Big Data, Better Learning?
How Big Data is Affecting Organizational Learning

June 17, 2014

Carol Morrison, Senior Research Analyst, i4cp

Jenny Dearborn, SVP and Chief Learning Officer, SAP

Sponsored by:

synermetric

ASTD
www.astd.org

Carol Morrison
Senior Research Analyst
Institute for Corporate Productivity

Jenny Dearborn
SVP and Chief Learning Officer
SAP

i4cp discovers the people practices that drive market performance.

Inc.500 | 5000

2011, 2012 and 2013

SAP AG is a world leader in enterprise software and software-related services. HQ in Walldorf, Germany; locations in 130+ countries; 40-year history of innovation.

Defining High Performance

- Revenue growth

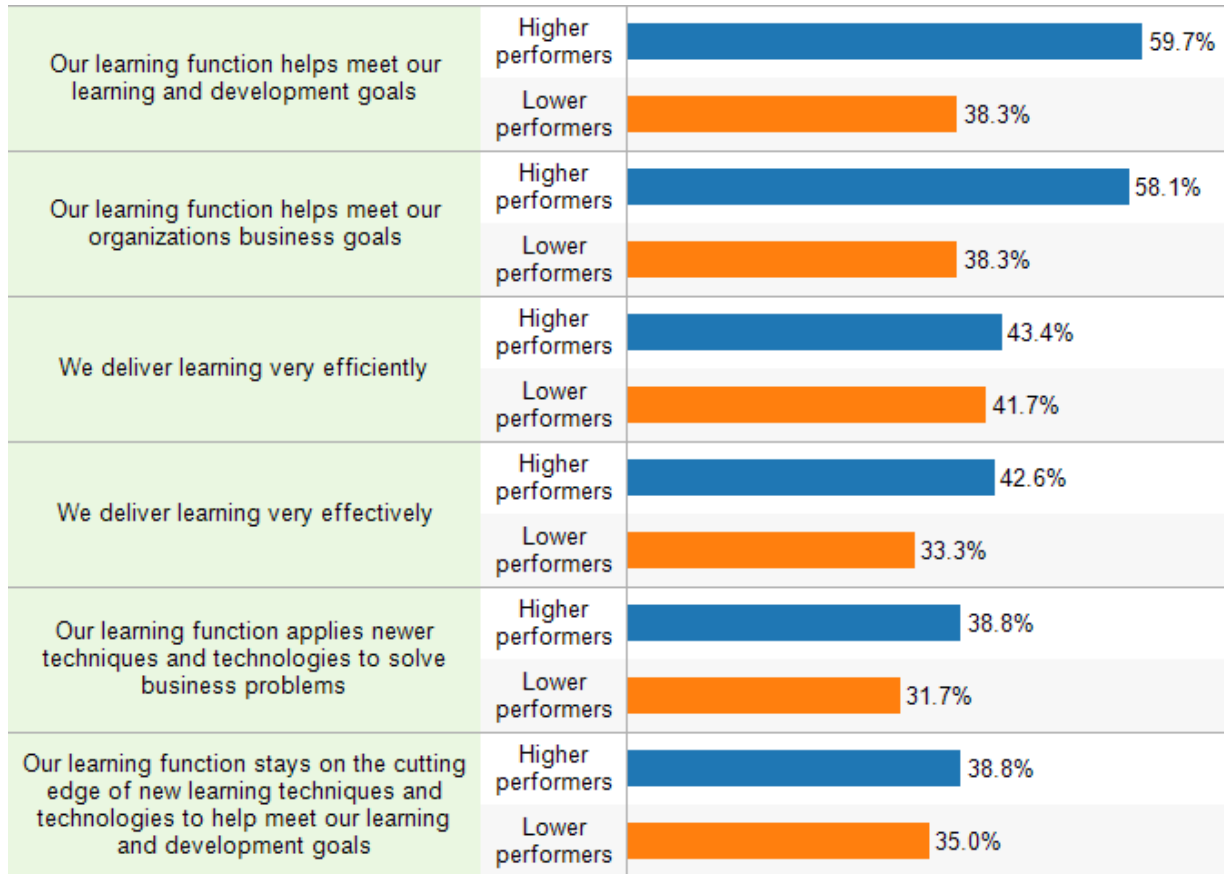- Market share

- Profitability

- Customer satisfaction

Focus of Research:

- Do high market performance organizations do things differently?
- Do specific practices correlate with market performance?

Learning Effectiveness

High market performers score higher in learning effectiveness

Our learning function helps meet our learning and development goals	Higher performers	59.7%
	Lower performers	38.3%
Our learning function helps meet our organizations business goals	Higher performers	58.1%
	Lower performers	38.3%
We deliver learning very efficiently	Higher performers	43.4%
	Lower performers	41.7%
We deliver learning very effectively	Higher performers	42.6%
	Lower performers	33.3%
Our learning function applies newer techniques and technologies to solve business problems	Higher performers	38.8%
	Lower performers	31.7%
Our learning function stays on the cutting edge of new learning techniques and technologies to help meet our learning and development goals	Higher performers	38.8%
	Lower performers	35.0%

High/very high extent responses

About the Study

- 418 respondents
- Representing varied industries
- 80% manager level or above
- Most organizations with workforces of 1000 or more
- Interviews with practitioners
- Published June 2014

"High volume, high velocity, and/or high variety information assets that require new forms of processing to enable enhanced decision making, insight discovery and process optimization" (Laney, 2012).

