Companies invested $56.2 billion (U.S) in training in 2008. As much as 70% of training provides no measurable return on investment. Organizations that reinforce new skills and link them to corporate strategies have the best shot at making training a profitable proposition.

The Direct Path to Training ROI

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WHITE PAPER

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Abstract

You are a Senior Manager who believes that a number of people on your team could benefit from having better presentation skills. You look at a few brochures or perhaps you ask your training department for recommendations. You select a course and arrange for your staff to attend. They spend two days attending the course and come back to the office with lots of enthusiasm and confirm to you that the course was highly enjoyable. You are pleased that they enjoyed the course and feel comfortable that they now all possess great presentation skills.
The team has been trained and this can only be good news for the business. Or is it?

Managers expect to see an immediate impact as a result of the training and if it does not happen quickly (and often automatically) the managers usually come to the conclusion that the training was a waste of time.

The above scenario outlines the typical approach that a large number of managers and companies adopt when it comes to training. Simply identify a skill deficiency, build or find a course with the "right" learning objectives, send your staff to the course, and assume everything is now fixed – yet it rarely is. This white paper delivers five-step process that will help your organization assess your real business needs, align your solutions with your corporate strategy, deliver active learning, increase accountability and measure results.

The Underlying Problem with Training

Research from the American Society of Training & Development

1. Within 24 hours, without active reinforcement as much as 70% of what you learn today can be forgotten.

2. Up to 90% of people who attend a training course do not look at or review their course notes or materials when they return to the office.

2007 ASTD Industry Report

The information in the tables and figures in this page illustrate the problem with training and development. Research shows that people do not retain much of the training content that they are exposed to in training, and rarely use the training materials after the course is completed. Yet, as shown in Figure 1, companies are spending an enormous amount of money on training events with the hope that performance and results will improve.

Figure 2 shows that 98% of companies continue to report having problems with sustaining a high level of performance despite the substantial investment in training employees.

Training professionals are not producing the significant and lasting changes that management is paying to produce through learning.

Figure 1
Training Expenditure (U.S.) in Billions

2000	$54.0 B
2001	$56.8 B
2002	$54.2 B
2003	$51.3 B
2004	$51.4 B
2005	$51.1 B
2006	$55.8 B
2007	$58.5 B
2008	$56.2 B

Figure 2
Percentage of U.S. and European Companies Reporting Problems in Obtaining High Performance

No Problems	2%
Problems	55%
Serious Problems	43%

Many training initiatives are reactive in nature. An influential executive notices a skill gaps or deficiency and prescribes training as the remedy without careful consideration for the long-term benefits. In fact, training alone will rarely, if ever, provide for lasting and productive change in the way people do their jobs. People are able to change only if they have an understanding of the reasons for that change and can recognize a personal benefit if they do change their behavior (Langdon, Whiteside and McKenna, 1999).

Organizations must recognize that training alone is rarely the solution. Training typically impacts individual performance whereas in a business setting, results are typically produced by a team of people acting in concert to achieve an objective. These people may have different incentives and barriers to their individual performance, such as different compensation plans, tools and systems to use in doing their jobs and the types of rewards and recognition that are available. These barriers and incentives must be addressed in order to determine if training is part of the right solution to drive the desired behaviors and results.

Recommendations

To successfully design and implement a training program that delivers positive results for your organization, we recommend the following steps:

1. Assess Your Business Needs

The first step is to determine precisely what gaps exist between desired outcomes and the current state. Determine this gap by:

a) Assessing the existing skill set and level of your employees.
b) Analyzing the organizational practices that drive or impede new ways of doing things.
c) Reviewing existing training curriculum to measure the extent to which it delivers necessary skills, knowledge and attitudes.

Use this information to establish a baseline of today's performance and to identify the proper solutions.

2. Align Your Solution with Corporate Strategy

The solutions you choose must be aligned with the long-term strategic direction of your organization. In the case of a training solution, we recommend that your company:

a) Align training expenditures in direct proportion to corporate goals.
b) Centralize accountability for producing high-impact training.
c) Solicit input from all levels of the organization on alignment and proper solutions.

3. Deliver Active Learning

The best training solutions apply the principles of adult learning and respect the needs, limits and strengths of the participants. Active learning requires:

a) Experience: courses should be highly customized and reflect experiences from outside the classroom while creating relevant simulated experiences within the classroom.
b) Engagement: Courses must be designed using a variety of teaching methods and media, and be entertaining to prevent boredom.
c) Evaluation: Learners must have opportunities to give and receive feedback on their progress throughout the learning experience to maximize application and retention.

4. Hold People Accountable

The lack of post-training reinforcement is the primary reason for a failure to achieve improved performance. You can increase accountability by:

a) Making expectations and desired results clear to management and participants prior to training.
b) Having managers attend the training with their reports to create a shared learning experience.
c) Promoting post-training reinforcement by mandating the use of the tools, skills and knowledge delivered in the training.
d) Tracking results and providing prompt, specific feedback on participant performance after training.

5. Analyze Results and Calculate ROI for a Limited Number of Programs

a) Level One & Two Analysis
At a minimum, a robust Level One & Level Two assessment should be conducted for all training to ensure participant satisfaction and that, at the conclusion of training, the new skills and information were delivered and understood.

b) Level Three Analysis
For complex skills or to guarantee compliance, a Level Three analysis will measure retention and assess to what extent the new information and skills have been transferred from the classroom to the field.

c) Level Four & Five Analysis
It is unwise to attempt a Level Five analysis for every training program. We recommend that one or two high profile, high-impact programs are selected each year for a complete Level Four (business impact) and Five (ROI) analysis.

