

SAFETY TRAINING REVISITED

Effective Design & Delivery

By Rifath Ali and Earl Blair

Organizations may experience unintended negative side effects when productivity and profitability are pursued regardless of the consequences. Unfortunately, safety training may be perceived as a non-value-adding activity at best, or a waste of employee time and organizational resources at worst.

Conversely, when safety training is treated as an investment in human capital, the importance is highlighted for management. When employees are properly trained in safety, the benefits to their physical well-being can also be simultaneously borne by the machines, equipment or production materials they are working on and around. Effective training reduces the potential for unnecessary loss.

Whether the workplace is the factory floor of a manufacturing plant, on the ground at a building or development site, in the transportation infrastructure or any other sector of the economy involving a working association between humans and machines, knowledge of safety practices continues to be a relevant and integral part of employee training and growth.

A challenge often cited in the evaluation of safety training programs (Conklin, 2012; Cullen, 2007) is how to certify that the training actually sticks. When organizations prepare and deliver safety training that is lucid, comprehensive and compelling, the likelihood of retention increases. Well-designed and meticulously implemented training may reduce employee resistance and enhance engagement in safety efforts.

OSHA has developed a seven-step procedure for employee training including the following benchmarks:

- 1) Determine whether training is needed.
- 2) Identify training needs.
- 3) Identify goals and objectives.
- 4) Develop learning activities.
- 5) Conduct the training.

6) Evaluate the effectiveness of training.

7) Improve the program.

Fully Invest in Safety Training for Valuable Returns

In a relevant scenario, a company or an independent auditor has diagnosed certain issues within the current training, providing the impetus for updating the existing program. Another scenario might involve a company that has recently diversified its business regarding new products or services, requiring the need to design and deliver additional training to employees.

If a company finds itself in one of these scenarios, it has likely answered affirmatively to at least one of the following questions:

- Have concerns been raised by employees about safety practices, workplace hazards or health risks?
- Has an audit identified the need for safety training in response to a violation?
- Has either a minor or catastrophic incident recently occurred?
- Has management determined for some reason that employees require additional safety training?

Companies that value safety training understand that creating a work environment centered around employee safety and health represents an investment in its greatest resource and an opportunity to increase productivity and performance for the long term. According to National Safety Council (NSC, 2013), companies that take the lead on safety spend less on workers' compensation claims and medical bills, saving money and contributing to greater risk control in the long run.

A 2005 joint initiative between OSHA, Abbott Labs and Georgetown University Center for Business and Public Policy notes that investment in safety and health not only adds monetary value to a company in the long term but also aids it in becoming more competitive in its respective industry (OSHA, 2005). The short-term expenses may seem daunting to the balance sheet; however, the gains from an initial safety investment generally do not take long to materialize, including significant reductions in workplace injury and increased efficiency in the manufacturing process.

When an organization begins developing new safety training or updating its existing program, several factors can help clarify the initial efforts.

KEY TAKEAWAYS

- This article provides an overview of the theory and purview of safety training.
- It suggests steps companies can take to improve training effectiveness, and outlines best practices for design and delivery, and for creating beneficial post-training assessments.
- It also addresses strategies to build new training programs, and improve existing programs and problems typically encountered during development and implementation.

How to Determine Whether Current Training Is Effective

At the basis of analyzing whether current training has been effective is ascertaining whether employees use what they learned during safety training in daily work activities. In the worst case, the answer to this question can be uncovered because of an incident. Another instance would be an auditor or inspector interviewing employees or observing their daily activities and discovering a gap in their knowledge. A better case would be a manager periodically quizzing employees to find where they might have not fully understood a safety principle during safety training.

If a manager realizes that employees have not been properly trained in safety in a certain aspect of their jobs, a solution can be found relatively quickly. An employee's lack of knowledge in safety would reflect poorly on management, especially if an incident were to occur because of that lack of knowledge. Management can use several strategies to determine whether the company's safety program has been efficient or needs to be updated or overhauled, or whether employees may need to be retrained.

Consider Delivery Methods That Engage

One culprit of ineffective training can be the delivery method. As detailed by Cullen and Fain (2005) in an anecdote on miner's safety training, the workers thought of their 8-hour training as "safety jail." Safety presentations or training in the form of hours-long lectures can be uninspiring and dull, which is why Cullen and Fain advocate for more exciting delivery methods, such as storytelling. Other interactive methods such as group discussions, analysis of case studies and physical demonstrations are proven to be successful and stimulating techniques for delivery of training.

Consider Context That Supports Training

Other considerations when determining whether current training has been effective may not fully involve the training itself. A system or process may be fundamentally flawed and prone to problems, interrupting productivity or causing undue safety risks. In this case, once the flaws in the system or process are fixed, then safety training related to the new system may be designed and delivered. This timeline could also work in reverse, where a process is not flawed but is simply being modified for performance, but the safety program was not updated.

