

# Measuring Training Results: Key to Managerial Commitment

Evaluations are important, even if they're not required. Here's why, with a case study of an effective evaluation program.

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Retraining beats out replacing workers as the best response to new job demands, technology, or management systems, according to current general consensus. But an individual business stuck in a phase of shrinking profits may quickly change its tune about training benefits. Although this is when the need for optimal employee performance and quality education programs is strongest, the skepticism of top-level management about training's effectiveness also picks up strength and, many times, weakens support for education efforts.

the organization and its workers? Do our programs result in the acquisition and use of new and internally marketable skills—the kind that this organization will need over the next three to five years?

## Proof through evaluation

To demonstrate training and development's importance, trainers must not only present excellence programs but also must *prove* the programs get results: improved job performance, more efficient use of resources, and satisfactory returns on the training dollars invested. The proof is

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Unless the recent growth in training and development is to be short-lived, those who plan, design, present, or market programs must start building a strong and lasting relationship with management by asking themselves some questions: Does the return on our training investment include increased productivity and cost containment? Does our training truly benefit

revealed through program evaluation.

The concept of evaluation has received widespread recognition as beneficial, but the practice of evaluation has lagged behind. Few reports of actual program evaluation have been published; compared to the number of training programs, few evaluations have been conducted. According to the report of one study, less than 12 percent of 285 companies studied evaluated the results of supervisory training programs in management.<sup>1</sup> Another study, which surveyed 2,000 training professionals, predicted growth in the breadth and depth of training services provided and increased time spent on management activities such as planning and organizing,

while at the same time reporting a bleak outlook for evaluation.<sup>2</sup> Trainers spend time training, not evaluating.

A survey conducted at a 1984 meeting of a Texas chapter of the American Society for Training and Development supported these findings. While 90 percent of the trainers surveyed believed in evaluations, they did not use them because evaluations were not required by most firms for which they worked. Respondents reported that managers actually discouraged evaluation with "We wouldn't have hired you if we didn't think you were effective." Other studies report the same reluctance of management to "waste time" testing something that management has convinced itself is good.<sup>3</sup>

Management demands for a wider array of programs but not for a determination of their worth can mean danger in the training long run. Lack of demands for evaluation leaves open the potential for growth in training without accountability. This may lead to the continuation or even proliferation of ineffective programs or, in lean economic times, the perception by top management that training and development programs are superfluous and should be cut. If training and development functions are to eliminate the current roller-coaster approach to organizational support, effective evaluation must become a part of every program—whether or not top managers require it.

## Effective evaluation in action

An evaluation design used recently at the University of Texas at Austin demonstrated that effective and economical evaluation *is* possible.

When the local job market is strong (such as in May 1985, when Austin unemployment was at 3.9 percent), the university has difficulty attracting skilled personnel to fill high-level support staff positions. To meet its needs the school periodically started offering four courses taught by College of Business faculty to improve the skills of support and secretarial people already on staff. Business Communication Skills was the program selected for evaluation during the 1984 spring and fall semesters. As in most organizations the program had previously been evaluated using only an end-of-course "happiness index." The 1984 evaluation was different in that it measured behavioral change. It was designed to determine whether trainees learned the skills presented in the program, whether trainees transferred the skills from the classroom to the work setting, and what

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effect the transfer had on use of bottom-line resources.

Business Communication Skills focused on improving the formal communication (writing, speaking, dictating) and supervisory skills of experienced support and secretarial staff. Participants met two hours per day, three times each week for five weeks. The program was held during normal working hours and participants were released from work to attend sessions. Workers participating in the program between 1982 and 1984 were selected for the evaluation.

Of the 96 participants, 86 were women. Their ages ranged from 20 to 61 years, with a mean of 31 years. Sixty percent of the participants were Anglo, 30 percent were Hispanic, 5 percent were black, and 5 percent were Oriental. Seventy-five percent were classified as Senior Secretary I and 25 percent were classified as Senior Secretary II (the higher level). Fifty-two percent of the participants were self-selected, 45 percent were assigned to the course by their supervisors, and 3 percent enrolled due to a colleague's recommendation.

The course covered principles and techniques of communication relating to writing (letters, memos, reports), speaking (public speaking, dictation, telephone use), self-management (listening, time management, planning, decision making), and managing others (selected supervisory skills). The goal of the program was not only to produce knowledge gains, but to enable participants to change their work behavior in these areas.

The course was evaluated with Del Gaizo's four-level evaluation model for employee training programs (see Figure 1).<sup>4</sup> Each level assesses an increasingly complex and difficult-to-measure aspect of training.

