

# Modern Learning Measurement: How to use Microlearning, Big Data, and Machine Learning



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The logo for Axonify features the word "Axonify" in a grey, sans-serif font. The letter "o" is replaced by a green speech bubble icon with a small tail pointing downwards.

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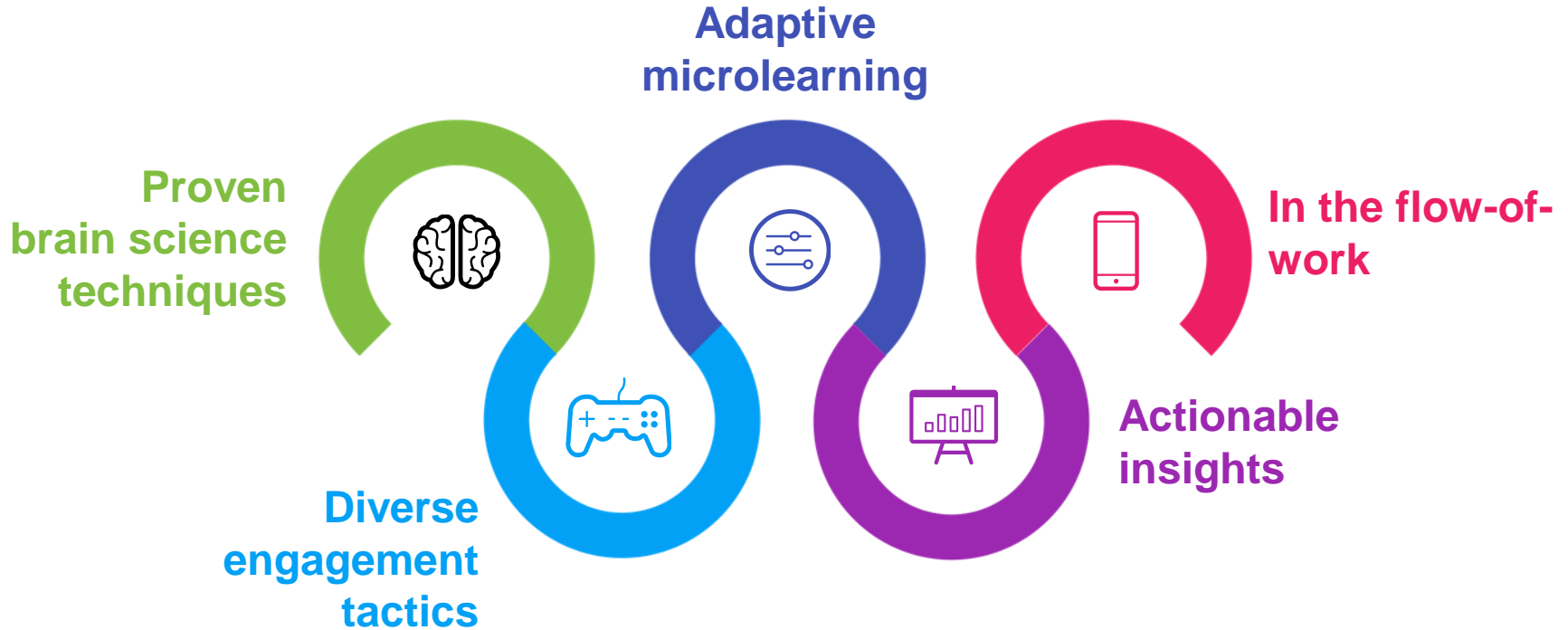
# The Axonify Microlearning Platform

**Microlearning is an approach to training that delivers content in short, focused bites.**

To be effective, microlearning must fit naturally into the daily workflow, engage employees in voluntary participation, be based in brain science (how people actually learn), adapt continually to ingrain the knowledge employees need to be successful, and ultimately drive behaviors that impact specific business results.



# The **Axonify** microlearning experience



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# How to Ask Questions



- Submit your *questions* or *comments* about the discussion to our presenters using the **Questions** tab on your control panel.
- Presentation *slides* and *giveaways* can be found in the **Handouts** tab on your control panel.

*Recording & Slides will also be sent out after the webinar.*





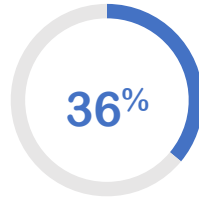
## Impact

bloomingdales

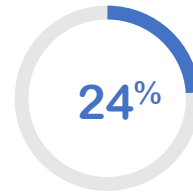
Bloomingdale's is an American chain of luxury department stores with 35 locations in 12 states.

### Business Goal

**Reduce safety claims**



Learning attribution to general liability



Learning attribution to worker's comp



Total Savings



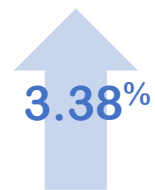
## Impact



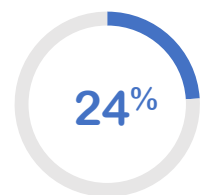
Aristocrat is a pioneer in the game manufacturing industry.

### Business Goal

Reduce case closed time for field technicians.



Increase in 1 day case closes



Learning Attribution



Total Savings



A large, modern warehouse interior with a high ceiling, industrial lighting, and several semi-trailers parked in a loading dock area. The floor is polished and reflective. A person is visible in the distance on the left side.