WATCH & LEARN

30%

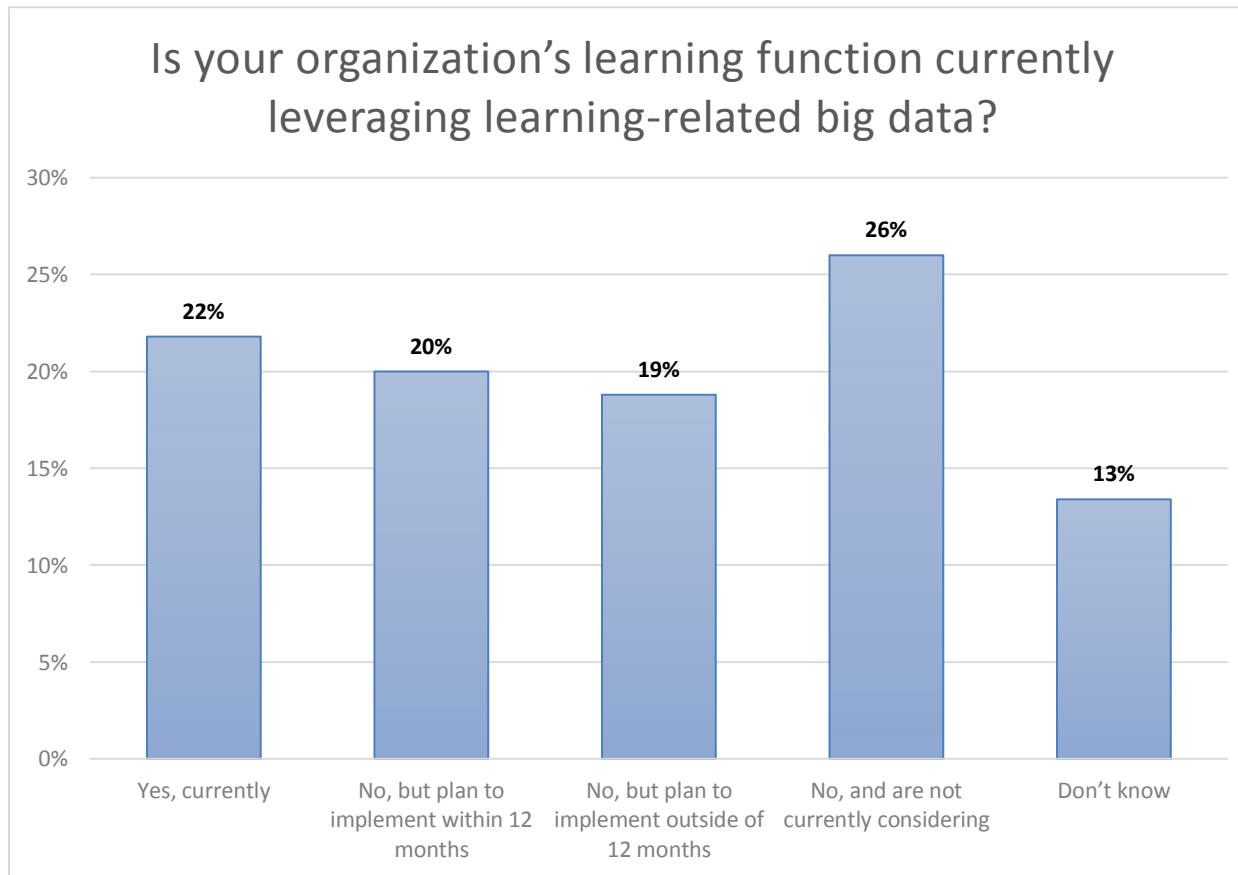Organizations with big data initiatives underway

34%

Plan future big data initiatives

15%

Organizations highly effective at analyzing big data

i4cp

SAP

ASTD

What about the Learning Function?

Is your organization's learning function currently leveraging learning-related big data?

