

# ***Using Data to Drive Training Results White Paper***

**Data Analytics and Data-centric Training Applications**



# **Data Analytics and Data- centric Training Applications**

*Data analytics and data-centric applications are imperative for organizations who want to use data to drive training results. This white paper explains the usefulness of data analytics and how to implement data to evaluate training programs, improve them, and drive results forward.*

## **Data Analytics and Data-Centric Applications**

Back in 2016, the [U.S. Bureau of Labor Statistics released an article](#) which predicted that learning and development leaders in the business world would rely more heavily on data and data analytics to design more effective training courses for their employees.

Since that time evidence has abounded as to the integral role of data in corporate training. With data, you can improve your online learning and promote more effective training experiences for employees at all levels.

Data is critical to organizations, providing businesses with actionable information to evaluate the success of training programs, organizational culture, and more.

There are countless examples of data applied to critical business processes today, but data analytics can lend itself to data-centric processes, like data integration, extract, transform, and load (ETL) processes, or analytic applications as applied to corporate training program.

***Analytics is a process by which companies derive insights from data.***

### **What are Data Analytics?**

[Analytics](#) is the process by which companies can derive insights from data, beyond the foundational reasons for which that data was captured.

For educational advisors and leaders this means taking all data and using statistical analysis to gain deeper insight this might include:

- The number of employees accessing online training programs
- Assignment and test results from training courses
- Time spent on various parts of training programs
- What materials were downloaded by employees

With this data corporations can learn where their employees are spending most of their time, and how much of their time is being allocated to different segments of training material. This can help design more effective and engaging training programs moving forward.

## **Businesses Need to Use Data Analytics to Design Corporate Training**

Between 1979 and 1995, corporations went from spending an average of 11 hours per week on employee training to [2.5 hours per week](#).

Peter Capelli, director of Wharton School's Center for Human Resource, noted that only  $\frac{1}{5}$  of employees received [on-the-job training](#).

Keeping training hours low or avoiding corporate training all together is not a sustainable practice. Corporations need to use data to design effective online learning and training programs to lower new employee training costs and give all members of the workforce the tools they need to be as successful as possible.

Consider this: *In sales and marketing your company might have consumer databases which serve as the primary source of information from which your company can learn about customers. Transactional data combined with customer databases can reveal*

*to you what it is your customers want, how they go about finding what they want, and what they ultimately end up purchasing.*

This information can be converted into employee training programs that help your employees address customer needs more accurately. Analysis of large data sets like these can provide derived insights that optimize in-house training for your sales and marketing teams, alleviating erroneous parts of existing training programs and providing more critical knowledge and skills.

Similarly, your company can utilize training programs as a viable source of information from which to learn. Data analyzed from existing training programs can help you find weak spots in your existing learning process, personalize the learning experience for your employees, and plan for upcoming training activities that might facilitate improved acquisition and results from each company training program you have.

***Data analyzed from existing training programs can reveal weak spots in existing learning processes.***

## ***Gathering and Using Data for Corporate Training***

Your company should invest in a team of data specialists in-house whose job can be gathering and preparing necessary data to improve your corporate training programs. Tried-and-true data-mining methodologies can help your organization understand what information needs to be incorporated into existing or future training programs.

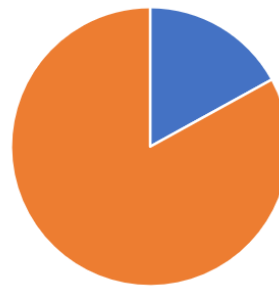
Data can boost your corporate training, but it will only be as effective as you plan for it to be. This means your data analysis should come with a clear goal. Those goals should start small. Rather than launching a large-scale project to try and utilize data to drive training results across your entire organization, identify key problems that exist in your current training program and address those one after the other.

## ***Designing Training Programs with Data***

### **IMPROVING COURSE CONTENT**

The first way in which you should use data to drive your training results forward is to determine the focus of your training program. Client information might generate an overwhelming amount of information and communicate to your organization which business strategies are currently most effective and currently least effective. Combining this information with data about your working processes and your employees can help you figure out additional knowledge gaps or skills gaps such as outdated guidelines for qualifying your leads or an ineffective use of your CRM system.

17% of time by executives is used building and delivering compliance training



Gathering data can help executives reduce the amount of time they currently spend building and delivering training.

Internal data might be valuable on its own. For example: *If your data reveals that specific safety*

*protocols are regularly broken by your employees, the onboarding training you provide new employees may be insufficient. It might be that your employees simply don't receive adequate training on those safety protocols and ensuring your training programs are improved to fill these necessary security and safety gaps can be worthwhile.*

Similarly, as more companies integrate digital technology and utilize things like cloud-based services, this data will be increasingly important in guaranteeing that your onboarding training or new training programs for each additional technology you integrate covers the necessary cybersecurity measures.