 **Impact**

 **Logistics**

Global logistics provider  
with high-volume  
warehouse operations

**Business Goal**

Increase volume of  
inspections performed

**No Learning Impact Attributed**

# Learning Measurement

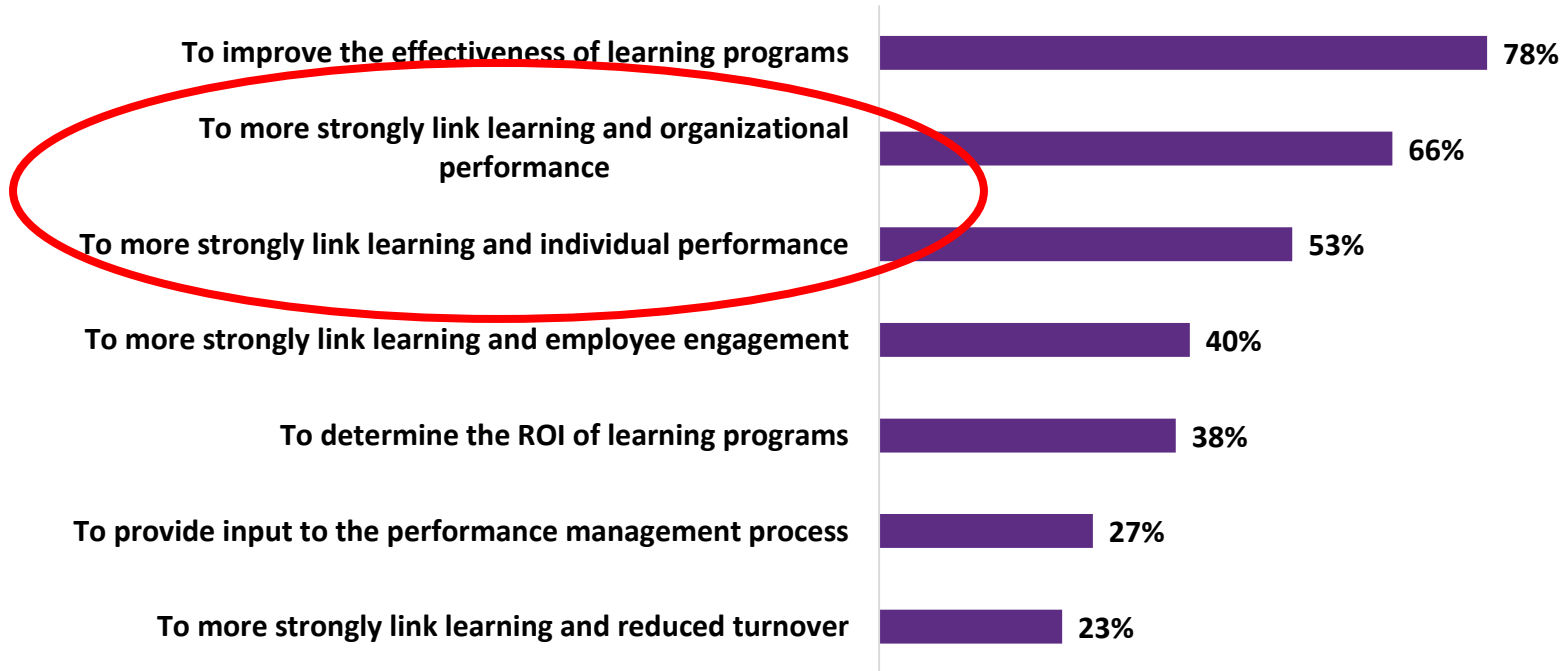
# Poll Question

How important is it to *your* organization to be able to measure and understand the impact of learning?

