Industry

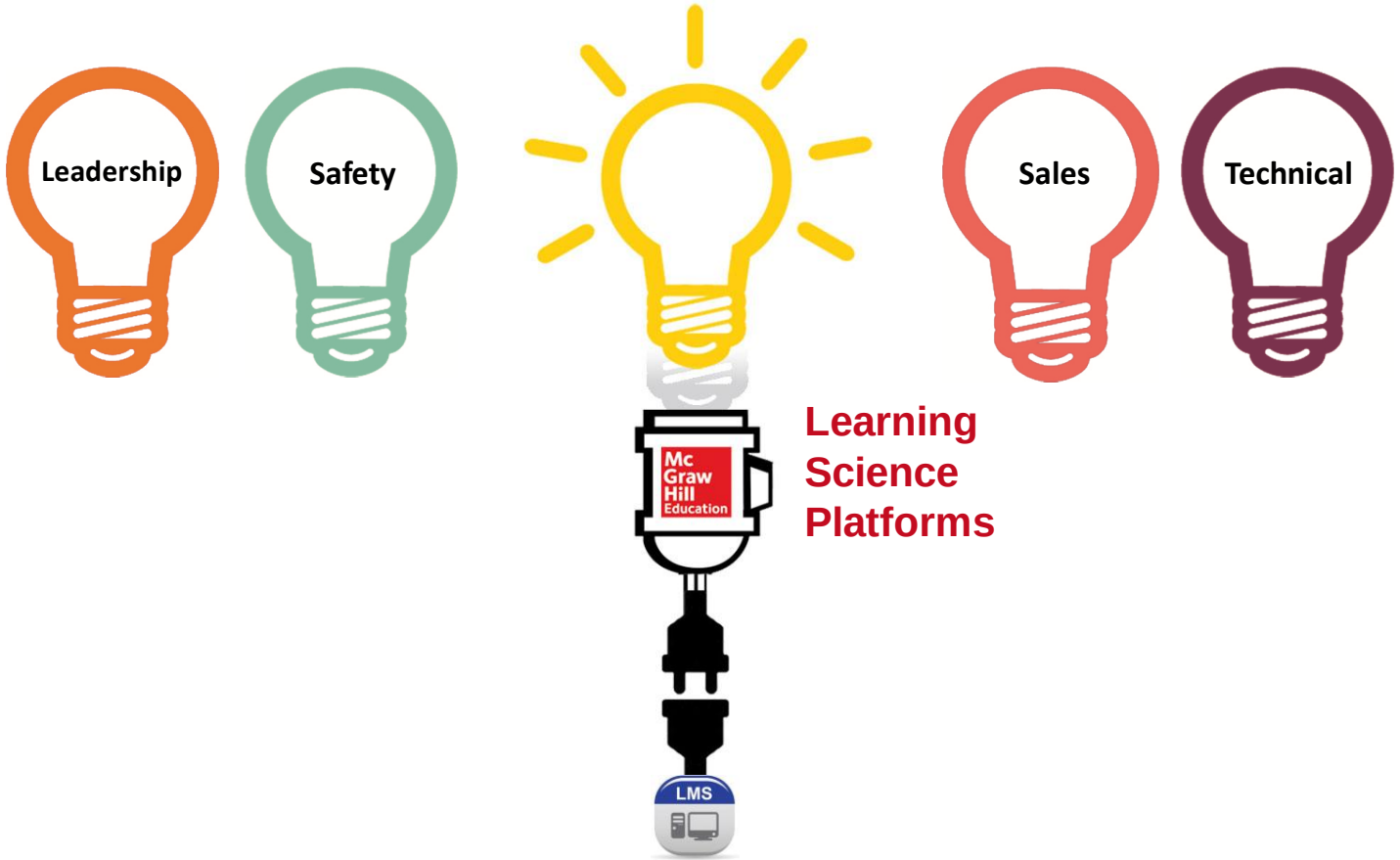
Key issues in professional

- High hourly rate of financial, legal, and consulting services necessitates efficient use of time