1.0 Assess Business Needs

Traditional needs assessment is a tool for (1) identifying the gaps between current results and desired results and (2) prioritizing the gaps according to the difference between the cost of closing them and that of ignoring them (Kaufman, 1998). Most organizations take the first step and fail to follow through with the second. We propose a three-pronged approach to assessing business needs:

1) Determine organizational barriers for top performance,
2) Conduct a gap analysis on employee performance, skills and attitude, and
3) Establish a baseline to measure ROI individually and organizationally.

Key Questions

Finding honest answers to the following questions will help in assessing your organization's ability to obtain a return on investment for your training:

1. **Do the lessons taught in training have long-term strategic benefit?**
2. **Are the economic benefits tied to improvement of the identified skills? For the organization? For the individuals?**
3. **Have training interventions worked in the past? What worked? What didn't?**
4. **Are lessons learned in the training process able to be reinforced in the workplace?**

1.1 DETERMINE CURRENT & DESIRED STATE

1.1.1 Assess the Organizational Practices

The ability of an organization to sustain the delivery of quality products and services is inextricably tied to the culture of the organization. The mission, vision and strategy of the company provide the direction and foundation for the culture, and there are three major deterrents to promulgating a culture that sustains high performance:

1. The organization fails to measure and reward behaviors that drive long-term strategic direction.
2. Leaders are not held accountable for improving their performance or their team's performance in regard to driving strategy.
3. Employees are rewarded even when the quality of their work is below expectation in terms of long-term improvement.

These indicators must be assessed prior to deciding on the proper mix of interventions to improve individual, team and corporate performance. Training may prove to be part of the solution, but creating and sustaining a high performance culture will usually require more than a training initiative.

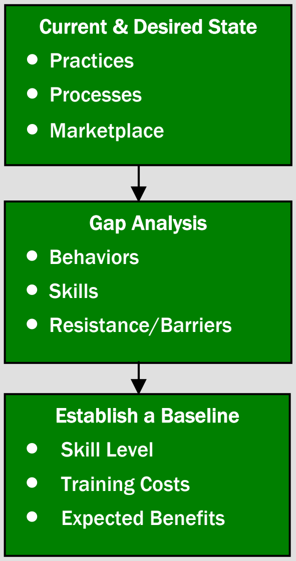
1.1.2 Assess Internal Processes

The infrastructures within an organization must be well coordinated in order for a company to create and sustain high performance. Most of the time, tasks are organized into job functions and departments. A better approach is to create a performance management framework that link's the company's core business strategies with day-to-day operational processes across functions.

Kaplan and Norton (1996) recommend a *balanced scorecard* as one way to translate strategy into a set of processes that drive financial growth, customer knowledge, and learning and growth. Understanding the way that internal business processes drive or impede the execution of corporate strategy is critical before defining the interventions that will improve results.

FIGURE 3

A Complete Assessment System



1.1.3 Assess the Competitive Marketplace

There is often a gap between the current state of the marketplace and the strategic direction of a company (Owen, Mundy, Guild and Guild, 2001). Symptoms of this gap are a lack of understanding customer's needs and desires, that people are rewarded for the wrong behaviors, and a failure to be responsive to emerging marketplace expectations.

To improve your organization's capacity to create and sustain high performance, conduct a marketplace assessment that compiles data from the customer, employees that interact directly with the customer and, if possible, data from your company's competition. This will give you a snapshot of what you are doing well, what you are not doing well and what your competition is doing.

From this point, you have an opportunity to select the proper set of interventions. The next phase of the process requires that you conduct an objective analysis of the current skills, knowledge and abilities of your employees, and what drives or impedes performance.

1.2 GAP ANALYSIS

A true gap analysis requires observation of behavior and a careful unbiased analysis of data to:

- Define successful performance in ways that can be measured.
- Identify the skills that are required to achieve successful performance.
- Gauge the level of employee motivation for change.

1.2.1 Behaviors: Define Successful Performance Behaviorally

Employee productivity and performance is usually measured in terms of outcomes with the goal being to increase output per employee. This is typically stated as revenue per employee. While this is simple, the approach has limitations especially when the target is too ambitious (Kaplan and Norton, 1996). One problem is that the costs associated with achieving the revenue are not included.

An alternative approach is to measure the *ways* in which successful performance is achieved in concert with a set of key business results. Managers in many organizations have reported that when success is measured in terms of hitting a short-term sales quota, they often find it difficult to adhere to prescribed professional development processes, information systems processes or strategic initiatives. They feel pressure to simply "get it done" without regard to the long-term health of the company. It is important to stress the importance of investing for the future by defining successful performance in terms of the *ability to perform tasks* that drive business results.

1.2.2 Skills: Identify Gaps That Block High Performance

Many conventional training needs assessment processes only address the current situation (Langdon, Whiteside and McKenna, 1999). Problematic approaches include surveys that turn into wish lists for future training; focus groups that itemize the lack of resources or time; and processes that define an ideal sequence of tasks, attitudes and communication among disparate teams (Buelow, 2001).

This approach is flawed because it may result in short-term fixes that leave the underlying cause of sub par performance intact. Analysis techniques that correct this flaw focus on important workplace performance that can be measured in terms of time, quality and cost. Skill levels should be assessed by:

- Administering tests that require a demonstration of knowledge and ability to perform the job.
- An objective observation to identify the barriers to higher performance precisely.