- Critically Important
- Important
- Somewhat Important
- Not Important

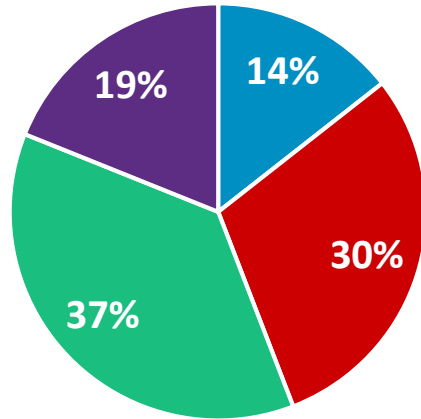


# Drivers of Learning Measurement

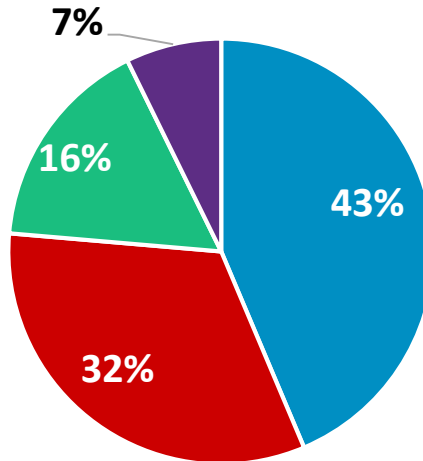


# Effectiveness of Learning Measurement

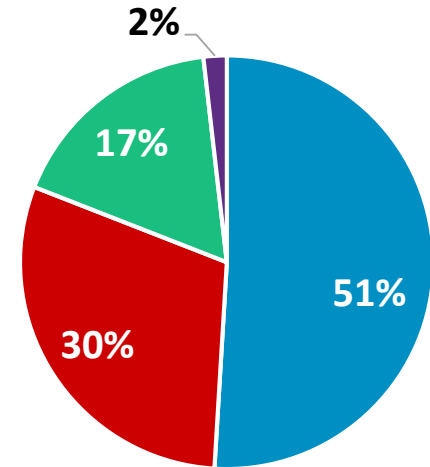
## Formal



## Experiential



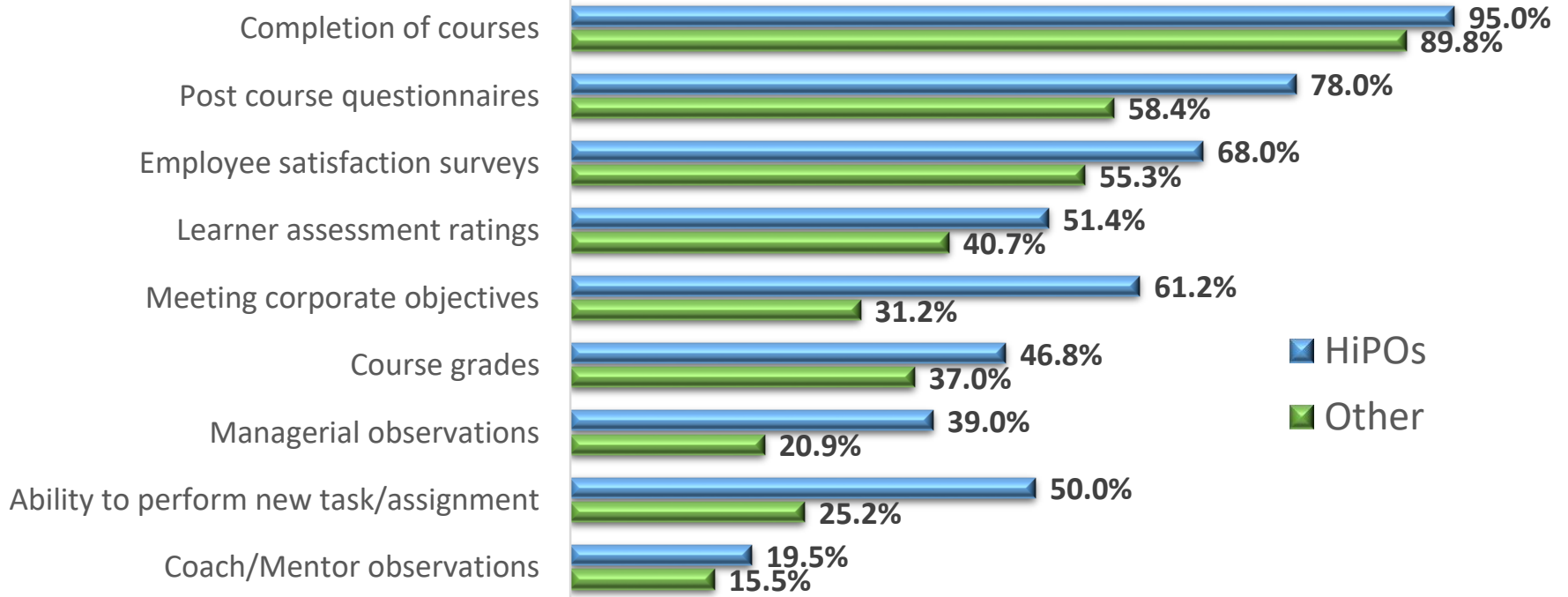
## Informal



- Not at all
- Somewhat
- Moderately
- Highly

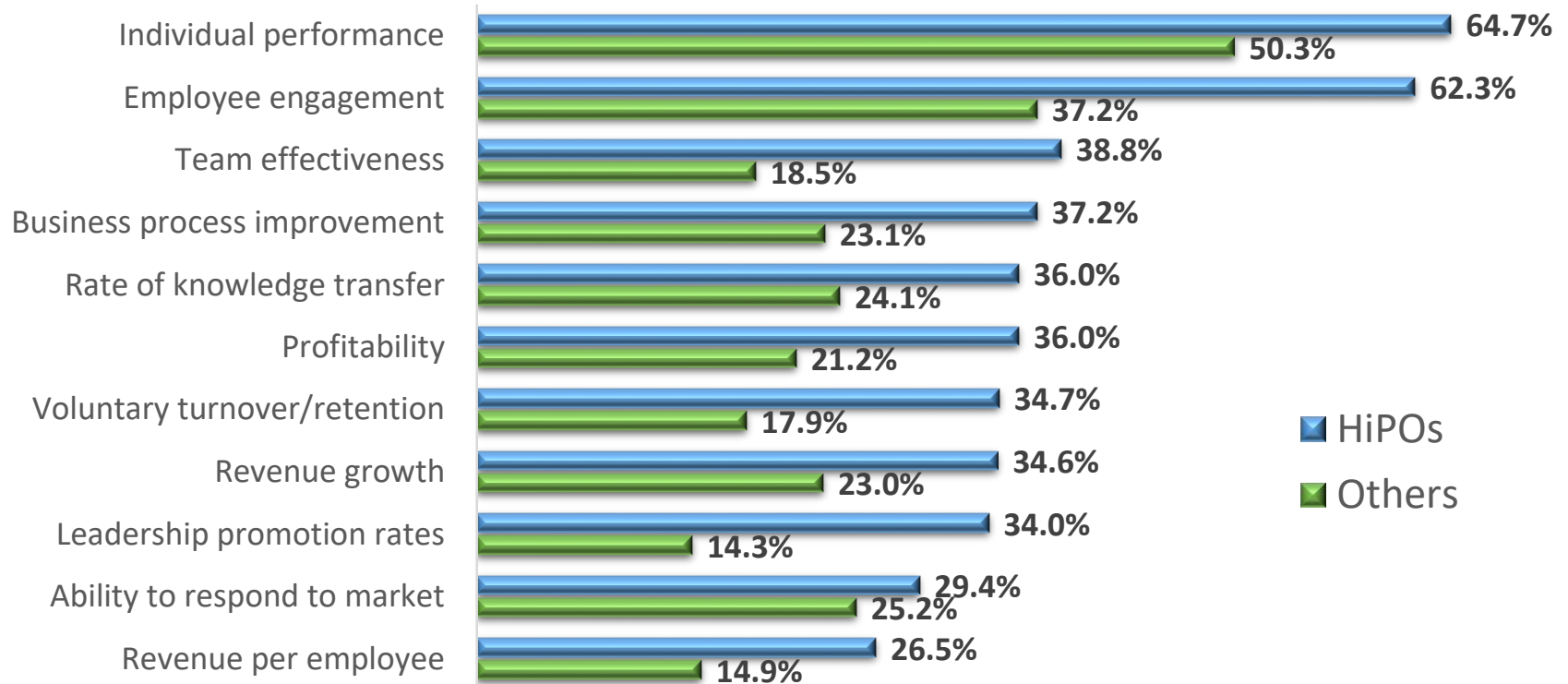
# Top Metrics Used

## Regularly or Consistently



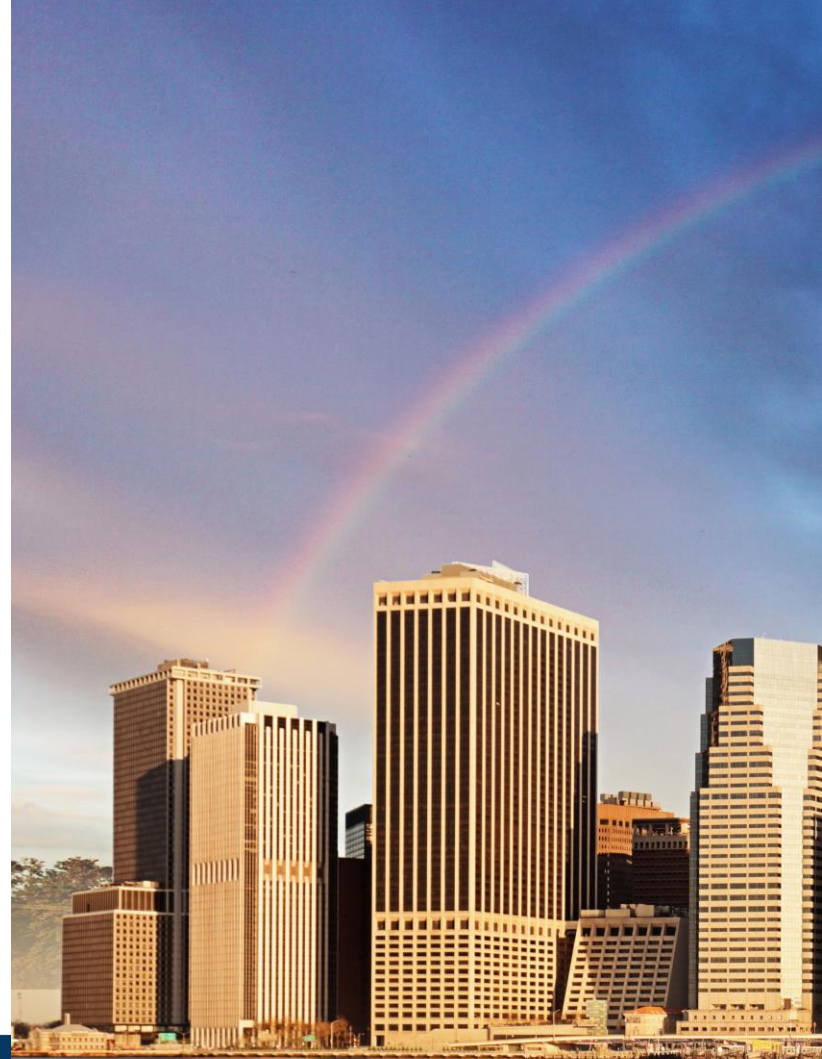


# Outcomes measured



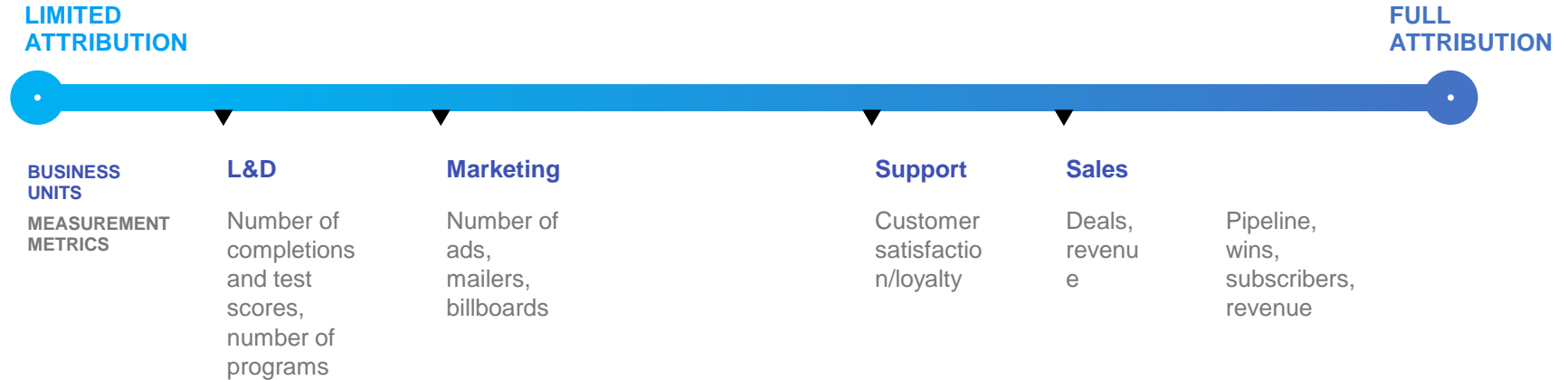
# Catching the rainbow...

- ✓ Continuously improve the **effectiveness** of training programs.
- ✓ Use training as a lever to **optimize business results** in real-time
- ✓ Automatically **adapt to individual learning gaps** based on an understanding of what actually lifts business results.
- ✓ Do all of this **AT SCALE** – for each and every program



# Attribution

The degree of impact an activity has on *real* business metrics



# Learning has a data problem

The “streetlight”  
effect keeps us  
searching for  
answers in the wrong  
place (event-based  
data)

DURATION

COMPLETIONS

GRADES

ATTEMPTS

To attribute learning  
to business results,  
data must exhibit  
the  
5 V's of Big Data:

