Why Training

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Opening Vignette

Alicia is the training manager for a medium-sized manufacturing company. There are about 4,500 employees in the company, most of whom are located in the United States and Canada. The company, Elite Products, has grown at a moderate level and is considering expanding into one or more of the BRIC countries (Brazil, Russia, India, and China). Alicia knows that, in order to assist with this continued growth and expansion, she and the rest of her department (five trainers and two administrative assistants) will have to adapt their practices to where the business needs to be to meet its goals.

The Training Department reports through human resources, with Alicia reporting directly to the vice president of human resources. Alicia is in her mid-thirties and has been pursuing a master's degree in human resource development (HRD) at the local university. All of her staff are college graduates, with an average of five years with Elite Products. Alicia has been with Elite for eight years now and also has a bachelor's degree in industrial engineering. Her knowledge of Elite's business processes and the level of respect that the company has for her contributed to her advancement through the ranks. When she was asked two years ago to head up the training department, she saw it as an opportunity to expand her knowledge of the company into the human resource arena. She has done well, and the reputation of her department is solid.

As part of her master's program, she was recently exposed to a course entitled "Performance Consulting Practices." The instructor had considerable business experience and had been teaching this course and others

for nearly ten years. To say the least, the experience opened Alicia's eyes to a world that she intuitively knew was there, but one for which she felt unprepared. The ideas that the instructor shared touched on much of the unrest that Alicia had been feeling since assuming her position. At the top of the list was the feeling that the training her department provided, while well received by participants and management alike, was somehow missing the mark in providing real value to the goals of the organization. After completing the course, Alicia was more determined than ever to put some of the ideas she had learned into practice.

Alicia's concerns are not uncommon among human resource professionals today. With a growing level of accountability to show results, Alicia has good reasons to question the practices she's experienced. As performance consulting concepts are developed in the coming pages, we'll revisit Alicia's challenge to see how she applies what she's learning in her world.

To better understand the transition that people like Alicia are going through, we need to appreciate the pressures that are compelling the training profession to re-examine itself. This chapter will clarify where we are, why we need to change, and what that change might look like.

THE CHANGING FACE OF TRAINING

The reason we're beginning a book on performance consulting with the topic of training may not be obvious at first glance. For years now, the two fields have been closely linked for a number of reasons:

- Most of the thinkers and practitioners who have influenced the field of human performance improvement/performance consulting came from the instructional design/learning/training field.

- Most organizations that have evolved a performance consulting function began the journey from a training and human resource perspective.

- The two professional organizations that focus a great deal of their attention on performance consulting — The International Society for Performance Improvement (ISPI) and the American Society for Training and Development (ASTD) are closely associated with training and instructional systems design disciplines.

In spite of these origins, training and HRD (human resource development) professionals have searched for methodologies that address the factors influencing human performance and what it means to be a performance improvement specialist. Very few organizations have an individual or a department called "Performance Consulting." Instead, when authentic performance consulting is done at all, it is generally performed by organization development specialists or trainers/instructional designers who see the need to expand their field of vision. Recent developments, particularly in the areas of increased accountability and advanced technology, however, have opened up enormous opportunities to apply performance consulting practices to a wider range of organizational challenges.

This publication is designed to take you from a training and HRD perspective to a performance consulting perspective. There will always be a need to train people in critical skills, knowledge, and attitudes, but success in the future will be driven by the successful application of a variety of human performance tools.

To help with this journey, we'll begin by looking at the current state of training—what is being accomplished and what is likely to develop in the near and far term that will have an impact on the profession. New approaches to learning are evolving before our eyes, and everyone who has a role in performance improvement has to be aware of these advancements. We also must know where the power of training ends and the need for alternate approaches to human performance improvement begins.

A NEW WORLD

As we move through the second decade of the 21st century, new business challenges, political upheavals, the influence of other disciplines, and new technologies have driven considerable change over the years. While this evolution will continue at a dramatic pace, the challenge is to decide where we think this evolution is going and get in front of it as effectively as we can.

For example, 2011 may prove to have been a pivotal year. Tremendous political change was driven, at least in part, by the application of technologies such as Facebook and Twitter. Social networking dramatically demonstrates the power of instant knowledge and on-demand learning. Brian Solis (2012) offers a thought-provoking explanation of how product and service branding and marketing have already been dramatically affected by the social networking phenomenon. These

technologies offer an as-yet untapped resource for dramatically altering the way we learn and how we work.