Key benefits of adaptive model

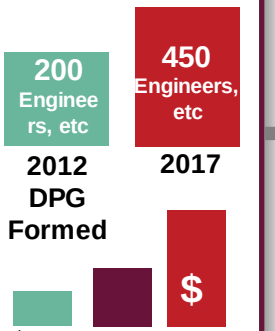
- Personalized paths translate into direct opex savings
- Incoming professionals from a range of backgrounds (liberal arts) often require diverse approaches
- Disruption and pace of industry evolution require rapid knowledge transfer and upskilling

Improvement across all applications



MHE adaptive leverages investment in science and technology

Organic investment



$175M+ per Year in Digital Platforms

Acquisition

ALEKS®

engrade

REDBIRD

MHE Adaptive

User Knowledge

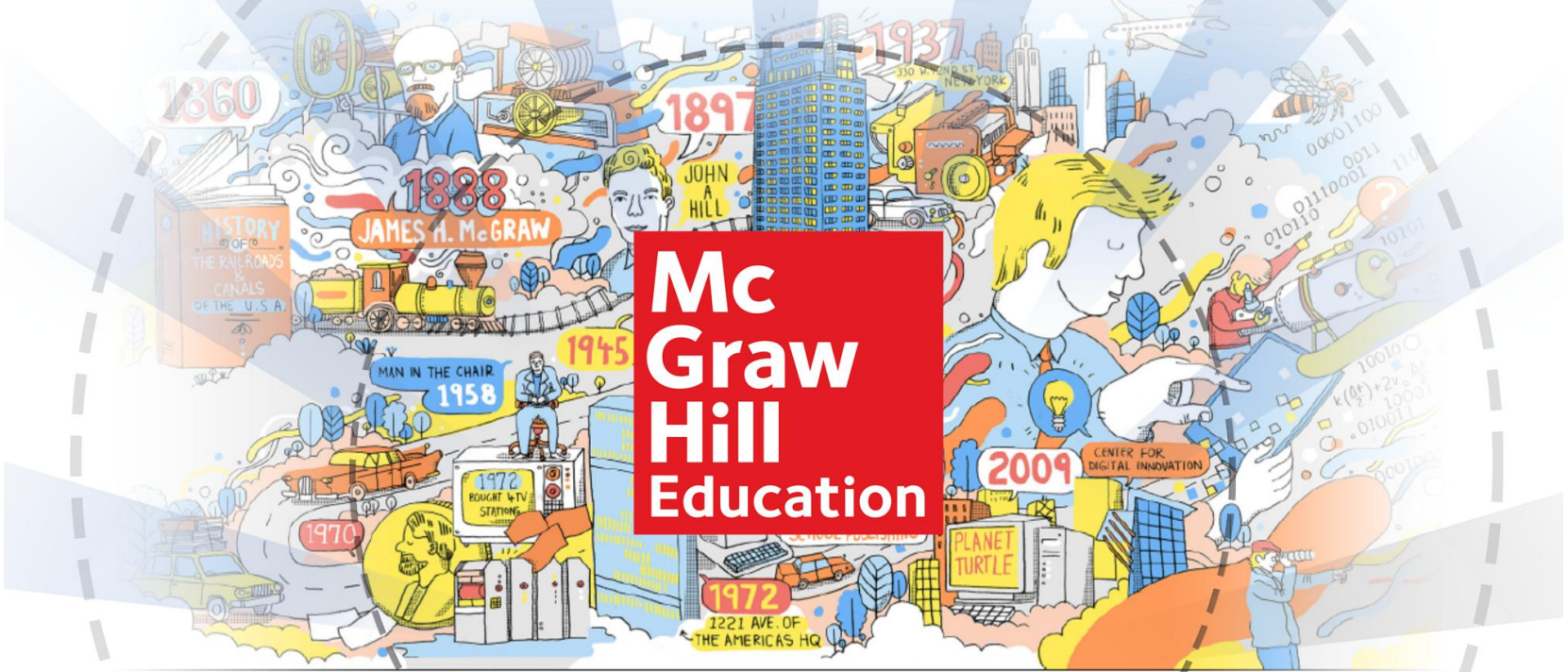
1,600+
Adaptive products

4,000
Authors trained to use MHE Adaptive

5,000,000
Learners using MHE Adaptive

10,000,000,000
Data Layer Interactions

Poll Results

Questions?

Write to us:
Geoff.Broderick@mheducation.com
Christina.Yu@mheducation.com