WHITE PAPER

Unleashing the Power of Performance Analytics: Driving performance at the intersection of learning and business

When it comes to peak job performance, high levels of employee engagement and personal confidence at work, Learning and Development (L&D) is essential. Yet, as much as there is consensus on the business value of training, the cause and effect of L&D as a business case is still elusive. As a result, learning and development has historically struggled to have a seat at the executive table because without the right analytics tools, it can be difficult to make the correlation between learning and performance. Technology has improved to the point where it's now possible for analytics to show how L&D has measurable business impact. Analytics allow organizations to identify how to get the most value out of learning investments by examining the interaction of learning and performance.

However, as much as Big Data Analytics is a $125 billion market,[1] questions remain for learning leaders. What is the exact definition of performance analytics? How can organizations use performance analytics to their fullest advantage and make the case for how learning drives business value? To gain a deeper understanding of current analytics practices, Human Capital Media, publisher of Chief Learning Officer magazine, partnered with Raytheon Professional Services for the "2015 Learning Analytics Survey." Gathering data from more than 450 organizations, we grouped our survey respondents into two categories. The "baseline" category represents data from organizations overall. The "vanguard" category represents data from the 32 percent of organizations who had reported successful outcomes with analytics. Finally, we compared results from these two groups to those of the 2015 CLO LearningElite, organizations that demonstrate the excellence of their learning function year after year. Analyzing data from all three groups shows the connection and progression between measurement and business performance results, key performance indicators and the business value of the learning function regarding performance analytics.

TERMS USED

Baseline organizations:
Results from all 467 respondents of the "2015 Learning Analytics Survey"

HR or talent management analytics:
Analytics that focus on metrics such as attrition, loyalty or education level

Internal reports:
Reports that focus on metrics such as hours of training completed or satisfaction with training

Learning analytics:
A data-driven approach used to optimize how organizations manage and deploy learning and development that supports execution of their business strategy

Performance analytics:
Analytics that focus on business key performance indicators and other business data

Predictive modeling:
Using statistical analysis to project the outcome of various L&D actions

Vanguard organizations:
Results from the 32 percent of respondents on the "2015 Learning Analytics Survey" who report success using analytics

KEY FINDINGS OF THE "2015 LEARNING ANALYTICS SURVEY"

- Utilizing analytics from multiple data sources, such as learning, performance and talent management analytics is a key factor in a successful analytics function. For example, the vanguard group is nearly 20 percent more likely to track performance analytics than the baseline.

- Measuring key performance indicators is essential. KPIs assist organizations in making the business case for learning. Among the vanguard, 100 percent track KPIs for learning impact, 97 percent track KPIs for business impact and 94 percent track KPIs for efficiency.

[1] Press, G. "6 Predictions For The $125 Billion Big Data Analytics Market in 2015." Forbes. 2015.

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- Performance analytics results should be communicated to everyone along the chain of command. While executives are the group most often invested in performance analytics at organizations overall, vanguard organizations communicate performance analytics results more frequently, and further down the chain of command. At vanguard organizations, everyone from C-suite executives to division leaders and line managers request data analytics at least quarterly.

- Successful analytics programs drive business value. Both vanguard and LearningElite organizations have used analytics to show positive business outcomes. Vanguard and LearningElite organizations report more successful business impact KPIs in greater numbers than the baseline.

COMMON PRACTICES IN PERFORMANCE ANALYTICS: ESTABLISHING A BASELINE

Before examining best practices in successful analytics functions, we must first establish a baseline: What are organizations currently doing in the field of analytics? What data sources are they pulling from? How frequently and effectively are they using different types of analytics practices? What are the motivations and use cases for analytics? What are examples of challenges and successful business outcomes? Finally, how do organizations plan to grow their analytics capability in the near future?