- Yes, currently: 22%
- No, but plan to implement within 12 months: 20%
- No, but plan to implement outside of 12 months: 19%
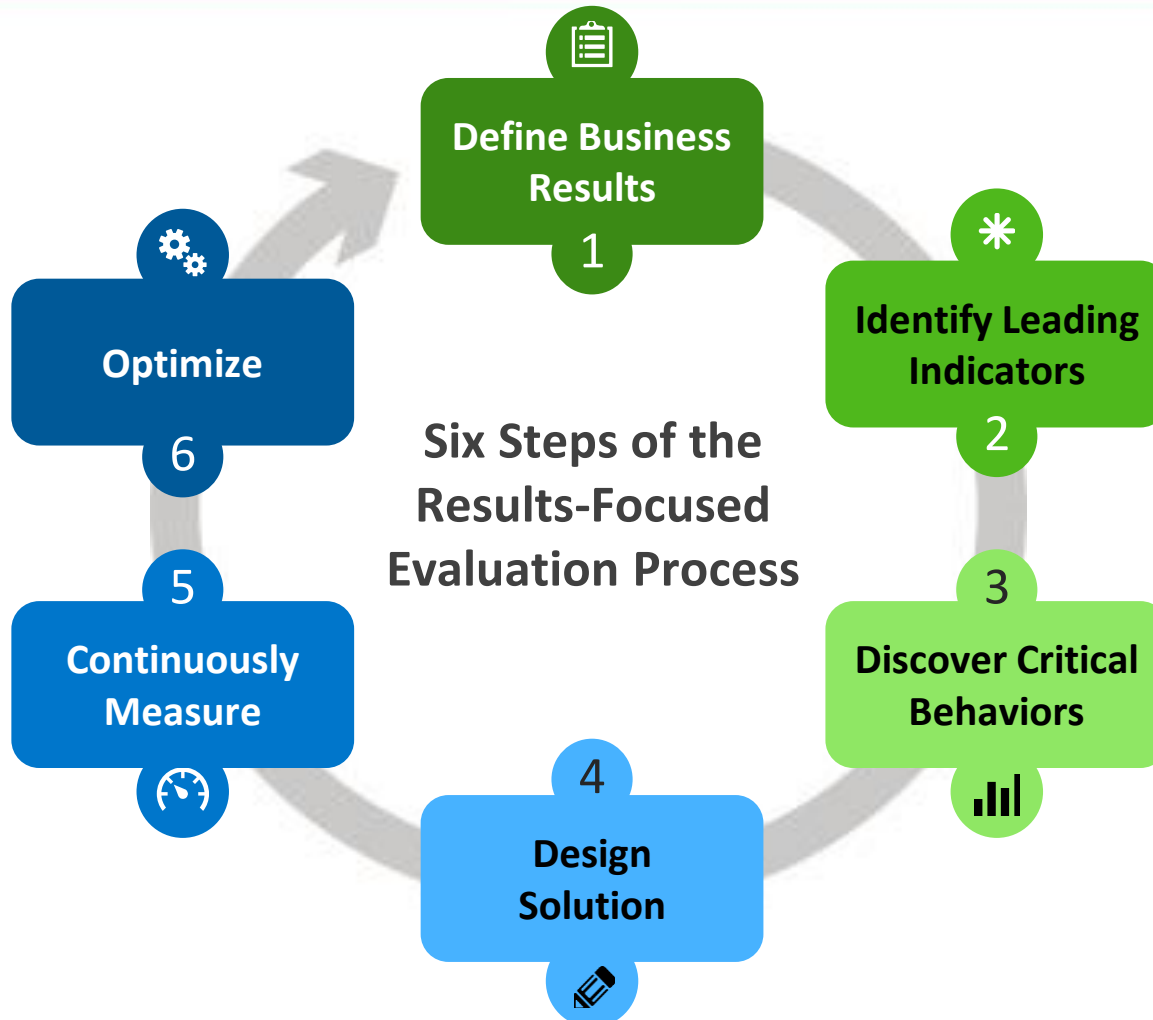- No, and are not currently considering: 26%
- Don't know: 13%

What's driving learning's interest in big data?

Improvement!

- Evaluating effectiveness of L&D initiatives
- Evaluating business impact of learning
- Delivering learning

- Make better decisions in the learning function

- Individually tailor learning content

- Gain greater understanding of the learning audience

- Empower learning to use new technologies

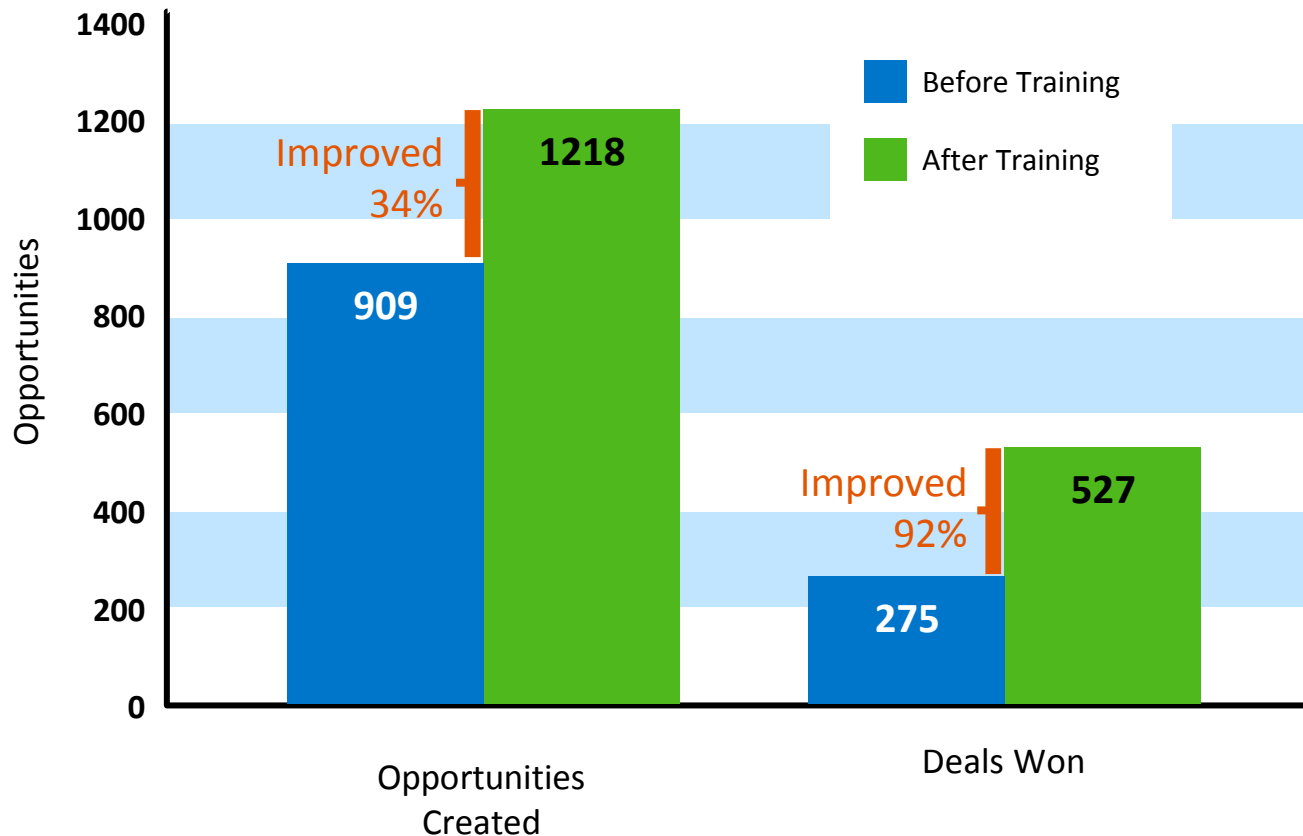- Make faster decisions in the learning function