In this case, a manager would identify the need for employees to be retrained in safety to reflect the new system and would begin the process of designing and delivering new safety training or updating the old safety protocols and educating affected employees. Often, if the company that makes the machinery has installed an update, it may also include recommended safety training along with the new product, making the manager's job of reeducating employees much easier.

Consider Training as a Temporary Solution on the Hierarchy of Controls

When management has identified a safety risk in the workplace or an employee has raised a concern themselves, it is necessary first to identify the correct solution to the perceived problem. This could be something as straightforward as the addition of an engineering control, or as complex as training or

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retraining an employee who may be inadvertently putting him/herself in harm's way. Often, implementing a quick-fix solution or short-term risk control may seem like a proper course of action in response to a safety concern, but may only serve to delay an incident from occurring, and could make the safety problem worse.

Also, a problem that may seem like a safety issue but is actually a matter of performance would likely not be solved correctly through more training. As Machles (2007) says, "To throw training at a performance problem when there are other issues hampering performance" constitutes redundant usage of company resources, and managers are equipped with authoritative capacities to solve this issue more efficiently than another training program. Training is not an omnipotent solution to every performance or safety problem, and managers should always be judicious when training may seem to be the easy answer to an issue.

Does Training Cover Management Liability if Compliance Does Not Result?

Consider whether training covers management liability if compliance does not result. The short answer is that it may not. When employees complete safety training, there is no guarantee that they learned and comprehended what the training was intending to teach. Nor is there a guarantee that they will implement the concepts and follow the rules in their daily work. Even if safety compliance training is mandated, monitored, scored or otherwise controlled for efficacy, this does not mean that workers will comply with the best standards and practices once they are on the job. One-time training does not ensure compliance. The only follow-up, consistent evaluation and on-the-spot "knowledge audits" are likely to prove retention and practice.

Design a Plan for Safety Training Involving a Two-Way Experience

When designing a strategy for the development and delivery of safety training, remember that training of any kind, when done correctly, is not an easy venture. As Conklin (2012) points out, employees are human, not robots; they cannot simply download a safety program and immediately implement the practices into their daily work. Safety training is a two-way experience: the trainer has the job of effectively communicating the goals of the program; trainees have the responsibility of taking matters of safety seriously.

Ultimately, the planning phase can have a significant impact on whether training is successful. After a need for safety training has been determined, the next step is to design a plan for training implementation. There are three keys to an effective training design: incorporation, integration and specialization.

Incorporation: Safety Training Helps Fulfill the Company's Mission

Effective safety training is designed so that it incorporates all the aims of the organization or company that delivers the training. The design and philosophy of a company's safety training inevitably represents and mimics the values of that company. This is because the quality and content of the training primarily guide the growth and development of an organization's employees, so the employee becomes the physical embodiment of the safety training s/he receives.

If it is a founding principle of a company that the managers and executives treat subordinates as if they were family, then one might expect their safety training to be highly comprehensive. If a safety training program is sparse on details, any employee who is trained in that program may not be fully equipped with the knowledge of best practices and standards relevant to his/her position, and this might echo how the entire organization is run.

Simply put, the design of the training reflects the attitudes and goals of its creators. A measure of successfully incorporated training not only includes whether the training works, as in whether employees follow the rules and implement the best practices they have learned, but also whether the goals set out by the company are achieved using the training. Any design that runs counter in scope or spirit to the mission of an organization can leave employees confused about their role or unsure of their direction.

Integration: Entire Chain of Command Understands Principles of Safety

Along with incorporating the values of a company into its safety training procedures, the knowledge found within a safety training program and, by extension, the benefits garnered from that knowledge should be integrated throughout the entirety of the appropriate hierarchy. Clear responsibilities should be outlined for employees at each level, from associates to supervisors and from middle managers to department heads; this structuring will ensure that checks occur every step of the way when training is involved.

For example, a department head at a company has purchased a machine because he was advised that it would increase efficiency in the production process. As a result, an associate must be trained to operate a new machine. However, the machine has many moving parts and functionality that is unfamiliar to the employee who has been assigned to operate it. The shift supervisor and floor manager would likely be trained by the technician who comes to install the machine and, in turn, they would be responsible for training the appropriate employee.

The department head should also be made aware of the general functionalities of the machine. Knowledge spread throughout the chain of command means that there are more eyes and ears vigilant for safety risks and holding all parties accountable for continuous training and education. One simple strategy for ensuring that safety information is available throughout the chain of command is to keep job safety analyses immediately visible or obtainable to employees and management. For employees, this will provide a readily accessible safety resource if they have a question or concern during the work day. For management, keeping these documents on hand represents a best practice in terms of safety, liability and process management.

Specialization: Tailor Safety Training for the Needs of the Specific Site

Specialization refers to tailoring the design of safety training for specific situations or problems, such as adding a new machine to the manufacturing process. This can also refer to the type of training methods used in a training design. Lectures or presentations may be sufficient for some safety training programs, but others may require hands-on demonstrations and intensive experiential learning for employees to become competent at the practices necessary to perform their jobs safely.

