

Training Evaluation: Process, Benefits, and Issues

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Training is an organized approach to positively impacting individuals' knowledge, skills, and attitudes in order to improve individual, team, and organizational effectiveness. Training gives organizations access to resources that will allow them to compete successfully in a changing environment, and to plan for and accomplish set goals. Effective training helps corrects employee and organizational deficiencies. However, poor, inappropriate, or inadequate training can be a source of frustration for everyone involved. Training typically poses a number of challenges and every training process brings with it a number of questions that managers must answer. Therefore there is need for organizations and managers to understand, plan for, and critically evaluate training. Based on the aforementioned needs, this paper examines processes, benefits, and issues in training evaluation. Among the issues discussed in the paper are the meaning of training evaluation and why training evaluation is necessary; measuring training's effectiveness and impact; Kirkpatrick's four levels of evaluation; and issues with training evaluation. The paper concludes that effective training evaluation is necessary for successful management of training programs and organizational growth and development. Therefore properly evaluating training requires managers to think through the purposes of the training, the purposes of the evaluation, the audiences for the results of the evaluation, the points or spans of points at which measurements will be taken, the time perspective to be employed, and the overall framework to be utilized.

Key Words: Training, evaluation, investment, effectiveness, benefits, organization

Training is one of the activities that give organizations access to resources, including human resources, material, money and methods, that will allow them to compete successfully in a changing environment, and to plan and design activities to accomplish the perceived goals of the organization (Krishnaveni & Sripirabaa, 2008). Aguinis & Kraiger (2009) define training as "the the systematic approach to affecting individuals' knowledge, skills, and attitudes in order to improve individual, team, and organizational effectiveness." (Goldstein & Ford, 2002) define training as 'the systematic acquisition of skills, rules, concepts, or attitudes that result in improved performance in another environment.' Training is often used in conjunction with development (Aguinis & Kraiger, 2009; Goldstein & Ford, 2002; Gomez-Mejia, Balkin, Cardy, Dimick, & Templer, 2004), though the terms are not synonymous (Gomez-Mejia, Balkin, Cardy, Dimick, & Templer, 2004). Aguinis & Kraiger (2009) view development as organized efforts impacting individuals'

knowledge or skills geared towards personal growth.

In the view of Gomez-Mejia, Balkin, Cardy, Dimick, & Templer (2004), the focus of training is typically on providing employees with specific skills or helping them correct deficiencies in their performance. In contrast, development is an effort to provide employees with the abilities that the organization will need in the future. Whereas in training, the focus is solely on the current job; in development, the focus is on both the current job and jobs that employees will hold in the future (Gomez-Mejia, Balkin, Cardy, Dimick, & Templer (2004, p.224). Furthermore, training is job-specific and its scope is on individual employees while the scope of development is on the entire work group or organization (i.e. concerned with the workforce's skills and versatility). Training focuses on immediate organizational needs, while development tends to focus on long-term requirements (Gomez-Mejia, Balkin, Cardy, Dimick, & Templer, 2004).

Training and development also differ in the goals they seek to attain. While the goal of training is a fairly quick improvement in workers' performance, that of development is the overall enrichment of the organization's human resources. This is achieved by preparing employees for future work demands (Gomez-Mejia, Balkin, Cardy, Dimick, & Timpler, 2004). Training robustly shapes present performance levels, while development pays off in terms of more capable and flexible human resources in the long run (Gomez-Mejia, Balkin, Cardy, Dimick, & Timpler, 2004).

Training serves many masters and many purposes (Nickols, 2000). Some of the purposes that training serves may include focusing energy on issues, making work and issues visible, supporting other interventions, legitimizing issues, promoting change, reducing risk, creating a community based on some shared experience, building teams, indoctrinating new staff, communicating and disseminating knowledge and information. Others are certifying and licensing, rewarding past performance, flagging "fast trackers," and developing skills (Nickols, 2000). He notes that thinking about how evaluation of training might vary with the purpose or use of the training itself is as important as knowing the details of the training purposes.

Changes relating to training result in or are expected to result in improved job performance and a number of other positive changes (Aguinis & Kraiger, 2009; Hill & Lent 2006; Satterfield & Hughes 2007) that serve as precursors of job performance (Kraiger, 2002). However, in-training strategies or conditions (such as manner of instruction) play significant role in improving transfer or performance (Aguinis & Kraiger, 2009; Brown, T.C., 2005). The positive effects of training are not limited to employees, but also extend to managers and leaders (Collins & Holton, 2004), as well as organizations (Paradise, 2007) and society by way of human capital formation (Leeuwen & van Praag, 2002). Effective training can also raise performance, improve morale, and increase an organization's potential. Poor, inappropriate, or inadequate training can,

however, be a source of frustration for everyone involved (Gomez-Mejia, Balkin, Cardy, Dimick, & Timpler, 2004). Nickols (2000) recognizes the importance of training and notes that training is a management tool, not the private domain of those who specialize in its development or delivery, nor of those who make its development and delivery contingent upon some other methodology. Training designs may include before training, after training, and control Group (Pine and Tingley, 1993).