- Analyze ROI

Six Steps of the Results-Focused Evaluation Process

1. Define Business Results
2. Identify Leading Indicators
3. Discover Critical Behaviors
4. Design Solution
5. Continuously Measure
6. Optimize

Ramp to Quota

Sales University: "Ramp to Quota" Sales Onboarding

Sales Cycle Stages

Stage 1 SUSPECT	Stage 2 PROSPECT	Stage 3 PIPELINE	Stage 4 DECISION PENDING	Stage 5 CLOSING THE DEAL
Business Metrics				
• Opportunity number • Opportunity quality	• Deal Size • Product Mix	• Conversion to late stage	• Sales Cycle • Forecast accuracy	• Close Ratio • Win to loss ratio
Leading Indicators				
• Prospecting • Account research • Messaging • Qualification • Access to C level	• Needs discovery • Strategic positioning • Expand & broaden opportunity	• Connecting BizX drivers to SF solutions • Compelling demo • Competitive positioning • Leverage teams and Resources	• Financial acumen/ business case prez • Negotiation • Winning all stakeholders	• Gain commitment • Closing

Training Courses

- Sales Boot Camp
- CXO Relevancy
- Prospecting | Negotiation
- SC Boot Camp
- Great Demos
- Sales Coaching

58%

Learning functions have *significantly* more data today than 5 years ago
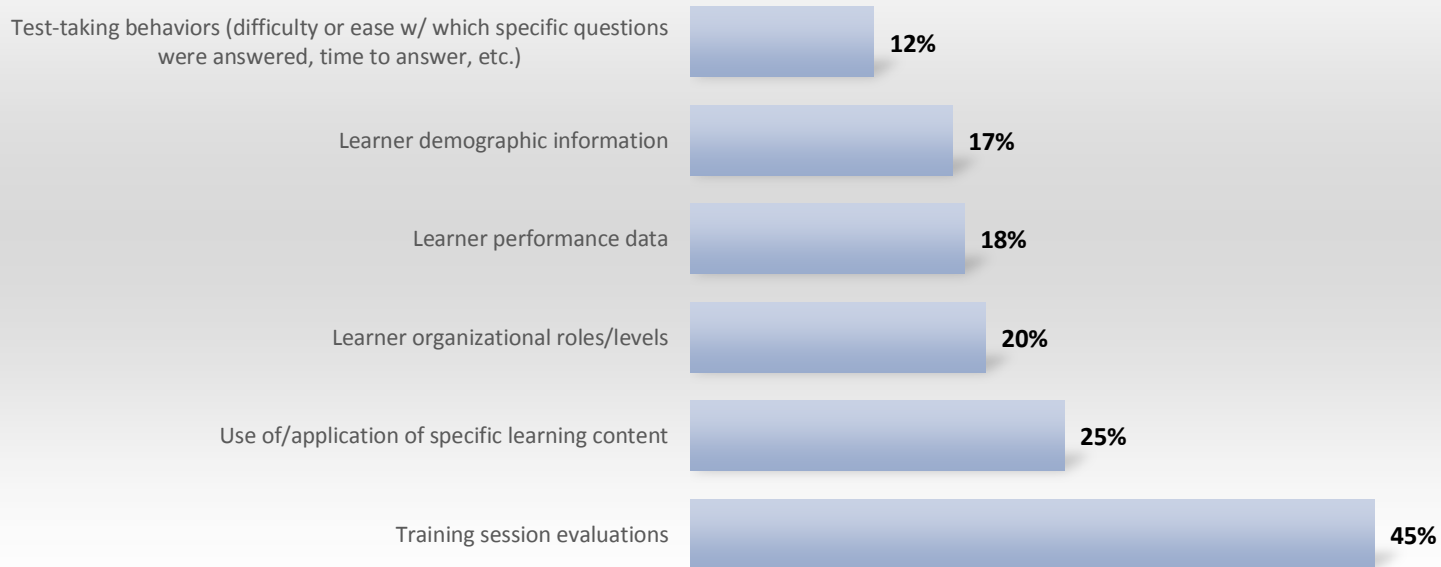
31%

Have more data than just a year ago

- The amount of data in the world now is comparable to every U.S. resident sending three tweets every minute for 26,976 *years.*

- By 2020, data production will be 44 times greater than it was in 2009

Wikibon 2013

Smile sheets top data leveraged by learning

To what extent are the following types of big data leveraged by your organization?

