

Assessing the Business Results of Management Development Using the Critical Outcome Technique

CIGNA Corporation

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The purpose of this case study is to introduce the critical outcome technique (COT) and describe its utility in evaluating a management development program at CIGNA Corporation. This application of the COT proved it to be a practical and useful evaluative technique, although some aspects require more development to increase its overall effectiveness.

Background

This case introduces the critical outcome technique and describes its utility in evaluating a management development program at CIGNA Corporation. In recent years at CIGNA, we have found that as training expenditures grow, demands from senior management to know the value derived from training efforts increase as well. As practitioners, we have found that this emphasis on business results is a mixed blessing. In one way, it is an opportunity for us to demonstrate our efforts' impact on the bottom line. In another, it is frustrating because we know that assessment of the business value of training initiatives is most effectively accomplished when there is a systematic front-end analysis of the organization's performance requirements (Swanson, 1994). In reality, training programs are developed for a variety of reasons: sponsorship by a senior manager or someone in a position of high influence, unfavorable employee survey results, anecdotal data accumulated by training and development professionals or other human resources (HR) staff, management concern over per-

This case was prepared to serve as a basis for discussion rather than to illustrate either effective or ineffective administrative and management practices.

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ceived performance failures (for example, “Those managers aren’t coaching their employees! Teach them how!”), and the like. Moreover, a front-end analysis of organizational performance needs and expertise requirements takes time and money, the most coveted resources in any organization. Add to this mix the pressure on managers to respond to the ever-changing, fast-paced, innovate-or-die business environment, and front-end analysis ends up being seen as an expensive and plodding endeavor that will only tell people what they already know intuitively: We need a training program.

Given the need to demonstrate the value of training regardless of the organizational factors, the evaluation team decided to explore alternate methods for determining the business results of training interventions that did not have the benefit of a front-end performance analysis. This case describes CIGNA’s use of the critical outcome technique (Swanson & Mattson, 1997; Mattson, 1996) on a pilot basis for its corporate-sponsored introductory management program, *Essentials of Management*.

Organizational Profile

CIGNA Corporation is a multiline insurance carrier and financial services company with \$19 billion in annual revenues and \$99 billion in assets. Headquartered in Philadelphia, it is one of the oldest insurance companies in America, having been officially organized in 1792 by merchants meeting in Independence Hall. Training functions within the company reside at the corporate level as well as in each of eight separate lines of business.

Human Resource Development Program Description and Delivery

Management throughout the various lines of business at CIGNA have recognized the importance of supporting newly appointed managers in the early part of their management careers. A critical part of this support has consisted of a training program designed to build the knowledge and skills necessary for success as a manager in the company.

Essentials of Management (EOM) is a three-day introduction to basic management concepts and skills that is targeted to managers with six to 18 months of experience. The corporate training function sponsors and delivers the program.

The program was developed in response to a widely felt need among the HR community to support the target population, most of whom had little or no formal training in management. EOM was first offered in January 1996 and has been run on a continual basis ever since,

both in the home office in Philadelphia and at multiple field locations. The program is mandatory for managers in the target population across all lines of business as well as staff functions.

The format of the program consists of short lecture, small group discussions, skill practice, reflective writing, and question and answer segments. Following are the components of EOM:

- *The role of the manager*: This module presents the various responsibilities managers carry out in their job—coach employees, communicate relevant information, delegate effectively, accommodate employees' various personal styles, motivate employees, and manage conflict.
- *Communication skills*: This module presents fundamental communication skills of listening, paraphrasing, and asking exploratory questions in the context of the business environment. This segment includes skill practice.
- *Conflict management*: In this module, participants examine several typical responses to conflict, they identify the one that is typical of them, and they consider several protocols for dealing with conflict as it occurs within the business context of the company.
- *Feedback*: In this module, participants learn and practice a four-step model for giving information to others so that their message will be heard, understood, and acted upon.
- *Myers-Briggs Type Instrument*: In this module, the facilitator reviews the participants' MBTI results. Implications for managing the interaction of various personality types are discussed. Results are reviewed in the program and implications for management are discussed.
- *Delegation*: In this module, benefits of delegation are discussed along with personal and organizational barriers to carrying out delegation. Protocols for effective delegation are presented, and participants complete delegation guides.
- *Coaching*: In this module, participants learn coaching skills and address live issues in practicing them. The program facilitator and other participants provide feedback.
- *Motivation*: In this module, research results about what motivates employees are presented. Guided by the research findings, participants develop motivational actions they can take back to the job.

