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## HOW TO EVALUATE TRAINING PROGRAMS

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*Training programs are available for almost any skill or ability. There is a great range in the quality of such programs. It is incumbent on you, the training purchaser, to evaluate whether a given training program is really going to help your organization. To do this, you must ask vendors the right questions about the benefits of their products and be able to evaluate their answers. This guide outlines some of the queries you should be making, how to determine if the responses are objective, and how the data you gather can be used to determine the value of the product.*

### WHY YOU NEED TO ASK QUESTIONS

Determining whether a training program delivers the results you are looking for can be an arduous task. Depending on the vendor, the information provided to you can range from “trust me” to complex statistics that only a Ph.D. can understand. If the vendor does not

have data supporting the value of the program (either because it is so new or because they haven't bothered to do so), you should think long and hard about purchasing it. Or you should arrange for a pilot research study in your organization. Most training programs *look* good, but they don't all work.

The most critical thing you want to know is how much performance has changed *due to* the training. You should ask the vendor for evidence of this change. If the vendor gives you a story about how their results can't really be measured but they exist, you should choose another one. You should be able to examine the impact of *every* training program.

When evaluating vendors' studies, ask a few critical questions.

## HOW MANY PEOPLE WERE IN THE STUDY?

The more people involved the study, the more confidence you can have that you will see similar results in your organization.

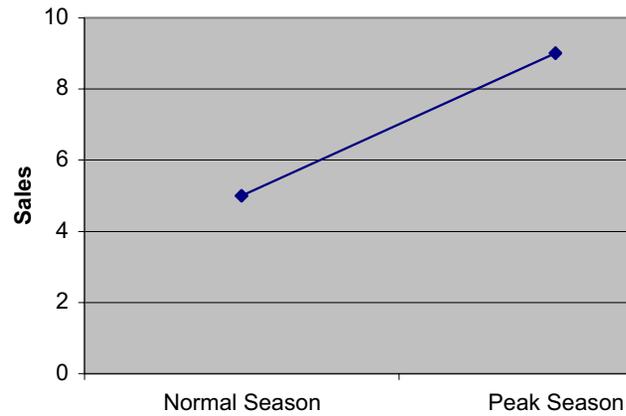
**Example** Think about it this way: If Pete told you not to go to a restaurant and he had only been there once and Carol recommended it after going 10 times, whose recommendation would you take? It's not that Pete did not have a poor experience, but Carol had been there significantly more times and still recommended it. The more data you have, the more confident you can be that you will have a similar experience. Also, large sample sizes can help us determine whether changes in performance are statistical flukes (that are unlikely to be replicated) or meaningful trends.

## WAS THERE A CONTROL GROUP?

A control group is made up of people in the same job who did *not* participate in the training. To demonstrate that training had an effect on performance, the vendor should be able to show that those who took the training are performing better after training than those in the control group. Note that the performance for each group should be measured at the same time.

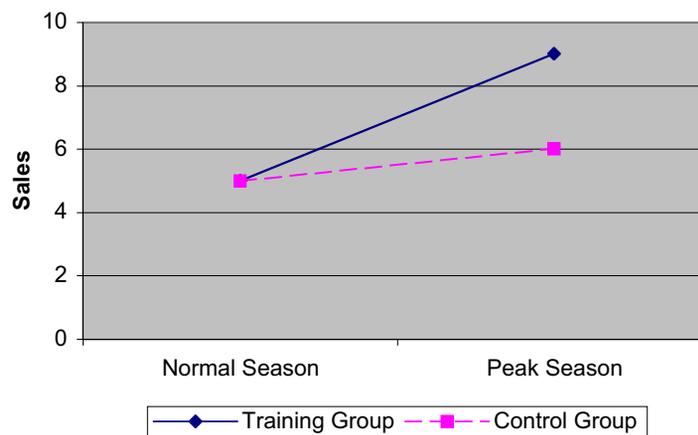
Why should performance be compared to the control group, not to how they are performing before training?

**Example** Imagine this scenario: You provide in-bound sales people with training before your peak season. Sales performance is then measured later during peak season. Lo and behold, it's higher (see Figure 1)! The training must have worked, right? We don't know. In this instance we don't know if the change in performance was due to the training or the move to peak season.



