



Training Analytics

By Allan Bailey

Organizations today are faced with a sea of unknowns as they plan and budget for training. Training represents a significant and growing investment—about two per cent of total payroll. But business leaders can take heart. Solid new evidence demonstrates that training improves business results and stock market performance (see sidebar page 22). On the other hand, numerous studies have revealed that most corporate training goes to waste and delivers no benefit to the organization whatsoever. It's no surprise, therefore, that the ASTD's annual industry survey consistently reports the top global training concern is the need for training "to produce results and to show a return on investment."

Over the last decade, this concern about results has fuelled a worldwide focus on measurement, evaluation, and ROI. Going further, the training community has now begun to look to business analytics for help—the powerful software category that launched the business intelligence revolution and reshaped the corporate landscape in the 1990's. Business analytics builds a real-time picture of the enterprise's

operations by sucking in millions of points of data from across the enterprise (sales figures, customer profiles, inventory stats, point-of-sale data, etc.). These streams of data are grouped, filtered, and analyzed, giving executives a real-time view of the organization's performance.

With a few clicks, the view on the enterprise "dashboard" can be easily changed to display performance across a specific region, a line of business, or to trigger an alarm when things go wrong (e.g., critical inventory shortages, a sudden drop in sales). In short, business analytics cuts through the corporate fog of data and connects decision-makers to the beating heart of the enterprise.

Recently, the training industry entered the brave new world of analytics. Some of the e-Learning industry's leading vendors have launched a new product category, called training analytics. Training analytics gives organizations a new tool to monitor corporate training effectiveness: Are learners satisfied with training from vendor X? Is our sales training improving revenues? Is our e-Learning more effective than instructor-led sessions? Training analytics arrives on the scene just as corporate

leaders have finally come to accept training as a strategic function—a key tool to help them navigate the swift waters of globalization, corporate mergers, and technology innovation. It may also help address training's notorious nemesis—much of it doesn't work!

In spite of spending in excess of \$100 billion annually in training, North American organizations have almost no idea if training is effective or has any meaningful impact on the bottom line. In the first place, according to ASTD, less than 20% of organizations evaluate training's impact beyond Level 2. Over the past few years, several landmark studies have come to the hair-raising conclusion that while training might have a positive impact, it does so inefficiently and the bulk of the learning investment is wasted. Consider the 1996 study (Robinson and Robinson), which reveals that less than 30 per cent of what people learn in training is actually applied on the job. Earlier research by Mary Broad and J. Newstrom (*Transfer of Training*, 1992) estimates that less than 20 per cent of the training investment actually impacts job performance.

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Given these grim statistics, why isn't more measurement and evaluation taking place? The answer, says industry observer Josh Bersin, is that most organizations currently don't have the knowledge or the methodologies to track and measure their training performance. "It's not lack of interest or perceived importance," he says. "The biggest reason companies don't measure training more rigorously is that they don't have the experience, tools and infrastructure to do so." As learning's role becomes more strategic the time is ripe for training analytics, says Bersin, "The holy grail of training measurement has always been the dream to directly correlate training to business impact: sales revenue, productivity, turnover, product quality." In other words, decision makers need a way to continuously monitor enterprise training effectiveness from Level 1 through Level 5 of the Kirkpatrick and Phillips evaluation models.

But isn't that what Learning Management Systems were supposed to do? Not really, explains e-Learning consultant, Jeff Merrell. The LMS can carry out only limited analysis because it's basically designed to capture data (enrolments, completions, etc.) and deliver courses. "Training analytics finally resolves learning management's dirty little secret: the built-in capability for reporting and analysis is

woefully weak," writes Merrell, in a recent issue of Training Media Review.

Both types of tools—LMS and training analytics—are used to create reports that deliver insight into the organization's learning activities. LMS reports, however, are usually fixed ("static") and cannot be easily changed to deliver information in more useful ways. Says Merrell, "an LMS system can capture an incredible amount of data. But without powerful analytics tools the LMS is just a big data bucket filled with transactional data—user starts a course, user gets a score, user completes. Even the best LMS systems fall short here"

Enter training analytics. Analytics software gives line-of-business managers and training executives the power to analyze, understand and act on vital enterprise learning information. Using highly visual charts and graphs, analytics gives executives the essential information they need. The software makes it easy to alter how the data is organized and displayed so they can drill down through the training databases in a way the LMS systems were never designed to do. Training analytics is based on powerful database technology, called Online Analytic Processing (OLAP). OLAP makes it easy to collect, group, aggregate, and process not only training data but also other HR and enterprise data such as learning evaluations, transfer to the job, training costs, sales or

production data. Says Jeff Berk, VP Products and Strategy for training analytics firm, Knowledge Advisors, "Training analytics unleashes the power to slice, dice, and blend training and corporate data so that decision-makers can continuously track and measure day-to-day learning activities along with performance and business impact."