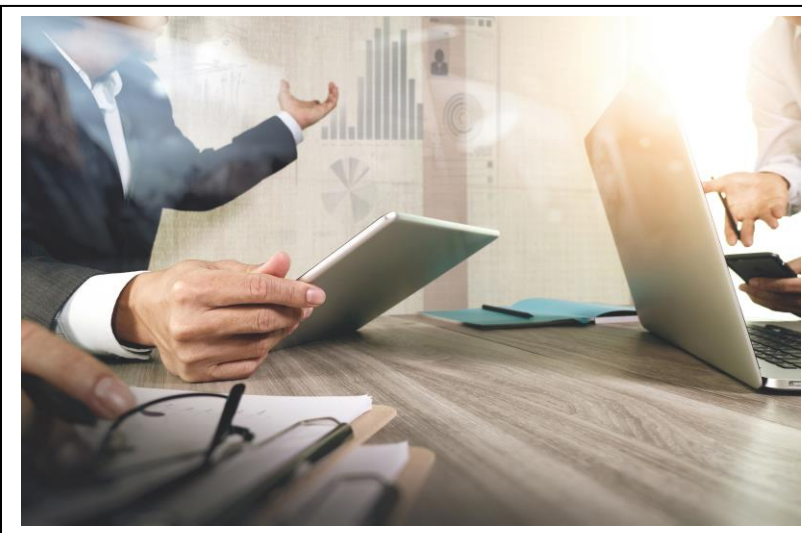
Scrutinizing data within your company can reveal opportunities where retraining might be cost-effective and environmentally friendly especially if you gravitate toward an online platform for company training programs.

## **TRAINING COURSE ASSESSMENTS**

Large data sets taken from your employees after undergoing a training program (data which can include employees scores, commentary or feedback, even the amount of time spent on different tasks) can give you a better picture of how your employees have performed throughout different stages.

With this data you can:

- Figure out which training modules employees like the most
- Determine which modules employees are avoiding or skimming, indicated by how much time is spent compared to other models or how often they fail to click on corresponding links or downloads
- Ascertain the consequences that each of your training programs might have not just for your employees but for your entire organization



**Worldwide spending on Big Data analytics solutions will be worth over \$274.3 billion in 2022.**

For example: *If you have a great deal of data which indicates your employees are unenthusiastic about updated cyber security protocols, but your cyber security risks have been mitigated and all of your employees continue to demonstrate practical knowledge on the subject, you might decide to reconsider the number of resources allocated to that training program.*

Similarly, using big data you can uncover obstacles to learning in existing training programs and apply them not only to current programs but to future training initiatives. Comparing individual employee performance with company experience and background can help identify biases or barriers.

### **ADAPTIVE LEARNING**

Using big data and data analytics you can assess course history, which training programs each of your employees have completed, and their performance within those programs. Using this information, you can identify the best learning approach for each employee and offer customized training programs in the future. This can include:

- Short videos for those who learn better with visual content
- Visual aids for those who also need written or auditory stimulation
- Repetitive tasks for those who need repetition to solidify understanding

By identifying common learning styles using data analytics you can choose the training pathways that best suit individual learners within your corporation and establish goals based on those learning patterns.

### **Google's Management Training Program**

Google is well known for its data-driven decisions. The company invests a great deal of time and money

into ensuring that all of their decisions are based on data analytics.

**Google launched the People Analytics Department to analyze data and create better management training.**

As part of its company culture, Google recently launched the People Analytics Department, which uses big data to determine employee satisfaction and the impact of managers. This information helps them to cultivate improved manager training which focuses on the 8 behaviors managers needed for success, and the top three reasons managers might struggle. The data for this training program continues to be utilized to measure manager performance against this management training program. Results have found that the new program has created an actionable difference to their employees.



## Statistical Impact of Data

Integrating data to drive your training results can have a real [impact](#).



## Case Study

With Zschool, you can achieve measurable results through the implementation of data driven training programs.

### Goal:

A large telecommunications company sought to increase their national sales team effectiveness in selling cybersecurity related products to its customer base.

### Solution:

Zschool Online Cybersecurity Certificate Program.

### Details:

Met with stakeholders from various divisions and departments to understand challenges in different regions. Our faculty team designed a custom solution that addressed all stakeholder needs and rolled out a 3-month pilot program to test effectiveness of training.

Each division created a small sample of salespeople (approx. 100 people) and randomly assigned them to the training program - half the test group went through the training (Group A) while the other half did not go through the training (Group B). By creating the control group, the client hoped to see if the training generated lift in the sales result. The amount of the average sale for group as a whole was \$72,000.