1. VELOCITY

2. VARIETY

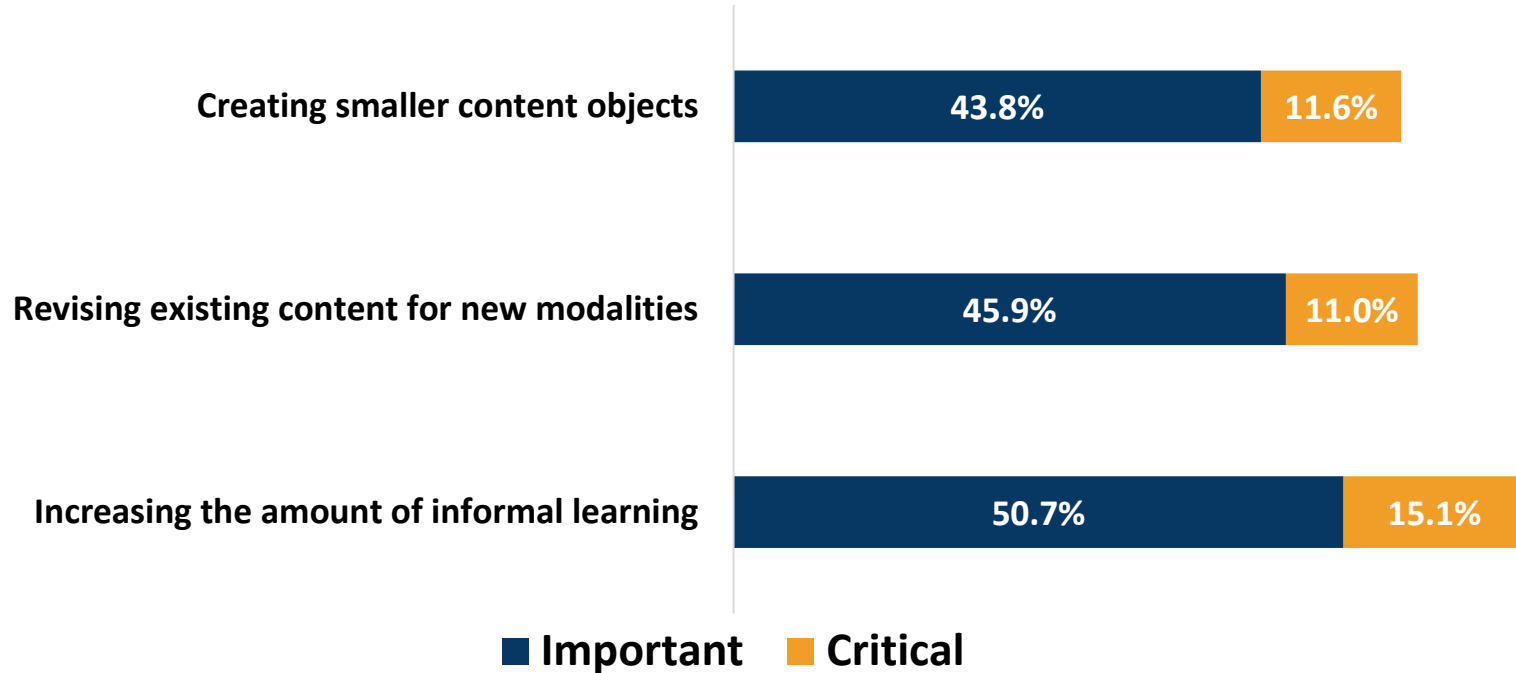
3. VERACITY

4. VALUE

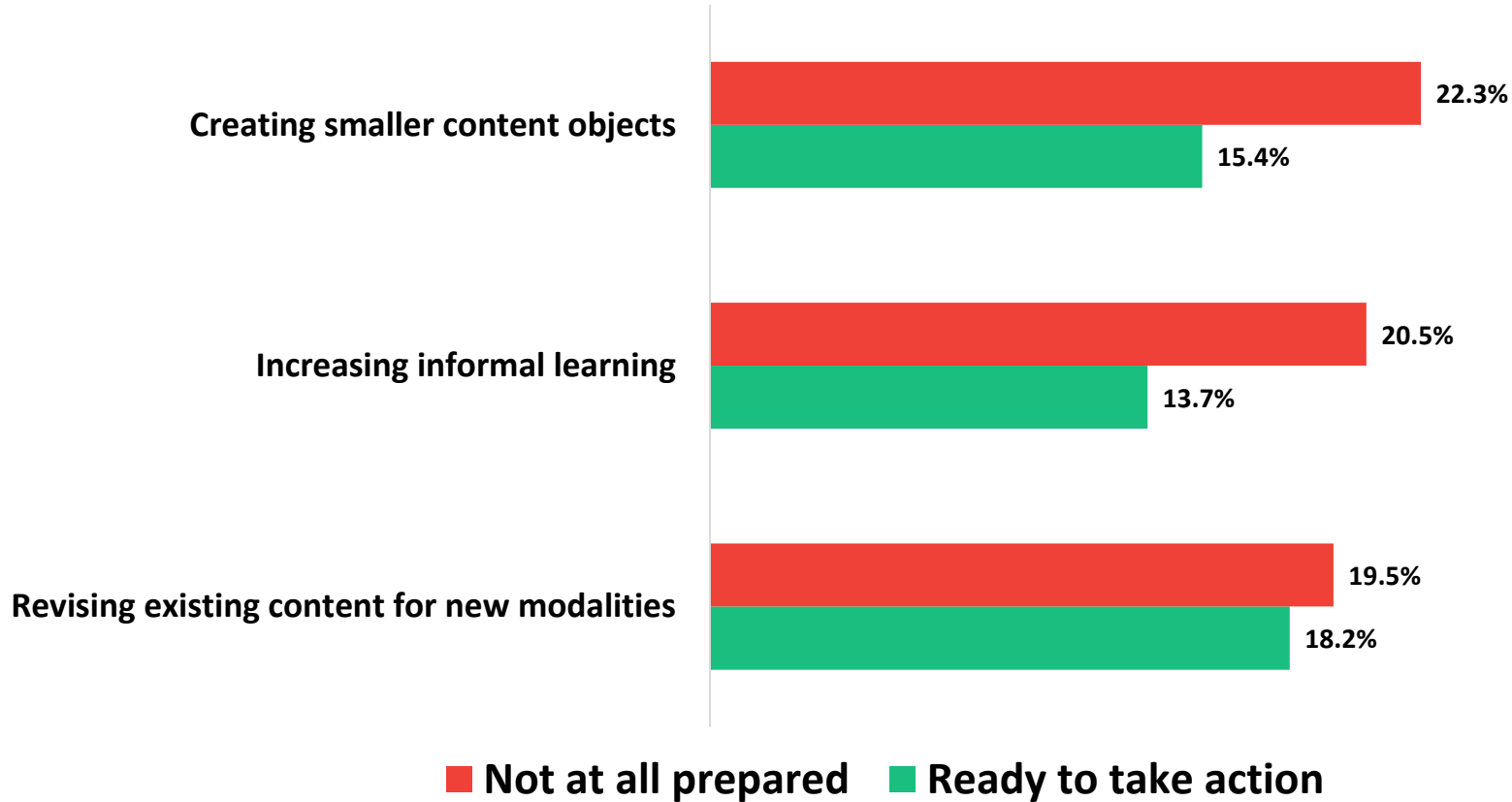
5. VOLUME

# Microlearning

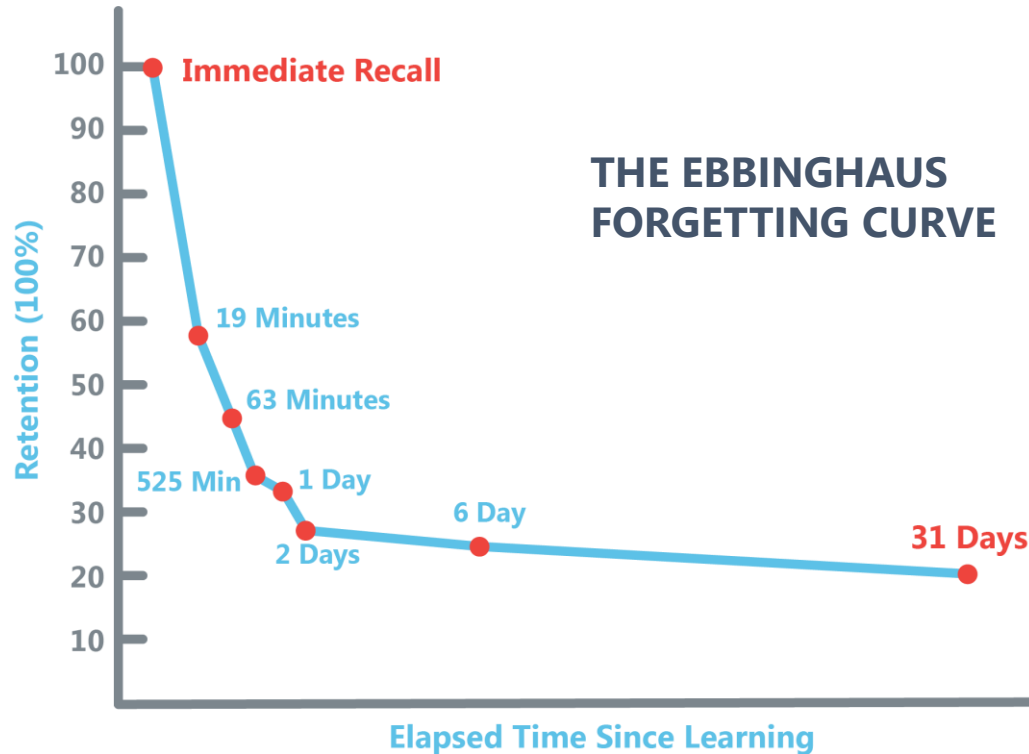
# Top Learning Initiatives for Achieving Business Goals