While predicting the future may be a fool's errand, some mega-trends are exerting increased pressure on human resource professionals.

Growing Skill Gaps

There is an increasing emphasis on talent management and the growing skills gap. This gap can be defined as the inability to fill a job requiring a particular set of skills or knowledge. Manufacturing is particularly affected by this phenomenon. The United States is going through a shift from a goods-producing economy to a service economy. Many of the high-growth sectors, though, will be unable to fill the jobs that will be available because of a shortage of skilled labor. While this puts a tremendous burden on our elementary, secondary, and higher education institutions, it also has an impact on who we hire, how we treat them once they're on board, and, in particular, how we provide learning and development opportunities.

A report entitled "Help Wanted: Projections of Jobs and Education Requirement Through 2018" (Carnevale, Smith, & Strohl, 2010) points out the following:

1. More than sixty million of our prime age workforce—between twenty-five and fifty-four years old—are working in jobs that require a high school degree or less. That economy is receding fast, leaving these workers unable to meet the skill requirements of the new jobs of the future.

2. Hundreds of thousands of manufacturing and natural resource jobs have been destroyed by recession and won't be coming back. The new jobs will require employees with postsecondary skills, and there is an inadequate supply of these skills available.

3. Technological development and the skills that come with it favor workers with more education because they have the expertise to handle more intricate tasks.

4. By 2018, the economy will create 46.8 million job openings, and two-thirds of these jobs will require at least some college education.

As our education system struggles to meet this demand, training organizations will need to be prepared to address the gaps. As resources are strained, there will be an increasing emphasis on productivity, efficiency, and performance in order to take advantage of the resources that are available.

Increasing Need for Alignment

There is an increased focus on aligning training with organizational strategy and business goals. *Chief Learning Officer* (Donovan, 2012) reported on the results of a joint ASTD/Institute for Corporate Productivity study that showed a strong correlation between goal alignment and market performance as well as alignment with the learning function in meeting corporate goals. While 61 percent of the learning leaders believed that it is critical that their learning goals be aligned with business goals, the most commonly cited barrier to alignment was a "lack of full understanding of the business." But what does this mean in relation to the evolution of human resources?

Becker, Huselid, and Ulrich (2001, pp. 3–4) describe the evolution of the HR function (and, by association, the training function) as shown in Table 1.1.

This evolution suggests the need to integrate all human performance-related tasks with the overall goals and strategy of the organization. As this shift occurs,

Table 1.1
The Evolution of the HR Function

Perspective	Description
The Personnel Perspective	The firm hires and pays people but doesn't focus on hiring the very best or developing exceptional employees.
The Compensation Perspective	The firm uses bonuses, incentive pay, and meaningful distinction in pay to reward high and low performers.
The Alignment Perspective	Senior managers see employees as strategic assets, but they don't invest in overhauling HR's capabilities. Therefore, the HR system can't leverage management's perspective.
The High-Performance Perspective	HR and other executives view HR as a system embedded within the larger system of the firm's strategy implementation. The firm manages and measures the relationship between these two systems and firm performance.

Table 1.2
The PARC Blueprint

Component	Description
People	The employees and contractors who represent the company's competitive position and drive execution of the company's blueprint. This includes the selection, retention, reward, and compensation systems.
Architecture	How the organization structures and governs itself.
Routines	Formal and informal procedures, processes, and habits as captured by policies, procedures, workflows, and tacit knowledge.
Culture	Individuals' commonly held values and beliefs in the organization.

the silos that normally separate functions will disappear, requiring new and innovative ways of measuring individual and unit success.

There are numerous approaches to addressing the lack of business knowledge among learning professionals available in the marketplace today. Donovan (2012) cites one such approach with the PARC model which suggests that a company "blueprint" can lead to a thorough understanding of the organization at a strategic level. This blueprint contains four components, seen in Table 1.2.

While it's difficult to argue the value of this type of information, Silber and Kearny (2006) point out that in the workshops they've conducted over the years for performance consulting practitioners, "fewer than 10 percent can answer very basic business questions about the organizations they work in or work with as consultants" (p. 55). To address this shortcoming, the authors propose the "Business Logics Model" as a framework for guiding practitioners in their quest to understand their clients' organizations.