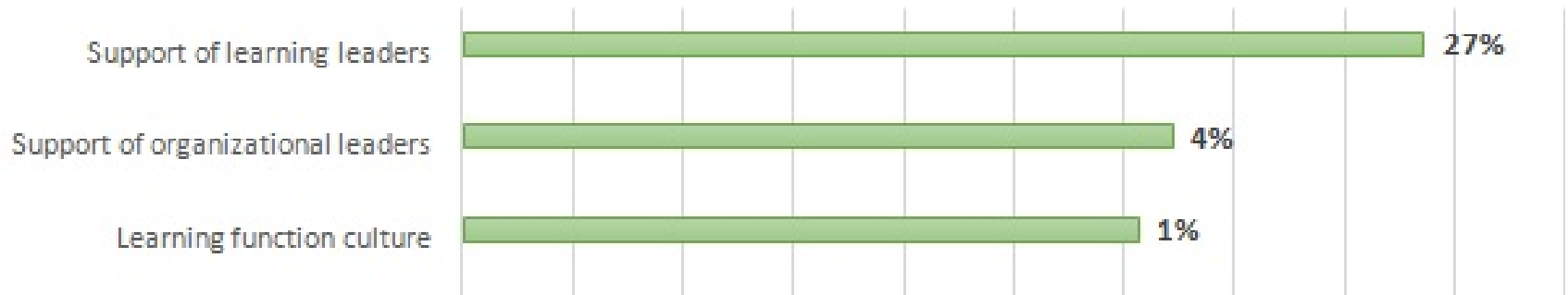|	
Test-taking behaviors (difficulty or ease w/ which specific questions were answered, time to answer, etc.)	12%
Learner demographic information	17%
Learner performance data	18%
Learner organizational roles/levels	20%
Use of/application of specific learning content	25%
Training session evaluations	45%

Taking Responsibility

36% Of survey respondents rate their learning functions highly effective at analyzing big data
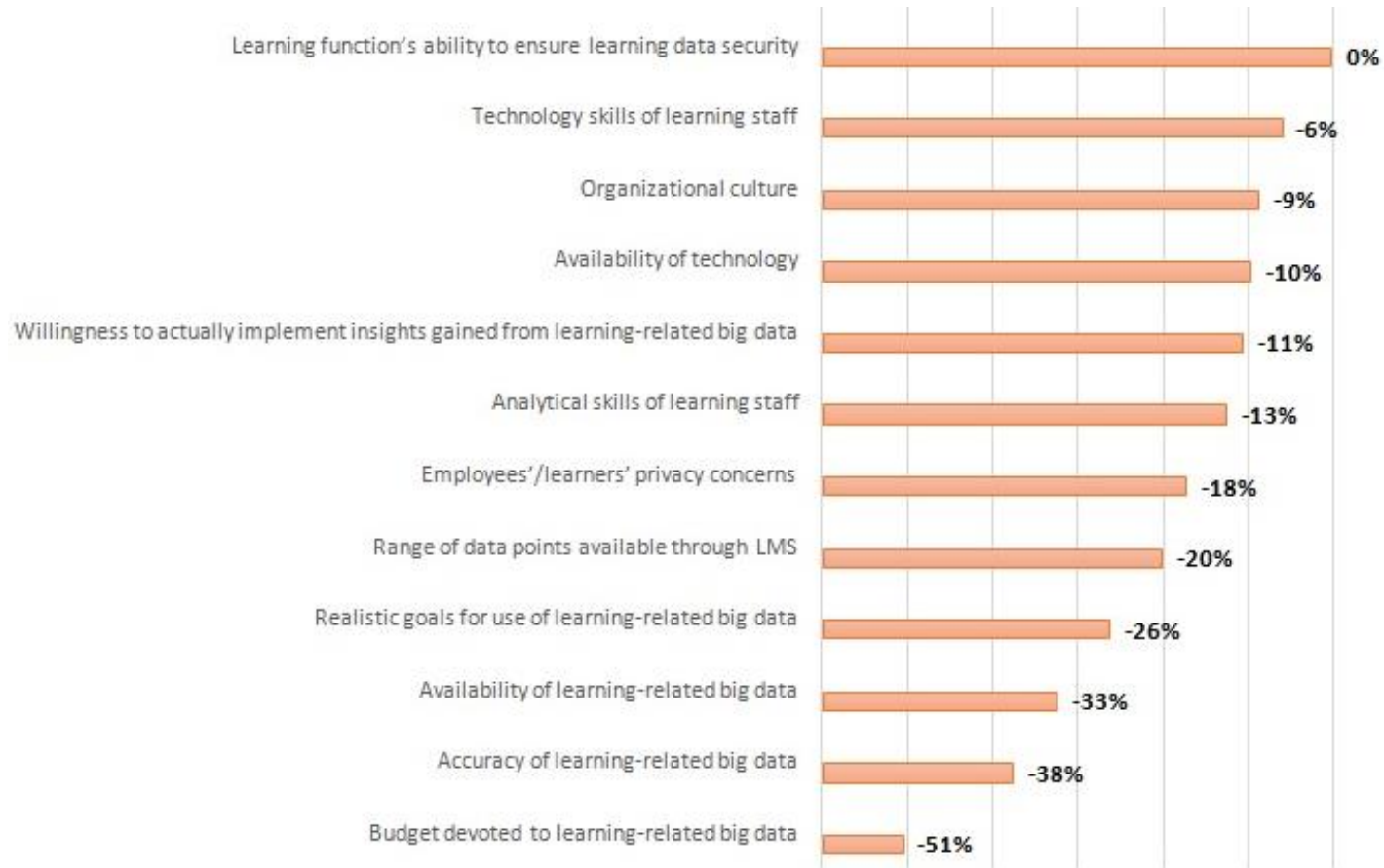
54% Of respondents using big learning data say their learning functions have a position responsible for overseeing big data