Identifying data sources and examining the effectiveness of action taken on analytics practices are the first steps to creating our baseline. Organizations have a wide variety of data sources to pull data from, including learning analytics, performance analytics and talent management analytics. Half of all organizations use HR and business data in their analytics, whether it's examining data on attrition or looking at performance review data (Figure 1, p. 3). Technology makes this data always available, so how often and effectively is it utilized? How often is data communicated to senior leaders and others throughout the organization? Currently, the baseline organization uses analytics at a basic level and practices more involved than internal reporting are rare. The most popular analytics practice is the internal reporting of learning metrics from a learning management system, or LMS, which provides data such as hours of training completed or employee training satisfaction, but little else. Deeper analytics practices are in place at few organizations. For example, predictive modeling is the rarest analytical practice, used at only 7 percent of organizations (Figure 2, p. 3). However, when it comes to creating and proving business value,
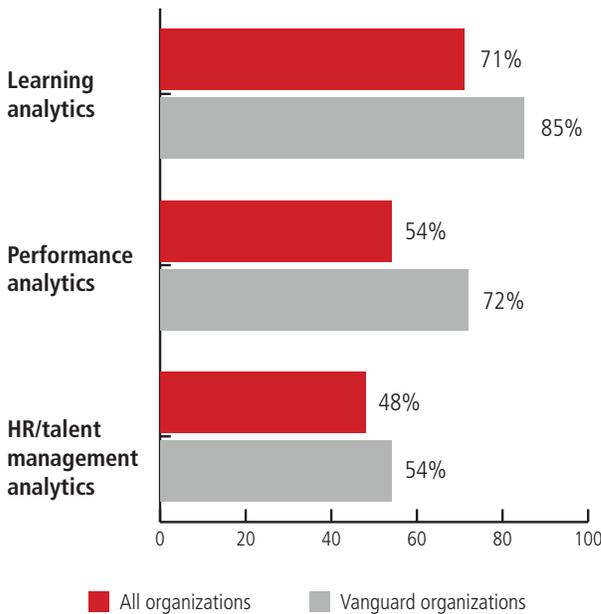
heavier analytics practices are more effective. While it is the least used, predictive modeling is the most likely to provide effective action. Among those organizations using predictive modeling, 86 percent report a relative success rate, vs. a 51 percent success rate with action on internal reports.

MOTIVATIONS AND USE CASES SHOULD ALIGN

The question then becomes: effective at what? What exactly compels organizations to use analytics and do their use cases and motivations align? The answer is: for the most part. The primary motivations for analytics are to deliver strategic outcomes to the business, rather than strictly focus on compliance. Sixty percent of organizations are driven to use analytics to discover and leverage factors that increase productivity and business performance. Other driving factors include better equipping employees with knowledge and skills (59 percent) and making data-driven decisions on learning investments (47 percent). Clearly, businesses wish to support their learning function with analytical data; however, in many instances practice trumps motivation and just because an organization wants to use analytics to do "X" doesn't mean they are. Take the top motivation — leveraging factors to drive productivity. While more than half of all organizations want to use analytics for this purpose, only a third (34 percent) do. It's a similar story for giving employees the right skills (in use at 41 percent of organizations) and making data-driven decisions (in use at only 37 percent of organizations). While businesses don't necessarily want to use analytics for compliance reasons, a quarter (27 percent) of them do (Figure 5, p. 5).

Why the disconnect between motivation and use? What prevents organizations from using analytics in the manner they choose and in a way that will drive business value? According to survey respondents, the top roadblocks in using analytics are lack of analytical skills within the learning team (50 percent), lack of integration among their various data systems (48 percent) and lack of budget for analytics software and projects (42 percent). We've already seen how many organizations pull data from a wide range of sources, which explains the importance of needing systems to be integrated. Budget is a perennial concern for any and all departments and if organizations are having difficulty sourcing analytics skills, it becomes that much harder to justify an analytics budget.

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FIGURE 1
DATA SOURCES USED BY L&D