The model addresses seven critical components of any organization:

1. External logic — the opportunities and threats that the organization faces

2. Economic logic — how the organization makes a profit

3. Strategic logic — the purpose of the organization

4. Customer logic — how the organization attracts and retains customers

5. Product logic — how the organization's products and services appeal to customers

6. Process logic — how the organization creates, produces, and delivers its products and services

7. Internal logic — how the firm organizes itself to accomplish its work (p. 59)

These factors, among others, should be used as guideposts for our performance consulting function when providing solutions or looking for opportunities to add value to the business.

Exercise

Reflect for a moment on the organization you serve. How effectively could you supply information for each of these seven categories? Do you know where you'd go to get the information you don't have?

- Category 1 — External Logic:

- Category 2 — Economic Logic:

- Category 3 — Strategic Logic:

- Category 4 — Customer Logic:

- Category 5 — Product Logic:

- Category 6 — Process Logic:

- Category 7 — Internal Logic:

Shift from Training to Learning

Another trend that is having an impact on the training and performance aspects of our organizations is the shift away from training as a separate activity to a greater focus on learning: what we need to learn, when we need to learn, and the best methods for providing learning opportunities.

This shift represents the move away from activities that are done *to* someone (the formal training event) toward a situation in which someone needs a specific piece of information in real time and can access this job-specific information almost instantly. Two of the biggest challenges that training has always faced are (a) how effective the training has been in enhancing memory retention and (b) how effectively the training content will be transferred to a real-world job setting. With the increasing ability to access specific information when and where it's needed, the role of training and those who have been responsible for it is being re-examined. As the emphasis shifts to learning, those responsible for providing the motivation and support for learning will expand beyond the training department to include line management, information technology, and, of course, the learners themselves.

INTEL CASE

Intel (Galagan, 2010) is an example of a firm that views learning more as a process than an event. It has become a leader in promoting both informal and social learning. Social learning is a powerful tool for encouraging shared knowledge among employees, while information learning can provide much-needed performance support. The trend at Intel is to be able to provide users with exactly what they need at the moment they need it.

Related to this trend is a steady increase in the use of social media (e.g., shared workspaces such as Google Docs, social networks like Facebook and LinkedIn, Wikis, blogs, and others) for work-related versus personal use. As expected, the use of these tools tends to be more common among younger workers (i.e., the Millennials). These tools should lead to much more cooperation, communication, and co-creation. In addition, they should blur the distinction between instructor and learner, since much of what we'll need to know in the future will be generated in an on-demand, immediately available learning environment.

IBM CASE

IBM (2010) reports that it has shifted its emphasis from delivering formal learning modules to just-in-time performance support systems accessible through their mobile (smart) phones. More than 250 million Americans and more than half of the world's population today have mobile devices.

IBM partnered with Columbia University to learn how people use their mobile phones. This study led IBM to develop their "Mobile Blue Pages," an internal company collection of resources available to sellers, consultants, executives, and technologists. This resource provides access to subject-matter experts and provides client-specific information in real time.

IBM initially made its employee development mini-courses available through Mobile Blue Pages, but found that most employees weren't using their mobile devices to access training. Time constraints and the need to access specific, client-related information were viewed as more critical than accessing courses on their mobile devices. The other critical success factor for Mobile Blue Pages was usability; that is, the interface has to be recognizable, easy to use, and uncluttered with irrelevant information.

IBM estimated that by 2012, one hundred thousand of its four hundred thousand employee workforce would be using smart phones for work-related activities.