The results of these tests and observations are then analyzed against the task definition of successful performance in order to prescribe the proper intervention.

1.2.3 Resistance: Assess Employee Attitudes

Assessing the attitude of the targeted population and the direct supervisors of that group completes the gap analysis. The success or failure of a training intervention is largely determined by the attitude of the participants as to whether they believe that the training will help them do their jobs better and result in increased recognition and reward. Surveys, interviews and focus groups are the most common techniques for collecting attitudinal data.

According to McCormick and Masie (2000), resistance to training can be offset by offering choices for training that respect personal learning needs and by making learning accessible with a minimum of disruption to the normal course of business. By offering a mix of delivery mechanisms, incentives for learning and growth, and on-the-job reinforcement, training initiatives can overcome resistance at an individual level.

1.3 ESTABLISH A BASELINE FOR MEASURING RESULTS

FIGURE 4
Expectations on Learning Impact on Corporate Performance

Substantially Better	4%
Moderately Better	44%
About the Same	36%
Moderately Worse	8%
Substantially Worse	4%

Source: ASTD LXCI Report – Nov 2008

Learning tends to be regarded as an expense, when it should be considered an investment. The reason that learning is regarded as an expense is because most training organizations do not report on business results or return on investment for training. The advantage of financial analysis is that once a training organization begins reporting on financial returns, training will be properly perceived as an investment.

Most businesses already collect the data necessary to establish a baseline for measuring ROI. Total sales, production output levels, profit margins, percentage of deals closed, employee retention rates, customer loyalty and satisfaction, employee satisfaction and efficiency are all examples of data that is commonly tracked and accessible by many companies.

The ROI process is imprecise, at best. However, it does not have to be precise in order to produce compelling data to decide whether training is a worthwhile investment of time and money. Guidelines for conducting a cost analysis are addressed later in this paper, but for now it suffices to say that a plan for measuring skill transfer and business results must be defined at the outset of each initiative in order to produce a reasonable statement of value at its conclusion.

2.0 Align Training to Corporate Strategy

During the 1990s, and continuing into the twenty-first century, training and performance improvement have become a mainstream function in many organizations (Phillips and Stone, 2002). Training executives report that strides have been made in developing key relationships between the training function and top management to integrate training as a critical part of the strategic and operational framework of their companies. The growing numbers of business unit heads and top management personnel that are directly involved in training purchase decisions provides evidence of these key strategic relationships (ATSD 2004 Industry Report).

FIGURE 5
Estimated Percentage of Companies that Link Training to Key Corporate Strategies

1. Customer Service	15.7%
2. Quality	15.2%
3. Production	14.5%
4. Retention	14.0%
5. Revenue	13.7%
6. Turnover	13.5%
7. Promotions	13.0%
8. Customer Loyalty	11.9%
9. Referrals	7.9%
10. Market Share	7.4%

2.1 ALIGN TRAINING EXPENDITURE WITH CORPORATE GOALS

Learning should not be viewed as designing and delivering content, but as an entity to be managed and integrated with other elements of your organization (Barge, 2004). Traditional approaches to talent development are not effective in widely dispersed, lean and rapidly changing organizations (Sullivan, 2005). Companies are not in the business of talent development, and therefore need simpler, management-driven approaches and tools to make continuous, self-directed learning and development an integrated strategic solution.

A critical first step in a strategic alignment of training is to identify the key performance indicators on which the top management team is measured and rewarded. This determines where training and development activities must be concentrated (Sullivan, 2005).

Alignment can be accomplished by implementing the following strategies:

- Allocate training dollars in direct proportion to corporate priorities.
- Charge business units directly for training costs.
- Increase training expenditure to the business units with the highest business impact.

2.2 CENTRALIZE ACCOUNTABILITY FOR TRAINING ALIGNMENT

Research suggests that regardless of industry, size of company, or geography – people are the primary determinant of business success (Lisle, 2005). There has to be integration between human resources, training & development, and business unit leadership in order to effectively manage and drive the strategic direction of your company. The keys to a successful strategic integration are:

- Consistent communication of corporate strategy.
- Align incentives with desired behaviors and results.
- Create a learning culture that rewards activities that drive corporate strategy and produce results.

The accountability for ensuring alignment between the organization's goals and training should be centralized in one person (such as a Chief Learning Officer) or a small cross-functional committee. This streamlines the coordination, strategic development and execution of alignment and gives top management one resource to look to for results after a training initiative.

2.3 SOLICIT INPUT FROM ALL LEVELS

Most training departments assign failure of development initiatives in some part to a lack of "top down" support and communication. Companies that base strategic decisions solely on the perceptions of the current management team, no matter how seasoned, are doomed to miss opportunities for leveraging strengths and will fail to successfully execute those strategies.

The reality is that "top down" decisions and communication takes too long to trickle down to the people charged with executing the strategy. In a strategically integrated culture, initiatives come from the people with the most current and accurate information about the competitive landscape – the customer-facing employees. When companies eliminate tedious hierarchies and invite every layer of the organization to be involved with decisions about which skills and knowledge are needed to execute the corporate strategy – there is an increased likelihood that these strategies will not clash with the personal values of the individual.

Senior executives want to see a direct connection between training and increased productivity. Ask anyone who has attended an "unaligned" training course. They want the same things – to do their job more efficiently and effectively; a boost in individual output that leads to increased compensation and recognition; more information and communication about what works and what doesn't (best practices); and greater empowerment to be creative and innovative on the job.

