How To Ensure Transfer of Training

By Paul L. Garavaglia

HERE ARE SOME METHODS FOR MAKING SURE THAT THE MONEY YOU SPEND ON TRAINING ACTUALLY IMPROVES TRAINEES' JOB PERFORMANCE.

More than ever, training evaluation must demonstrate improved performance and financial results. As HRD professionals, we need to show organizations that they're getting good returns on their investments in training. To do that, we need to find out whether the skills and knowledge taught in training get transferred to the job.

We've been asking that question for more than 30 years. Still, studies show that only about 15 percent of companies measure training transfer, defined as the effective and continued application to trainees' jobs of the knowledge and skills gained in training.

One reason measuring training transfer has become so important is the rise in training costs. In 1992, organizations in the United States invested more than $45 billion in employee training, according to an October 1992 *Training* magazine report. Yet, few firms can show that their training expenditures result in observable behavior changes on the job. As HRD practitioners, we can't allow the 1990s to be remembered as the decade in which so many were trained at such a great cost with so few results.

The job of HRD practitioners is to assess the value of what participants gain from training and the extent to which training increases job productivity. In reality, training evaluation often assesses only whether immediate instructional objectives have been met—specifically, how many items trainees answer correctly on posttests. That isn't enough. The people evaluating training must examine job-skills transfer and effectiveness.

Most traditional evaluation models are divided into four levels: reaction, learning, behavior, and results. The value of the information gathered at each level increases as the evaluation moves from measuring reaction to measuring results. Generally, results or follow-up evaluation is considered the most intensive level. But many organizations do only reaction-level evaluations.

In measuring training transfer through evaluation, consider the following aspects:
▸ why training transfer should be measured
▸ when transfer should be measured
▸ who should measure transfer
▸ how to measure transfer

▶ which instructional- and performance-technology techniques can be used to increase transfer.

Why measure transfer?

In order to demonstrate the value of training to an organization, it's important that the HRD department plan, budget for, and implement transfer measures. When a company is cutting costs, senior managers can start to view training as a frivolous expense. To avoid losing training dollars, the HRD department must demonstrate through evaluation the ways in which training improves productivity. Simply put, transfer measurements can provide data to justify training costs.

Another reason to measure transfer is to verify the effectiveness of training curriculums. Feedback from such evaluations can help trainers and instructional designers update and redesign training programs.

In *Evaluation: A Tool for Improving HRD Quality,* Nancy Dixon writes that measurements taken after training must answer three questions: How should the training program be changed? What kinds of assistance do trainees need after they return to their jobs? What prevents trainees from implementing what they learned in training?

Transfer measurements can account for and document the nature and extent of on-the-job transfer and also lead to measuring organization-wide results. Gaining a degree of competence matters only if the competence translates to improved job performance. Transfer measurements compare responses at the completion of training with responses in a later follow-up, thus gauging the longevity of new skills.

When should transfer be measured?

Trainers disagree on when to measure the transfer of training, including the time frame for the initial measurement, as well as intervals for ongoing assessment.

Some evaluators collect the initial data immediately after training ends; others wait one, three, or six months. Those who prefer to take the first measurement at three months tend to think it's important to give trainees enough time to apply the new skills at work, but not enough time to forget where they learned them. Generally, it's appropriate to measure the initial transfer of training three to 12 months after training, with six months being the most common time frame.

In order to measure the longevity of behavior changes, most training evaluators recommend follow-up transfer measures at six-month or yearly intervals.

Who does the measuring?

Many training staffs lack the skills, knowledge, and unbiased viewpoints about evaluation that are necessary to perform one. Needless to say, a poorly developed or improperly administered evaluation instrument will provide inaccurate measures. Some training staffs neglect evaluation

because they don't have the time or because they lack the support of senior managers. So it may be necessary to contract with professional evaluators to determine whether on-the-job behavior has changed.