As advanced technology becomes ubiquitous, performance improvement specialists will need to codify the most effective approaches to workplace learning that will answer the five Ws and the H (who, what, where, when, why, and how). For example, Gottfredson and Mosher (2011) emphasize an approach for identifying performance support interventions around five stages of learning:

- *Stage 1:* New (when people are learning a skill or knowledge for the first time)

- *Stage 2:* More (when learners are expanding their existing skills or knowledge)

- *Stage 3:* Apply (when the learner needs to act on what has been learned. The authors call this the "sweet spot" of performance support because it involves planning to take action, remembering what may have been forgotten since the last instructional event, and, finally, the ability to adapt to a unique performance situation)

- *Stage 4:* Solve (when problems arise or things don't work the way we expect them to)
- *Stage 5:* Change (when the learner is required to adapt or modify what he or she has learned or is used to doing in order to accommodate a new or unique situation)

A summit held at the Harvard Graduate School of Education (Wilson, 2009) brought together a variety of multidisciplinary experts to discuss the future of learning. One suggestion that emerged from these discussions was the need to refocus our emphasis away from more formal learning opportunities, including e-learning and mobile learning, toward the phases of learning in and around work activities. This notion is represented by what is known as "Learning IFF Action Models," where "I" describes practices that can be used IN or during the moment of performance; "F" represents learning that occurs FROM reflecting on just-completed performance; and the second "F" represents learning that occurs FOR (in advance of) performance. The model is shown in Table 1.3.

Table 1.3
IFF Action Models

Stage	Description	Key Elements
Learning IN Action	The development of knowledge and skills in the very moment of performance	Knowledge-building behaviors (seeking feedback, sharing information, asking for help, discussing errors, experimenting, monitoring performance, planning during down times)
Learning FROM Action	Learning practices such as ''after-action reviews''	Critical reflection on experience, extracting patterns and insights that will guide future practices
Learning FOR Action	Traditional approaches to learning: classroom, e-learning, workshops, etc.	Develop required skills prior to performance in non-threatening environment where mistakes can be made and corrected

All of the above examples point to the shift that's occurring away from traditional approaches to training toward a more realistic understanding of how we learn in a work environment and how to make that process as effective as possible.

Emphasis on Measurement

Among ASTD's *best* (exemplary) companies, there is an increased emphasis on measurement (linking training efforts to organizational metrics) and non-training solutions, particularly organization development, process improvement, and job-specific initiatives. While the majority of training organizations continue to collect evaluation on participant satisfaction (Level 1) and learning (Level 2), the demands to demonstrate accountability will increase the pressure to measure training's effect on the business and, particularly for major training projects, a cost/benefit analysis.

The Business Intelligence Board of *Chief Learning Officer* magazine (Anderson, 2011) projects that there will be more emphasis on "impact" in the near future than there has in the past. Specifically, Anderson reports that training will need to be "focused on results and more integration with actual work" and include a "greater emphasis on performance improvement" with a "focus on measurement" and "training outcomes" (p. 48).

Another example of how the field is addressing the shortcomings of traditional training approaches is the concept of evidence-based practice (EBP) (Ruark, 2008). This approach addresses what many see as the "more-art-than-science" approach that has been applied in most ADDIE (analysis, design, development, implementation, evaluation) practices.

EBP takes a more scientific, research-based approach to analyzing the cause-and-effect relationship between the work environment and the human performer. This practice is fundamental to most medical research and has gradually been adopted by some education research organizations. As Ruth Colvin Clark (2006) points out, however, there are challenges to applying scientific research-based findings to human performance interventions, including training:

1. Where is the evidence? Very few educational research studies involve experimental design approaches, and funding for such studies is very limited.

2. Does this evidence apply to my human performance/training intervention? Terminology varies for the same type of intervention, and we are challenged to extrapolate the results of one study to another study.

3. How can we access meaningful evidence? Even when research studies are found, they are often written to be read by researchers and not by practitioners.

4. How can we influence our clients to adopt evidence-based research? Practitioners need to embrace EBP themselves and then find resources that link research with practice.

These changes require new thinking and an approach that looks at all aspects of human performance. While the acquisition of new skills and knowledge will always be a requirement for successful organizations, our profession needs to adopt a set of tools that allow us to look beyond one type of intervention to all the factors that can affect human performance. For today's performance improvement professional, these tools can be found in human performance technology.

FROM TRAINING TO PERFORMANCE CONSULTING

To set the stage for our discussion, we'll need to establish a working definition of these two concepts. Here are Wikipedia's definitions:

- *Training* is the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills and knowledge that relate to specific useful competencies.

- *Performance consulting*, sometimes referred to as high performance consulting, is a subdiscipline of consulting that seeks to understand and develop a holistic strategy to change performance.

Going further, Addison (2004) defines human performance technology (HPT) as "a set of principles and applications focused on helping to achieve valued and lasting results through human activities within organizations."