FIGURE 6
Percentage of Companies in the ASTD Top 100 with a FT Training Professional on the Executive Team

1. Business Services	100%
2. Construction	100%
3. Healthcare	100%
4. Hospitality/Retail	100%
5. Insurance	100%
6. Telecom	100%
7. Financial Services	95%
8. Manufacturing	88%
9. Technology	86%
10. Transportation	75%

The movement toward centralized accountability and strategic alignment began with GE Crotonville in 1955, and was followed by The Walt Disney Company and Motorola shortly thereafter. These learning organizations have become so widely regarded that their programs are often made available to suppliers and customers as a profitable component of their business (Meister, 1998). Imagine training moving from being a department that requires corporate funding to a self-funding entity that may even contribute to the bottom line!

To be effective, strategic training must be governed by a structure that includes top management so that business units have a direct link to the initiative. The best-in-class companies have the direct involvement of the CEO in the learning direction and delivery. The most well known example is that of Jack Welch at GE. Welch became actively involved in delivering learning programs and said "what (I) hear is equally important as the knowledge, culture and stories that (I) impart to the classes." This example has been adopted by current and former CEOs at General Motors, Allied Signal, the Tennessee Valley Authority and other large organizations. These CEOs set an example for continuous learning and personify the lessons of strategic alignment by putting themselves in position to see and hear feedback on the direction of their organizations.

3.0 Active Learning

By understanding how adults *really* learn and applying this understanding to instructional design and delivery, trainers can create cost-effective programs with extraordinary creativity and power that will accelerate learning while producing retention rates that approach 90% (Maresh, 2000).

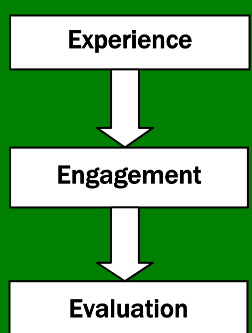
The goal for effective learning in a modern environment is to design *active learning* that creates real tension and competition in the classroom so participants are emotionally stimulated and content is embedded into long-term memory (MacLean, 1952). When teaching adults, the objective is to remind them of things that they already know in a way that they will never forget (Jankowski, 2003). To achieve this goal, it is necessary to:

1. Incorporate participant's past experiences into the classroom training;
2. Use a variety of training delivery formats to fully engage all types of learners, and;
3. Provide an entertaining experience to prevent boredom in the classroom.

3.1 EXPERIENCE

FIGURE 7

Active Learning Model



3.1.1 Customize Courses to Incorporate Business & Industry Experience

Adults learn by linking past experiences and knowledge to the new information being presented. There are several methods that can accomplish this goal. One way is to require participants to reflect on their past experience prior to the training session by completing pre-work. The pre-work for a negotiations program, for instance, may ask participants to describe deals that were successful and unsuccessful, and why they succeeded or failed. Instructors then use this information throughout the class to relate the lessons to the real life experiences of the participants.

Another method for including relevant experiences is to interview others with whom the participants interact, e.g. clients, vendors, co-workers, managers, etc. By relating the perspective of these people, instructors are able to extend the learning beyond the experiences of the participants in the classroom and offer a broader perspective.

A third method is to provide experiences from other companies as well as industries. If possible, facilitators should be able to speak from their own real life experiences in order to provide validity to the example, which in turn, enhances their credibility as an expert in the field.

FIGURE 8
Methods for Integrating Real Experience

1. Pre-work
2. Surveys
3. Interviews
4. Focus Groups
5. Facilitator Experiences

Create a Shared Experience Inside the Classroom

It is very effective to create common ground among participants by utilizing games, activities and exercises that utilize simple, concrete concepts in the safe metaphor of a competitive experience.

By sharing this common experience, adults can make the connection between the simulated experience and applying the information or skills in the real world (Thiagarijan, 2001).

3.3 ENGAGEMENT

Buzan (1991) states that the average adult can listen with *understanding* for ninety minutes, but can only listen with *retention* for twenty minutes. This means that adults need a change of pace by switching instructional techniques every twenty minutes. Pike (1994) developed the 90/20/8 rule for training: no single module can run beyond 90 minutes, the delivery mode must be changed every 20 minutes and people must be involved directly with the content every 8 minutes.

3.3.1 Active Learning Design and Delivery

Based on learning, teaching and motivation theories, as well as widely accepted research, the following active learning methods will drive real-time reinforcement. Active learning requires:

1. **A High Degree of Structure** – The facilitator must introduce the methods and tasks to be utilized with clarity and precision to avoid confusion and a breakdown to irrelevant tangents. Strict time limits and simple instructions are the key to success with each learning activity.
2. **A Limited Amount of Content** – Active learning focuses more on the process of learning than the content, thus content should be limited to that which learners "need to know" rather than piling on with content that is "nice to know". By clearly defining the learning objective for each activity, discussion or example, a skilled facilitator can accelerate the learning process and ensure a higher level of retention.
3. **A High Level of Participation** – Learners should be forewarned that an active learning design requires active participation in discussions, activities and by providing feedback throughout the experience. People who are accustomed to passive education may be uncomfortable in an active learning course, but assurances should be offered that no one will be singled out or embarrassed.
4. **Interdependence Among Class Members** – By requiring participants to 1) master content and teach it to other class members; 2) observe and provide detailed feedback to other class members; or 3) demonstrate skills in front of the facilitator and other class members, an active learning experience guarantees that the participants possess the new skills at the end of a course *and that they can recognize and reinforce these same skills after the course has ended.*
5. **An Iterative Process –** Each activity lays the foundation for the next so that exercises and simulations build upon and require repetition of concepts and skills that were learned earlier in the course. In this way, learning is reinforced and the participants have more opportunities to integrate the skills into their existing knowledge and understanding of each topic.
6. **Real-World Application -** Active learners are encouraged to apply the skills to their current business challenges throughout the course. The facilitator may ask participants to develop action plans or to write a personal case study to apply their new skills and knowledge.