Key Evaluation Issues and Events

Evaluation of EOM in 1996 consisted of postprogram reaction evaluations and surveys of participants and their managers 10 weeks after the program. Postprogram reaction evaluations indicated that

over 90 percent of the participants believed that the program “most-ly met” or “fully met” its stated objectives. Participants also reported high levels of satisfaction with the program. Satisfaction levels remained high in the results of the participant surveys administered 10 weeks after the program.

Postprogram survey results indicated that over 90 percent of the participants believed that the program was a significant factor in causing them to implement the skills and knowledge addressed in the program when they returned to the job. In addition, over 90 percent of the participants’ managers reported that they believed that their employees’ participation in EOM was a significant factor in on-the-job implementation of knowledge and skills.

Anecdotal data from both participants and their managers were offered that supported the findings of high satisfaction and the belief that the program significantly influenced on-the-job implementation of the knowledge and skills addressed in the program.

Although the data collected were somewhat useful, analysis revealed only broad descriptions of on-the-job performance and business outcomes. During the evaluation team’s examination of these questions, other critical questions surfaced, including the following:

- Is there a method to more precisely describe validated on-the-job performance?
- Is there a method that will describe validated business outcomes of the program?
- Is there an evaluation method that will allow for consideration of the effects of intervening variables, such as participant motivation, participation readiness, environmental support, additional human resource development (HRD) initiatives, and so forth.

Consideration of these sorts of questions led to the development of the critical outcome technique and to its adoption by the evaluation team to assess the effectiveness of the 1997 EOM program offerings.

Models and Techniques

The critical outcome technique (COT) is a practical evaluation system that can be applied to any performance improvement or HRD intervention (Swanson & Mattson, 1997; Mattson, 1996). Although most scholars and practitioners agree that evaluation should be an integral part of the program analysis, design, development, and delivery, in practice this is often not the case (Kirkpatrick, 1994; Swanson, 1996). The COT was developed as a means of assessing program effectiveness in a systematic, post hoc manner. As stated above, un-

til now the primary means of predictably demonstrating the results of HRD programs has been through a systematic linkage of front-end performance analysis and systematic evaluation. Because the COT is capable of assessing results in the absence of such an analysis, it represents an important development in post hoc program evaluation.

Unlike methods of evaluation that propose categories or taxonomies of potential results of HRD programs (for example, the four levels: reaction, learning, behavior, results), the COT is a process model for assessing the outcomes of such programs. That is, it focuses less on the myriad ways to examine what might have happened as a result of a program and more on results. This is not to say that the categories of potential outcomes are invalid. On the contrary, they provide a useful way to think about results; however, they lack a practical, valid way of demonstrating whether or not those results were delivered as intended.

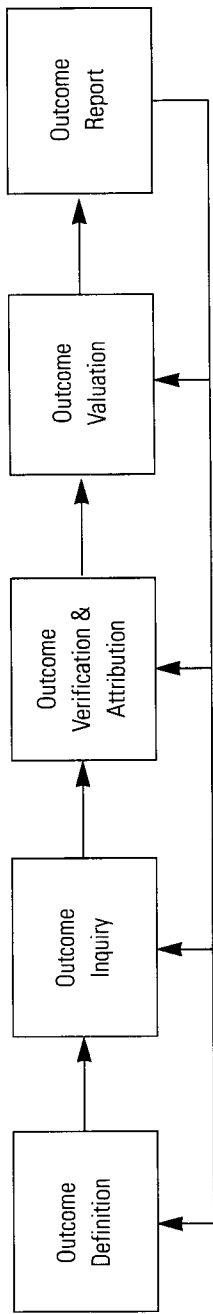
Critical outcomes can be thought of as either business results at the organizational, process, or individual levels or as financial results or benefits in terms of money or monetary ratios, or as both business and financial results. Business results that are monetized become financial results. For example, the business result of increasing market share by 5 percent could be converted into numbers of sales times the financial value of each sale. Another example of business results would be to increase the hourly production rate of injection molded items from 30 to 35. In each of these examples the business results can be monetized and then expressed in terms of financial results.