### Level One: do they like it?

Level One is concerned with whether the participants liked the training program. An end-of-course questionnaire (a happiness index) was used to evaluate this aspect. Results indicated that the participants liked the course, felt it was appropriately instructed, and felt it related to their jobs. The mean ratings—based on a five-point scale with 5.00 as the highest rating—by participants for various aspects of the program were

- the importance of the course in performing jobs—4.60;

- the teaching methods and techniques—4.86;

- the effectiveness of the course objectives, organization, materials, and instructor's response to participants—4.56.

### Level Two: did they learn?

Level Two of the evaluation model looks at whether the participants learned the skills taught. An analysis of skills at this level indicated that participants improved their written communication, oral communication, and dictation skills. To measure the achievement in writing, two writing cases were constructed for use in one course group. The cases were checked for content validity by two business professors and one personnel specialist. They determined that the cases were equivalent in difficulty, representative of the skills taught in the course, and representative of the skills used in daily work.

Participants completed one writing sample with a 15-minute time limit during the first course session and the other sample during the last session. The course instructor and an outside evaluator rated the samples. High interrater reliability was found when a random sample of these cases was rated again by two professors not participating in the course or the evaluation study. The interrater responses identified every major and minor success or weakness in writing. Furthermore, an analysis of variance comparing pre- and post-tests indicated that writing on job-related tasks improved significantly.

Oral communication skill improvement was measured by an evaluation of in-class presentations completed before and after instruction in principles of oral communication. The post-instruction checklist rating indicated an average of 20 percent improvement. Dictation skills were

measured using a timed exercise. Analysis, based on a 20-item checklist, indicated that participants demonstrated performance comparable to college senior performance in a managerial communication course in which the average dictation score was B.

### Level Three: do they use it?

Level Three considers whether participants used the newly learned skills on the job. A survey based on the course objectives and content was developed. It included a list of job tasks that a group of Senior Secretary I and II employees reported they perform regularly. Revisions were made after a content analysis was performed on all questions, and a pilot test of the survey was conducted as an additional check on reliability and validity.

The survey was then sent to 62 course participants from 3 to 23 months after they completed the program and to the 39 members of a matched, randomly selected control group. This control group matched the experimental group in specific job descriptions, age, years of work experience, and years of employment at the university. The response rate from the course participants was 92.5 percent and the response rate from the control group was 94.1 percent. Responses were mathematically equalized to adjust for the unequal size of the groups.

Program participants reported that they used the skills learned after they returned to their jobs. The participants indicated that they perform more tasks, perform different tasks, and have more job responsibilities than those in the control group (see Figure 2). The program participants reported writing letters 63.6 percent more

**Figure 1—Del Gaizo's four-level evaluation model for employee training programs**

Level	Index	Question
One	Happiness	Did participants <i>like</i> the program?
Two	Learning	Did participants <i>learn</i> the skills taught?
Three	Practical application	Did participants <i>use</i> the new skills on the job?
Four	Bottom line	Was the training <i>productive</i> , cost effective?

often, using oral communication skills as they gave directions and demonstrated equipment 88.2 percent more, using dictation skills 112.5 percent more, and supervising employees 107.1 percent more often than the control group.

This level of the evaluation also showed that 41 percent of the program participants made revisions to materials typed for others without conferring with their supervisors; only 34 percent of the control group reported this. Also, 32.6 percent of program participants reported composing reports, compared to 13.7 percent of the control group.

The survey revealed that 93 percent of the program participants continued to think the course was important to performing their jobs, and 92 percent believed that the techniques and principles presented and practiced during the program helped them perform their jobs more efficiently. In addition, 46 of 50 program participants indicated that they had kept

their 60-page resource-reference book, and 37 indicated that they used the program materials at work. Half of the respondents reported using the materials more than once each week, while the other half reported monthly use.

### Level Four: did it impact the bottom line?

Level Four considers whether the training program affected the bottom line. Measuring the bottom-line effectiveness of training programs is a difficult and elusive task. A direct approach to evaluation is suited to measuring training results in industrial or goods producing and supplying organizations (by monitoring sales or production performance figures before and after training). However, the direct approach breaks down when applied to service operations in which the input is heterogeneous and uneven, the product is intangible, and the assignment of dollar value to the product is difficult.