The essence of the difference lies in these two definitions: training's focus is on skill and knowledge acquisition, suggesting that a performance improvement challenge is related to a deficiency (of skills and knowledge) in the individual performer and that performance will improve once the individual acquires these skills or knowledge.

Performance consulting, on the other hand, begins with no such assumption; rather, as the definition suggests, it "seeks to understand" the causes of a performance challenge and to then develop a "holistic" strategy to positively affect performance.

This is not to say that there is no role for training; on the contrary, skill and knowledge acquisition is becoming more and more important in the ever-changing global economy. At the same time, the emphasis among well-managed and high-performance companies is more and more on *learning* rather than on *training*. We'll make this distinction as we look at some of today's business trends.

TRAINING'S LIMITATIONS

To understand the shift from a training focus to a human performance improvement focus, we need to examine the limitations inherent in traditional training approaches and how these limitations drive the shift toward more comprehensive performance improvement interventions.

William Rothwell (1996) identified a number of problems with the traditional approaches to training:

1. *Training lacks focus.* The training function is known by many names as you go from one organization to the next. The function can be called "Training," "Training and Development," "Education," or others. Even its reporting structure varies across businesses. Members of a training department may have a number of roles beyond training, such as organization development, but the training label limits the organization's view of its function; that is, people call the training department with a prescribed solution (training) in mind.

2. *Training lacks management support.* The function, in the eyes of management, may not be viewed as important, credible, work-related, or effective. This stems from a number of factors, including the limited view referred to above or training's separation from the organization's strategic planning process. In some organizations, training is a "sunk" cost; that is, the business units aren't required to fund training and may feel little accountability for its impact on results.

3. *Training is not conducted systematically.* While performance-based training design models exist, training often ignores these procedures and develops a product that the client requested, ignoring who needs the training and who doesn't, how the training will be applied on the job, the actual gap that exists between what trainees are already doing versus what they should be doing, and how the training should be evaluated. Even when

a systematic approach is in evidence, the client base might resist because the process "takes too long." This puts the training function in a position of trying to justify the length of a process for which solid business impact metrics are lacking.

4. *Training is not linked to other organizational initiatives.* Much of the training that's delivered cannot be shown to support strategic or business unit objectives. In many cases, training is not adapted to the individual or to different audiences; everyone receives the same training at the same pace. Training is not often linked to performance management processes, hiring and selection decisions, and succession planning or reward systems. This results in a lack of follow-up beyond the actual training event. If training's purpose is to change behavior or improve performance, it has to be integrated with other "people" processes.

For a number of years now, the training field has placed a high premium on the value of technology to advance learning. While technology represents a huge potential to positively alter the training landscape, this transition has not been without its problems:

1. Technology has often been inappropriately applied. The rush to develop e-learning is a good example of how the technology often supersedes a thorough analysis process. Put another way, the solution was selected before the need was determined.

2. Very little research exists that demonstrates the overall effectiveness of technological interventions; rather, the focus, particularly for e-learning programs, tends to be on cost reduction. Josh Bersin (2004) points out that organizations that commit to e-learning in the name of cost reduction are, in effect, only shifting their costs from variable (e.g., instructor salaries and travel costs) to fixed (e.g., content development, technology upgrades). Bersin also points out that when we focus only on cost reduction, management's view of the training organization moves to that of a cost center rather than a strategic asset. This puts the training function in an untenable position when hard times come.

3. e-Learning is often developed by those with little or no instructional design or training background. As a result, slick products draw rave reviews, but their overall effectiveness on job performance is questionable.

4. Given the lack of thorough performance analysis that exists today, we may well be missing the most effective applications of technology and other interventions that would dramatically alter human performance.

Another issue that the training profession should address is its focus on activities at the expense of results. For example, a number of annual studies on the state of the industry report on activity measures rather than results measures. These activity measures include "training expenditures per learner," "annual training hours consumed per learner," "number of hours of training delivered," and many more. These are, in effect, input variables, not output variables. It's very rare to find a study that provides hard, rather than anecdotal, evidence that's linked to business results. As we'll see when we examine evaluation procedures in Chapter Fourteen, the majority of organizations today don't even attempt to evaluate training's effect on business results. We continue to rely on data that, at best, suggests that participants are happy with their training and that something is being learned, although to what extent we're not certain.

