How to conduct your own training audit

Two simple techniques will tell you if training is paying off, and if not, what you can do about it.

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Plant Manager, Peter Milton, had just received last year's training cost figures. The average yearly cost of training per man worked out to about $500.

"Doesn't seem like a lot of money to me," said Milton's assistant.

"Take a look at this," Milton answered, referring to computer printouts extracted from the year's personnel records.

Milton's assistant scanned the figures. They revealed absenteeism had increased by 4%; turnover remained constant at 26%; union grievances had shot up; and employee productivity barely exceeded last year's mark. From Milton's point of view, his plant was not receiving full value from production, human relations, and supervisory training programs conducted by the company.

Milton's findings are not unique. In fact, his dilemma is shared by managers in plants all over the country: how do you determine whether training is paying off? And if not, what do you do about it?

Ask the right questions

How effective is training in your plant? Are performance objectives being met? Are measurable results being achieved from training? Is your company getting maximum value from its training dollar?

The first step in getting the right answers is to ask the right questions. We've incorporated what we feel are the right questions in our Training Audit—a tool that enables the plant manager (and line management) to determine the economic benefits (or deficits) of training.

Consider this case, for example. Scrap rates at Peter Milton's plant were excessive. In spite of individual and group meetings with the plant's 84 operators, the problem could not be licked. Scrap remained at an unsatisfactory rate of 12.4%.

This problem was no stranger at Milton's plant. Several years ago, the training department had developed a program aimed at keeping scrap down. While moderately successful, the program had failed to maintain scrap at a low rate.

Milton figured that this program could be adapted to current needs. By emphasizing the program's seriousness to operators, its success would be assured.

Milton estimated the cost per man for training to be $859. The price seemed reasonable, if it could bring scrap down to a "liveable" level.

The program was set into motion and seemed to be achieving its goal. Over the next year, scrap fell to 8.2%.

Milton was pleased with the results. But what he didn't realize was that the scrap reduction represented about a $698 per man annual saving. What appeared to be a successful training program had actually produced a net loss of about $159 per man. The economic value of training 84 operators, then, was a minus $13,524.

In terms of time and money, Milton's solution was a failure. However, had he applied a simple formula before installing the program, it could have been a real, rather than apparent, success.

Apply the Worth Formula

The simple formula, frequently used by economists, is:

$$W = \frac{VN}{C},$$

where W represents economic

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VALUE ANALYSIS WORKSHEET

Potential Performance Problem	Value Basis	Unit	Unit Value	Number of Units in Given Period	Number of People	Value
Poor machine skills	Scrap reduced	1 lb of scrap	13.4¢	95 x 52 = 4940	84 (in 12 month period)	$58.632
Poor transistor inspection techniques	Radios returned	1 radio returned	$1.98	375 x 52 = 19,500	19 (in 12 month period)	$230,500

VALUE ANALYSIS WORKSHEET provides framework for measuring training's economic value. Value Basis is basis on which value will be estimated; Unit is value basis expressed in measurable unit terms; Unit Value is dollar worth of each unit; No. of Units is no. of units involved in specified time period; No. of People is number of people in that period; and Value is how much performance deficiency is costing each year (unit value x number of units x number of people = cost limit — breakeven point).

worth; V is the value of overcoming a performance deficiency; N is the number of people to be trained; and C is the cost of training.

In the scrap reduction problem, V is $698 (per man saving the reduction in scrap represented), N is 84 (number of men in the program), C is $859 (per man cost of the training program).

Using these figures, Milton would have found:

$$W = \frac{\$698 \times 84}{\$859 \times 84} \quad \frac{\$58,632}{\$72,156}$$

The Worth Formula, then, is a simple but precise way of measuring exactly how many dollars a proposed performance improvement can earn or lose for a company. Managers wishing to get the most out of their training dollars can use the Formula as a powerful tool for gaging worth of a proposed training program.

Worksheet for measuring value

The Value Analysis Worksheet provides the manager with a framework for measuring training's economic value.

The illustration of the chart shows how the performance problem has been broken down for the above example.

The second example on the Worksheet illustration breaks down another typical performance problem, pointing up how the Worksheet can be used to establish training priorities. Here's the problem:

Quality control inspectors at a large electronics company often do not apply established standards for accepting or rejecting transistors. As a result, a significant number of defective transistors are passed through the quality control department and into radio assembly. The result: a high rate of returned defective radios. The q.c. supervisor estimates that the 19 inspectors each pass an average of 375 defective transistors per week. With the cost of assembling, packaging, transporting, and marketing each radio totaling $1.98, what is the potential value of eliminating the inspectors' deficiency?

As the second example shows, positive as well as negative determinations for training can be found using the Worksheet.

Establishing the economic value of training provides the manager with a number of very strong arguments:

First, and most obvious, he can, at a glance, assay the economic worth of training. Which programs will lead to increased profits, and which will be profitable? In this way, the manager can use his training budget in the same way he uses other budgets— for profit. Training then becomes not a hit or miss affair, but rather a precise and orderly approach for meeting production goals.

Second, the Worksheet helps establish priorities. For example, even if the scrap reduction problem at Milton's plant had proved feasible, a problem of a dimension such as the transistor inspection problem would have taken precedence—because of the dollars it represented to the company.

And finally, using the Worth Formula and the Worksheet helps the manager develop alternatives to solving performance problems that are economically feasible. □