Training typically poses a number of challenges and every training process brings with it a number of questions that managers must answer. Gomez-Mejia, Balkin, Cardy, Dimick, & Timpler (2004) note these questions to include: Is training the solution to the problem? Are the goals of training clear and realistic? Is training a good investment? Will the training work? All these questions are predicated on sound theoretical frameworks about training. For instance, on whether training is the solution to the problem, it is understood that not all performance problems call for training. Performance deficits, according to Gomez-Mejia, Balkin, Cardy, Dimick, & Timpler (2004), can have several causes (unclear or conflicting requests, morale problems, and poor-quality materials), many of which are beyond the workers' control and would therefore not be affected by training.

The need to ensure that goals of training are clear and realistic underscores the fact that goals should be able to both guide the training program's content and determine the criteria by which training effectiveness will be judged. On whether training is a good investment, Gomez-Mejia, Balkin, Cardy, Dimick, & Timpler (2004) opine that training can be quite expensive. However, there are indications that when money is wisely used, training is definitely worth the investment. Gomez-Mejia, Balkin, Cardy, Dimick, & Timpler (2004) further write that what distinguished the most successful from the least successful manufacturing industries (plants) were three mutually supporting characteristics including extensive use of work teams, extensive delegation of responsibility to

production workers, and giving training more emphasis.

The question regarding the workability of training presupposes that adequate preparing for training is important. On this issue, Gomez-Mejia, Balkin, Cardy, Dimick, & Templer (2004) state that training will not work unless it is related to organizational goals. A well-designed training program flows from the strategic goals of the company. It is the manager's responsibility to ensure that training is linked with organizational goals (Gomez-Mejia, Balkin, Cardy, Dimick, & Templer, 2004).

What is training evaluation and why evaluate training

There is much evidence suggesting that a considerable part of organizations' investment in training does not result in optimal transfer (Scaduto, Lindsay & Chiaburu, 2008). Managers and organizations are always interested in evaluating the costs of training in relation to the expected benefits of training. In not a few cases, however, managers and organizations may face dilemmas about certain kinds of training; to conduct or not conduct training. To maximize the benefits of training, managers must closely monitor the training process. The training process consists of three phases: (1) needs assessment, (2) development and conduct of training, and (3) evaluation. In the evaluation phase, the effectiveness of the training program is assessed (Gomez-Mejia, Balkin, Cardy, Dimick, & Templer, 2004).

Evaluation of training poses a problem for many trainers, managers, executives, and other professionals with an interest in training (Kirkpatrick, 1959; 1998). This problem is partly due to the *conspiracy of failure* that poorly conceived and haphazardly implemented training create in many organizations. Conspiracy of failure has to do with the minimization of the importance of integrating training with organizational strategy, assessing learning needs, ensuring the transfer of training from instructional to work settings, evaluating training results, and (most important) achieving performance gains and productivity (Rothwell, 2005).

Rothwell's *Theory of Visible Activity* states that customers of training think that high profile activity automatically means results and, therefore, that offering much training automatically improves employee performance. Of course, such a view is mistaken. The time has come, notes Rothwell (2005), to move beyond training as a quick fix (or fix-all) and to focus instead on applying a wide range of human performance enhancement (HPE) strategies. It is also time to emphasize the strategic and long-term role of HPE efforts and to transform training and development professionals into HPE Specialists (Rothwell, 2005).

Any effort to evaluate training is complex. For this reason Kirkpatrick (1959; 1998) emphasizes the importance of being clear about the purposes of and the audiences for any such evaluation. Training specialists and evaluators should be clear on what is to be evaluated and why it should be evaluated. Due considerations must be given to what the learning is supposed to do (e.g. change behavior, shape attitudes, improve job performance, reduce defects, increase sales, and enhance quality). Due attention also needs to be paid to important efficiency questions such as how much time does the training consume? Can it be shortened? Can we make do with on-the-job training or can we completely eliminate training by substituting job aids instead? There is also need to address cost-related questions such as: What does the training cost? Whatever it costs, is it worth it? Who says? On what basis? What are we trying to find out? For whom? The preceding questions illustrate the complexity of any effort to evaluate training and emphasize the importance of being clear about the purposes of and the audiences for any such evaluation (Kirkpatrick (1959; 1998).