Recently the agency responsible for airport security reported that a foreign national had boarded a flight to Los Angeles using a boarding pass under someone else's name and an out-of-date identification card. He was permitted to board and completed the flight. The next day, he used the same identification card and another boarding pass that had someone else's name on it. Only when the flight reached its destination was he arrested. That evening, the head of the agency announced that they were going to retrain all security agents on proper security procedures to ensure that something like this wouldn't happen again.

This incident demonstrates today's unrealistic expectations of training's ability to solve problems whose causes may be unrelated to skills and knowledge. While training these agents will certainly heighten their sensitivity to proper security procedures, it's unlikely to reveal the real causes of the problem, such as poor work procedures, lack of incentives to perform, inadequate direction or supervision, and other possibilities. Worse yet, it's likely that the department responsible for training these agents will jump at the chance to enhance their department metrics that may include (a) number of people trained; (b) hours of training; (c) hours of training per employee, and so forth. These metrics focus on activities, but tell us very little about why the training was offered in the first place or how effective it was in altering on-the-job performance.

While performance consulting has been around now for well over fifty years, there is an increasing need to bring it to the forefront of our human resource and management practices. The recent recession, the impact on our economy, and global pressures make its adoption more important than ever.

For this to happen, though, we need to have a more comprehensive understanding of the factors that have a direct influence on human performance and how we can affect those factors to improve the performance of our workforce.

THE WORLD OF HUMAN PERFORMANCE

In 1996, Geary Rummler described his evolution from "programmed instruction" (the modern forerunner of e-learning) to human performance improvement specialist. This transition reflects the changes that a number of training specialists have gone through in their own careers and it should help us to transition from training to human performance improvement/performance consulting.

Rummler's "search" can be summarized as seen in Table 1.4.

If you study this evolution carefully, you'll notice some important markers:

1. In the early stages, the focus was on the learner and the learning content in isolation from the work environment.

2. As the focus shifted to understanding the human performance system, increased attention was placed not only on the worker but on the aspects of the work environment that can strongly affect behavior and performance.

3. In the final stage of evolution, the organization was viewed as an adaptive system that constantly changes based on the substantial feedback it receives about its performance. These changes, in turn, affect the work environment and the worker in that environment.

To return to the distinction between training and performance consulting for a minute, Rummler suggested that the essence of the relationship between training and performance can be captured in how the trainer responds to a request for training. The trainer-become-performance consultant should be asking:

1. Is training the solution to the problem?

2. Is training the best return on the training dollar?

3. Will training alone make a difference?

Table 1.4
Search for the Holy Grail

Phase	Description	Key Principles
1. Programmed Instruction	A systematic approach by which a trainer imparted skills and knowledge to the trainee	Design relied on subject-matter analysis
		Break down content into component parts
2. Focus on Results	Focus shifted from instruction and content to the learner's performance	Relied on Bob Mager's *Preparing Instructional Objectives*
		Focused on behavioral and task analysis
		Goal: behavioral change
3. Human Performance System	Focus placed on understanding the job environment in relation to six key factors	Performance specifications
		Task interference
		Consequences
		Feedback
		Knowledge and skill
		Individual capacity
4. The Organization as an Adaptive System	Process for viewing an organization from the outside	Organizations have two outputs: products/services and processing systems
		Organizations are processing systems
		Organizations must adapt to customer and market feedback
		Organizations exist in a larger environment (e.g., markets)

(*continued*)

Table 1.4
Search for the Holy Grail (*Continued*)

Phase	Description	Key Principles
	Process for viewing an organization from the inside	Organizations consist of critical processes that produce outputs
		Outputs need to meet customer needs and make money
	Organizational performance requirements drive internal process and sub-process requirements	
	There is linkage between performers in various departments	
	Every performer operates in his/her own performance system	

In most cases, training may be *one* intervention in dealing with a performance challenge, but it's usually not the *only* solution. Since the training profession has for a long time been in the mode of responding to training requests, the performance consultant must be armed with a sound process and strong negotiation and consulting skills to provide clients with what they *need* instead of what they think they *want*. These skills and competencies will be addressed in a later chapter.