Financial results determine the economic value of the HRD program or intervention. In accordance with Swanson and Gradous (1988), the value of the program is equal to the performance value (financial results) minus the cost of the program. This figure can be used to produce a return-on-investment ratio (for example, Swanson & Mattson, 1997; Swanson, 1996).

It is important to note that the purpose of the COT is to provide information for decision makers. Evaluation, we believe, is an art, and, as such, every evaluation should represent an idiosyncratic effort to meet the needs of program stakeholders. Thus, although scientific or experimentally designed evaluation may meet the research standards of an investigator's peers, program evaluations need to meet the interests of the stakeholders to yield maximally useful information for decision makers.

As stated above, the COT is a process model containing five steps, or phases, as figure 1 shows.

Figure 1. Model of the critical outcome technique.



In brief, to use the COT to evaluate an HRD program or intervention, an evaluator proceeds through the steps as follows:

1. The evaluator determines (post hoc) the original intended outcomes of the program.
2. The evaluator collects data from program participants regarding their attainment of the intended outcomes.
3. The evaluator validates this information through a source other than the participant (for example, the participants' supervisors).
4. The evaluator determines a performance value for each of the outcomes.
5. The evaluator produces a summary report of the evaluation findings to deliver to key stakeholders.

The steps and their use are elaborated on further in the case example below.

Implementation of the COT at CIGNA

Implementation of the COT for Essentials of Management followed the five steps of the process in order:

1. *Outcome definition:* This part of the process specifies the intended critical outcomes of the program. Put simply, the key question in this phase of the process is, "What were the intended or potential critical outcomes of the program?" It is important to note that not all programs or interventions may have been designed with business or financial outcomes as their direct objectives. In the case of EOM, the objectives of the program were to develop skills in the areas of:

- coaching employees for improved performance
- providing developmental, constructive feedback
- delegation
- motivating staff
- communicating expectations and managing results
- managing conflict
- handling difficult employee situations
- accommodating differences in individual styles.

The scope of EOM is broad in order to accommodate the diversity of needs of the targeted participants, that is, new managers with six to 18 months of experience. Thus, there was no expectation that participants would leave the program with a highly developed set of skills in each of the content areas. Rather, the overarching goals of the program were to define for the participants just what it is that managers in the company are expected to do as well as to provide baseline management skills in core management practices. Thus, the evaluation

team would consider any application back on the job of a skill or set of skills acquired during the course of the program an achievement of a program objective. To define the critical outcomes for EOM, the assistant director for training and development reviewed the course objectives for the program, searching for the most specific information regarding desirable or potential outcomes. Because the application of skills learned in the program could potentially lead to a panoply of business or financial outcomes, a decision was made to make a broad inquiry of participants regarding the actual outcomes of their applied program knowledge and skills.

2. *Outcome inquiry:* The main question in this phase is, "What were the actual (as opposed to the intended) outcomes of the program?" The source of data for this phase is the program participants. Because the participants in EOM came from all areas of the company and from a variety of locations around the country, the most expedient method for collecting data was through an e-mail survey, a sample of which appears in figure 2. The use of e-mail for data collection made the process simple and relatively easy. One person was able to send surveys to 100 participants in less than two hours. Participants returned the surveys via e-mail within 72 hours. The response rate was 40 percent.

Although the ultimate intent of the COT is to ascertain a "good enough" estimate of the value of improved performance, in this case, the evaluation team decided to solicit information regarding the application of skills learned in the program. This was done to prompt respondents to think first about the application of skills and then about any effects in terms of outcomes due to such application.

3. *Outcome verification and attribution:* There are two main questions in this phase of the COT process: "Did the outcomes really occur as reported by the participant?" and "Would the outcomes have occurred without the program?" To answer the first question, we consulted the program's stakeholders. In this case, the stakeholders were the participants' managers. These managers are responsible for holding the participants accountable for how well they manage and supervise; as such they have direct motivation for observing the participants back on the job to assess the extent to which they put new skills into practice.