Gomez-Mejia, Balkin, Cardy, Dimick, & Templer, (2004) have advised on the need to remember the differential gains of training and development when generating and evaluating training programs. They note that training strongly influences present performance levels, while development pays off in terms of more capable and flexible human resources in the long run. It is due

to these differences that taking a development approach to improve current job performance problems, for instance, will probably prove ineffective. For these same reasons, using a training approach to affect a long-range issue is likely to be futile. Training is one of the most frequently utilized human resource development interventions (Scaduto, Lindsay, & Chiaburu, 2005).

Training efforts are often expected to result in transfer of training as well as training maintenance. Transfer of training is defined as 'the degree to which trainees effectively apply the knowledge, skills, and attitudes gained in a training context to the job' (Baldwin & Ford, 1988). Training maintenance is defined as the reproduction of trained skills in a new setting, and training generalization refers to the adaptation of trained skills to a more complex situation.

Burke and Baldwin (1999) note that there is much evidence suggesting that a considerable part of organizations' investment in training does not result in optimal transfer. It is in order to improve job performance that the skills and behaviors learned and practiced during training have to be transferred to the workplace, maintained over time, and generalized across contexts (Holton & Baldwin, 2003). Due to the fact that transfer of training remains an important issue for researchers and practitioners (Holton & Baldwin, 2003), it becomes important to test models that include training effectiveness predictors.

Training programs are among the first areas to take a hit when the economy falters. Cutting training willy-nilly can create more problems than it solves. Effectiveness can be measured in monetary or non-monetary terms. However it's measured, it is important that the criteria by which the training is judged reflect the needs that the training was designed to address Kirkpatrick (1959; 1998). For instance, a training program designed to increase workers' efficiency might justifiably be assessed in terms of its effects on productivity or costs, but not in terms of employee satisfaction. According to Kirkpatrick (1959; 1998), the evaluation

phase is often neglected (due to difficulty in collecting data as well as time and other resources). This is akin to investing and not caring to know if one is receiving an adequate (or any) return on investment. If direct measures of training cannot be done, it is advised that estimates and costs of the training should at least be made (Kirkpatrick, 1959; 1998). This is the one dependable way through which the value of training can be demonstrated and upper management may feel that there is compelling need for continuing the training effort.

Pine and Tingley (1993) identified four levels of training measurement or evaluation. These include the following:

1. Participants' reaction to the training at the time of the training.
2. Participants' learning of the content of the training.
3. Participants' use of their new skills and knowledge back on the job.
4. Company's return on the training investment.

According to Rothwell (2007), doing training evaluation consumes valuable time and resources. All of these things are in short supply in organizations today. Managers and organizations should bother about the effectiveness of training because many training programs fail to deliver the expected organizational benefits. Therefore, having a well-structured evaluating system in place can help you determine where the problem lies. Even more positively, being able to demonstrate a real and significant benefit to your organization from the training you provide can help you gain more resources from important decision-makers (Rothwell, 2007).

It is also important to realize that the business environment is not standing still. Rothwell (2007) notes that competitors in business, technology, legislation and regulations are constantly changing. What was a successful training program yesterday may not be a cost-effective program tomorrow. Thus, being able to measure results will help one adapt to such changing circumstances (Rothwell, 2007).

Kirkpatrick (2007) has discussed six reasons to evaluate. These include the following:

- Determine whether a programme should be continued: Kirkpatrick (2007) notes that using evaluation in this regard is at best sporadic. The belief that "more is best," he adds, tends to rule the day. Therefore retiring courses seems to happen by default rather than by not design.
- Improve a programme: This process is carried out by looking at available background data and determining if there are any snags that break the chain from the learning process to the desired results.
- Ensure learning compliance: This measure is important because it ensures efficiency.
- Maximize the value of training: This helps to provide clues about how learning contributes to bottom-line results. On this, Kirkpatrick (2007) advises that before demonstrating value, one should make sure that training is adding value.
- Align training with strategy: The basic premise here is to ensure that training is aligned with the expectations for particular programs and curricula (Kirkpatrick, 2007).
- Demonstrate the value of training: Kirkpatrick (1959; 1998) and Kirkpatrick (2007) talk about this in terms of justifying our existence as training professionals. By knowing the audience to which you are trying to demonstrate value, you can gather data and information accordingly and present strong evidence that effective training led to targeted learning, which contributed to critical on-the-job behaviors that influenced the bottom line (Kirkpatrick, 2007).