A BRIEF HISTORY

In Chapter Two, you'll be introduced to the leading thinkers and practitioners who shaped the field of performance consulting. To appreciate their contributions, though, we need to have a better understanding of the underlying approach to the discipline and how it evolved from the 1960s to the present.

We'll begin our journey by going back to the beginning, when programmed instruction (PI) took root. A basic model of performance was spawned by the desire to take what had been learned in the behavioral labs and apply it to human behavior.

The initial approach involved three components: antecedents, behavior, and consequences, known as the ABC model shown in Figure 1.1.

This simple view of human performance suggested that some stimulus (antecedent) causes behavior (an action), which is followed by a result (consequence) that can be positive or negative. If the consequence is positive to the performer, the behavior is more likely to be repeated or strengthened.

Donald Tosti (2005) points out that he and others expanded the three-step model in the 1960s and created a five-step learning model, seen in Figure 1.2.

The antecedent component was broken into two components: "conditions," which define the environment in which the behavior will (or will not) occur; and "directions," which represents information or instructions meant to initiate and guide performance.

The consequence component was also broken into two parts: "motivational consequences," which encouraged or discouraged continual behavior; and "feedback," which provides information to the performer that will guide or modify future behavior.

These five components include:

1. *Support*—the physical and social environment that supports performance, including working conditions, tools, work structure, and policies

2. *Direction*—a clear description of what the performance is expected to accomplish or produce (output or outcome)
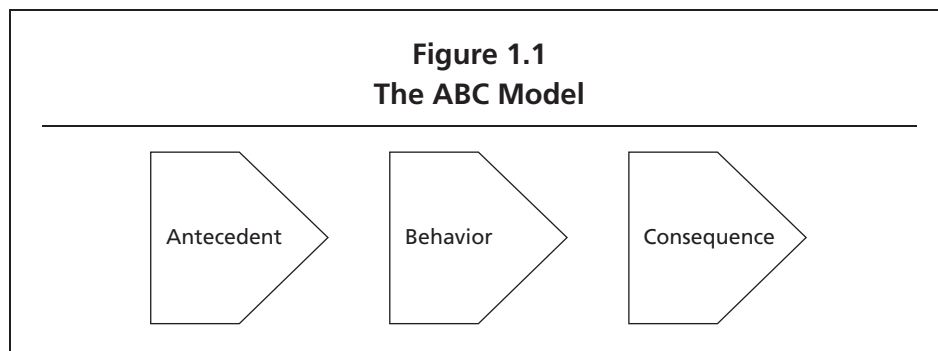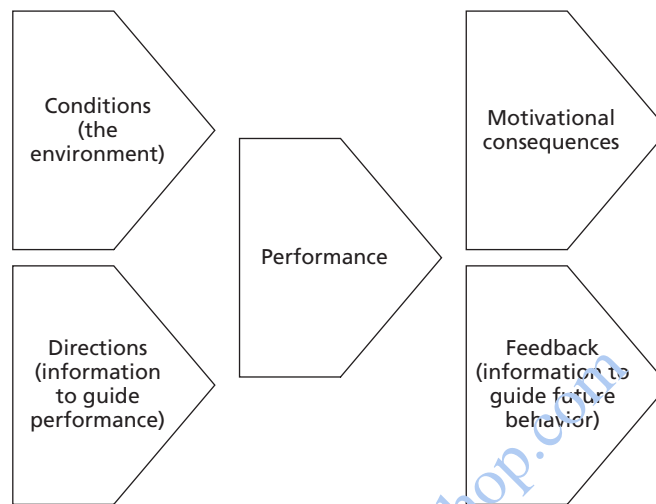

Figure 1.1
The ABC Model

Antecedent Behavior Consequence

Figure 1.2
Tosti's Five-Step Model

Conditions (the environment)

Directions (information to guide performance)

