Ankle and ANSI recently updated ANSI/ASSE Z490.1, Criteria for Accepted Practices in Safety, Health and Environmental Training, and this is the first in a series of articles that will analyze key parts of that standard. The series is similar to basic safety training that explains fundamental concepts to use as building blocks for improved safety training. The focus of this article is learning objectives.

Objectives: Follow the Yellow Brick Road
Learning objectives are a road map for all parts of training. Once they are in place, you can follow them where you want to go. To start, imagine that the safety training program at your organization is incomplete. It is your responsibility to create new training, and you decide to start with hazardous energy control (lockout/tagout).

But what comes next? Do you schedule a face-to-face training session and start talking? Do you print out OSHA’s 1910.147 and read it to everyone? Neither of these tactics is the path to success.

Instead, one of the first things to do is to create a set of learning objectives. Learning objectives are the actions or behaviors trainees should be able to perform once the training is complete. For the lockout/tagout example, that means to correctly perform all the tasks and responsibilities associated with the organization’s hazardous energy control program (and the role each worker plays within that program).

The Ins & Outs (of Training)
Learning objectives are critical for a few reasons. A proper set of learning objectives will determine what to include. If the objectives outline what the employees should be capable of doing after the training is complete, then all you have to do is include training content to help employees learn to satisfy those objectives. Easy enough, right? This is important because many times trainers do not incorporate critical information in the training.

Just as important, the learning objectives tell trainers what not to include; specifically, this is anything that does not help employees satisfy the objectives. This is important for two reasons: 1) trainers often include additional nonessential information in training; and 2) including additional information diminishes learning results. That is because our brains can actively process only a few pieces of information at once. When additional, unnecessary information is included, it distracts the employee and overwhelms his/her brain’s processing capacity.

A Heads-Up to Employees
Another benefit of learning objectives is that they can be communicated to employees to let them know what the training is about. This can improve the training’s effectiveness in two ways. First, employees will be more motivated to learn if the objectives are relevant to employees’ jobs and it is clear to employees how learning the material will help keep them safe on the job (and, motivation is key to learning). Second, it allows the employees to periodically self-assess during training to check whether they are learning what they are supposed to learn. This process of thinking about your own thinking is known as metacognition and is associated with improved learning results.

Controversy surrounds the issue of how to present learning objectives to employees before training. Some use a bulleted list, others argue for presenting the objectives in the form of an engaging story. This issue is beyond the scope of this article, but worthy of additional investigation.

Testing, One, Two . . . Testing
Learning objectives also help serve as a guide for posttraining assessment. Objectives help determine what type of assessment to use (e.g., oral evaluation, written test, practical skill demonstration) and what should be included in that assessment.

The golden rule here is simple: Assess all the learning objectives completely and assess nothing other than learning objectives.

Evaluate Training
Finally, learning objectives are beneficial because they help the trainer evaluate the training’s effectiveness. Here’s how:

• Learner surveys: If using posttraining surveys, include questions that ask trainees whether they have learned to perform the objectives.
• Assessments: Select a method to evaluate the training.
• On-the-job observations: After training, get out in the field and see whether employees are doing what they are supposed to be doing. If they are not, find out why because the problem may not be the training.
• Key business metrics: Before and after training, check the OSH metrics (e.g., lagging and leading indicators) and even larger business metrics (e.g., revenue, costs, profit, production, downtime, absenteeism, morale) to assess whether the training is effective.

Conclusion
The focus of this article is learning objectives and their benefits, but how does a trainer create them? ANSI/ASSE Z490.1-2016 is a great place to learn more. Check out Section 4.3, Learning Objectives, to begin, and the sections on course design, evaluation and course completion. Also, Annex A includes many helpful references and Annex B.8 includes yet more information.

Jeff Dalto is senior learning and development specialist at Convergence Training. He is a member of ASSE’s Puget Sound Chapter. For more information, visit his blog at http://blog.covergence-training.com.