Most learning functions also take responsibility for collecting, storing and analyzing learning-related big data

i4cp   SAP   ASTD

Learning professionals say leaders' support is their greatest strength

Challenges outnumber strengths *4 to 1*

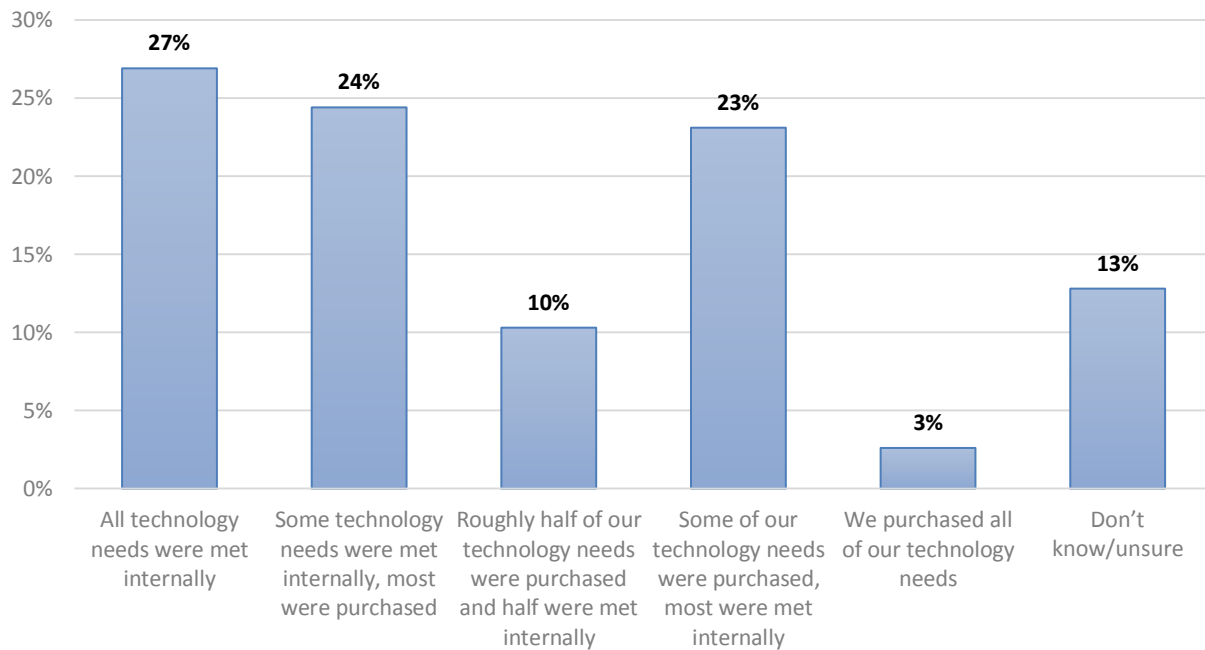|	
Learning function's ability to ensure learning data security	0%
Technology skills of learning staff	-6%
Organizational culture	-9%
Availability of technology	-10%
Willingness to actually implement insights gained from learning-related big data	-11%
Analytical skills of learning staff	-13%
Employees'/learners' privacy concerns	-18%
Range of data points available through LMS	-20%
Realistic goals for use of learning-related big data	-26%
Availability of learning-related big data	-33%
Accuracy of learning-related big data	-38%
Budget devoted to learning-related big data	-51%

WATCH & LEARN

$$$$

52% Survey respondents with budget knowledge who reported learning and development budgets of $100,000 or more in their organizations
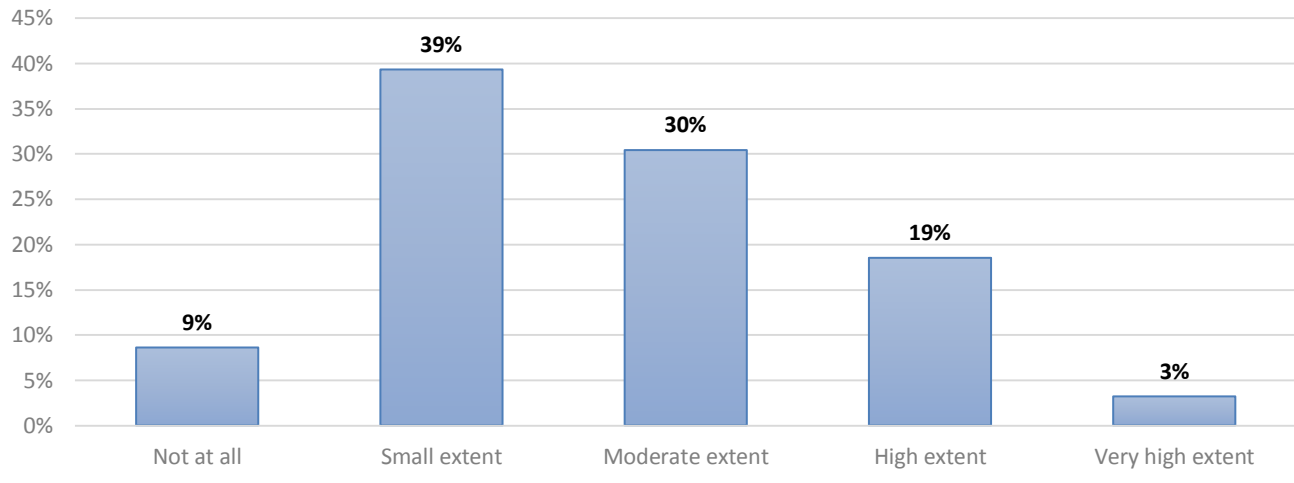
20% or less Portion of learning budget dedicated to big learning data initiatives according to 77% of respondents