The instructional designer who designed a training course should not be involved in evaluating it. A colleague or consultant who wasn't part of the original development process is likely to be more objective. Also, the trainers who conducted a course should not evaluate it. They tend to think that if trainees mastered a skill during training, then trainees are prepared to implement it on the job.

To save money, consider using in-house training staff to measure existing programs and external professional evaluators to measure new training programs, where internal staff are more likely to be biased. Trainees can create self-reports, and line managers and supervisors can measure the degree of transfer. After all, supervisors are the end-user clients.

How can transfer be measured?

You can choose from many methods for measuring transfer of training. Each needs to focus on the training outcome, which usually must be changed behavior.

One method for measuring changed behavior is to obtain reports from supervisors. Supervisors are in excellent positions to provide data about trainees' strengths and weaknesses. Also, supervisors can report changes in the duties and tasks trainees perform on the job. Requesting information from supervisors gets them involved in the process, and the data they provide tend to be relevant.

Supervisors can provide information that can help trainers revise training programs to meet managers' needs. But sometimes supervisors don't have the time or motivation to complete written reports. Also, the reports can be more subjective than objective. And it can be costly to conduct and control a reporting system.

An alternative method of evaluating behavior changes on the job is to conduct surveys and questionnaires. You can use different questionnaires for trainees and supervisors, or the same questionnaire. If you need further evaluation, try surveying trainees' peers.

Surveys and questionnaires provide different perspectives from all of the trainees and supervisors, without costing a lot in time or money. But sometimes questionnaires come back incomplete or inaccurate. Or they don't come back at all, particularly when they are mailed to potential respondents rather than distributed in person.

Another method for measuring transfer is to develop action or implementation plans. Before completing training, participants create action plans and send copies to their supervisors.

By creating the plans, trainees

make contracts with themselves to implement the skills learned in training, thus increasing the likelihood that transfer will occur. By sending copies to their supervisors, trainees get them interested in their plans and progress. And after trainees have achieved their initial objectives, they can make additional plans of action.

Action plans are similar to performance contracts. They show what is to be done, by whom, and at what time in order to achieve goals. But it can be difficult to implement a plan and to get commitment throughout the entire process. And response rates tend to be low.

Another low-cost way to get evaluation information is to interview trainees and supervisors in order to validate certain evaluation findings. The interviews can be conducted with individuals or groups, face-to-face or on the telephone. Interviews are easily adapted to different jobs and departments, but it's not always easy to find time to schedule interviews.

Observation involves viewing trainees in their work areas in practice situations, actual on-the-job situations, or job simulations. Such "qualification sessions" enable evaluators to observe actual behavior in work situations.

Observation is very effective for repetitive tasks. And it avoids the bias that participants, supervisors, and managers can bring to reporting systems. But observers can be biased, too. Observations require constructed instruments in order to avoid observer bias.

Observations can be costly, time-consuming, and obtrusive, due to the fact that an on-site observer must be present. It's preferable that trainees don't know they're being evaluated; observers can use such unobtrusive measures as measuring the use of reference materials by looking for frayed edges, bent pages, and so forth.

Self-reports and performance appraisals are used less often than other approaches for measuring training transfer. Nevertheless, trainees can be accurate, sensitive judges of their own achievement levels in their self-reports. Performance appraisals can provide base lines with which to compare changes in on-the-job performance, as long as the appraisals are specific, accurate, and up-to-date.

No matter which method is used to measure training transfer, it's best also to measure the responses of a control group that didn't receive the training. That increases the validity of the evaluation, but it isn't always feasible.

How can transfer be increased?

In *Transfer of Training*, John Newstrom writes that 40 percent of skills learned in training are transferred immediately, 25 percent remain after six months, and only 15 percent remain a year later. Instructional designers can increase the likelihood of training transfer by building certain techniques into the training's design.

Using many different examples increases training transfer by presenting various contexts in which trainees can expect to use the skills and knowledge learned in training. In

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addition, varying the training setting shows trainees that a classroom isn't the only place in which knowledge and skills can be learned.