3.3.2 Entertain By Using a Variety of Methods

Research shows that people understand concepts better and retain more information longer when they are actively involved in the learning process (Lawson, 2001). Active learning has been defined as "the process of getting the participants to do the work," (Silberman, 1998) so that participants teach and learn from each other after receiving detailed instructions on how to conduct an exercise from a skilled instructor.

3.4 EVALUATION

Evaluation of learning usually occurs at the end of a program when there is little opportunity for students to see or reap benefits from comments and feedback (Stockham & Amann, 1994). Another problem is that at this point it is too late for facilitators to implement changes based on the end-of-program evaluative comments from students.

In an effective active learning course, feedback is provided throughout the course by both the facilitator and peers. Methods for evaluating progress throughout the course include, but are not limited to:

- Tests and quizzes
- Structured observation with behavioral checklists
- Videotaped role plays that are analyzed and scored by peers and facilitators
- Demonstrations and “teachbacks” by participants
- Daily course feedback (for training that takes place over a number of days)
- Surveys and scored games

By employing these methods, facilitators can make adjustments to maximize the learning experience. It also makes it possible to provide detailed feedback to participants and their managers to focus coaching and other post-event reinforcement on the information and skills that need additional attention to take root.

4.0 Accountability to Drive Change

Case Study: Saturn

At Saturn Corporation, the five most frequently reported causes of failure to change behavior after training were:

1. A lack of reinforcement on the job after training
2. Interference from the work environment
3. A non-supportive culture
4. Impractical, irrelevant training
5. A lack of continual training

Kotter (1998) surveyed top executives in various organizations about barriers to the improvement of performance following training. His research found that the most frequent reason for a failure to change behavior is a lack of reinforcement for new behaviors on the job following training.

According to research conducted by Dr. Linda Moran, an Executive Consultant for an international training and consulting company, managers fail to reinforce training for the following reasons:

- A lack of time for reinforcement;
- A lack of understanding the content and skill;
- A lack of commitment to the outcomes of training.

There are three major stakeholders in the transfer of training process: managers (including executives, supervisors, and team leaders), trainers and trainees (Broad & Newstrom, 1992). Transfer also occurs in three different timeframes in relation to the training event: before, during and after. Post-program accountability begins before the training, and has to be referenced during the training event and immediately following the course in order to be successful.

Managers should be accountable for participating in the training process by:

- Making expectations and desired results clear to participants before training
- Attending the training with their team if possible
- Reinforcing skills by managing to the tools and coaching for desired skills after the training
- Tracking results and providing prompt, specific feedback to job performers

High quality training provides a set of tools and resources that can be easily accessed and utilized to reinforce new skills and track learner progress after a training initiative:

Case Study: Management Involvement in Training

GE is an excellent example of a company that has successfully created a learning culture (Schneier, et al. 1998).

At GE, Jack Welch regularly visited (and often led) courses at all levels of the organization not only to teach, but also to learn what was making a difference and what was not (Tichy, 1989). Welch believes that the "ultimate, sustainable competitive advantage lies in the ability to learn, to transfer that learning across components, and to act on it quickly. Welch acted on his belief and instituted and implemented his "work-out" learning programs across all of GE.

GE also looked to other world-class learning organizations such as Motorola (Six Sigma quality program) and IBM (Just-in time training) for inspiration when building their learning organization. The principles and practices of these pioneering companies are in place today at some of the fastest growing organizations in the world – Dell, Intel, and Pfizer to name a few.

SET EXPECTATIONS

Brinkerhoff and Montesino (1995) conducted a control group study with a large pharmaceutical company. For a randomly selected group of trainees, supervisors held pre-course discussions with trainees about the importance of the training, expectations for performance after training, and a plan for following up after the training. Another group of trainees received no pre-training information. Neither group of trainees was aware that they were part of a study.

Both groups were surveyed after the training. The group that experienced pre- and post-training interactions with their supervisors demonstrated significantly higher transfer of learning, fewer barriers to full performance of new skills, more practice opportunities and greater results than the group that did not have managerial support.

When managers establish accountability for improved performance before the training event, there is a significant increase in desired behavior. A brief personal meeting or call prior to training is the best way to communicate expectations (Pike, 2003).

4.2 MANAGER ATTENDANCE

Whenever feasible, it is strongly recommended that managers attend the same training session as their teams to observe and/or actively participate. This gives managers the chance to share the experience, hear first-hand about challenges and opportunities, and the manager learns the content of the program without the risk of key information becoming lost in the translation.

One risk is that the manager's presence may inhibit full disclosure and/or risk-taking by participants. While not insignificant, the risk is more than offset by the positives. Managers can be coached by facilitators before the class on their role in the classroom: to set a positive example by being open to new ideas, by fully participating and by withholding judgment or criticism. Having managers act as champions for new techniques, information and behaviors can enhance many classes.