Learning analytics
71%
85%

Performance analytics
54%
72%

HR/talent management analytics
48%
54%

0   20   40   60   80   100

■ All organizations   ■ Vanguard organizations

FIGURE 2
ANALYTICS USED OFTEN BY L&D

Internal reports/analytics
45%
73%

Workforce segmentation
18%
41%

External benchmarking
10%
22%

Predictive modeling
7%
16%

0   10   20   30   40   50   60   70   80

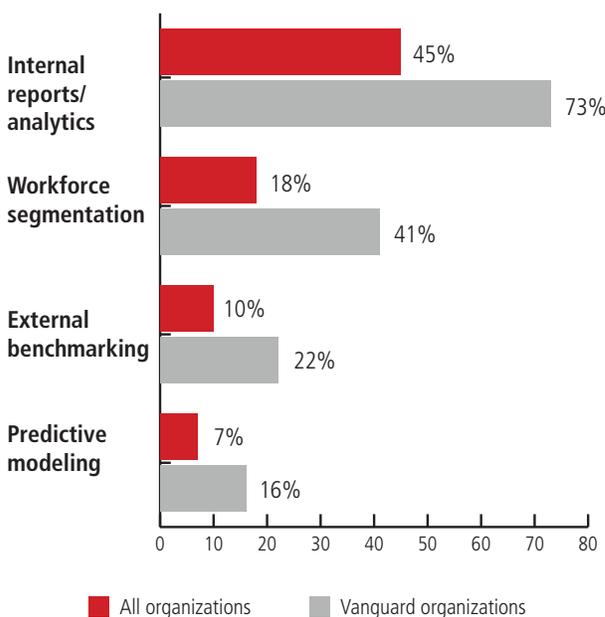■ All organizations   ■ Vanguard organizations

Whether or not organizations face challenges in using analytics, they're soldiering on in their quest to increase capability. Eight in 10 organizations will increase their analytics capability within the next two years, while the use of analytics software — in use at 17 percent of all organizations — will increase to 50 percent in that same time frame.

Organizations are right to plan on increasing capability and use of software because such increases will help evolve their function to that of a vanguard organization. Vanguard organizations do significantly more with data sources, analytics practices and KPIs than the baseline. To become a vanguard organization and achieve success with the analytics function, organizations must fully embrace performance analytics and align analytics practices to help achieve business goals.

PERFORMANCE ANALYTICS AT VANGUARD ORGANIZATIONS: MORE IS BETTER

Having our baseline established for analytics use at all organizations, let's now look at how vanguard organizations use analytics to drive business value. How do we categorize our analytics vanguard? On the "2015 Learning Analytics Survey," 32 percent of survey respondents reported that their experience in using learning analytics has been either highly or moderately successful. These 32 percent make up our analytics vanguard. When examining data from their responses, patterns emerge on how vanguard organizations use data analytics. What are vanguard organizations doing that other organizations aren't? In a word: more. Vanguard organizations track more data from more sources, measure more KPIs and communicate more to more leaders. As a result they experience more success and more organizational outcomes, with fewer roadblocks along the way.

PULLING FROM MORE DATA SOURCES

Vanguard organizations pull in data from all sources at rates higher than the baseline. They are 14 percent more likely to use learning analytics, 18 percent more likely to pull from performance analytics and 6 percent more likely to pull in data from HR or talent management analytics (Figure 1). The sources of data vanguard organizations are pulling from are less transactional and not strictly tied to the LMS, although they are more likely than the baseline to use LMS data as well. Sources of data matter, and the business data vanguard organizations bring in from performance analytics is especially crucial, as it helps them make the connection between learning and business outcomes.

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FIGURE 3

EFFECTIVE ACTION TAKEN ON ANALYTICS

Category	All organizations	Vanguard organizations
Internal reports/analytics	67%	93%
Workforce segmentation	45%	75%
External benchmarking	40%	70%
Predictive modeling	25%	51%

■ All organizations ■ Vanguard organizations
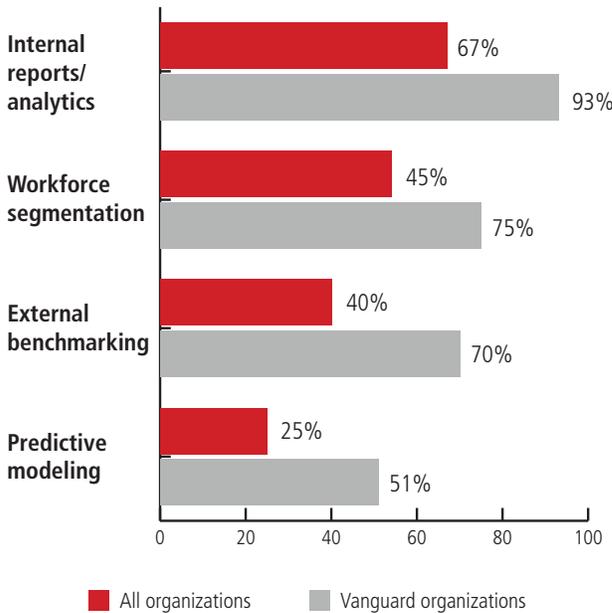
FIGURE 4

ORGANIZATIONAL MEMBERS REQUESTING DATA ANALYTICS AT LEAST QUARTERLY

Category	All organizations	Vanguard organizations
Divisional business leaders	45%	72%
C-suite/senior executives	41%	69%
Line managers	33%	64%
Business analysts	24%	45%
Finance leaders	25%	43%
Board of directors	17%	34%
Legal advisors	11%	22%