**Figure 1**

With a control group, you can tell if the training was effective because you can compare the change in performance of people, not the change in performance based on time of the year. If the group that received training was performing better during peak season than the control group, you have evidence that the increase was due to the training (see Figure 2).



**Figure 2**

## HOW LARGE WAS THE PERFORMANCE IMPROVEMENT?

How do you determine the size of improvements as a result of training? First you need to establish a key metric that the training should improve. Be sure that the vendor can demonstrate that the training you are evaluating shows an impact on this (or a similar) metric. Because we are trying to estimate the improvement before we implement training (since we are buying from a vendor who has proven research studies on the program), you should know the following from the vendor's studies:

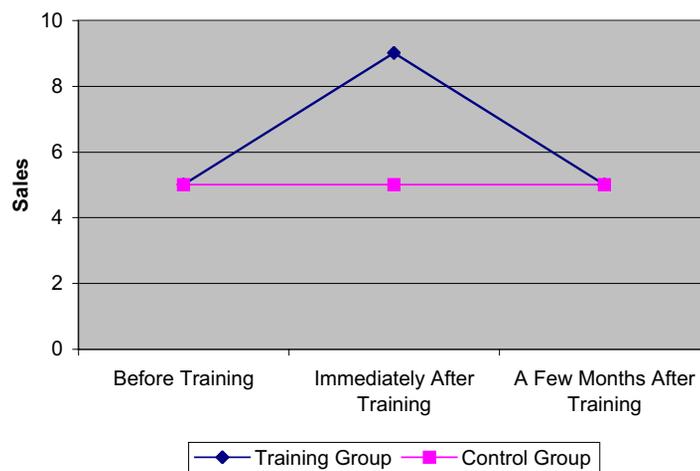
- *The average value per employee of the metric in which you are interested:* If the metric you are interested in is sales per year, you should be able to find out the average sales increase that was directly related to the training. This also applies to “soft” metrics (e.g., customer satisfaction ratings).
- *The standard deviation of that metric:* The standard deviation reflects the difference between poor, average, and excellent performers. The vendor should have this information. If not, you can use a spreadsheet to compute the standard deviation if you have the value on the metric for each employee [=stdev(cell<sub>a</sub>:cell<sub>x</sub>) in Excel].

**Example** Your salespeople sell, on average, \$200,000 worth of goods per year, and the standard deviation of sales per year is \$20,000. If you saw that the training program geared toward sales led to a 0.5 standard deviation increase, you would then assume that your sales would increase an average of \$10,000 ( $\$20,000 \times 0.5$ ) per year per participant.

Again, this applies to both hard and soft metrics. This figure is critical because, when using results from previous studies, the number that can allow you to estimate how much change you will see is the amount of change in standard deviation units (usually fractions).

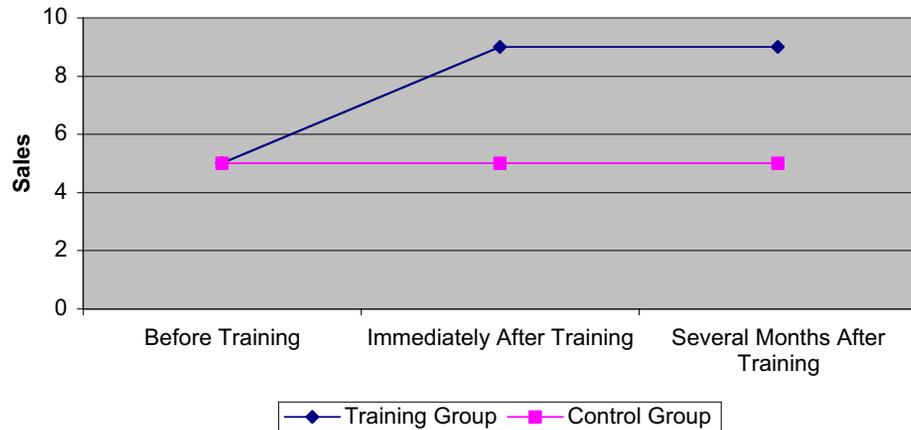
## WAS THE IMPROVEMENT SUSTAINED?

