# Measurement Made Simple

If you've ever felt ill-equipped to measure training results, here's good news. If you can do a traditional needsassessment, you already have the skills you need.

HERE IS A COMMON BELIEF that training design should come before a measurement discussion. In reality, I've found that working on training design and measurement planning simultaneously is more effective. That's because the information required for training design is exactly the same information needed for solid measurement. So don't wait until after the training design to decide what you want to measure, because your design may not enable the right data collection.

#### Clarify business goals

The first step in measuring training's effectiveness is assessing a company's business goals. This can be difficult if an organization's goals are vague. For

BY LEIGH ANN WILLIAMS

#### WHO CAN HELP?

There are many resources available to you. A local university can be a great source of expertise on measurement. Once you know exactly what needs to be measured, a professor or student can help you figure out how. The advantage of using a university is that the cost for measurement is typically much lower than the fees charged by consulting firms. Here are some issues to keep in mind when working with universities:

- Does the university have the computer resources needed for your particular measurement activities? If you need to crunch data for 10,000 employees, the university may not have a way to load the data. And if it does, you may need both a computer expert and measurement expert. If they are from two different departments, how will budgets work?
- If the organization commissioning a measurement study is also supporting a university financially,

the university may be concerned about loss of funding if the measurement study does not produce the desired results. All parties should discuss this issue prior to the study to ensure objectivity in the research.

 Is the university suggesting shortcuts? I'm aware of several situations where a university did not have the computer resources for the requested measurement activities. In each case, the university wanted the project badly and suggested an alternative measurement method. Sometimes that's fine. In other instances, the results are less useful.

Consulting firms are another good source of measurement assistance. Although cost can sometimes be a drawback, it may be reasonable if a consulting firm already houses the organization's data. It's helpful to ask the consulting firm for a choice of ways to do the measurement. What are the strengths, limitations, and costs of each approach?

example, a company might say, "It is our goal to deliver the best customer service in the industry." What does that really mean?

The following questions clarify this business goal and make training design and measurement easier:

What elements are included under

the umbrella description of customer service?

- What does "in the industry" mean? Which organizations are included? What are the sizes and geographic locations of these organizations?
- I How will you know when your company has achieved the distinction

of "best"? What will customers, shareholders, managers, and employees see, say, and do? What auditory, visual, and kinesthetic "evidence" will let you know the goal has been reached?

Where is the organization today? Is it close to its desired goals, or does it have a long way to go?

#### SIX MEASUREMENT TOOLS

There are hundreds of ways to measure change and results. Here are six examples to show what's possible.

- I. Surveys: Written or telephone questionnaires used for quantitative or qualitative measurement or both.
- Example: One company used a survey to test how well employees understood the business strategy; it learned there were many different interpretations. In a follow-up survey, the company can test for improved understanding. They can do additional analysis to determine the impact of specific training activities on improved understanding.
- Note: It is not advisable to use a single survey across cultures. One company translated a U.S. survey directly into other languages without considering cultural differences and translation issues. Among other difficulties, one Asian language has no equivalent for the "yes/no" distinction. So, the translation did not make sense. Employees answered all the questions yes. And to add insult to injury, this U.S. company merged the worldwide survey responses into a single data set for use in business planning.
- 2. Focus groups or interviews: Faceto-face meetings to collect qualitative information.
- Example: An organization might use these to determine whether employees feel they have the right amount of latitude to make decisions about their work.
- Note: Focus groups require some degree of participant trust. In organizations where trust has eroded or in cultures where a misstep can hinder one's rise in the corporate hierarchy, focus groups may not be useful. People may withhold infor-

mation or say what they think others want to hear.

- 3. Performance management: The method an employer uses to assess how well each employee is doing his or her job.
- Example: It is possible to create a performance management process using the goal and evidence structure described on page 45. If a manager and employee define results along with measurable evidence, then it is possible to assign a numeric coding to progress (i.e., 1=achieved; 2=progress made; 3=no progress made/not achieved). The employer can then load these codes into its human resources information system to do various types of analysis.
- Note: Most U.S. employers do not have this type of "rigor" in their performance management systems. The systems are looser, less formal, and often less demanding. To use performance management as a results measurement tool may require substantial revision of an organization's performance management process.
- 4. Case group or control group studies: A method in which one group participates in an initiative and a second group does not. The researcher then compares the results of the two groups.
- Example: Division A participates in creativity training and division B does not. We study the difference between the business results of A and B after one year. A outperforms B.
- Note: For a good study, it's best to match the case group and control group person for person. For every college-educated, 45-year old male in the case group, it is ideal to have a person of the same profile in the control group. This is very difficult

to achieve in an employment setting. Also, it is almost impossible to keep the case group and control group intact in the workplace. Normal attrition will affect the composition of both groups. If attrition is significant, the results of the study may be suspect or totally unusable.