To collect data from participants' managers, the evaluation team developed an e-mail survey similar to the one used for the participants, and they sent it to the managers of 100 participants. A response turnaround of 72 hours was again requested; the response rate was 30 percent. A sample of this survey appears in figure 3.

To answer the second question, evaluators conducted in-person interviews with managers of groups of employees who attended the

Figure 2. Outcome inquiry: participant survey instrument.

**Training Follow-up Survey
Corporate Training & Development**

Essentials of Management

Corporate Training & Development is interested in knowing how well you have been able to take what you learned in this course and put it into practice back on the job. Would you please take a minute to complete this brief survey? We would appreciate your response by: _____.
Thank you for your time.

Dates of program attended: _____

1. Please check the skills or learning you have put into practice back on the job since attending this program:

- | | | |
|-------------------|------------------|---------------------------|
| _____ Feedback | _____ Delegation | _____ Meyers-Briggs |
| _____ Coaching | _____ Motivation | _____ Conflict Management |
| _____ Other _____ | | |

Please provide a specific description of how you applied this skill or learning on the job:

2. Please check the statement that best describes the outcome you have achieved by putting into practice the skills and learning you described above.

- _____ Increased productivity—please describe this result and the dollars gained by the increase.
- _____ Process improvement—greater efficiency, faster turnaround, better customer service.
Please describe the improvement and specify dollars saved.
- _____ Decreased turnover—You retained an employee you were expecting to terminate or demote.
Please specify dollars saved by not hiring a new employee.
- _____ Other—please describe and specify dollars saved.

program as well as HR representatives of selected business units where the participants work. The goal of the interviews was to determine what organizational dynamics may have influenced the participants' perception of the impact of EOM (for example, attendance at similar programs around the time they attended EOM, halo effect, en-

Figure 3. Outcome verification: survey instrument for manager of participant.

**Training Follow-up Survey
Corporate Training & Development**

Essentials of Management

Your employee(s) named below recently participated in Corporate Training & Development's Essentials of Management program. We are interested in knowing how well your employee(s) have been able to take what they learned in this course and put it into practice back on the job. Would you please take a minute to complete this brief survey? We would appreciate your response by: _____
Thank you for your time.

Name of employee(s): _____ Date(s) of program attended: _____

1. Please check the skills or learning you have put into practice back on the job since attending this program:

- | | | |
|-------------------|------------------|---------------------------|
| _____ Feedback | _____ Delegation | _____ Meyers-Briggs |
| _____ Coaching | _____ Motivation | _____ Conflict Management |
| _____ Other _____ | | |

Please provide a specific description of how you applied this skill or learning on the job:

2. Please check the statement that best describes the outcome you have achieved by putting into practice the skills and learning you described above.

- _____ Increased productivity—please describe this result and the dollars gained by the increase.
- _____ Process improvement—greater efficiency, faster turnaround, better customer service. Please describe the improvement and specify dollars saved.
- _____ Decreased turnover—You retained an employee you were expecting to terminate or demote. Please specify dollars saved by not hiring a new employee.
- _____ Other—please describe and specify dollars saved.

environmental factors that reinforce or inhibit use of the skills addressed in the program). Results of the interviews indicated that there was no single factor that had a unilaterally significant effect on outcomes produced by the application of EOM skills.

4. *Outcome valuation.* The primary question in this phase is, “How much are these outcomes worth?” In the case of EOM, the critical outcomes are management behaviors whose effect on business outcomes are secondary, tertiary, or beyond. For instance, coaching an employee effectively may improve a specific aspect of that employee’s job performance. In turn, the improved job performance may effect a chain of actions that ultimately bear upon business results. Management behaviors are part of a complex network of factors that influence business outcomes. Although there is widespread agreement that skilled managers are critical to business success, it is difficult to attribute a specific management behavior to a specific business outcome. Participants in EOM and their managers were given the option to describe business outcomes of participation in the program in terms of productivity improvement, process improvement, or decreased turnover. The surveys asked the participants to estimate the dollars saved or realized using their best judgment. Participants’ managers were asked, both via survey and in-person interviews, to verify the dollar figures reported by the participants.