# We're Not Ready

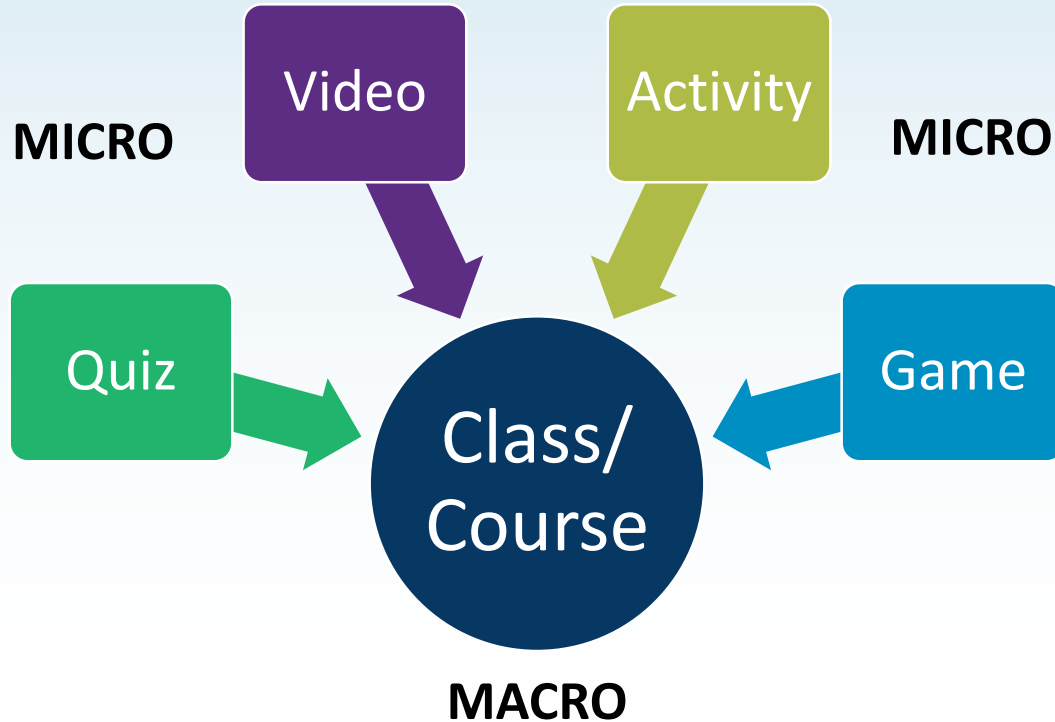


# Big Learning's Challenge





# It All Works Together



# Big data and machine learning have transformed virtually EVERY industry

## Insurance

To mitigate  
risk exposure



## Retail

To drive transaction  
size/volume

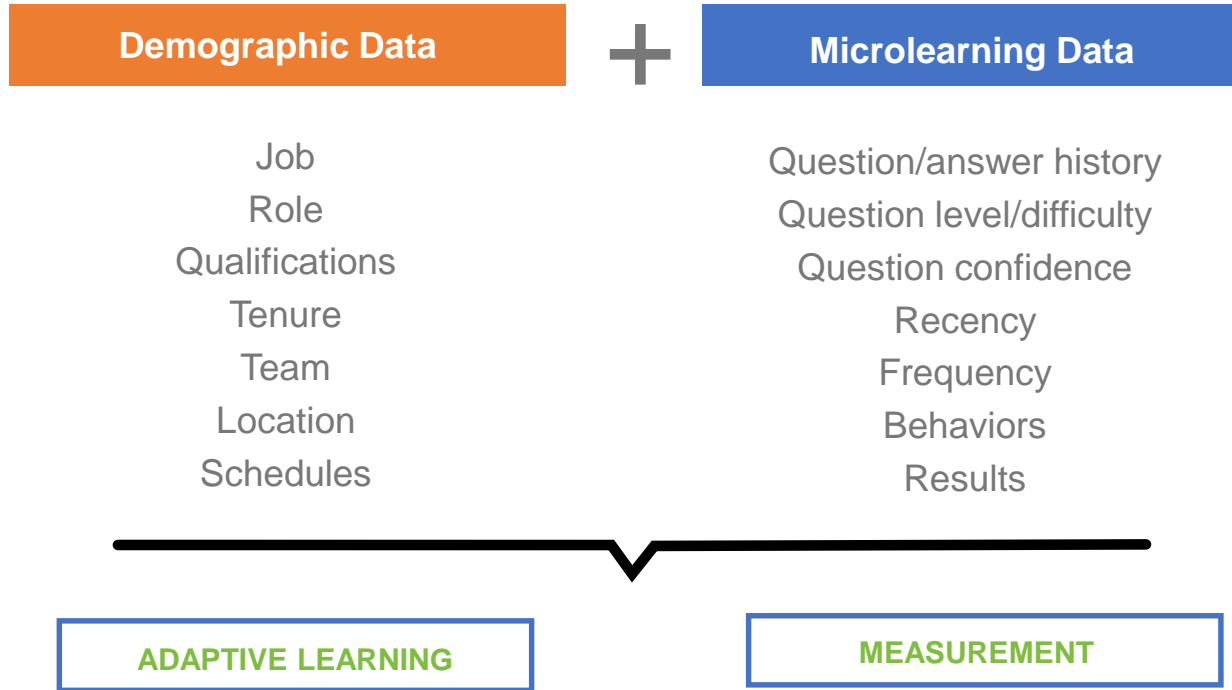
## Banking

To identify and  
mitigate credit fraud

## Entertainment

To personalize the  
user experience

# What does microlearning data look like?

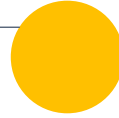




Continuous  
microlearning  
experience  
generates the  
**Microlearning  
Data** we need