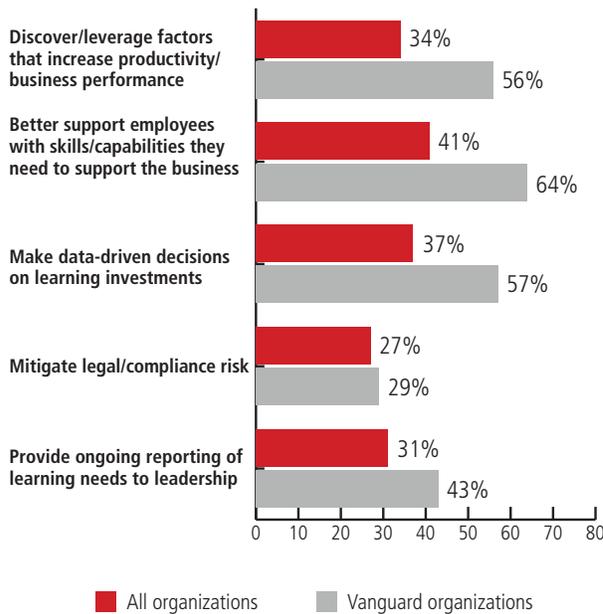■ All organizations ■ Vanguard organizations
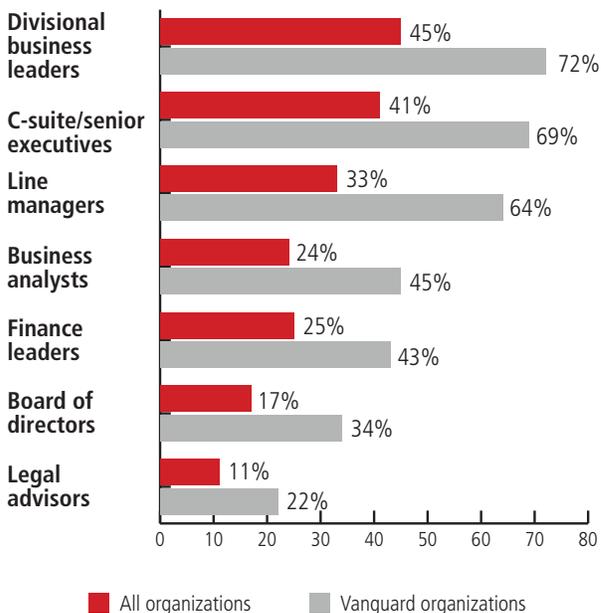
TAKING EFFECTIVE ACTION ON ANALYTICS

It's not enough that organizations pull data from multiple sources; to have an effective analytics strategy, businesses must also use a wide variety of analytics, which will help them take effective action. Once again, vanguard organizations use more analytics practices than the baseline (Figure 2, p. 3) and report effective action taken in greater numbers (Figure 3). We've already seen how the types of analytics used can be basic (internal reports) or advanced (predictive modeling), with the baseline reporting the greatest success on effective action taken from predictive modeling. Vanguard organizations mirror this success and in greater numbers. In the case of predictive modeling, all vanguard organizations using this type of analytics report taking effective action.

COMMUNICATING ACTION ACROSS THE ORGANIZATION

Another key factor as to why vanguard organizations are successful lies in how that information is communicated. For data to be of use, it should be made available to people throughout the chain of command. Communicating the positive outcomes of analytics encourages leadership buy-in for the learning function, and managers and executives must understand how learning outcomes align with organizational goals and business performance results. At vanguard organizations, senior, mid-level and front-line leaders request data analytics more often than the baseline (Figure 4). The more often stakeholders request data, the better they can use that data to make informed decisions about learning investments for the workforce. Which begs the question: Why are leaders at vanguard organizations more engaged with data analytics? The answer is partly due to how such data is packaged. Whether delivered in person, written in a report or made available through a dashboard, vanguard organizations use every communication channel available to them more often than the baseline. Learning teams at vanguard organizations know how to package data analytics for easy consumption and they sell the results of their analytics programs to leadership with greater success. Enabling business leaders to understand how data analytics drives value is also of critical importance. Thirty-six percent of all organizations report that lack of management experience in effectively using analytics is a roadblock; this is only an issue for 25 percent of vanguard organizations.

