Measuring the Outcome of a High Consequence Training Program

When the slightest mistake can potentially lead to detrimental outcomes, a high consequence training program is critical to ensure organizational survival and success. Successful training initiatives in high consequence industries and occupations need to be strategically aligned to the goals of the business, designed to address specific challenges and equip employees with the tools to minimize risk and generate a true return on investment.

In a high-stakes environment, where every day, on-the-job tasks involve a level of risk and there is no room for error, developing, designing and delivering a high consequence training program to overcome the problems that may arise is only part of the challenge. To completely address this, organizations must consider the measurement of training outcomes and the ability to set a foundation that monitors and tracks employee performance based on what methods work. This can help guarantee a well-rounded, effective and continually useful high consequence training program.

By Shina Neo

Why Measuring Training Outcomes Matter

When failure is not an option and the result of specific job-related actions have a measurable effect on an organization’s ability to succeed, a simple mistake can be costly and negatively impact business performance and reputation. Whether it’s a breach in cybersecurity, compliance in the financial or health care industries, or even matters of life and death in the oil and gas sector, organizations need to set in motion a plan to measure training outcomes prior to the execution of a training program.

Identifying and tracking key performance indicators is necessary to ensure training is delivering the intended impact. Successful organizations understand the value of establishing a measurement strategy to evaluate program effectiveness and monitor employee progress.

To effectively measure the outcome of a high consequence training program, organizations need to:

- Create a system to gather data efficiently
- Focus on performance gaps
- Assess on-the-job performance post-training

Creating a System to Gather Data Efficiently

The most important consideration for measuring training effectiveness is to pose the question, “Does it help people do what they are supposed to do,” said Robert Szostak, program manager for Air Traffic Control Training Solutions at Raytheon Professional Services. “Knowing how an organization currently, and intends to, measure effectiveness and at what level is key to the training solution design.”

For example, in the air traffic control industry, attaining consensus between stakeholders across the airspace environment including regulators, unions, practitioners and providers, on how best to determine the measurement of training outcomes is a major challenge, explained Szostak. In many instances, training data is extrapolated from different databases and sources, some national and others local to the operations. The lack of a centralized location can be a barrier when analyzing the development, design and delivery of a high consequence training program. Ongoing stakeholder engagement at all levels is therefore critical to the success of any training intervention.

It can be difficult to consolidate and coordinate information from disparate data sources and stakeholders to assess a common set of metrics, but the objective is to create a trail that facilitates the process of measuring training strategies.

“If the means are not in place to measure the outcome, training is not traceable,” said Tracy Cox, director of performance consulting for Raytheon Professional Services. Ensuring employees are capable of managing and mitigating risk while demonstrating proficiency in their daily tasks requires the integration of data collection in the learning architecture of the training program.
The measurement component associated with training programs can be linked to the levels of the Kirkpatrick Model, Cox explained. At each level, organizations can examine how participants in the training program are reacting and benefiting from what they have learned, and more specifically if their performance outcome is a direct result of the training itself. In addition, traditional learning measurement can be coupled with human resource, operational and customer data to form a powerful measurement on business and people outcomes.

**Focusing on Performance Gaps**

Successful organizations that operate in high consequence environments recognize the value in establishing a performance baseline and focusing on low performers, explained Yvon Dalat, director of key accounts at Raytheon Professional Services. As popular as the learner-centric strategy was, it misses the mark on the most fundamental principle of success: ensuring that training is aligned to the needs of the business first, by addressing critical performance gaps. However, the expectation of low cost training becomes a challenge when measuring training outcomes. In an attempt to keep costs down, focusing on low performers allows organizations to target employees who may need individual attention to become more competent in their job.

It all starts with analytics. By mining and analyzing performance data, learning and development professionals can locate the source of the problem and establish a pre-training baseline of employee performance, as well as define an objective to clearly indicate how employees should perform post-training. By having a plan in place to measure training outcomes before designing and executing a training program, organizations can track employee progress and more importantly, analyze what training methods are both effective and efficient.

**Assessing On-the-Job Performance Post-Training**

Evaluating employee performance post-training is critical to determining the success of the training program. High consequence organizations have many types of measurement in place to build skills, reinforce knowledge and promote safe behaviors including corporate scorecards, certification rates, test scores and safety and accident reports.

Using a variety of metrics to monitor the impact of the training program can affect what type of skills and safety requirements will be tracked and available for future reference. In an environment where training is a critical factor to the overall prosperity and safety of the organization as a whole, it is important to incorporate measurable steps that are clear, observable and repeatable.

An effective measurement of training outcomes should connect the learning data to business metrics and corporate strategies, said Russell O’Brien, executive director at Raytheon Professional Services. When measuring high consequence training and collecting performance data of the entire workforce population, there needs to be a way to attribute the effectiveness of pre and post-training.

**Making Training Memorable**

Organizations that place a high value on industry expertise and risk mitigation understand the importance of implementing a training program to safeguard their customers, employees and assets. With any training program, the goal should be to make a difference in skill, behavior and performance. Making effective use of post-training initiatives to reinforce learned knowledge and creating memorable training is key to achieving an engaged and confident workforce well-equipped to handle on-the-job risks and challenges.

In an environment where operations must be zero fail, training must be done right the first time. This means having steps in place to effectively collect training data, focus on performance gaps and assess behavior post-training to fully maximize business impact. Through diligent planning and execution, high consequence training can prepare employees and organizations to succeed in the face of a crisis.

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