i4cp   SAP   ASTD

Did your organization have the technology to process learning-related big data internally or was it necessary to purchase business analytics tools or data mining software?

27% — All technology needs were met internally
24% — Some technology needs were met internally, most were purchased
10% — Roughly half of our technology needs were purchased and half were met internally
23% — Some of our technology needs were purchased, most were met internally
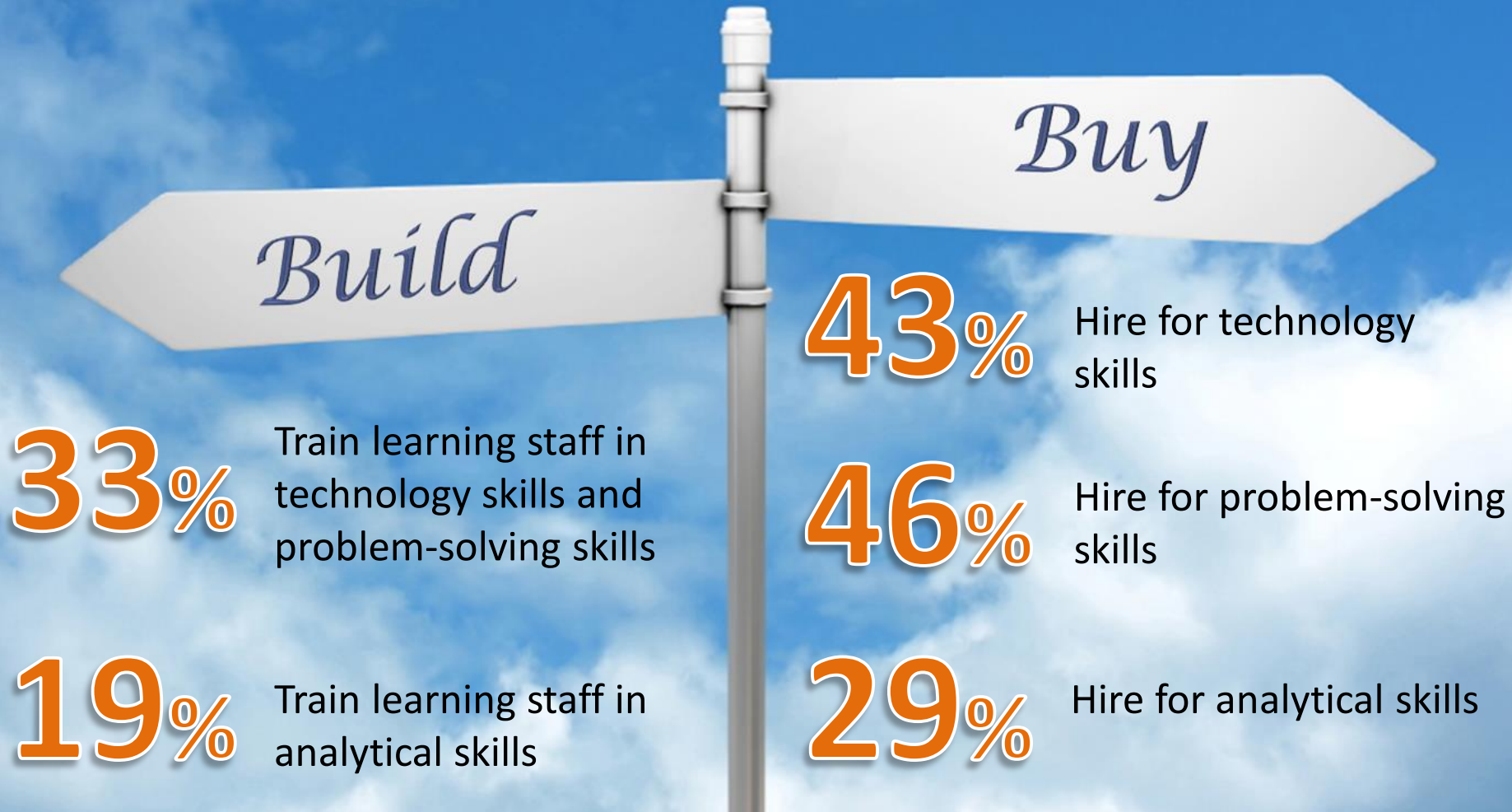3% — We purchased all of our technology needs
13% — Don't know/unsure
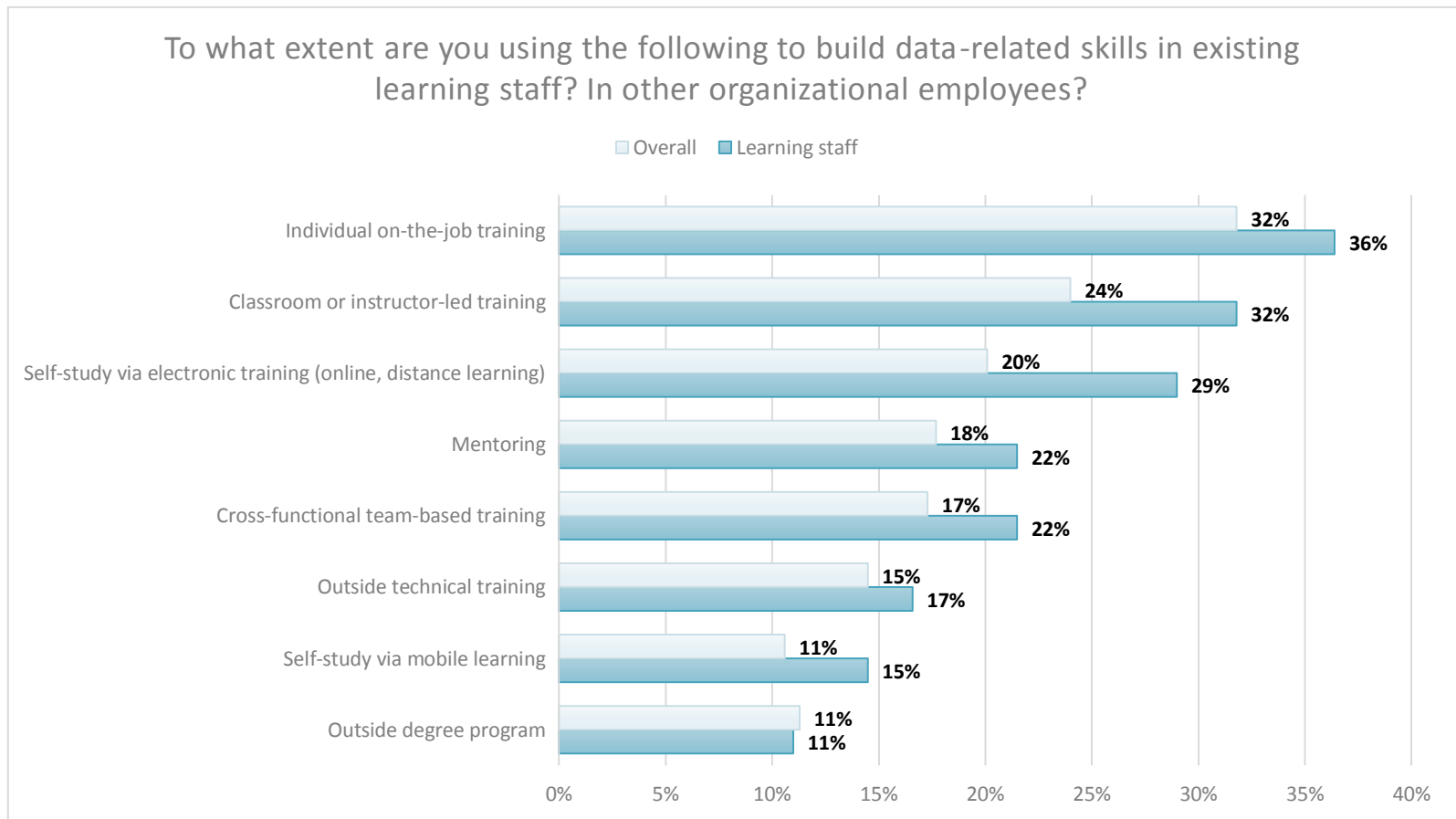
Analytical Know-How

