

Maintenance Training into the 21st Century

Written by Bob Williamson
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Old tried-and-true training methods often fail to achieve the desired results in today's maintenance and reliability improvement environment. Much has changed in recent years because of workforce in transition, skills shortages, new equipment technologies, downsizing, and cost cutting. The next logical step is to fundamentally rethink our training approaches. Accelerating the maintenance and reliability learning process is essential for the success of modern industry.

New and renewed organizations often include a smaller workforce, fewer, if any, middle managers, new job designs, overhauled compensation and reward programs, delegated responsibilities, empowered work groups, and a relentless focus on results. Many of the old ways of working have changed, often not by choice but rather out of the need to survive in a new world order, and in a new work order. In this new work order, training methods must be transformed by taking into account how adults best learn, how to accelerate the learning process, how equipment works, and how to improve performance.

Here are four steps to improving training and learning effectiveness and efficiency.

First, adults learn best through applied learning methods that are immediately applicable to their needs and interests. Classroom or large group training classes are the most ineffective and inefficient ways for adults to learn. In general, every person in today's job roles has different learning needs. Although adults may require the same skills, they enter the learning environment with vastly different experiences, aptitudes, and abilities. Here are a few key points to help adults learn maintenance and reliability improvement skills:

- Focus on the needs of the individual and the needs of the business and the equipment or process. Adults learn what they want to learn.
- Involve the employees in developing the learning content and approach. Buying training in a can and delivering it does not work.

Second, the learning process must become more efficient and more effective than in the past. With many training methods and learning technologies available there is no need to stick with one method or format of training media. The media must fit the subject matter and the learner and also must be applied in the right setting, where learning will be most effective. Here are a few hints:

- Match the subject matter and the training method with the media and the subject being taught. For example, teach coupling alignment or bolt tightening with a brief video, followed by a hands-on demonstration and practice until each person demonstrates proficiency. Discuss

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and demonstrate related information such as proper tool selection, safety, record keeping, applicable company procedures, and the results of doing or not doing the task correctly.

- Do not use a video program by itself to train an employee and then send the learner into the workplace "trained" to perform the task correctly. This method is highly ineffective and dangerous.

- Some tasks are best taught one on one in the plant on the equipment. However, avoid an informal buddy method.

Third, the more employees understand about how the equipment and processes work the easier their jobs become. Quite often, such knowledge is withheld from personnel who operate and maintain the equipment in an attempt to keep jobs simple. Many businesses have learned the power of engaging people with manufacturing and equipment processes. Learning how to maintain, repair, troubleshoot, and improve equipment is accelerated if people know how and why equipment does what it is supposed to do.

Fourth, all learning must focus on measurable results in the workplace. Improved performance of the individual and the equipment is possible within a few hours or days of completing training. Training focused on the needs of the plant, equipment, and process as well as the needs of the individual employees becomes highly effective. Focusing on equipment performance problems heightens return on the training/learning investment.

Training for the sake of training or training in general subjects rarely leads to a sizable and sustained return on the investment.

By following these steps to improving training and learning effectiveness, employers and employees will find that training is no longer a cost but rather an investment in improving equipment effectiveness and process reliability. **MT**