When manager attendance is impossible, they can support trainees by eliminating distractions, planning for the trainee's return to the field, and checking in to see how things are going.

4.3 POST-TRAINING REINFORCEMENT

Managers must be active participants in the reinforcement process after training. There are three factors that affect post-training performance:

1. **Managing to the Tools –** Managers must utilize the job aids, tools, and other resources in their daily management of tasks and people after the training.
2. **Coaching for Improved Performance –** Managers must consistently provide direction and support for the desired performance after the training.

If the trainees are unable to perform after training due to the absence of one or more of these factors, then the training solution will not fix the problem. The process starts with a brief post-training discussion of the participant's plan for implementing the new skills and the manager's commitment to providing resources and feedback to the learner. Managers should set expectations that job aids and other reinforcement tools must be utilized and will be used as a springboard for future developmental coaching.

Managers must also incorporate the new skills into the formal performance appraisal process to ensure measurement, specific feedback and consequences for any shortcomings in performance after receiving the training. The old training anecdote "that which is measured, gets done" is perhaps the most important responsibility of the manager in reinforcing post-training behavior change.

4.3.1 Tools

A. Job Aids

There are several benefits to job aids for post-training reinforcement. Job aids are inexpensive and decrease reliance on memory; support decision-making and critical thinking; address the challenges of less skilled employees and rapid turnover; and job aids support cross-training by increasing the ability of people to transfer positions (Rossett and Gautier-Downes, 1991). Job aids are particularly effective when new behaviors involve complex processes, consequences of error are high and employees are expected to behaviors in new ways with new standards in mind (Reynolds and Anderson, 2002).

B. Computer-Based Learning

Computer-based training (CBT) is defined as "an interactive learning experience between a learner and a computer in which the computer provides the majority of the stimulus, the learner must respond and the computer analyzes the response and provides feedback to the learner" (Gery, 1987). A good CBT system must be easy to use; intuitive; be consistent, offer context-sensitive prompts; provide feedback and offer "bookmarks" to allow users to quit and resume later.

E-mail campaigns are a simple and efficient method for reinforcing key skills and concepts after training. The messages can be customized to specific groups and audiences, and can be sent on a pre-determined schedule for a number of weeks following the learning event. Links to other learning recourses, assignments and solicitations for success stories or future training can be communicated in this way. To be most effective, the e-mail should be sent from a key executive or training sponsor to avoid deletion as spam by participants.

C. In-Service Learning Guides

In-service learning provides the learner who requires human interaction with the opportunity to review and practice skills with others. Subject matter experts or managers in the business environment typically deliver in-service training. This method is particularly effective when a skill can be reinforced via group discussion and requires peer or supervisor coaching (such as selling, presenting or negotiating).

The challenge is to ensure that a skilled facilitator delivers in-service reinforcement. Training providers must develop detailed step-by-step guides to assist the inexperienced manager to guarantee consistent demonstration of the new skills and concepts, as well as suggest questions for effective debriefing. In-service reinforcement provides a forum for managers to demonstrate a commitment to developing their people and an active role in implementing the new skills. Participants benefit from a consistent message and the opportunity to provide feedback to management on what is working well, and the challenges they are facing as they implement new skills.

D. Online Resources

Online resources provide learners with an easily accessible repository of reinforcement materials that can be used when it is most convenient or necessary. Studies have shown that most learning is most effective and long lasting when it happens immediately before a skill is needed (Whitney, 2005).

By providing online tools such as asynchronous courseware, web-based communities, bulletin boards, pre-recorded web classes and links to internet resources, companies encourage people to become self-directed learners. Learning becomes much more powerful when the learner has choices as to what areas of knowledge and skills are needed to get things done and then may choose the media from which to derive that knowledge or skill.

4.4 Coaching

Coaching is most effective when done in a real-time environment (such as accompanying a sales representative on the road or directly observing task performance) and should be offered only after the coach has demonstrated mastery of the new skills and the ability to teach those skills (Murray, 1999). Another best practice is for managers to assign coaches to performers, because when people are allowed to choose their own coach they tend to choose people very much like themselves, thereby diminishing the opportunity for honest and productive feedback (Huang & Lynch, 1995).

Ideas for Reinforcement

1. Administer tests
2. Collect action plans
3. E-mail campaigns
4. Give credits for reinforcement activities completed
5. Certify people who master skills as mentors
6. Reward results achieved as a result of using new skills

Hearn, 2005

Coaching is particularly effective when skills are complex and require subjective consideration in addition to an objective assessment of skill. Books, audio CDs and video-based training that are used after training can significantly enhance a coach's ability to effectively reinforce the skills delivered in the course. Managers must be able to recognize the new skills, communicate the new information and provide feedback on learner performance. These tools, in effect, act as coaching guides for the manager and promote consistent application of the new skills.

4.4 TRACKING RESULTS

The use of computer-based tests, assignments and surveys to track post-training performance is an excellent way to gauge learner progress and to keep skills and information fresh. Many industries with complex services or products, such as pharmaceuticals and telecommunications companies, have used electronic testing and surveying to measure their sales representatives level of knowledge, skills and abilities for years.