Measuring Training's Effectiveness and Impact

Sullivan (1998) discussed a variety of ways that training can be measured. These include (1) Prior to training (2) At the end of training (3) Delayed Impact (non job) (4))

On the job behavior change (5) On the job performance change and (6) Other measures. Measuring training prior to training entails obtaining information about issues such as the number of people that say they need the training during the needs assessment process and the number of people that sign up for the training. Evaluating training at the end of training could be done by ascertaining: the number of people that attend the session; the number of people that paid to attend the session; customer satisfaction (attendees) at end of training; customer satisfaction at end of training when customers know the actual costs of the training; a measurable change in knowledge or skill at end of training; ability to solve a "mock" problem at end of training; and willingness to try or intent to use the skill/ knowledge at end of training (Sullivan, 1998).

The delayed impact (non-job) training measurement has to do with knowing: customer satisfaction at X weeks after the end of training; customer satisfaction at X weeks after the training when customers know the actual costs of the training; retention of knowledge at X weeks after the end of training; ability to solve a "mock" problem at X weeks after end of training; and willingness to try (or intent to use) the skill/ knowledge at X weeks after the end of the training (Sullivan, 1998).

In regards to measuring training on the basis of on the job behavior change, Sullivan (1998) states that an evaluator would be interested in: trained individuals that self-report that they changed their behavior / used the skill or knowledge on the job after the training (within X months); trained individuals who's managers report that they changed their behavior / used the skill or knowledge on the job after the training (within X months); and trained individuals that actually are observed to change their behavior / use the skill or knowledge on the job after the training (within X months).

A training evaluator who is interested in measuring training on the basis of on the job performance change would take note of: trained individuals that self-report that their actual job performance changed as a result of their changed behavior / skill

(within X months); trained individuals who's manager's report that their actual job performance changed as a result of their changed behavior / skill (within X months); and trained individuals who's manager's report that their job performance changed (as a result of their changed behavior / skill) either through improved performance appraisal scores or specific notations about the training on the performance appraisal form (within X months) (Sullivan, 1998). Other information to look out for under this type of training measurement would be: trained individuals that have observable / measurable (improved sales, quality, speed etc.) improvement in their actual job performance as a result of their changed behavior / skill (within X months); the performance of employees that are managed by (or are part of the same team with) individuals that went through the training; departmental performance in departments with X % of employees that went through training; and ROI (Cost/Benefit ratio) of return on training dollar spent (compared to a firm's competition, last year's performance, other offered training, preset goals etc.) (Sullivan, 1998).

Other measures of training that Sullivan (1998) has highlighted include:

- CEO / Top management knowledge of / approval of / or satisfaction with the training program.
- Rank of training seminar in forced ranking by managers of what factors (among miscellaneous staff functions) contributed most to productivity/ profitability improvement.
- Number (or %) of referrals to the training by those who have previously attended the training.
- Additional number of people who were trained (cross-trained) by those who have previously attended the training. And their change in skill/ behavior/ performance.
- Popularity (attendance or ranking) of the program compared to others (for voluntary training programs).

Kirkpatrick's Four Levels of Evaluation

The Kirkpatrick's model of measuring training effectiveness consists of four levels:

Reactions, Learning, Transfer, and Results (Kirkpatrick 1959, 1994, 1998; Winfrey, 1999; Kirkpatrick, 2007).

Level 1 Evaluation - Reactions

Evaluation at level one (reactions) measures how participants in a training program react to it (Winfrey, 1999). He adds that the reactions evaluation level attempts to answer questions regarding the participants' perceptions. For instance, did they like the training? Was the training material relevant to their work? Kirkpatrick (1994) advises that every program should at least be evaluated at this level to provide for the improvement of a training program. Furthermore, the participants' reactions have important consequences for learning (level two). Although a positive reaction does not guarantee learning, a negative reaction almost certainly reduces its possibility (Winfrey, 1999).

Level 2 Evaluation - Learning

Assessing at level two (learning) takes the evaluation beyond learner satisfaction and attempts to assess the extent learners have advanced in skills, knowledge, or attitude. Measurement at this level is more difficult and laborious than level one (Winfrey, 1999). Methods range from formal to informal testing to team assessment and self-assessment. To assess the amount of learning that has occurred due to a training program, level two evaluations often use tests conducted before training (pretest) and after training (post test) (Winfrey, 1999).