While the primary purpose of a university is not to generate monetary profits, any responsible manager must have some way of knowing what goal achievement has cost in terms of resources used. And staff time is the most expensive resource in any organization. In spite of difficulties, it was possible to identify training effects in areas directly related to the use of resources. The evaluated areas, primarily related to the use of work time by the employee and the supervisor, were as follows:

■ *Use of time.* Evaluation of the two pre- and post-test 15-minute writing samples indicated that writing improved after the course. Participants had learned to make better use of their time when composing messages.

■ *Number of revisions.* The survey results indicated that more program participants than control group members composed and revised routine written communications without direct supervision. This meant their supervisors had more time for planning and control functions and for responding to nonroutine information needs. When managers channel their knowledge and experience in this way rather than becoming personally involved in routine office work, the result is more efficient and effective use of personnel dollars.

■ *Duties performed.* Part of the survey was a list of standard duties, developed before this study from task lists submitted by a separate group of administrative support personnel. Program participants indicated that they performed these tasks more than did the matched control group. Program participants also performed tasks that the control group did not perform. The participants seemed to be using fewer personnel hours by accomplishing more and possibly saving the organization money that in the control group would be channeled to additional salaries and benefits. Survey results also indicated that the participants supervised other employees more than twice as often as the control group, and that after completing the program they did work that they had not done before. This translates to an increase in the work performed in each office because it enables managers to focus their attention on supervisory and managerial tasks.

■ *Improved relationships with supervisors.* When interpersonal communication is relatively conflict-free, the result is reduced misunderstanding of duties and assignments, reduced redundancy resulting from miscommunication, and more accurate perception of performance goals by the manager and the staff

**Figure 2—Job tasks reported by the business communication skills program participants compared to job tasks reported by the control group**

Duties	Program Participants a Percent	Control Group b Percent	Ratio (a-b)/b x 100 Percent
Bookkeeping/accounting	44.0	19.0	131.6
Transcribing from dictation	34.0	16.0	112.5
Making travel arrangements	34.0	16.0	112.5
Supervising employees	58.0	28.0	107.1
Giving directions, demonstrating equipment	64.0	34.0	88.2
Writing letters	72.0	44.0	63.6
Working on the computer (entering, retrieving)	76.0	50.0	52.0
Writing memos	72.0	50.0	44.0
Scheduling appointments	52.0	37.0	40.5
Attending meetings/recording minutes	26.0	19.0	36.8
Recording sick leave/absences	42.0	31.0	35.5
Collecting/checking employee time sheets	42.0	34.0	23.5
Distributing mail	66.0	56.0	17.9
Answering the phone	94.0	81.0	16.0
Maintaining office supplies	58.0	50.0	16.0
Filing	90.0	78.0	15.4
Photocopying	94.0	88.0	6.8
Performing receptionist duties	62.0	59.0	5.1
Typing	90.0	87.0	3.4
Other	34.0	41.0	-17.1

member—all of which lead to increased efficiency. Sixty percent of the program participants indicated that the relationship with their supervisor improved as a result of the program. The remaining 40 percent reported that the relationship remained the same, which might mean that the relationship was satisfactory prior to enrolling in the course.

### So what's a trainer to do?

This study demonstrated that evaluation can be incorporated into training programs by using pre- and post-program skill tests and self-report surveys. Trainers convinced of evaluation's importance and feasibility can strengthen management's support of the practice by doing the following:

- Build into the design of each program an evaluation that goes beyond the happiness index. Get commitment to this as an integral part of the program. No manager would support a new product, computer system, or marketing plan without evaluation; if you expect your contribution to the organization to be seen as important, prepare to prove it! The evaluation can take the form of follow-up surveys or interviews based on the goals of the training program. The evaluation ideally should include the program participants, their managers, and a control group.

- As you design programs and develop goals, involve managers and staff. For example, schedule a 15-minute meeting with a manager to identify three things that would help the operation run more smoothly.

- Build your reputation on a solid foundation; always submit an empirical report after the program and again after the evaluation. These need not be long or technical, but must demonstrate specifically what has changed as a result of the training.

- As your visibility and support grow, interview—both before and after programs—a sample of managers whose staff has been trained. Base your discussion on program goals and ask specific questions about benefits and the return on the human resource investment.

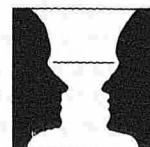
To quote Peter Drucker, "...few... [organizations] have any idea what they are getting for all the money and effort they spend on training, let alone what they should be getting."<sup>5</sup> If training is ever to be perceived as more than an expendable organizational frill, training and development professionals must insist that the same quality of analysis applied to marketing, production, and accounting

systems be applied to training programs. Without this analysis, managers are playing a costly game of chance with their training budgets. And the odds are stacked against them.



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