### Results:

#### Annualized ROI of over 2000%

Group A outperformed Group B by 12%. In other words, the average sale of Group A was more than \$7,300 higher than the sales of people in Group B with an ROI of 243%.

Since the test occurred over 3 months, this generated an annualized ROI of over 2000%.

As a result of the test, Telco expanded program to the entire sales team. By training their entire sales team, the client expects to increase revenues of over \$2 million dollars.

Having data-centered training in place means that you can focus on improving company performance and ROI instead of developing training programs with no success.



## Challenges

*Some of the biggest challenges with data-centric applications is having the right data and setting small goals.*

You may experience a handful of challenges at first.

### **NO DATA**

In some instances, you might find that you just don't have the data on which to make actionable decisions. There can be a few options here for developing a better method to capture the data you need in order to facilitate better training development.

### **INCOMPLETE DATA**

In other instances, your data may be incomplete. You might have good quality data that just isn't collated, or you might have data from a previous project that was never fully completed or got reassigned to another person in your office.

### **CONFLICTING DATA**

You can have a conflict in your data. Maybe what you captured is older, out of date, or was simply inaccurately captured.

## Tools for Success

Any of these challenges can be overcome by following a structured process of using data in your training.

The organization needs to use a highly structured process for capturing and analyzing data. If possible, capturing data in a structure that is repeatable will allow you to consistently utilize the same methodology for data capture and analysis moving forward. Larger organizations should rely upon a team of data analysts or enterprise architects in-house who can capture, collate, and analyze the data in an actionable form for training managers or facilitators.

As of 2020, there is a shift across all industries away from Instructor-Led Training (ILT) to [online learning](#).



Once you have data, and you are ready to act upon that information to drive your training results, the most important factor is to focus on:

- Training that can be made available at the spur of the moment
- Training employees can complete at their own pace
- And training that takes place in an online environment

**According to LinkedIn's [2019 Workplace Learning Report](#), 49% of employees prefer to access training in the moment and 58% prefer to learn at their own speed**

57% of L&D pros report that they spend more time with online learning than they did three years ago.



**The most successful way to scale learning across an organization is by offering online training programs.**

With the examples provided, your organization should be able to implement data analytics and technologies to drive your training results.

With this white paper you have seen new concepts in the data world, new technologies, and the benefits your company stands to gain by using data to drive training toward online-based offerings that enhance education and improve overall employee engagement.

Our goal for this whitepaper has been to help you to evaluate your approach toward data, the

technological tools you use, and how you can pivot toward improved company training. Data is a vital part of any business and using it appropriately can ensure your organization is equipped to deal with the challenges of today, and tomorrow.

Final thoughts:

*Organizational training has developed substantially over the last decade--from compliance training to training that facilitates better employee engagement.*

*As we enter 2022, businesses are leaning on data to drive training results, engagement, effectiveness of programs, and more. Concurrently, organizations are looking ahead and determining which skills will be most important during the upcoming digital transformation and automation, relying on data from AI to deliver relevant company training at scale.*

*In an increasingly competitive and data driven world, companies can prepare for what business and technology changes await over the next decade with data-based training.*

**THE EXECUTIVE EDUCATION ADVISOR  
CAN HELP YOU UTILIZE ADVISOR  
EDUCATION TO HELP YOU BUILD A MORE  
RELIABLE DATA-CENTRIC ORGANIZATION.  
FOR MORE INFORMATION ON DATA-  
CENTRIC TRAINING, PLEASE VISIT  
[WWW.ZSCHOOL.COM](http://WWW.ZSCHOOL.COM).**

## REFERENCES

Analytics Insights

<https://www.analyticsinsight.net/top-10-big-data-statistics-you-must-know-in-2021/>

Entrepreneur

<https://www.entrepreneur.com/article/314468>

Google's People Analytics Department

<https://www.smartdatacollective.com/analytics-google-great-example-data-driven-decision-making/>

LinkedIn 2020 Workplace Learning Report

<https://learning.linkedin.com/content/dam/me/learning/resources/pdfs/LinkedIn-Learning-2020-Workplace-Learning-Report.pdf>

Peter James Thomas

<https://peterjamesthomas.com/data-and-analytics-dictionary/#analytics>

U.S. Bureau of Labor Statistics.

<https://www.bls.gov/opub/mlr/2016/article/labor-markets-in-2040-big-data-could-be-a-big-deal-for-jobseekers.htm>

Washington Post

[https://www.washingtonpost.com/news/on-leadership/wp/2014/09/05/what-employers-really-want-workers-they-dont-have-to-train/?noredirect=on&utm\\_term=.572caecea5a7](https://www.washingtonpost.com/news/on-leadership/wp/2014/09/05/what-employers-really-want-workers-they-dont-have-to-train/?noredirect=on&utm_term=.572caecea5a7)