## QUESTION + TIME

The baseline  
measurement  
of knowledge



## QUESTION META DATA

- Subject
- Proficiency
- Progress
- Iteration
- Confidence
- Difficulty

## KNOWLEDGE

- Baseline
- Current
- Lift
- Decay

## BEHAVIORS + RESULTS

- Positive
- Negative



# How much microlearning data can be captured?

**74%**

Employee participation every 30 days

**104**

Sessions per employee per year

**10**

Micro-data points per question

**x**

**520**

Questions per employee per year

**=**

**5200**

Micro-data points per employee per year

**250M**

Micro-data points per organization per year

**593,000 printed pages**

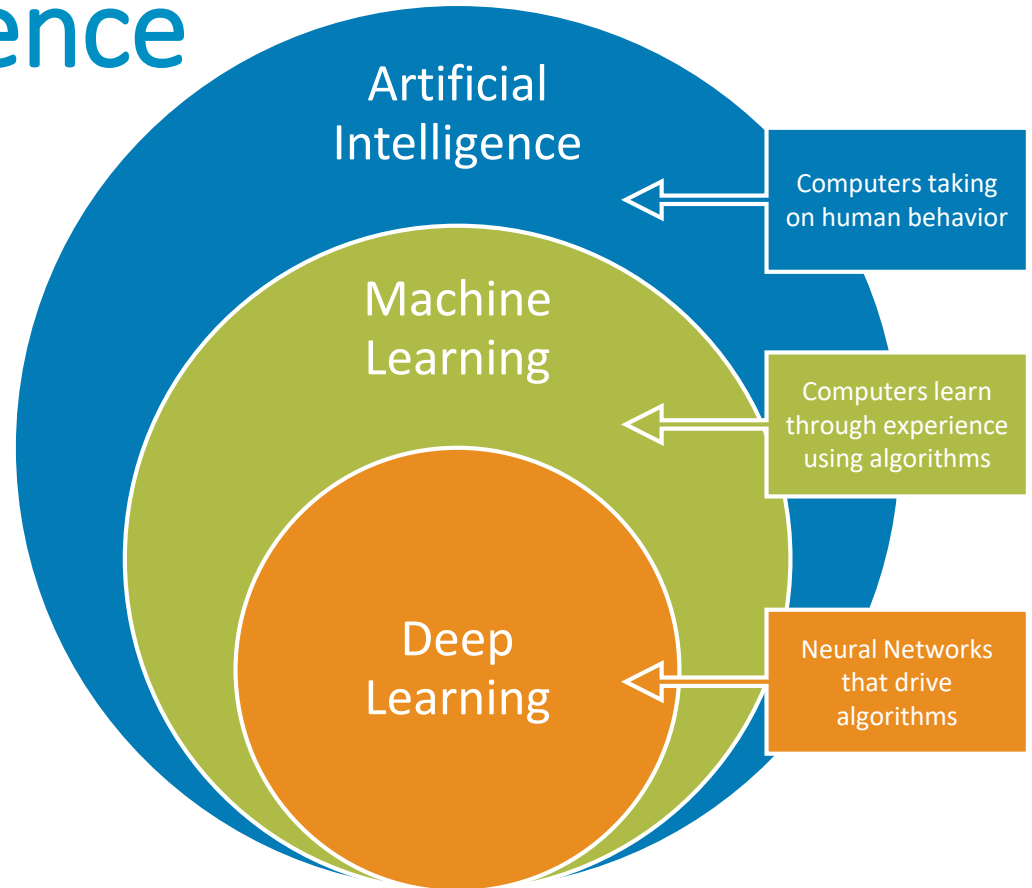
# Machine Learning

# Better Than Humans?



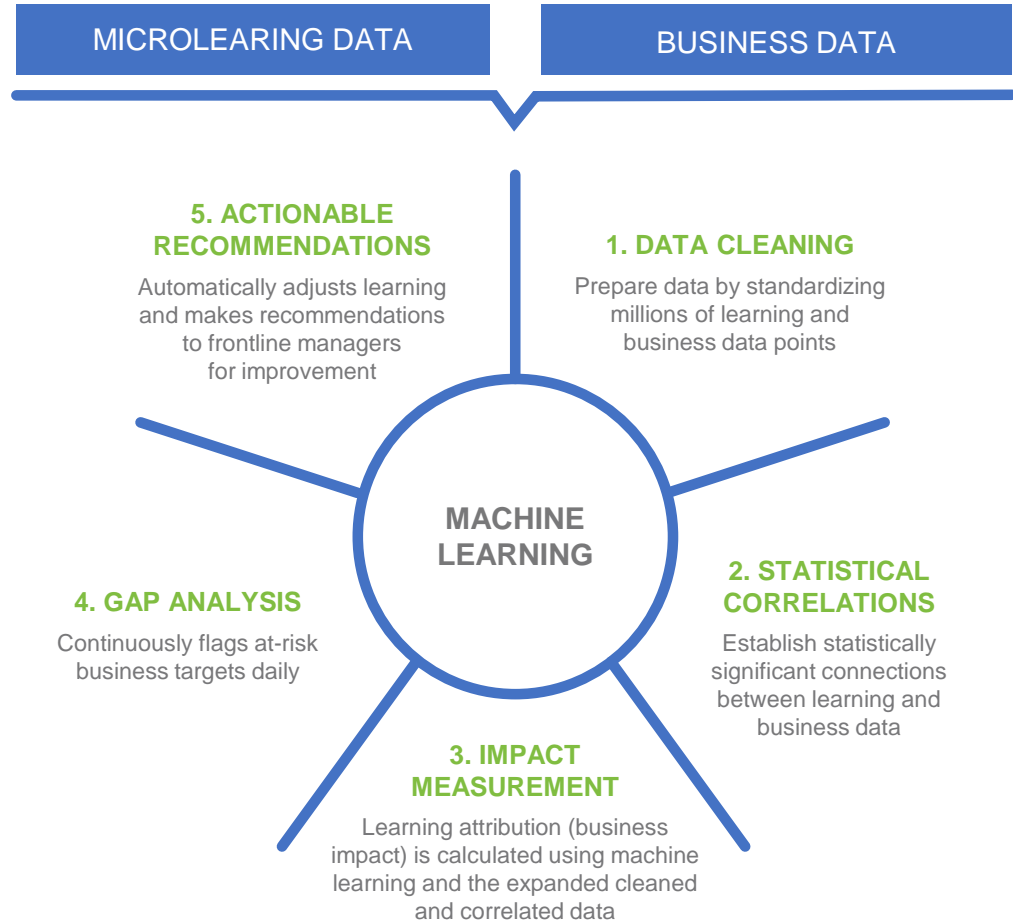
# Artificial Intelligence

- Recommendations
- Personalization
- Content curation
- Learning path development
- Skill/Competency building
- Internal mobility
- Impact measurement