A. Surveys

Electronic surveys can be utilized to collect information on the frequency with which learners use their new skills and the perceived utility of those skills and the information delivered in a training program. The benefits of using computer-based survey tools include:

- Inexpensive to develop and distribute
- Intuitive
- Electronic collection and analysis of data
- Higher return rates than paper-based surveys

B. Computer-Based Testing

Tests should reference the specific learning objectives of the course, as well as provide opportunities for learners to demonstrate application of the skills to realistic situations (King, King and Rothwell, 2000). Advancements in electronic testing make it possible today to administer tests to: 1) measure knowledge via closed and open questions; and 2) apply skills via case studies that require proper decisions given a specific set of circumstances. Computer-based testing is an easy and reliable method for tracking retention and learning growth over a period of time following a training event.

5.0 Analyze Results and Measure ROI

Companies are increasingly interested in demonstrated results in a world where stakeholders are held accountable for prudent spending and increased profits. Kirkpatrick's five levels of training evaluation are the established standard for planning and assessing the results of training programs.

5.1 LEVEL ONE: Reaction

The first level of evaluation measures the participant's reaction to the training experience and is usually administered as a paper survey at the conclusion of the class. The Level One evaluation is important because it is a measure of learner satisfaction with the training. One risk is that the Level One results may be more closely correlated with the non-training components of the program (quality of food, room temperature, or a trainer's sense of humor) than the relevance of the content to enhance participant performance.

5.2 LEVEL TWO: Learning

Courses that administer written tests or that require a demonstration of the new skills and measure performance using a skills checklist or other similar objective method are conducting a Level Two evaluation. Knowledge can be measured in the classroom by pen-and-paper testing and/or performance testing where the learner must demonstrate a new skill.

The first two levels establish a minimum standard for professional training evaluation.

FIGURE 9
Percentage of Training Programs Analyzed by Kirkpatrick's 4 Levels

Level	% of Programs
1: Reactions	Near 100%
2: Learning	50%
3: Skill Transfer	30%
4: Business Results	20%
5: ROI	10%

Phillips & Stone, 2002

5.3 LEVEL THREE: Transfer

A Level Three evaluation measures behavioral change on the job, including the specific application of special knowledge and skills delivered in the training program (Kirkpatrick, 1985). It is measured after the training has been implemented in the field. Level Three evaluations require post-training data collection, which can be accomplished via surveys, interviews, observation, focus groups, and/or special assignments related to the training (such as presentations, action plan follow-up or performance monitoring) (Phillips & Stone, 2002).

Reliability of Data

The most reliable source of post-training data are performance records and reports that can be reviewed at the individual or department level. The best Level Three studies utilize a control group that has not received the training and compares those results with a test group of training participants.

Most organizations use the self-reported data from the participants themselves. Trainees can provide a rich source of anecdotal evidence of the frequency and utility of the new skills and knowledge, but the risk for bias in this data is significant. Self-reported data is most reliable when it is corroborated with the observations of supervisors and peers.

5.4 LEVEL FOUR: Business Impact

The Level Four evaluation is regularly neglected by organizations due to the expense associated with such a rigorous analysis. The Level Four evaluation measures the impact of the training on specific business results desired by the organization. It often yields data such as cost savings, output increases, improved response time, customer retention, customer satisfaction and profitability.

5.4.1 Isolating the Effects of Training

The first step is to identify all of the possible factors that could have an influence on a change in performance at the outset of the training initiative. Common variables that can influence post-training performance are:

- Market factors
- System changes
- Incentive plans
- Other training

Strategies for isolating the effects of training are listed in the shaded area on the right.

5.4.2 Converting data to monetary values

Most business impact evaluations stop with an analysis of business results such as customer retention, improved productivity or decreased error rates. While this is adequate for many organizations, research shows that it is possible to reasonably covert this data into financial terms and to express the outcomes in the language of business: money (Phillips. 2002).

It is critical to separate the "hard" data from the "soft", although each has its own purpose and validity. Hard data are the traditional objective measures of performance that have high credibility with corporate management: sales, time, profits, output and quality. Soft data are more objective and harder to measure, but because many training courses are designed to change "soft" variables, such as absenteeism, turnover, customer satisfaction, and morale, this data has value as well.

It is advisable to utilize as many "hard data" sources and measurements as possible to raise the level of credibility assigned to your evaluation. Using multiple strategies also enhances the validity of your report. By assigning values at the outset of the training initiative, a reasonably accurate estimate of the financial value of a training program is achievable.

Strategies for Isolating the Effects of Training:

1. Control groups
2. Trend Line Analysis
3. Forecasting
4. Estimating
5. Customer Input

Strategies for Converting Data to Monetary Value:

1. Convert output to contribution
2. Calculate the cost of rework
3. Establish value of employee time
4. Measure sales cycle time
5. Calculate profit margins

To Convert Data Into Monetary Values, use:

1. Historical costs
2. Expert estimates
3. Objective databases
4. Participant's estimates
5. A link with other measures
6. Manager's estimates

Case Study: A Level Four Evaluation

One large financial institution measured business impact after a negotiations training program. After adjusting each participant's estimated business impact by their level of confidence in their estimates, an increase of $1,727,500 has been realized in deals that would not have been won if not for attending the training course.

- Shapiro Negotiations Institute, 1998

5.5 LEVEL FIVE: Return on Training Investment

The ROI approach has been referred as the 5th level of evaluation (Phillips, 1997). This type of evaluation offers value, because learning budgets can be determined by how much the investment is worth. Organizations have limited resources and face continuous pressure to control costs. If you have aligned your training goals with the strategic objectives of the organization, then a Level 5 evaluation must be considered.