Analogies also help increase training transfer, by showing how important principles can apply in various situations. Training transfer tends to be better when learners understand the general principles behind the skills they are learning. Understanding those principles can turn neophytes into experts, giving trainees a broader, deeper knowledge and more tools for problem solving.

For example, in *Training: Program Development and Evaluation*, Irwin Goldstein cites an experiment that shows how the transfer of principles improves the transfer of learning and skills. Two groups practiced shooting at an underwater target until each group was able to hit the target con-sistently. Then the depth of the target was changed, and one group was taught the principles of light refraction through water. In the next target-shooting session, the group that learned about refraction performed significantly better than the group that did not.

One innovative technique for teaching principles is computer simulation. Computer simulations help trainees learn principles that apply to the real world, not just to the simulations.

When trainees don't have relevant information about new skills and knowledge, or when they have information they don't realize is relevant, it's advisable to use "advance organizers"—relevant concepts that are taught to trainees before they learn the actual training material. For example, if the training content is about supply and demand, a relevant advance organizer might be a discussion of the high cost of advertising for the Super Bowl.

Though advance organizers have been known to produce mixed results, results tend to be positive when the organizers are properly designed and the effects are measured by a transfer test. Advance organizers provide a stable framework of knowledge to which new learning can be anchored.

Drill and practice techniques can help trainees reach a level of automatic implementation on the job. Intensive drilling is especially effective with tasks and environments that remain the same from situation to situation. When different elements of the task do vary, it's important that trainees practice in different situations. Training transfer can increase when trainees practice an original task, labeling and identifying its important features.

Using mnemonics (memory aids) can increase transfer of training. Mnemonics create mental images that make instruction meaningful. Examples of mnemonics include connecting new information to something that is already known and forming bizarre, unusual, or exaggerated mental associations.

Visual displays of information boost training transfer. Trainees tend to group together in their memories elements that are similar or are pre-

sented in close proximity or in quick succession. Objects that are viewed together become linked in a learner's mind; a learner who remembers one of them is likely to remember the others, as well. Consequently, grouping tasks into one process helps trainees transfer their knowledge of that process to the job.

Transfer is more likely to occur when identical elements appear in two different situations. For instructional designers, that means that tasks taught in training should closely match the tasks people do on their jobs. The training's content and activities should reflect the real world.

Another technique that helps increase training transfer is letting participants explore the training content before training actually begins—through pretraining reading assignments, for example.

In situations in which instructor-led training isn't possible, a self-training system can be used to increase transfer. The training materials should include job aids to be used as on-the-job cues, activities to be completed on the job, and follow-up activities to be conducted after training ends.

Transfer increases with types of training in which learners produce real outcomes. This kind of learner-centered or problem-driven training can take place in a classroom—or the classroom can come to the learners in the form of on-the-job training.
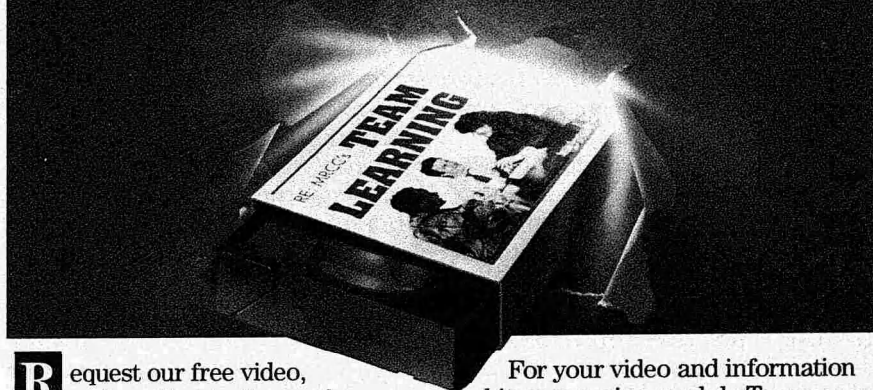
At the end of a training session, trainees should write down the ways they've benefited from the training and the changes they anticipate making when they return to their jobs. They should put the information in self-addressed, stamped envelopes so that trainers can mail the envelopes to them one or two months later to provide positive reinforcement.