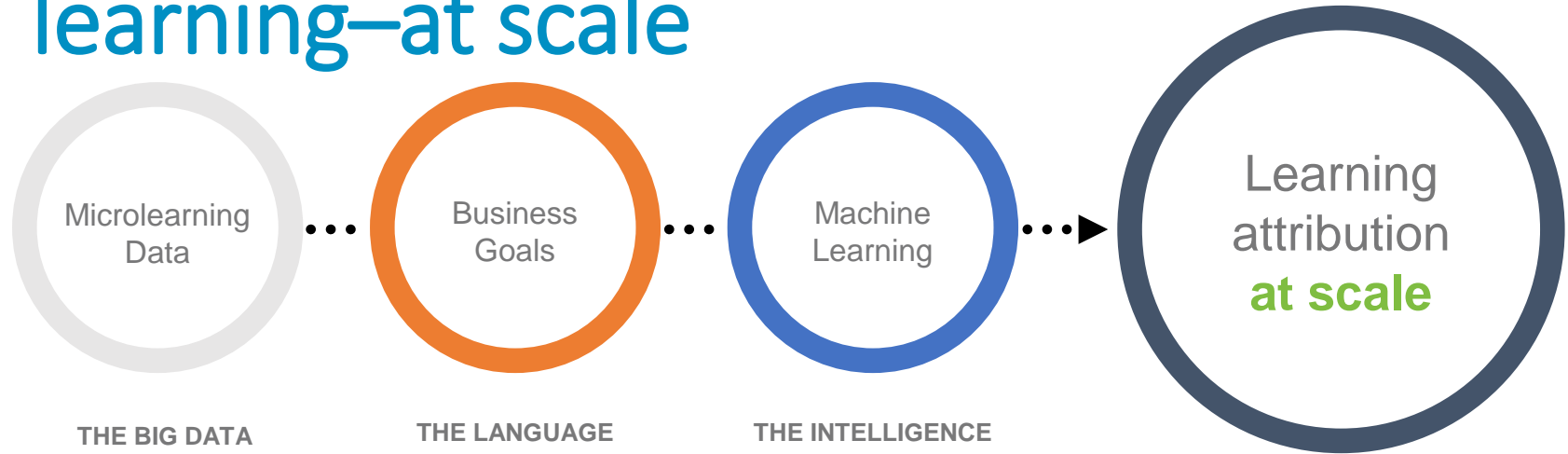





With the right data, machine learning kicks in.



# We can now combine these principles to attribute learning—at scale



A long-exposure photograph of a city street at night. The image shows light trails from cars and buildings in the background, creating a sense of motion and speed. The text is overlaid in the center of the image.

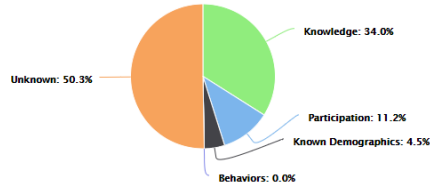
**The time for training to digitally transform  
using big data is here.**

## Transaction Size Impact

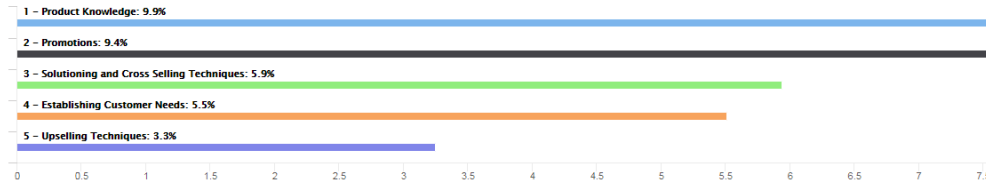
For March 2018

3.3% + 30.7% = 34.0%  
From Knowledge Lift From Knowledge Maintenance From Knowledge

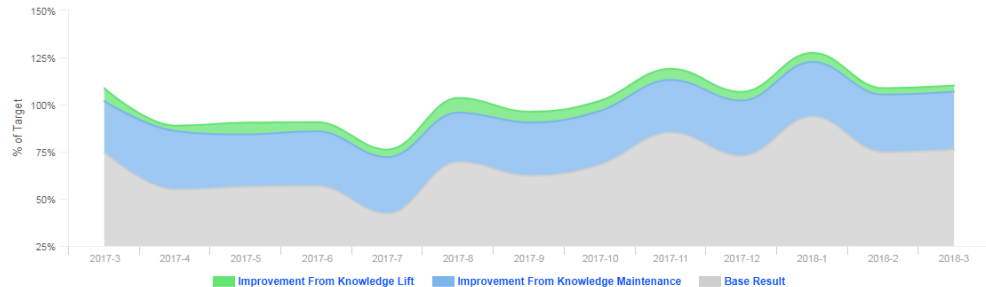
### Impact Breakdown



### Linked Subjects Breakdown



### Impact History



# Learning practitioners can measure, prove and understand business impact – at scale

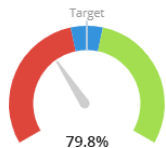
- ✓ Isolate learning to see exactly how it's contributing to business impact
- ✓ Understand individual program performance
- ✓ Observe business impact trends over-time
- ✓ Unpack underperforming programs to determine root cause

Transaction Size

Teams: Colorado, Arizona, New York, Kansas

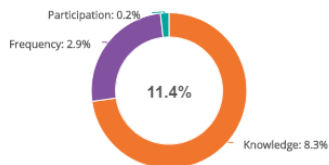
April Forecast

4 teams



Below Target

Opportunity to Improve



Improvement Recommendations

0.2% Participation

Your teams are participating at 96%. If you get everyone participating, you can improve results by 0.2%.

2.9% Frequency

Your teams train on average 14.54 times a month. If you can get your teams to participate in training every workday, you can improve your results by 2.9%.

8.3% Knowledge

These subjects have a high impact to your results. Ensure your team has completed this training and are performing with high knowledge and confidence.

4% Product Knowledge

2.1% Marketing Promotions

1.1% Sales Solutioning and Cross Selling Techniques

1% Customer Service Establish Customer Needs

0.1% Sales Upselling Techniques

# Frontline managers use training as a lever to optimize business results

- ✓ Understand which teams are effectively leveraging knowledge to drive business results
- ✓ Rely on data to have discussions about the potential impact of increasing participation or frequency
- ✓ Enable front-line managers to quickly take action

# 4 Simple Steps to Impact Measurement

**1. Define  
Business  
Goals**

**2. Set Target  
Thresholds**

**3. Link Subjects**

**4. Upload  
Business Data**

# POLL: Do you currently have access to business data (monthly sales, shrink, safety etc.)

- A. I have access to all of the business data
- B. I have access to some of the business data
- C. I don't currently have access to business data but I know where to find it
- D. I don't know what type of business data is needed or where to start looking

# Questions?



Thank you  
for joining us today!

If you have any additional questions, please email us at [success@brandonhall.com](mailto:success@brandonhall.com).