

How to know if you're choosing the right training for your company's needs by Cynthia Rishko, [National Technology Transfer, Inc.](#)

Employee training programs cost money that employers might be reluctant to spend—especially in tough economic times. Often times giving serious consideration to an employee training program is delayed until an incident occurs that highlights the need for a change in the status quo. The truth is that money spent on training employees well can benefit a company in many ways for years. The benefits come in the form of increased efficiency and productivity; less downtime or complete breakdown of systems; less reliance on high priced outside consultants to resolve issues, as well a decrease in insurance liabilities due to accidents on the job, along with their potential for OSHA penalties.

Additionally, employers need to factor into their long range planning that a large segment of the experienced industrial workforce will be retiring within the next five years. (Some estimates go as high as 50% of the entire industrial workforce nationwide.) With less of America's workers going into the industrial sector, that means fewer employees will be available with the skills and knowledge in place to maintain, repair and operate industrial systems.

Clearly, the time has come for companies to commit to dedicating resources to train current and future maintenance, repair and operations employees.

What kinds of training do employees need to do their job well?

The types of training that each employee will require, is dependent upon the nature and scope of their areas of responsibility. For example: an employee that services air conditioning systems would benefit from training about electrical safety, electrical circuitry, grounding and bonding, and many additional subjects, beyond becoming thoroughly knowledgeable about the specific topics of air conditioning systems, refrigerants, EPA requirements and certification requirements.

A company's generalized maintenance and repair technician would benefit from training about any system present in the facility that they may be responsible for. All industrial technical employees would benefit from training about OSHA requirements specific to their line of work, keeping in mind that they, and ultimately the management of the company bear responsibility and liability for any violations of OSHA requirements pursuant to their industry.

How often do employees need training?

Technologies of all types are evolving at increasingly accelerated rates. You cannot assume that employees can or will be able to adapt the information or knowledge they have about a specific technology, and be able to properly operate, maintain or repair newer technologies that may have been integrated into their workplace. It might be valuable to look into training that might be offered by the manufacturer of a system or mechanism that has been added to your workplace.

In addition to mechanical or technological changes, code cycle changes are another important marker indicating when employees might be requiring training. Again, the employer is obligated to ensure that the work environment is as safe as possible and that the physical environment and work practices conducted therein are in compliance with the latest code requirements and mandates.

New employees should be screened for safe work practice adherence. Don't assume that a new hire comes from an environment where there was an adequate safety culture in place. If a new employee is found to have a lesser understanding or awareness of best safe work practices for their areas of responsibility, they are a good candidate for training.

What are the options for types of training?

There are many types of training options with varying degrees of effectiveness and engagement of the student in the learning process. They range from interactive cds and online courses to full classroom instruction with hands-on training aids.

Training can be offered through the manufacturers of the products or systems that you have in house; they can be conducted by trade associations; technical training can also be found at local educational institutions and it is offered by commercial training companies.

How do I determine what type of training will be best for my company? (What is the best training value?)

Before a company goes shopping for training, they need to determine what they hope to accomplish with that training. Having a clear understanding of what your training needs are is a key factor in determining the adequacy of the type of training that you are considering.

For a lot of companies, the decision about what type of training they should utilize for their staff development is based upon cost considerations. It is also important to consider the quality and depth of the learning experience that various types of training deliver.

Truly effective learning and retention—which is especially important when the training is to be applied to mission-critical outcomes), should cover all of the levels of learning as described in *Bloom's Taxonomy of Learning Domains*.¹ Summarized, it means that a truly effective learning experience should leave a student with the following:

I understand the subject matter. (*A cognitive learning experience*)

I understand the value of knowing about the subject matter and how it will improve job performance. (*An affective learning experience*)

I have a level of mastery of the practical application of the subject matter—I can do it. (*A psychomotor learning experience*)

¹A classic study, originally published in 1956, outlining the effectiveness of learning techniques.

How do you measure the effectiveness of training?

In order to measure whether training was effective, it is helpful to have a set of criteria by which you can gauge the student's training experience. The following evaluation model was developed by educational expert Donald L. Kirkpatrick.² It includes four stages: reaction evaluation, learning evaluation, behavior evaluation and results evaluation.

Reaction evaluation is **how the students felt**, and their **personal reactions to the training or learning experience**, for example:

- did the trainees like and enjoy the training?
- did they consider the training relevant?
- was it a good use of their time?
- did they like the venue, the style, timing, domestics, etc?
- level of participation
- ease and comfort of experience
- level of effort required to make the most of the learning
- perceived practicability and potential for applying the learning

Learning evaluation is the measurement of the **increase in knowledge or intellectual capability** from before to after the learning experience:

- did the trainees learn what was intended to be taught?
- did the trainee experience what was intended for them to experience?
- what is the extent of advancement or change in the trainees after the training, in the direction or area that was intended?

Behavior evaluation is the extent to which the trainees **applied the learning and changed their behavior**, and this can be determined immediately and several months after the training, depending on the situation:

- did the trainees put their learning into effect when back on the job?
- were the relevant skills and knowledge used
- was there noticeable and measurable change in the activity and performance of the trainees when back in their roles?
- was the change in behavior and new level of knowledge sustained?
- would the trainee be able to transfer their learning to another person?
- is the trainee aware of their change in behavior, knowledge, skill level?

Results evaluation is the **effect on the business or environment** resulting from the improved performance of the trainee—it is the ROI, which is the acid test of training efficacy.

Measurements of the efficacy of industrial trades training would typically be performance indicators, such as: higher productivity, demonstrated safe work

practices, less work related injury, less system downtime, fewer numbers of complaints, less staff turnover, fewer failures, reduced waste, increased adherence to compliance issues, higher quality ratings, etc.

The bottom line is that staff development and training are essential to the long term health of every company. It is important that ongoing training be considered a vital element in a company's fiscal planning.

Once the decision has been made to include training into the corporate budget, make sure that you are getting your money's worth. Be prepared to measure and analyze whether or not the staff training methods utilized have actually made a difference in performance quality and ROI. Don't underestimate the value of the training that you secure for your employees. Be clear about the desired outcome of the training you seek. Be very discriminating about the training provider and their methodology and reputation, and above all, remember the adage: you get what you pay for.

²Donald L. Kirkpatrick's entire learning model is available on the internet along with other free personal development resources.

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