Training should incorporate various visual, auditory and kinesthetic methods to encompass the various dominant

learning styles of participants. Visually dominant employees learn best from charts, diagrams or step-by-step instructions provided in a manual. Auditory dominant individuals learn best from presentations such as in the form of a PowerPoint or lecture. Tactile and kinesthetic learners appreciate hands-on demonstrations and participation in example safety drills and practicums.

Supercharge Training Delivery Methods

Once a training program has been designed to be effective, including strategies for incorporation, integration and specialization, the training is ready to be delivered. This step is the most important in the training process and holds special significance for safety training programs. Three key elements are the basis of delivering effective safety training: A knowledgeable trainer, an engaged trainee and a learning environment within the workplace conducive to comprehension.

Roles of Ideal Trainers

Subject Matter Expert

Effective trainers must have the knowledge, expertise and experience required to instruct employees on how to do their jobs best. In the context of safety, this means trainers must be knowledgeable about the regulations applicable to the specific manufacturing process or work environment where the training is taking place.

Facilitator of Learning

Ideal trainers must be good communicators and listeners and able to facilitate learning in every phase of the training. This includes the ability to create a consistent learning environment where employees are not pressured in any way, allowing for a free flow of information and a higher chance of retention.

A Salesperson for the Benefits of Training

Effective trainers make the benefits of the training known to trainees. Focusing on the benefits of training helps motivate participants to implement what they have learned on the job.

A Modern-Day Socrates

Two basic strategies employed by effective trainers are the use of questions and the use of anecdotes. Similar to how “just ask” leaders are considered effective managers, a trainer and trainee should be able to ask and answer questions in a manner by which the trainer can assess the trainee’s level of comprehension, and trainees can assess their understanding and adjust. Having a free and open dialogue during training is essential to effective delivery. In safety training, if an employee is afraid to ask a specific question, that knowledge gap might lead to a workplace incident.

A Skilled Raconteur

It is the responsibility of the trainer to identify when an employee may have a knowledge gap or confusion about practice, and seek to eliminate the misunderstanding. The use of stories and anecdotes is another method trainers can use to increase the likelihood of the retention of key principles. If an employee has a mental picture of an incident in mind, s/he will likely use that in place of real experience and be more prepared to confront safety risks in the future. The effectiveness of storytelling in safety training has been highly documented, most notably by Cole (1997) and by Burke, Sarpy, Smith-Crowe, et al. (2006).

Evaluate Safety Training for Efficacy

The Initial Training Is an Awareness or Beginning

As Conklin (2012) suggests, the work of safety trainers does not stop once the training has been delivered. Organizational change in terms of safety and health in the workplace can only occur if employees of a company give their full daily endorsement to safety principles and practices, and put substantial effort into making them an essential part of their work. For middle managers and department heads, a safety culture must be embraced as a key value-adding component to the business model. More so, it is useful for managers to gain an idea from the ground-level perspective of the effectiveness of the safety training once it has been delivered.

Tests Identify the Level of Learning

Pre- and post-test scores are a standard method of gauging the efficacy of training. General questions might be asked first, such as employees' level of satisfaction with the training. Did they feel that the trainer did a good job? Did they learn what they believe they were supposed to learn? To gain a more accurate gauge of efficacy, specific questions about the skills and practices taught in the program should be included in the post-test.

Observation & Interviews Demonstrate the Extent of On-the-Job Application of Training

Follow-up observation should be performed to ascertain whether employees use the skills they learned in training, including best safety practices, when they are on the job.

Value to an Organization: Safety Training as an Indicator of Culture

A primary goal of safety training that is often overlooked is for those who have received the training to view safety, and creating a culture of safety, differently than they did before. What this means for employees and managers alike is that they view past failures in safety as opportunities for change and growth, and view potential new challenges in implementing safety practices as a way of improving the quality of work, increasing daily satisfaction with their work, and overall adding a sense of security within their work environment.

Value to Employees: Knowing the Employer Cares About Their Well-Being

When employees begin the work day knowing that managing personal risk or taking extreme measures to protect themselves from bodily harm will not factor into their performance, this can only benefit their productivity and will add value to the company in the long term.

Conclusion

This article discusses strategies to help ensure that an organization's safety training is not a waste of time. The bottom-line for safety training is that learning must be applied on the job, or perhaps the training was a waste of valuable time and money. Ineffective training can result in more than spending time and money; it may lead to injuries, illnesses, property loss and liability for management. Thorough planning and meticulous implementation are required to invest in safety training and enjoy the valuable benefits that accrue over time.

The short-term costs may seem daunting; however, the long-term advantages for employee health, morale and efficiency at work have been proven to successfully mitigate any adverse effects on a company's bottom line.

When examining the need for new or updated safety training, consider that the quality of training, the trainers and the outcomes of training will have a ripple effect throughout the business. A carefully developed training plan, a knowledgeable and skilled trainer, and engaged employees are all key to harnessing the benefits of proper workplace safety and health training. **PSJ**

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