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Calculating the Financial Return on Educational Programs

ABSTRACT

Calculating the financial returns from educational activities can be accomplished by using either benefit-cost ratio (BCR) or return on investment (ROI) methodologies. Examples of each are presented in this column.

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In two previous columns, I focused on Kirkpatrick's and Abruzzese's models of evaluation (DeSilets, 2009, 2010). The general categories that are incorporated into both models include reaction/satisfaction, learning, application or changes in behavior, and impact or outcomes. In addition to evaluating these groupings, many of us have struggled to calculate the true economic value of our programs. Two formulas that are useful in measuring financial return

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SIDEBAR

CALCULATION FORMULAS

Benefit-Cost Ratio = Program Benefits ÷ Program Costs

(Program Benefits - Program Costs)

Return on Investment = $\frac{\text{Program Benefits} - \text{Program Costs}}{\text{Program Costs}} \times 100$

or economic value include benefit-cost ratio (BCR) and return on investment (ROI). BCR is expressed as a ratio, whereas ROI is reported as a percentage. Using these formulas may require converting the highest level of evaluation (impact) to a monetary value and comparing it to program costs. Both BCR and ROI answer the question, "Do the financial benefits outweigh the expense of the activity?" To calculate financial returns, you have to maintain careful records for all expenses—outlay for development, cost of providing the activity, evaluation expenses, and indirect or administrative and office expenses.

MEASURING BCR

To calculate BCR, you compare program benefits to program costs. Both benefits and costs are expressed in dollars. The calculation takes into account all revenues and expenses/costs, making it easier to determine if there is a positive monetary return. A template of benefits and costs will be useful when calculating BCR for future activities, although not all ele-

ments of the template will be able to be measured with all programs. BCR allows earnings to be compared to program investments/expenses in an "apples to apples" way (Sidebar). A BCR of 2:1 means that for every \$1 spent there is a return of \$2. Essentially, the BCR calculation means that you get your investment back plus \$1. If the BCR is .9:1, then the return is less than the cost. In this second example, for every \$1 spent there is a 90-cent return.

MEASURING ROI

ROI is a more sophisticated type of evaluation than BCR. If you used a ROI calculation with the revenue and expenses that went into the 2:1 BCR calculation, the ROI would be 100% because for every \$1 spent \$1 is returned after all costs are deducted. With a ROI calculation, the net program benefits (financial benefits minus the program costs) are then divided by the program costs, so the program costs number is used twice in the calculation (Sidebar). ROI is always reported as a percentage. ROI is commonly used in the finan-

cial world (selecting stock or calculating the value of an investment). In continuing education or professional development, ROI is an effective and more sophisticated way to determine the economic return from a program.

DOING THE CALCULATIONS

To measure either ROI or BCR, begin by converting all program costs/expenses to a monetary value. These include program expenditures related to development time, needs assessment, program development/design, office supplies and expenses, marketing, speakers, program materials and supplies, food, equipment rental, facility charges, and evaluation and a percentage for overhead and administrative costs. Be sure to include the cost of everyone who supports the program.

In some instances, changes in practice can be converted to a monetary value. You may be able to assign a dollar value to decreased infection rates, decreased staff turnover, decreased incidence of decubiti, shorter lengths of stay, and reduced morbidity. For example, if the benefits in dollars were \$6,000 and the program expenses were \$2,000, you would have a net program benefit of \$4,000. This would then be divided by the program costs (\$2,000), and the number (2) would be multiplied by 100 to obtain a percentage (200%).

The calculation means that there is a 200% return on your original investment. The higher the percentage, the better the ROI. ROI can be used to make decisions related to which programs to keep and which ones to eliminate.

Phillips and Phillips (2005) suggest that the use of ROI be reserved for programs that are more expensive, have a wide reach, are important to administration, or are extremely visible within the organization. Programs that have a long life, are connected to the organization's plans, entail a major time commitment, are capital and resource intensive, were developed for a large group of learners, or are important to administration are the ones that are appropriate for your efforts to calculate ROI. Calculating ROI is not really appropriate for activities that are offered once and never repeated. According to Phillips and Phillips (2005), best practice organizations use a ROI methodology to calculate earnings for approximately 5% to 10% of their programs. The benefits and costs used for ROI usually fall into the same categories as those used for BCR, so the same template, once created, can be used with either calculation.

WHAT TO DO WITH THE DATA

Preparing and reporting data that demonstrate the financial re-

turn on continuing education activities is not an easy task, but in the end will serve the educational unit well. Although ROI is the definitive measure of profitability, basic accounting practice indicates that reporting ROI alone is not enough. To be really meaningful, reports on ROI need to include other performance or outcome measures—those that capture “softer” data. Expressing the worth of a program using both quantitative and qualitative measures serves educators well; doing so helps to portray the whole picture of the activity and its ultimate impact. Developing standard formats such as templates for both quantitative and qualitative data will help reinforce the positive aspects of education within the organization and will assist in demonstrating the financial and human value of the educational program or activity. Results can be used for internal decision making and can be included in administrative reports to the larger organization.

REFERENCES

- DeSilets, L. D. (2009). Connecting the dots. *The Journal of Continuing Education in Nursing, 40*(12), 532-533.
- DeSilets, L. D. (2010). Another look at evaluation models. *The Journal of Continuing Education in Nursing, 41*(1), 12-13.
- Phillips, P. A., & Phillips, J. (2005). *Return on investment (ROI) basics*. Alexandria, VA: ASTD Press.

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