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FIGURE 5
USE CASES

Use case	All organizations	Vanguard organizations
Discover/leverage factors that increase productivity/ business performance	34%	56%
Better support employees with skills/capabilities they need to support the business	41%	64%
Make data-driven decisions on learning investments	37%	57%
Mitigate legal/compliance risk	27%	29%
Provide ongoing reporting of learning needs to leadership	31%	43%

■ All organizations ■ Vanguard organizations

FIGURE 6
ROADBLOCKS

Roadblock	All organizations	Vanguard organizations
Lack of analytics skills within the learning team	50%	36%
Lack of integration among various data systems	48%	45%
Lack of budget for analytics software/projects	42%	36%
Lack of management experience in effectively using data analytics	36%	25%
Data not collected	34%	16%

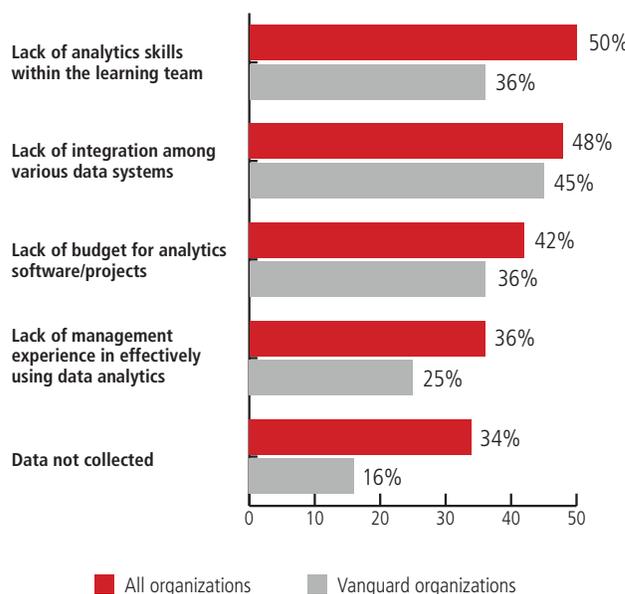■ All organizations ■ Vanguard organizations

MOTIVATIONS AND USE CASES ALIGN BETTER AT VANGUARD ORGANIZATIONS

When it comes to use cases, vanguard organizations use analytics for more purposes and use analytics to problem solve for L&D. Part of the reason vanguard organizations can translate their use of analytics into effective action relates to what they use analytics for. Vanguard organizations are likely to use analytics for strategic use cases in much higher numbers than the baseline. For example, vanguard organizations are 20 percent more likely to use analytics to make data-driven decisions about learning investments than the baseline (Figure 5). The vanguard isn't more likely to use analytics for compliance either; their compliance use case rates are similar to the baseline. By using data analytics to support long-term strategy, L&D is better positioned to help the learning function make an impact on the business.

CHALLENGES AND SUCCESSES AT VANGUARD ORGANIZATIONS

While success doesn't eliminate roadblocks entirely, vanguard organizations experience fewer roadblocks than the baseline. Common roadblocks such as lack of analytics skills within the learning team and lack of budget are faced by fewer vanguard organizations than the baseline. A notable exception is lack of integration between data systems, which appears to be a universal challenge and is just as much of an issue for those who do learning analytics well. As organizations look to grow their learning analytics capabilities, having an integrated system that can pull from multiple data sources should be a top priority (Figure 6).
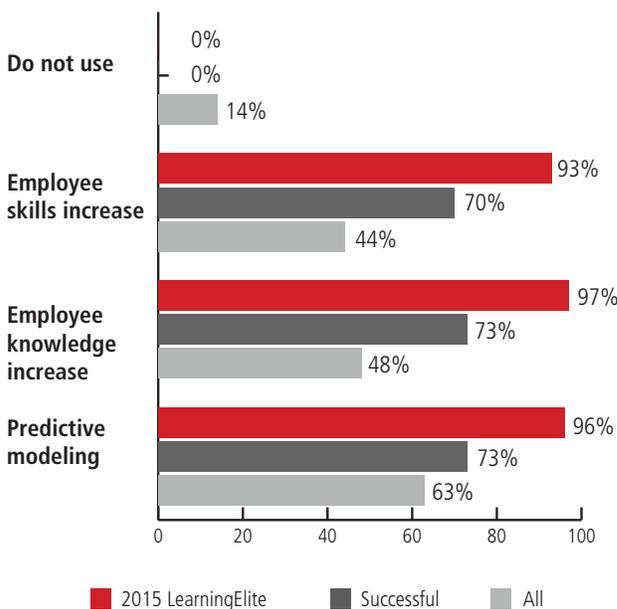
With regard to business outcomes, vanguard organizations are more likely to deliver increased business value — and on the harder business metrics. Increased skills, increased productivity, increased quality of products or services — vanguard organizations report success in all these metrics far greater than the baseline (Figure 7, p. 6). With greater leadership buy-in come fewer roadblocks and improved organizational outcomes as a result. Vanguard organizations aren't content with their current successes either. While 80 percent of all organizations plan to increase capability within the next two years, 85 percent of vanguard organizations will also increase capability. In addition the number of vanguard organizations using analytics software (currently 33 percent) will reach 69 percent in the next two years. Having experienced success in using analytics for L&D, vanguard organizations are hungry for more success and eager to use analytics to drive strategic organizational outcomes.

