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*Return on Investment, Evaluation Design,
HRD Program Evaluation*

Demonstrating ROI of Training

TRACKING THE RETURN ON A TRAINING INVESTMENT CAN BE TIME-CONSUMING, BUT IT'S MORE IMPORTANT NOW THAN EVER.

BY ERIC A. DAVIDOVE AND PEGGY A. SCHROEDER

Too many training professionals have no idea how training investments relate to their companies' business objectives.

When asked to report a training investment, trainers usually measure the payroll and resource expenditures necessary to produce, deliver, and maintain training. Most trainers determine whether training improves employee and business performance by looking at opinions given on self-report surveys distributed after training. These usually show whether employees enjoy the training, whether instructors think the course materials are easy to use, and whether experts believe the training content is accurate, relevant, and complete.

Such information gives senior managers no basis for making strategic business decisions, allocating resources, or controlling internal operations. Line managers can only guess at whether performance discrepancies are caused by a lack of knowledge and skills, low motivation levels, environmental constraints, or procedural issues. Also, such evaluations provide trainers with no clue about how to improve instructional materials.

In short, decision makers have no way to assess the connection between the investment in training and the accomplishment of specific business objectives.

Line managers who send employ-

ees to training expect results. Scores on tests completed immediately after training can show how much the employees have learned, but test scores alone do not guarantee that employees will transfer the skills to the job. To answer questions asked by managers, trainers must track and report employee performance well after initial training.

Tracking training investments

Business leaders have no generally accepted definition or accounting procedure for tracking training investments. Generally accepted accounting principles do not allow for human asset accounting, or accounting for the value of human capital. But the success of today's companies relies heavily on intangible assets that don't appear on balance sheets—items such as a trained workforce.

For our purposes, the terms "training expenditures," "training costs," and "training investments" are used interchangeably.

The largest direct training cost is payroll for people to plan, develop, deliver, and attend training. Other direct costs include travel, food, lodging, training room rental, and the purchase of training materials. Indirect training costs such as overhead cannot be readily identified with a particular project, but are also necessary.

After trainers understand how their training investments are allocated, they can compare old training to revised or updated training, or compare existing training to proposed training. When there are no plans to revise old training or develop new training, trainers can benchmark training investments against industry standards.

Tracking performance

A lower training investment is not automatically better for an overall return on investment. The training department must also determine how training affects individual and business performance.

To begin tracking performance, trainers should first review the results of a needs analysis conducted before training development begins. The purpose of the analysis is to identify business problems (expressed in terms of organizational results) that are important to decision makers and that are caused by employees' lack of knowledge and skills.

The analysis will point out the differences between what employees should be able to say or do, and what they actually can say or do. These differences are then expressed as learning objectives.

A survey is a good tool for identifying learning objectives that relate to business objectives. Confirm survey results by observing or interviewing successful employees. Once you have an idea of which skills affect business results, confirm the findings with key decision makers. Asking decision makers for input can ensure that the evaluation collects and reports evidence they view as helpful and important.

After training, trainers can use the results of the needs analysis to see whether employees have mastered pre-determined learning objectives, have transferred the learning to the job, and are helping to accomplish business objectives. Surveys can help determine whether line managers believe employees are applying the newly learned skills.

Once trainers have established the relationship between learning objectives and business objectives, they can measure training effectiveness. Written tests designed to measure a

particular set of learning objectives provide information about training's effect on performance. Trainees may take tests before training, immediately after training, and a few months after training.

Tests must be valid and reliable. A test is valid when content experts agree that the test questions reflect the learning objectives they were written to measure—objectives that represent the knowledge and skills necessary to perform a job.

A test is more valid if it simulates real-life conditions. For example, a true-or-false question is less valid than a role play for measuring how well someone can put out a chemical fire at night. In general, true-or-false, multiple-choice, and matching items are less valid than essays items. They are popular because they require less time to score, can be given to many people simultaneously, and are unaffected by the subjectivity of graders.

A test or measurement instrument is reliable if it provides consistent and accurate information about the knowledge or performance being evaluated. Generally, reliability is higher for surveys and tests that have more questions, and for questions that require respondents to select an answer from two or more options.

Simulations are useful when performance must be observed in controlled settings; for example, in situations in which working conditions vary greatly due to environmental distractions or assistance from others.

In some situations, trainers may want to measure performance by observing employees' work and documenting certain behaviors. Another measurement approach is to ask experts to judge the quality of employees' results. In such situations, increasing the number of raters and ensuring that they use the same performance criteria will enhance the credibility of the evaluation.

Because employees who come to training differ, measurement controls are necessary to ensure that all training classes whose results are being compared are made up of similar trainees. In most cases, there should be no significant differences between training classes with respect to reading ability, experience levels, motivation, age, and gender makeup. Such

differences can make it impossible to tell whether training alone has affected performance.

Demonstrating return on investment

To show a credible return on investment for training, describe results in the context of the financial and performance models that the company's decision makers already use to measure business results. Three key business objectives—quality, timeliness, and operational costs—are often important to senior and line managers, are usually achievable with good training, and are generally possible to monitor.

One way to calculate a return on the training investment is to divide operational savings or revenue increases resulting from training by the training program costs. Then multiply the result by 100.

For example, suppose half the salesforce is randomly selected for training that costs \$100,000 to develop and \$100,000 to deliver. Six months after training, if the trained salespeople sell \$50,000 more than the people who received no training, the ROI is 25 percent. If the trained salesforce sells \$50,000 more in the next six months as well, the ROI is 50 percent.

This ROI formula has serious limitations. There are no standard guidelines for defining and tracking training program costs, revenue benefits, and operational savings, so evaluators often do a poor job of measuring performance indicators.

Several problems can result in evaluation reports that are meaningless to key decision makers. They include an inability to isolate the effect of training on the accomplishment of business objectives, inconsistent measures of business objectives, and a lack of needs analysis information at the beginning of training projects.

Training may have a low ROI for several reasons. Employees who attend training long before they need to use the new skills on the job may forget what they learn before they can apply it. Instruction may not be available on demand. It might take too long to complete. Or the training may neglect slow and fast learners.

Sometimes the effect of a training program on business objectives is

difficult to determine. Employee skill and knowledge deficiencies may have little to do with increasing revenue or decreasing operational costs. Failure to accomplish business objectives might be due to worker motivation levels, working conditions, or forces outside the organization.

Critical to measuring the ROI of training is understanding ways to reduce training costs and increase training effectiveness through instructional design. The easiest ways to keep training costs low are to reduce trainee and instructor hours and to conduct training in employees' work areas. Another way to decrease training costs is to use self-paced media such as computers and books. Job aids and desk references can reduce instructional time and the time supervisors spend helping employees.

Training departments can minimize the time employees spend in the learning environment by providing integrated performance support tools. Such tools give immediate, on-the-job access to integrated data bases as well as productivity software, practice opportunities, and expert consultation. Employees learn what they need, when they need it.

Another effective way to reduce costs is to simplify, automate, re-engineer, or eliminate job tasks. It may be more cost-effective to eliminate resource and procedural problems than to train employees to work around them.

Recommendations and conclusions

Training departments are under continuous pressure to demonstrate how training investments relate to business objectives. But standard approaches fall short of giving meaningful evidence for reducing training investments and increasing training effectiveness.

Many business leaders still view training as an overhead expense. With thorough ROI evaluations, training departments can convince businesses to view them instead as partners in creating the assets that are crucial to organizational success. ■

Eric Davidove and Peggy Schroeder are with Andersen Consulting's Change Management Services, 1 Financial Plaza, Hartford, CT 06103.