5. *Outcome report:* Figure 4 shows an outcome report designed for the primary stakeholders of the EOM program: senior HR management, the training team, and HR professionals who need to assess training needs of groups and individuals in their respective business units. The report summarizes the outcomes in abbreviated and narrative forms.

Results of the Implementation of COT at CIGNA

The outcome inquiry phase yielded information that strongly indicated that participants in EOM left the program and made good-faith efforts to implement the skills addressed in the program back on the job. Data addressing the level of on-the-job implementation of feedback and delegation were particularly strong: 89 percent and 62 percent, respectively. Usage percentages in the remaining skills ranged from 54 percent to 46 percent. The data from the program participants indicate that several program objectives were achieved in terms of application of learned skills on the job; however, critical outcome attainment was more difficult—although not impossible—to ascertain. Outcome verification data from participant managers provided a second perspective on the job skill applications. Their data were generally consistent with the implementation levels participants provided. The results suggested that skills that were presented in a highly structured format (feedback, delegation) were more likely to be reported as implemented than those presented more conceptually.

Figure 4. Sample critical outcome evaluation report.

CIGNA Corporation

Program: Essentials of Management

Dates: 1997

Participants: 90 Managers

Program Description:

Essentials of Management is an intensive three-day program introduction to basic management concepts and skills. It is sponsored and delivered by the corporate training function and is targeted to the new manager with six to eighteen months of experience. The program is mandatory for managers in the target population across all lines of business as well as staff functions.

Outcome Summary:

In summary, the 1997 Essentials of Management programs were very effective. See the following page for a further breakdown of these results, and contact Lawrence Quartana if you wish additional information.

OUTCOMES	OUTCOME VALUE
Performance Outcomes	
Application of Feedback Skills	89%
Application of Delegation Skills	62%
Application of Coaching Skills	54%
Application of Conflict Management Skills	46%
Application of Motivation Skills	46%
Business Outcomes	
Cost savings attributed to application of communication skills	\$188,000
Cost savings attributed to turnover reduction	\$20,000
Improved time utilization	Significant improvement
Improved quality of claims processing	Significant improvement
Improved production, decreased rework, backlog reduction	Significant improvement

Approval: _____ Director of Training _____ Date: _____

Stakeholder Distribution List:

- President
- V.P. of National Accounts
- Sr. V.P. of Sales & Mktg.
- V.P. of HRD

Figure 4. Sample critical outcome evaluation report (continued).

Evaluation Results: 1997 Essentials of Management Program

Program Outcomes

Source of Data: Program participants

Reported Outcomes: Participants reported active implementation of skills learned in the program back on the job. The percentage of participants who reported implementing each skill is:

Feedback—89%; Delegation—62%; Coaching—54%;
Conflict Management—46%; Motivation—46%

98% of participants reported implementing at least two skills on the job.

Verified Program Outcomes

Source of data: Participant's managers

Verified outcomes: Management gave explicit verification of \$188,000 in cost savings that resulted from application of communication skills addressed in the program.

Management was rarely in a position to directly observe application of skills learned in the program. Management was able to observe the outcomes of skill implementation.

Outcomes observed include:

- Increased confidence, improved morale, reduced stress, and reduced overt conflict.
- Management was unable to verify or deny cost savings realized by reduced turnover.

Value of Program Outcomes:

MONETIZED BUSINESS RESULTS:

- A cost savings of \$188,000, directly verified by management, was realized by a specific implementation of communication skills learned in the program.
- Reduced turnover resulting in approximately \$10,000 in savings was reported by participants; management did not report awareness of this cost savings, but it was not denied.
- Participants and managers had difficulty assigning a dollar value to most outcomes, though most expressed confidence that some business value was realized.

NONMONETIZED BUSINESS RESULTS:

Nonmonetized business results that were reported and verified included:

Better time utilization, improved quality (claims processing), decreased backlog (claims processing), improved morale, and reduced rework.

Participants reported that, as expected, assigning dollar values to skill implementation was difficult. In some isolated cases, specific dollar savings were estimated on the basis of elimination of turnover. These dollar figures were based on standard costs associated with hiring and training a new employee. Participants identified additional outcomes, such as better morale and better time utilization, which do not have an assignable financial value, but do secondarily affect business outcomes. Other business outcomes were reported, such as backlog reductions and quality improvement, which have an assignable financial value in principle, but insufficient data were available to accurately specify a dollar figure. A dramatic exception included a significant cost savings (\$188,000) that was specifically attributed to implementation of EOM skills. The participant's manager verified the attribution.

