Blended Learning for Organizational Competitiveness

IN THIS PAPER:
• The Advantages and Disadvantages of Instructor-Led Training, On-The-Job Training and eLearning
• Creating a Blended Learning Approach for Employee Instruction and Business Success
Regulated industries are subject to the careful and consistent oversight of an alphabet soup of agencies including FDA, OSHA, DOT, EPA and additional state and local regulatory bodies. Often safety professionals and compliance officers feel like regulations change on a daily basis. Additionally, workforces are required to be skilled, knowledgeable in safety procedures and competent to perform their jobs in sometimes difficult and often risky environments.

This combination of heavy regulatory oversight and demanding working conditions compels industries with high workplace exposures to focus on training and education. All the while still trying to achieve operational excellence, create value for their customers, expand production and maintain profitability in a volatile market.¹

This is of critical importance as these regulated industrial sectors support a significant percentage of jobs in the United States and globally:

- Manufacturing supports an estimated 17.6 million jobs in the U.S.
- Energy supports 9.2 million jobs in the U.S.²,³
- Life Science (Medical Device and Pharma/Biologics) supports 1.2 million jobs in the U.S.⁴

The workforce in these industries needs to be properly trained and capable of performing their jobs safely and effectively. We’ve found that a blended learning approach – considering the advantages and disadvantages of various styles – formulated for the needs of your organization is the ideal solution.

**TRADITIONAL INSTRUCTION**

One training method regulated companies have attempted to address the growing need for an increase in skills and safety knowledge is conducting more Instructor-Led Training classes and more On-The-Job Training. These companies want assurance their employees are competent to do their jobs and are in full regulatory compliance. However, these methods have advantages and disadvantages.
INSTRUCTOR-LED TRAINING

Advantages:

• Instructor-led training allows for a face-to-face exchange of information between the instructor and the trainees as well as between trainees.
• An instructor can tell if a learner is confused or is not getting a concept and can stop and explain the concept to the learner.
• When the instructor presenting the information is the company expert on regulatory requirements (such as FDA, OSHA, DOT, DIA, etc.), this allows employees to gain an understanding of information that is not available from merely reading a regulation.
• An instructor-led environment allows for individual questions to be answered.
• Instructor-led training can be quickly created to react to a newly released rule or regulation.
• Instructor-led training requires little special equipment or computers. Sometimes no slides or computers are even needed to present the information.

Disadvantages:

Most classrooms are inefficient in their use of time, particularly for workforces that are logistically dispersed, and/or run multiple shifts.

• Often not all the time spent in an instructor-led training session is devoted to instruction. Time is naturally lost to off track questions, people arriving late or leaving early and a wide variety of other issues.
• There is often a lag time or delay between when a person is hired and when they receive training for their job.
• In a classroom situation, instructors must teach to the middle of the group. This means that some employees are bored because they have already “gotten” the concept and others are behind and are unable to catch up.
• In the classroom, there is an inability to repeat instruction for just one person. If an employee steps out of class to solve a “crisis” then the instructor rarely has the time to repeat the missed instruction.
• An instructor on first shift may not be providing the same information as the instructor on third shift even though the subject is the same. Often content is not consistently presented.
• The assessment and tracking of learning is missing. Typically classroom instruction does not involve testing or accessing the learner and, when it does, it becomes an administrative nightmare for the training department who has to record each employee’s score and then keep those records for auditing purposes.
• Hiring an army of trainers and/or converting supervisors into part-time trainers can be a costly endeavor. If the supervisor is not a good trainer then there is no assurance that any learning has actually taken place.
• If there is little interaction in the instructor’s delivery of the content an employee’s mind will wander.
• Classes often can only be scheduled to the availability of the instructor, not to when the employee is ready, willing, able and needing to learn.
ON-THE-JOB TRAINING

One alternative often suggested to instructor-led training is on-the-job (OJT) training which also has advantages and disadvantages.