- 5. Analysis of raw data: Looking at a data set and drawing conclusions directly from the data set.
- Example: Last year, 60 percent of the employees achieved their performance goals. This year, 75 percent did.
- Note: If an employer only cares that things are moving in the right direction, then this type of analysis is often enough. And it tends to be inexpensive, compared with other options.
- 6. Multivariate analysis: Statistical analysis that lets the researcher remove variables that have nothing to do with the issue under study.
- Example: When measuring the effectiveness of health education, we need to "level the playing field." Some participants may have high blood pressure; some may not. Some may have a grade school education only. Others may have college degrees. We can use multivariate analysis to level the influence of all these factors so that we can isolate the effectiveness of the health education.
- Note: Multivariate analysis can be extremely expensive. If an organization wants to publish its results in a technical journal, it may want to consider this type of analysis. One organization chose this type of analysis because it needed defensible results for union negotiations. In most cases, however, organizations do not need analysis of this rigor.

Once you define what tangible evidence you are looking for, you have the foundation for training design and measurement activities. Then, training design becomes a vehicle for achieving goals and attaining evidence. And, measurement confirms if you have attained the evidence.

### Stairstep connection

Now that you know what you're looking for, you will need ways of attaining the goals. Showing a direct connection between a training program and business results can be difficult. However, showing a "stairstep connection" is easier and is generally acceptable to senior management. A stairstep connection is a more gradual path, with more steps in-between. Hewitt Associates, an international human resources consulting firm, offers the following stairstep questions that are useful for training design and measurement conversations:

- What business results is the organization trying to achieve? For example, is the organization trying to increase profitability by 10 percent? Is it trying to increase market share in China by 25 percent?
- What business strategy is the organization using to deliver those business results (such as reengineering, new product launches, downsizing)?
- What do employees need to do or do differently to execute the business strategy?
- What are the employees' needs? Employees may need training or other resources to meet employer requirements.
- What is the human resources strategy? Does the organization have a strategy to help employees do what's needed?
- What HR initiatives support that strategy (such as training programs, performance management process, compensation, benefits)?

While it is difficult to link a training program, or other HR initiatives, directly to a business result, it is possible to measure the effectiveness of a training program by assessing a behavioral shift. Take a look at the following statements, which combine the evidence discussion with the Hewitt Associates' questions:

Desired business results need specific evidence; business strategies are

vehicles for reaching these goals.

Demands on employees and employee needs require specific evidence; HR strategy and initiatives help attain these goals.

While this framework may seem simple, it is difficult to elicit the goals and the evidence in many organizations. Many companies go straight to designing the vehicle without defining what the evidence is. This can make measurement discussions difficult, if not impossible. It can also make training design tough. In many situations,

management tells trainers it wants a creativity training program or a diversity training program. It's easy to say yes and proceed with the request. However, without information on the goals and evidence, it's difficult to know whether the organization really needs these

programs—or whether management just thinks so.

Even in the best case, obtaining goals and concrete evidence can be challenging. There are many variables to consider. For example, in a large organization the business results, strategy, and people requirements may differ among divisions or units. Additionally, within a division, what's asked of individual employees may be different—so HR initiatives may need to vary by audience.

## The measurement discussion

After information is collected, the following questions will help you shift from a business results discussion to a measurement discussion:

- How are you measuring your business results?
- How are you measuring the effectiveness of your business strategy in delivering those results?

If the organization can't answer these, here are some additional considerations:

- Is measurement really important to this organization? Does it really care about measuring training? If so, why does it care?
- If the organization wants to measure, your measurement methods will

need careful documentation.

- What are the politics of measurement? Is there anyone who could suffer if the results do not turn out as expected?
- Let's say a training program costs \$100,000. What percentage of this is the organization willing to spend on measurement? Ten percent? Fifty percent? Money is no object?
- Do you need qualitative or quantitative measures? Or both?
- How scientific does the measurement need to be? If we show that things

Companies

often design

the vehicle

without

defining the

evidence =

are "going in the right direction," is that enough? Or do you need something you can publish in a technical journal?

Up to this point, your needs-assessment skills should yield a good measurement discussion. However, for the remaining three questions, you may want as-

sistance from a consulting firm, university, or other measurement expert. (See box on page 43.) The next few questions are the bridge between information gathering and beginning an actual measurement study:

- What kinds of data are needed to measure the evidence?
- Is there enough data to create some sort of baseline measure? If not, what can be done to capture the needed data?
- What measurement method will you use? If applicable, what statistical technique?

You can use these questions to learn the current position of the organization, the results the organization wants to achieve, and the specific evidence that will let the organization know it has succeeded.

So, next time senior management wants to see training's impact on results, you can step up to the challenge with confidence.

Leigh Ann Williams is coowner of NLP Comprehensive, 4895 Riverbend Road, Suite A, Boulder, CO 80301. Phone: 303/442-1102; fax: 303/442-0609. E-mail: leighnlp@aol.com.

To purchase reprints of this article, call ASTD Customer Service 703/683-8100. Use priority code 291.