Costs

Costs involved in implementing the COT for EOM consisted of two components:

- administrative time: setting up e-mail distribution lists, sending e-mail, printing e-mail responses, sorting responses by program, and tallying data
- professional time: survey design, data analysis, report preparation.

The total hours for professional and administrative time were 14 and 20 hours, respectively. The approximate value of time required to implement the COT was \$2,500, which is very low when compared with the cost of designing and developing a three-day program and paying participants to attend for three days.

Data Analysis

The analysis of data in this application of the critical outcome technique was fairly straightforward. Quantitative data were tabulated by category of outcome, as figure 4 shows.

Respondents presented qualitative data, in most cases, to further substantiate achievement of a given outcome (for example, to provide an example of the application of the skill).

In some instances, qualitative data were coded and categorized. For example, several managers observed skill implementation such as conflict management. In this case, the number of managers reporting specific examples was aggregated. Coding of responses was facilitated by the fact that categories of responses were supplied. For responses that were not assigned a category, the analyst created one post hoc. Connotatively similar responses (for example, "increased confi-

dence” and “improved self-assurance”) were counted and categorized together according to the analyst’s criteria. This approach, albeit not foolproof, is desirable, as we lack procedures to differentially weight separate reports of outcomes (Weber, 1990).

Conclusions

From this pilot application of the critical outcome technique to the Essentials of Management program, we learned the following:

- The COT demonstrated that several program objectives were achieved and verified by the participants’ managers.
- The COT demonstrated that business outcomes were achieved that were attributable to participation in EOM. In some cases, plausible estimates of dollar values were possible.
- This application of the COT achieved the goal of providing information that is useful to program stakeholders (rather than precise measurements of “truth”).

In short, the EOM program did what it was designed to do—provide participants with baseline development in core management practices. The levels of implementation of the skills addressed in the program speak not only to the effectiveness of the program’s design and delivery, but also to the presence of environmental factors that encourage the use of these skills in live circumstances.

With this application of the COT, we also have learned to refine our data-gathering techniques to get information that is more closely aligned with the COT model. In phase one, it was difficult for the evaluators to think of potential program outcomes in terms of financial and business results because of the original objective of the program. The objective of the program was not that the participants would leave with a highly developed skill set, but more that they would develop managerial skills in the areas emphasized in the program. For this reason, the internal company evaluator struggled with making the linkage between learning outcomes and organizational outcomes.

To assist in helping evaluators make the linkages between potential financial and business outcomes, a need has clearly been established for the development of a tool that shows the potential linkages between learning and critical outcomes. To this end, an outcome definition matrix has been developed and is described in a forthcoming article.

For example, in phase three, outcome attribution and verification, getting information from the participants’ managers about factors mitigating the application of skills learned in EOM was a difficult process. Not surprisingly, many of these managers were not used to thinking in terms of other potential causes of behavior. To

improve our ability to gather information in this phase, better data-gathering tools will be constructed. Additionally, questions regarding mitigating factors could also be asked of program participants. Therefore, an improved outcome inquiry tool would incorporate questions regarding such factors. This tool will also be described in a forthcoming article.

In sum, there are several areas that can be exploited to improve the effectiveness of the COT in ascertaining business and financial outcomes of HRD programs. Subsequent applications will employ refined data-gathering tools to better guide evaluators in using the COT. On a positive note, this application has demonstrated that it is possible to provide stakeholders with valuable information about business outcomes not garnered through rigorous, or even semi-rigorous experimentally oriented designs. The use by others of this method is encouraged and welcomed, along with suggested revisions and refinements.

Questions for Discussion

1. Why is any application of skills on the job not considered achievement of outcome?
2. Why is it important to be able to attribute and verify outcomes?
3. What are some possible factors that may help or hinder a person's ability to apply skills learned in a training program like Essentials of Management?
4. What types of information are important for stakeholders to receive?
5. Why is it difficult to place financial value on some outcomes?
6. What are some benefits of reporting nonfinancial outcomes?

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