Vendors should be able to show performance improvement over a period of time, not at only one point. Why is this important? Because often the training starts with a bang but then performance goes back down to previous levels due to a lack of interest or support (see Figure 3).



**Figure 3**

Vendors should be able to show sustained performance improvements (see Figure 4) and explain what efforts it took to sustain them. With this information, you can anticipate obstacles and increase the likelihood that the training effort will succeed in your organization both in the short-term and over time.



**Figure 4**

### **WHAT IF THE VENDOR DOESN'T HAVE THIS KIND OF INFORMATION?**

You may come across a training program that you really think is going to be beneficial but the vendor does not have this type of data. Then what? You should first consider doing a pilot study in your organization before fully committing to the program. Keep in mind that you'll want to evaluate your results as rigorously as you would the vendor's.

If it is not practical for you to conduct an internal study, contact users of the program. Find ones who have done careful evaluations of the training. Preferably, they should have similar performance metrics to yours.

If the vendor doesn't have studies, you can't do internal research, you can't contact users who have studies, you still want the program, be sure you set up evaluation procedures. You will want to track the performance of participants and ensure that the training is accomplishing its goals. Even if you have already paid in full, there are still costs in running training and there is no point in continuing if benefits are not being realized.

### **ARE THE IMPROVEMENTS WORTH THE COST OF THE TRAINING?**

You need to do some homework to determine all the costs of delivering the training and evaluate the economic return of higher perfor-

mance. To determine if the cost of training was worth the level of performance improvement, you must know the cost of developing or purchasing the training, the administration costs, and the dollar value of the improvements (discussed above).

How do you determine the dollar value of improvements? Obviously it depends on the job. You should start by looking to see if the training will either increase revenue or decrease cost. If it's not doing either, you better think twice about implementing the training. To compute the cost/benefit of training, use the following formula:

$$\text{Value} = (N \times T \times D \times SD) - C$$

Where:

*N* = number of people who will participate in training.

*T* = length of time that training improvement lasts.

*D* = the improvement on your key metric in standard deviations.

*SD* = the standard deviation of performance (in dollars).

*C* = the cost of training.

*T* can be construed in two ways: If you believe that the training will be of value as long as the person is with the company, average tenure would be an accurate value if you are looking at new hire training. If you are in a company that frequently changes business models, products, etc., estimate how long the training will be relevant for an employee.

A lot of elements can go into the cost of training (*C*). These include startup costs (e.g., the cost of purchasing or developing the training, printing costs) and ongoing costs (trainer fees, material leases, travel, and/or Webinar fees, etc.). Include only out-of-pocket costs, not the time put in by existing staff. Why? You are not really saving costs in that area because they will be paid for doing something else; there really isn't a cost saving. However, if adding the training allows you to reduce head count, include that fact in your final calculations.

Use the value formula to determine whether the training you are considering is worth the time in expense. It can also be used to compare programs that have different costs and potential gains.

**Example** Vendor A and Vendor B provide sales training. The following table shows the comparisons and calculations:

	Vendor A	Vendor B	Comments
<i>N</i>	50	50	Should be same for both calculations.
<i>T</i>	2	2	Average tenure in your organization (in years).
<i>D</i>	0.25	0.5	Note that Vendor B's training has shown bigger changes in performance.
<i>SD</i>	\$20,000	\$20,000	Should be same for both.
<i>C</i>	\$10,000	\$50,000	Note that Vendor A's training is considerable less expensive.
<b>Value</b>	<b>\$490,000</b>	<b>\$950,000</b>	

Note that, even though Vendor B's product is five times more expensive, it delivers nearly twice the value. Why? Because Vendor B's product leads to the greatest improvement in performance (*D*). Had you sourced these two programs on cost alone, you would have missed out on \$460,000 of value.

## SUMMARY

When buying training products and services the burden is on you to be an informed consumer. Be wary of vendors who cannot supply you with the information you need to make an educated choice. When you do obtain this information, take the time to compute the full costs and benefits so you can make a wise buying decision.