Performance technology and instructional design

Performance technology is the selection, analysis, design, development, and evaluation of programs, with the goal of influencing job behavior and performance in the most cost-effective way. To ensure training transfer, performance technologists look beyond instructional design.

Performance technologists depend

on the participation of supervisors and senior managers to ensure that skills and knowledge learned in training transfer to employees' jobs. Traditionally, HRD practitioners have concentrated on improving training design. Now, they need to focus more on seeing that managers support training on the job.

Positive actions are more effective than negative actions for maintaining desired job behaviors. A strong correlation exists between training transfer and the quality and amount of managerial support. When supervisors use a positive approach, employees' behavior changes are still evident six to 12 months after training. When supervisors use a negative approach, behavior changes practically disappear in six months to a year.

Managers can show their participation and support of the training in several ways:
▶ making sure supervisors know the training requirements
▶ getting supervisors' input on the training content
▶ showing supervisors how to reinforce desired behaviors on the job
▶ telling supervisors the benefits and expected outcomes of the training
▶ enlisting supervisors' help in collecting evaluation data.

Supervisors should be given reports on the progress of the training and trainees. In addition, supervisors should change job-performance expectations to adjust for new skills and knowledge taught in training. They should plan practice activities to facilitate trainees' transition from training back to their jobs. And supervisors should assign new tasks that involve the training content.

Performance technologists focus on organizational systems that support new behaviors and skills. Often, the organizational system is more important than the training itself. Generally, 20 percent of critical job skills are learned from formal training and education; 80 percent are learned on the job or within organizational systems.

A training program may contain well-stated learning outcomes, appropriate media, excellent materials, and effective instruction. But if the training addresses the wrong performance area, the training won't be reinforced by consequences and feedback, it won't be supported by a well-designed work process, and it won't be linked to the organization's strategic direction. That kind of training isn't worth the investment.

Consequences and feedback, or rewards and incentives, should encourage trainees to apply on the job the behaviors they have learned in training. It may seem too obvious to say, but the performance of behaviors learned in training should not be discouraged or punished. When nonperformance is rewarded more than performance, or performance doesn't matter to trainees, it's essential for trainers or managers to create positive consequences.

Well-designed work processes can

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streamline the transfer of behaviors learned in training, especially behaviors that define roles and responsibilities, empower employees, and link with organizational values and culture. Well-designed work processes provide road maps for trainees to follow in transferring to their jobs the behaviors learned in training.

Having the proper equipment, tools, and materials in the work environment is crucial to the transfer of new skills and knowledge. Otherwise, it's unproductive for trainees to try to transfer behaviors learned in training to their jobs. In fact, it might even be unproductive for them to attend the training in the first place. Removing such obstacles will increase training transfer.

When learning doesn't transfer to the job, the two most likely reasons are that the work environment doesn't support the learned behavior and that trainees think the training was irrelevant. Organizations with environments that nurture training effectiveness circumvent the possibilities by providing safety nets for their employees.

One measurement of training transfer is actually part of the instructional-design process. The first phase is analysis, in which the company develops job-performance measures, to be compared later to actual job performance.

In the design phase, developers consider training objectives and design evaluation instruments. Then they develop training materials and evaluation instruments; in the testing phase, they run pilots or field tests of those materials and instruments. The final phase includes implementing the training and evaluation process and measuring training effectiveness.

Evaluators should take into account the variables that may prevent trainees from implementing what they learn in training. Knowing the obstacles, evaluators can make more informed choices about when and how to measure transfer.

Evaluating training transfer can be challenging. But training can have a significant effect on an organization, so measuring its results is worth the effort. It's up to HRD practitioners to increase training transfer through enhanced instructional materials and organizational systems. It's also up to us to ensure that evaluations justify training costs. We can become more knowledgeable about evaluation methods, or we can use the services of evaluation experts. It doesn't matter how we do it, as long as we do it. ■

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