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FIGURE 7

BUSINESS OUTCOMES FROM LEARNING ANALYTICS

	All organizations	Vanguard organizations
Increased skills/capabilities in the workforce	50%	69%
Increased employee engagement	41%	52%
Increased credibility of the learning function with business leaders	36%	47%
Increased productivity	36%	55%
Increased quality of product/service	31%	50%

■ All organizations   ■ Vanguard organizations

FIGURE 8

TOP KPIs FOR LEARNING IMPACT

	2015 LearningElite	Successful	All
Do not use	0%	0%	14%
Employee skills increase	93%	70%	44%
Employee knowledge increase	97%	73%	48%
Predictive modeling	96%	73%	63%

■ 2015 LearningElite   ■ Successful   ■ All

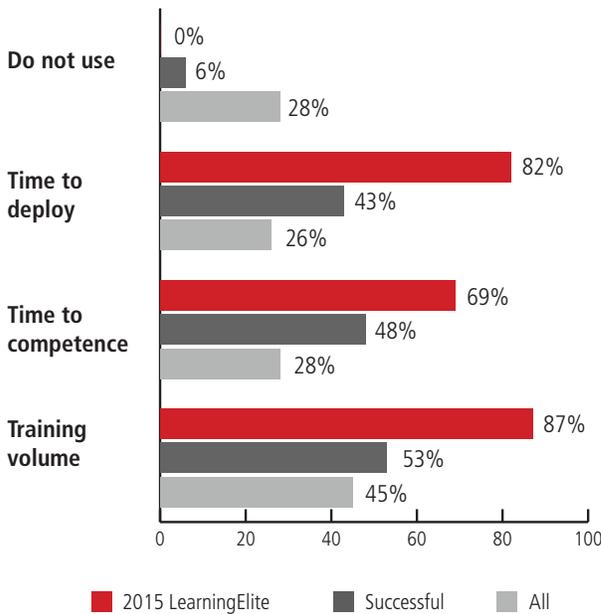## PERFORMANCE ANALYTICS AT LEARNINGELITE ORGANIZATIONS: BEST OF THE BEST

For all their success, organizations can't and shouldn't be content with simply being in the analytics vanguard. While they are ahead of the curve regarding using performance analytics to make the business case for learning programs, there is still much for them to do. For all their successes, one group is still ahead of our vanguard organizations in making the business case for learning: the LearningElite.

For the past five years, Chief Learning Officer magazine has conducted the LearningElite program, an annual peer reviewed benchmarking analysis of how top organizations manage their learning function. When examining KPI data from the 2015 LearningElite and comparing that data to results from the "2015 Learning Analytics Survey," clear goals emerge for organizations hoping to get the most of their learning analytics programs. While vanguard organizations measure KPIs more often than the baseline, LearningElite organizations measure all KPIs even more often. This is especially true of business impact KPIs, where the rate of measurement is near 90 percent of LearningElite organizations for certain KPIs (Figure 8; Figures 9, 10, p. 7). Organizations wishing to get the most out of their analytics programs should examine how well they track KPIs for learning efficiency, learning impact and business performance results and how effectively they align their motivations and use cases with business outcomes.