**Advantages:**
- OJT allows for a face-to-face exchange of information between the instructor and the trainee.
- One-to-one exchange of learning and chance to ask specific questions. An instructor/competent worker can tell if a learner is confused or is not getting a concept and can stop and explain the concept to the learner.
- Chance to learn on the actual equipment in the actual environment in which the equipment is used. Task-focused approach to learning.
- OJT can be cost-effective when no special trainers or materials are needed.\(^5,6\)

**Disadvantages:**
- OJT relies on a competent employee to provide the instruction based on what they feel are the most critical elements of the job. However, what is important to one employee may not be as important to the job as he/she thinks.
- Trainees can only learn about what actually happens on the job. Troubleshooting and handling emergencies cannot be experienced due to the inability to take down expensive equipment just for training.
- Fundamental principles and concepts are not always covered due to an inconsistency in the variety of people providing the OJT.
- When competent and experienced personnel are spending time training, their other high value work contribution is reduced.
- The possibility of an increase in waste, scrap or accidents as employees who are not as skilled or trained are placed into the production process.\(^5,6\)
eLEARNING

Until two decades ago, there was no other real choice for training employees within an organization. You either conducted extensive classroom training or provided comprehensive on-the-job training.

Now organizations are able to turn toward online learning but, just as with other forms of training, there are advantages and disadvantages.

Advantages:
eLearning has a number of advantages in terms of creating effective learning results.

• Training content is presented consistently over and over again. Computers don’t tire, get colds or forget to provide vital information during instruction. Each time a web-based class is delivered to employees, the class has the same information presented in the same manner with the same examples for everyone.

• Interactive, well-designed eLearning is highly patient – if the employee stops thinking and interacting, it stops teaching until the employee resumes completion of the course.

• Personalized training is provided at the right pace for the employee, not at the pace of the instructor. Employees can repeat all or part of an online instructional course as many times as they desire. The course moves at the pace of the employee.

• Employees can “risk” learning new information they might not want others in a classroom, or on the job setting to know they did not know.

• Centralized documentation of workforce knowledge.

• The information presented can be vetted and checked to ensure accuracy and up-to-date content. Online learning can take full advantage of an expert’s limited time by allowing him or her to place the information online for viewing over and over again.

• Online learning can be available 24/7, synchronously or asynchronously, so no one needs to wait until an instructor or an employee is available to conduct the class.

• Simulations of troubleshooting, equipment and emergency events can occur safely within a simulated computer environment. This allows an employee to practice with no damage to actual equipment and no risks to an employee’s health or safety.

• Assessments are usually built right into an online learning course so it is possible to track employee progress.

Disadvantages:

However, eLearning is not a panacea. It also has a number of disadvantages that must be considered.

• There is no personal touch. Although the use of avatars in Computer-Based Training (CBT) is helping with feeling more personal, computers as yet do not read body language. They cannot react to a frown or other expression of confusion. Good instructors are able to read their audience and make adjustments as needed.

• The trainee doesn’t get the “feel” of the actual equipment or work environment. He or she is seeing a simulation or pictures of the actual environment.

• Can be expensive to develop.

• Can be over relied upon, especially when qualified employees and instructors have assumed other duties and become less available.
THE ANSWER:  
Blended Learning

The best approach is to craft a strategy that includes all three types of learning. Think of it this way – most organizations would, and should not deliver all training to employees via eLearning. Yet, these same organizations currently deliver all training to employees via instructor-led or on-the-job training. No single training delivery method is ideal for all types of training. Instead, what is needed is a blended approach – a mix of instructor-led, on-the-job training and eLearning.  

Few organizations in regulated industries have the resources, personnel or experience necessary to properly address the learning imperative within their organizations. It is not an easy task to implement, maintain and monitor a comprehensive, up-to-date compliance training and education program with regulations within the industry changing constantly. Companies are stuck between paying expensive development and delivery costs for effective training or risking the lives of employees and the public, as well as incurring fines, litigation and possible prison sentences. The answer is an enterprise-wide training strategy that provides the right mixture of up-to-date, rapidly delivered training with hands-on personnel instruction.  

A truly enterprise-wide approach to compliance-based education combines the best aspects of online education with the best of instructor-led training. This combination of teaching basic fundamentals online and then teaching advanced skills in the classroom and on-the-job means that face-to-face learning becomes significantly more efficient and effective. This is because the more mundane aspects of sharing information will have been moved to an online environment where it can be more engaging and interactive, and students can progress at their own pace.