Not surprisingly, LMS developers are among the first to market with training analytics solutions. Leading LMS vendors, Docent and Saba, have launched training analytics products to enhance capabilities of their proprietary LMS offerings. Docent Analytics and Saba Analytics are being positioned as the next-generation solutions to help the growing worldwide interest in improving the quality, effectiveness and impact of training. Says Saba president and COO, Bobby Yazdani, "The best-performing organizations strive to understand the impact of their learning initiatives on enterprise performance and to quantify the ROI of their enterprise learning projects." Chicago-based Knowledge Advisors has taken a more generic approach with a stand-alone analytics solution that can be used with or without an LMS platform. Developed in partnership with evaluation gurus Dr. Donald Kirkpatrick and Dr. Jack Phillips, Knowledge Advisors' solution, Metrics That Matter™, can be configured to collect data through the Internet or an intranet, from an LMS platform, or by scanning training feedback forms.

The heart of training analytics is the easy-to-use graphical interface—the "dashboard"—that allows non-technical managers and executives to explore the information and create new charts and views. Student performance data (Level 1 to Level 4) are collected using online, email, or paper-based surveys and aggregated over time to create the training database. This data is then analyzed to create a wide range of learning performance benchmarks that give managers points of reference to spot trends or identify chronic performance trouble spots.

Analysis of job impact data (Kirkpatrick's Level 3) collected in follow-up surveys of corporate leadership programs, for example, could help training managers identify instances when the learning is not being transferred to the job. If analysis reveals the Level 3 performance results of an individual (or an entire class) falls

Best Practice Companies

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A three-year ASTD study (*Profiting from Learning: Do Firms' Investments in Education and Training Pay Off?*) of 575 US companies offered the first definitive proof that investment in training directly improves business and stock market performance. The data, collected between 1996 and 1998, showed that when companies were ranked by how much they spent on training (per employee), those that spent more on training did much better than those that spent less. Firms in the top half of the ranking had a Total Shareholder Return (TSR) 45% higher than the weighted average of the S&P 500, and an astonishing 86% higher than firms in the bottom half of the ranking.

Top companies focus on measuring training impact and ROI...

Training magazine discovered some other arresting insights in its recent annual Top 100 ranking of companies that excel in human capital development. The survey found that the most highly regarded firms spend 4 per cent of payroll on training (twice the industry average of 2 per cent). Interestingly, the leading companies also surpassed industry norms in measuring and evaluating their training investments. Ninety two per cent measure training effectiveness through Kirkpatrick's Level 4 (business results), compared to the industry average of 11 per cent. An astonishing 67 per cent measure ROI (Level 5) compared to industry averages between 5 to 10 per cent. The envelope please—the Number 1 Top 100 firm was Pfizer Inc.

significantly below the organization's benchmark results, the software might trigger an alarm and e-mail it to the appropriate managers. Training analytics software can now be used to pinpoint the problem and answer the questions: Was it the training content? Was it the instructor? Is it the location? Are there hidden barriers to learning transfer in a particular business setting? Training analytics lets managers juggle the views to see how performance results vary across a variety of dimensions: by job location, by training vendor, or by instructor.

Training analytics are designed not only to help optimize training investments and strategies, but also to help organizations monitor adherence to various certification programs and compliance requirements throughout the enterprise.

Although still in its infancy, training analytics is evolving rapidly and becoming increasingly sophisticated. Programs can be connected to Enterprise Resource Planning (ERP) software systems to help business leaders integrate information from organizational data silos and warehouses. Metrics That Matter™ from Knowledge Advisors includes electronic tools designed to help organizations collect and analyze training and business performance data using Jack Phillips ROI Methodology to automatically generate business impact and return on investment (ROI) reports.

Observers caution, however, to avoid the GIGO effect (garbage in, garbage out) when implementing training analytics. To develop useful and actionable intelligence requires a reasonable understanding of learning, measurement and evaluation. Declares Merrell, "The problem with a tool that makes it easy to create charts and graphs is that it is easy to create charts and graphs. Proliferation of poor analysis doesn't benefit anyone."

Nevertheless, the emergence of these powerful electronic measurement and evaluation systems promise to go a long way in helping organizations overcome the record of inefficiency noted earlier, and

extract the maximum benefits from their training investments. "Ultimately," concludes Merrell, "the real value proposition of analytics is in providing organizations with fact-based, data-driven insight into the impact of learning initiatives on business performance."



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