To what extent does your learning staff possess the knowledge/skills required to meet the training needs of broader organizational staff in developing analytical skills?

Category	Percentage
Not at all	9%
Small extent	39%
Moderate extent	30%
High extent	19%
Very high extent	3%

OJT Leads Learning Methods

To what extent are you using the following to build data-related skills in existing learning staff? In other organizational employees?

Legend: ☐ Overall ☐ Learning staff

Method	Overall	Learning staff
Individual on-the-job training	32%	36%
Classroom or instructor-led training	24%	32%
Self-study via electronic training (online, distance learning)	20%	29%
Mentoring	18%	22%
Cross-functional team-based training	17%	22%
Outside technical training	15%	17%
Self-study via mobile learning	11%	15%
Outside degree program	11%	11%

- Analytics expertise is a must-have

- Technological capabilities matter

- Data integrity and statistical modeling demand close attention

- Establish purposes for big data initiatives

- Secure analytical expertise

- Ensure access to data and insist on data integrity

- Secure the technologies needed to manage data volume

Big Learning Data

Available at:

www.astd.org/store

Members	List
$199	$499

Stay in Touch with ASTD Research

Online: **www.astd.org/research**

Email: **research@astd.org**

Find "**ASTD Research**" on **Facebook** and **Twitter**

Questions?

Carol Morrison
Senior Research Analyst
Institute for Corporate Productivity
www.i4cp.com

carol.morrison@i4cp.com

Jenny Dearborn
SVP and Chief Learning Officer
SAP

jenny.dearborn@sap.com

Twitter: @DearbornJenny

Looking for Sponsorship Opportunities?

Sponsoring ASTD Research highlights your organization to our global customers and members. We'll feature your brand and advertise your name across the spectrum of our research promotion efforts.
Email: research@astd.org to learn more