A blended approach means that everyone in the organization can have an orientation training program with a class size of one each month for six months. They then can be assured that all seven new employees in the class in the seventh month all understand the same information because it was presented consistently by an expert over the web. The class can now focus on higher-level skills since the basics are known and tested by the online software.

The classes can be extremely focused because the general information that every employee needs to know can be presented in one classroom and details related to a specific job can be presented online to maximize employee time in training. The follow-up OJT training means the employees will be able to apply what they have learned online and in the classroom to specific tasks they need to perform competently.

When regulatory refresher training or new operational tasks are needed, they are needed quickly. In an enterprise-wide approach to compliance training, online training can be deployed and completed within minutes of the need. This can be accomplished with an online library of compliance titles. These titles can serve as both courses and a refresher.

However, there will still be questions that will not be answered by the on-line training. This is when a competent, qualified person can be made available to answer specific questions on-the-job, or a training class can be set up to answer questions and provide company specific ideas and suggestions not available through the online library.

For these reasons, a hybrid approach mixing on-the-job training, instructor-led training with a supervisor or internal expert and online learning is the best possible combination to ensure employee knowledge, skills and compliance.
Implementing a Hybrid Solution for Maximum Impact

While a hybrid approach is the most effective from an operational standpoint, setting up, maintaining and managing a large-scale hybrid training operation can be overwhelming from a logistical perspective. Fortunately, the task is made substantially easier through enterprise learning solutions.

The key is to implement a proven three-part solution. The first part is to set up and implement a Learning Management System (LMS). A well-designed LMS can provide the tracking and delivery of online courses as well as the recording and documenting of on-the-job experiences and classroom attendance. The value of combining all three types of data collection in one system is that a manager or supervisor only needs to look in one place to collect all the data they need related to any training that has taken place for their workforce. Additionally, employees become familiar with the system and understand how and when they need to enter information related to training. These systems can even provide feedback to the employees letting them know what training they require next or where they need more training to fill in any gaps in their knowledge or technical skills. While this step is needed from a reporting and tracking perspective, it needs to be performed hand-in-glove with the next step.

The second part of the solution is to carefully analyze the needs of employees within the organization to determine which type of training is best delivered at what time. On-the-job training is best performed after some initial classroom or eLearning to familiarize the employee with the process and procedures they will encounter while on the job. Classroom instruction is effective for new employee orientation and explaining difficult processes and procedures. The use of eLearning is effective for refresher, compliance and safety training when you want to assess the employees’ knowledge to ensure they know what they are doing. Performance checklists are good to validate on-the-job training. The analysis process of determining what type of delivery method is best for the timing and the content can be difficult and confusing at times. Leveraging the expertise and experience of an organization that has established such programs and implemented successful eLearning, on-the-job and classroom instruction will help make this process as efficient and effective as possible.

The third part is having well-designed instruction. Regardless of the method of delivery, if sound instructional design principles are not employed, the training will not be effective. It is important that the instructional objectives be carefully crafted and aligned with job tasks. The assessment of employee understanding and skill obtainment needs to be calibrated so it is fair and actually measures what is valued to the company. The instruction needs to be created to provide for the maximum learning within a minimal time commitment of the trainee. Following a careful and systematic instructional design process will ensure that the training will be effective when it is delivered online, on-the-job or in a classroom-type setting.

Conclusion

To remain competitive, organizations need to be flexible in manufacturing and production and they need to be flexible in their approach to training. Matching the right instructional delivery method with the right content provides a myriad of advantages to organizations that are able to get it right. Partnering with an international expert in learning and training with knowledge of regulated industries is a smart move. When learning expertise is matched with industry knowledge, workforce development and skills obtainment become embedded into the fabric of the organization and provide distinct advantages in production, employee morale and overall profitability. In the end, it’s all about getting the best performance from your human capital, and a blended approach that leverages online training with OJT and classroom instruction ensures you get the best results from your training efforts.
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