Level 3 Evaluation - Transfer

The objective of level 3 evaluation is to measure the transfer that has occurred in learners' behavior due to the training program. According to Winfrey (1999), evaluating at this level tries to answer the question - Are the newly acquired skills, knowledge, or attitude being used in the everyday environment of the learner? Winfrey (1999) further notes that, for many trainers, this level represents the truest assessment of a program's effectiveness. Nevertheless, measuring at this level is difficult as it is often impossible to predict when the change in behavior will occur,

and thus requires important decisions in terms of when to evaluate, how often to evaluate, and how to evaluate (Winfrey, 1999; Kirkpatrick, 1994).

Level 4 Evaluation- Results

For many training experts (Kirkpatrick 1959, 1994, 1998; Winfrey, 1999; Kraiger, 2002) and Krishnaveni & Sripirabaa (2008), level four evaluation is frequently thought of as the bottom line. This level of evaluation attempts to assess training in terms of business results. That is to say that the level measures the success of the training program in terms that managers and executives can appreciate - increased in production, quality improvement, decrease in costs, reduction in frequency of accidents, sales increases, and even higher profits or return on investment (ROI) (Winfrey, 1999). From a business and organizational perspective, Winfrey (1999) notes that level four evaluation is the overall reason for a training program, yet level four results are not typically addressed. Obviously, determining results in financial terms is difficult to measure, and is hard to link directly with training (Winfrey, 1999).

In Kirkpatrick's four-level model, each successive evaluation level, according to Winfrey (1999), is built on information provided by the lower level. Evaluation, according to Kirkpatrick (1959; 1994, 1998) and Winfrey (1999), should always begin with level one, and then, as time and budget allows, should move sequentially through levels two, three, and four. Information from each previous level serves as a base for the next level's evaluation (Winfrey, 1999). Thus, each succeeding level represents a more precise measure of the effectiveness of the training program, but at the same time requires a more rigorous and time-consuming analysis (Winfrey, 1999).

There also exist evaluation methods that are specifically meant for long-term assessment of training results. Winfrey (1999) identifies these long-term evaluation methods to include the following:

- Sending post-training surveys;
- Offering ongoing, sequenced training and coaching over a period of time;

- Conducting follow-up needs assessment;
- Checking metrics (e.g., scrap, re-work, errors, etc.) to measure if participants achieved training objectives; and
- Interview trainees and their managers, or their customer groups (e.g., patients, other departmental staff).

Issues with training evaluation

As desirable as training evaluation is, it is not without some issues. Nickols (2000) argues that training in actual fact only eliminates deficiencies and in turn reduces mistakes, errors, defects, and waste. However, training is not in itself a solution to a performance problem. He further argues that the only way to prove that training is successful is to shut down the training. As it is applicable to some other things, it is sometimes the case with training that the true measure of its value lies in its absence, not its presence, but shutting down training is hardly a practical way of testing that proposition (Nickols, 2000).

Evaluating training essentially depends on the perception of the person doing the evaluation. Nickols (2000) asserts here again that what is of great value to one person is of little or no value to another. In evaluating training, therefore, it is important to know one's audience (the person or persons for whom the determination of value is to be made).

Training does compete for resources and these resources ideally should be allocated before any effort can be undertaken. This means that, from the resource allocation perspective, the case to be made concerning the results of training must be made before the training is conducted, not after as it is a common practice (Nickols, 2000).

Gibbons (2004) summarizes key issues on the evaluation of training and development activities. He notes that most organizations do not thoroughly evaluate training and development events and that most line managers are not actively involved in the process of evaluating training and development activities, but we must not assume they don't want to

be. Gibbons (2004) further observes that many individuals and organizations oppose spending time on evaluation on the basis that it would cost too much even as few if any line managers have the development of their staff really spelled out within a job description, or focused upon at appraisal. Consequently, training is often not optimized.

Kirkpatrick (1959, 1998) and Kirkpatrick (2007) are of the view that training evaluation methods may not always be applicable across board. For instance, a method that was used to evaluate a sales training workshop may not be used in an exact way to evaluate an engineering skills building workshop.

Also of note is the fact that learners themselves receive little or no attention during most evaluation efforts. According to Gibbons (2004), this is a very serious omission, as trainees' acceptance of the need to learn; their level of engagement and contribution; their motivation, and their willingness to confront transfer barriers are absolutely crucial to the successes of any event or activity.

Conclusion

In line with Nickols (2000) assertion, the concluding point to be made here is that to properly evaluate training requires managers to think through the purposes of the training, the purposes of the evaluation, the audiences for the results of the evaluation, the points or spans of points at which measurements will be taken, the time perspective to be employed, and the overall framework to be utilized. Only then can training and its evaluation produce gains that advance organizations overall set goals.

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