Before embarking on an ROI analysis, a reasonable determination of how long this particular training will be relevant to the strategy of the business must be agreed upon. Many factors can render a training program obsolete: a change in strategic direction, discontinuance of a product or service, budget constraints, and/or full attendance by all employees are some typical examples. A conservative approach must be applied to determine whether it is worthwhile to pursue an analysis of return on training investment.

The costs associated with conducting the evaluation must be considered before embarking on a rigorous analysis. To be credible and effective, the potential benefits of evaluation and measurement must be greater than the costs associated with the training initiative (Brown, 2005). The costs of the necessary reinforcement components - i.e. accountability, coaching, performance management and process improvement – should be counted toward the final investment figure.

5.5.1 Credibility of Level Five Analysis

Level 5 Evaluation

1. **30% of CLO-led training organizations use ROI evaluation today.**
2. **Most organizations choose 5-10% of training programs for Level 5 studies.**
3. **80% of major learning organizations want to perform ROI studies in the future.**

Phillips, 2005

A comprehensive study of training ROI begins by conducting a Level Four analysis:

1. Isolate the effects of training, and
2. Convert these effects into monetary values.

For a Level 5 evaluation to be credible across the organization, all management levels must have input when establishing the relevant measures that training is designed to impact (Lilly, 2001). Accurately estimating the number of times a course will be offered, the number of employees that will attend, the dollar value of units of improvement and the extent to which training will impact results requires a high degree of planning, insight, and clearly defined objectives. It is imperative to reach consensus on the target measures at the outset of training.

Once consensus has been achieved in regard to which measures will be analyzed, the next steps are to calculate the true cost of training and to conduct a comparison between those costs and the value of the effects of training.

5.5.2 Calculating the Fully Loaded Cost of Training

Determining the direct costs of training is relatively straightforward. The charges for course development, and the wages and salaries of all people involved in developing, delivering and attending the program are easily obtained. Outside vendors, equipment costs and the cost of materials and space are also routinely included in a Level 5 analysis.

Here is a list of other costs that are associated with having employees attend training:

- Lost productivity (sales, customer response time, customer satisfaction, etc)
- Administration (marketing, registration, testing, documentation, telephone calls, postage, etc.)
- Logistics (travel, lodging, meals)
- Travel time (to and from training)

Most Level Five evaluations fail to recognize costs that are more deeply "hidden". For example, many training programs will actually produce a *reduction in performance* initially during what is commonly referred to as the "learning curve". Performers may struggle to adopt the new skills and this may have a temporary negative impact on productivity in the days and weeks following a training event. If the organization has reached consensus about the value of a unit of productivity, this can be calculated and tracked as well.

By collecting all of these values and adding them together, you will discover a reasonable factor known as *fully loaded costs.*

5.5.3 Comparing the Costs of Training to the Value of the Effects

After data have been collected, isolated and converted, all that remains is to calculate what Phillips (2000) refers to as the *benefit-cost ratio (BCR)* and the *return on investment (ROI)*.

Step 1: Calculate the Benefit-Cost Ratio

To do this, the analysts apply the benefits to the numerator of the formula and compare it to the fully loaded costs of the training initiative:

$$\mathbf{BCR} = \frac{\mathbf{Benefits}}{\mathbf{Cost}}$$

For example, if the total benefits of a training program are found to be $530,000 and the fully loaded costs of that program are calculated to be $112,000, the BCR becomes:

$$\mathbf{BCR} = \frac{530{,}000}{112{,}000} = 4.73$$

This indicates that for every dollar spent on the training program, the benefit-cost ratio is 4.73:1.

Step 2: Calculate the ROI

Applying the BCR when the total benefits from the training program are $530,000 and the fully loaded costs of the program are $112,000, the ROI is calculated as follows:

$$\mathbf{ROI} = \frac{\$530{,}000 - \$112{,}000}{\$112{,}000} = 3.73 \quad \text{X } 100 \quad = 373\%$$

This calculation yields an ROI of 373% after isolation and using fully loaded costs.

5.5.3 Risks Associated with ROI Analysis

1. Challenges to Validity
Many executives will question the validity of training ROI analysis when they are not accustomed to seeing training results expressed as a return on investment. One way to counter this resistance is to provide a simple explanation of the methodology used to arrive at the ROI figure. Management will usually support an analysis that is logical and based on understandable data.

2. Sensitivity to Time
Always consider the time element associated with conducting a thorough analysis. Executives and line managers often interpret research studies as time-consuming and a waste of resources, especially if they were not involved with the decision to pursue the answers that the research provides (Phillips, 2000). To minimize negative reactions to time expense, use sampling to collect data and the simplest methods possible to limit disruption to the normal course of business.

3. Liberal Estimating
It is important to use the most conservative alternatives when estimating in an ROI calculation. Any liberal estimating will diminish the validity and credibility of the research and results. Furthermore, extreme data points and unsupported claims should be excluded from ROI calculations.

4. Overcomplicating the Process
The ROI process is imprecise and refinements are always possible (Lilly, 2001). It is advisable to avoid complicating the ROI research unnecessarily in order to pinpoint the most precise data possible. The key is to balance what is best for the study with what is best for the company and other stakeholders.

Shapiro Negotiations Institute (SNI) is the premier provider of comprehensive negotiations training in the United States. Specializing in highly customized programs, SNI is committed to helping its clients obtain higher returns on their training investment. SNI has helped over 200,000 professionals from companies such as JP Morgan Chase, ADP, MBNA, Storage USA, Ortho Biotech, TV Guide, Verizon, WebMD, and Columbia TriStar Television Distribution.

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