MOVING FORWARD

Successful performance analytics is a multi-step process. Reporting capability alone or tracking the number of classes employees take through the company LMS will not create a successful analytics function, nor will it make the business case for learning. To become a vanguard organization, L&D must pull in data from as many sources as possible, communicate the outcomes to all levels of the organization in an easily digestible way, use data to take effective action and measure as many KPIs as possible. Becoming a vanguard organization is only the first step; to go further — as LearningElite organizations do — businesses must consistently track KPIs for learning efficiency, learning impact and business performance results and use that data to make sound investments in learning and development that directly impact the business. Organizations that align their analytics to organizational goals will see business performance results emerge in the form of increased employee skills and higher engagement.

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FIGURE 9
TOP KPIs FOR EFFICIENCY

Do not use
- 2015 LearningElite: 0%
- Successful: 6%
- All: 28%

Time to deploy
- 2015 LearningElite: 82%
- Successful: 43%
- All: 26%

Time to competence
- 2015 LearningElite: 69%
- Successful: 48%
- All: 28%

Training volume
- 2015 LearningElite: 87%
- Successful: 53%
- All: 45%

Legend: ■ 2015 LearningElite ■ Successful ■ All

FIGURE 10
TOP KPIs FOR BUSINESS IMPACT

Do not use
- 2015 LearningElite: 0%
- Successful: 3%
- All: 26%

Employee satisfaction
- 2015 LearningElite: 90%
- Successful: 53%
- All: 43%

Customer satisfaction
- 2015 LearningElite: 85%
- Successful: 53%
- All: 38%

Productivity improvement
- 2015 LearningElite: 82%
- Successful: 63%
- All: 43%

Legend: ■ 2015 LearningElite ■ Successful ■ All

By leveraging the power of performance analytics, organizations will drive business performance through learning, increasing engagement throughout the enterprise and adding to their bottom line at the same time.
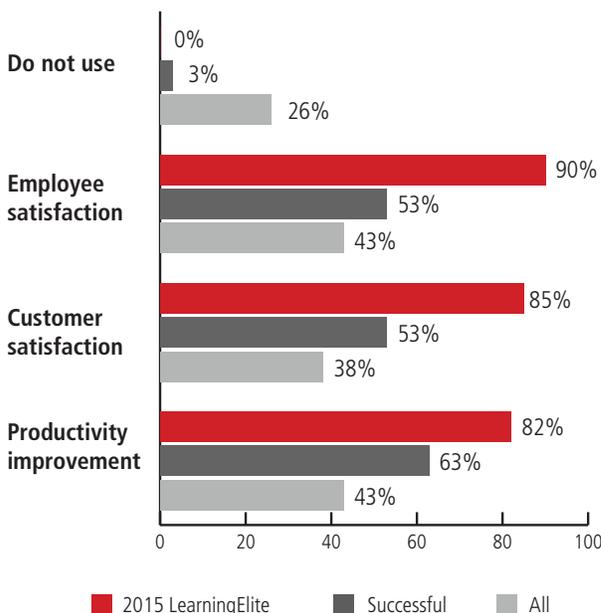
ABOUT

Raytheon Professional Services
Raytheon Professional Services (RPS) is a global provider of learning solutions and services. RPS helps businesses meet their critical objectives by designing, implementing and managing efficient and effective training solutions that improve the performance of their global workforce. Transforming learning with data analytics, technology and innovation, RPS offers high consequence training expertise across industries and provides services to clients in over 100 countries and 28 languages. RPS is part of Raytheon Company, a technology and innovation leader specializing in defense, security and civil markets throughout the world, with 61,000 employees worldwide and 2014 sales of $23 billion.

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If you have any questions, contact Sarah Kimmel, vice president of research and advisory services: skimmel@humancapitalmedia.com.

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DEMOGRAPHICS

Survey Dates: August 2015

Respondents: 467

Organizational level of respondents:
Executive level and above: 65%
HR/learning manager: 16%
Other HR professional: 19%

Organizational size:
Fewer than 1,000: 48%
1,000-5,000: 16%
More than 5,000: 36%

Geographic distribution:
Mostly located in the U.S. at one location: 28%
Mostly located in the U.S., multiple locations: 28%
Mostly located in the U.S., some global distribution: 12%
Highly distributed, multiple locations across the globe: 32%

Structure of the analytics function:
Part of HR: 47%
Part of corporate strategy: 17%
Decentralized: 16%
Co-sourced: 7%
Outsourced: 3%
Don't have: 29%

LearningElite organizational data taken from the 2015 LearningElite
Best Practices and Benchmarking Report.