Performance

Motivational consequences

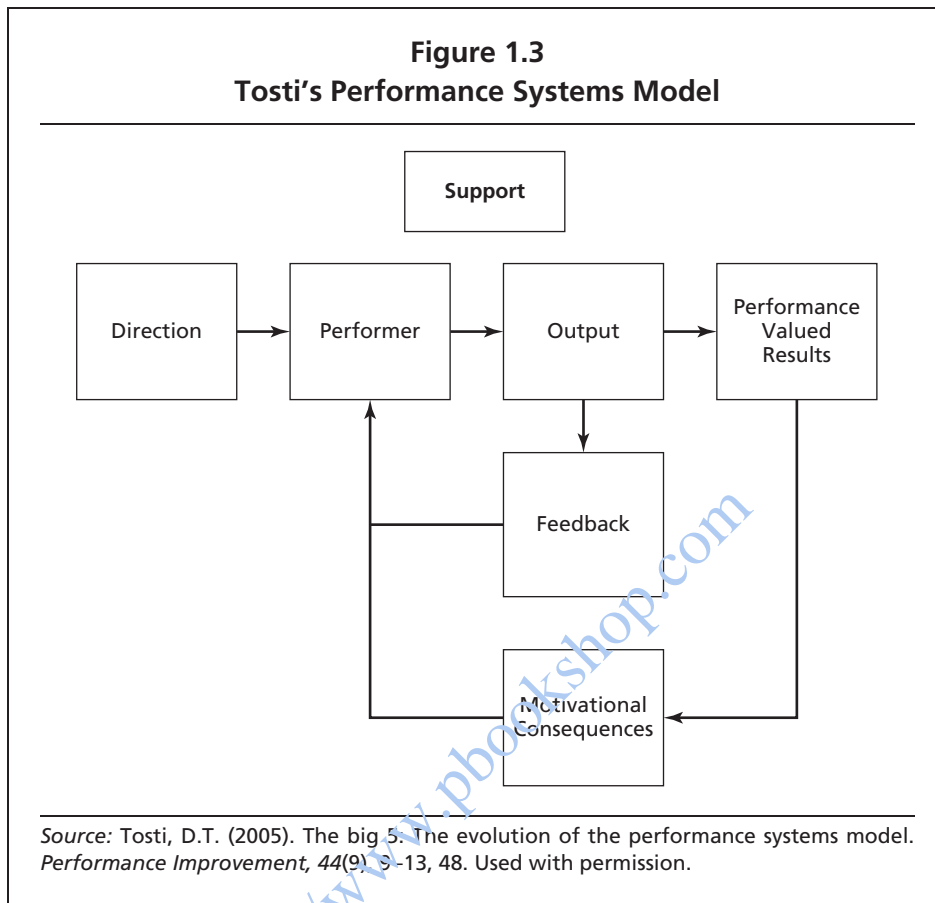Feedback (information to guide future behavior)

Source: Tosti, D.T. (2005). The big 5: The evolution of the performance systems model. *Performance Improvement*, *44*(9), 9–13, 48. Used with permission.

3. *Performer* — the person who produces the result or outcome. Here we need to know the performer's skills, knowledge, and attitudes

4. *Motivational consequences* — whatever occurs as a result of the performance

5. *Feedback* — information that comes back to the performer concerning the outcome or result that will change the direction of the result in the future

Dale Brethower began to represent performance as a system in the 1970s. His approach can be seen in Figure 1.3.

Now we can see a clear picture of performance and its influences emerging. These models, and the ones that followed, attempted to define a performance *environment* in which a number of factors were at play. This meant that a valid and reliable analysis of performance would need to include many variables without making a prior assumption of what was needed to solve a performance challenge.

In 1969, Tom Gilbert introduced his performance engineering model (later called the Behavior Engineering Model (1978). This approach focused on the

Figure 1.3
Tosti's Performance Systems Model

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                        ┌──────────┐
                        │ Support  │
                        └──────────┘

┌──────────┐    ┌──────────┐    ┌──────────┐    ┌──────────────┐
│Direction │───▶│Performer │───▶│ Output   │───▶│ Performance  │
└──────────┘    └──────────┘    └──────────┘    │   Valued     │
                     ▲               │          │   Results    │
                     │               ▼          └──────────────┘
                     │         ┌──────────┐
                     │         │ Feedback │
                     │         └──────────┘
                     │               │
                     │         ┌──────────────┐
                     └─────────│ Motivational │
                               │ Consequences │
                               └──────────────┘
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Source: Tosti, D.T. (2005). The big 5: The evolution of the performance systems model. *Performance Improvement, 44*(9). 9–13, 48. Used with permission.

performer and provided three reference points (information, instrumentation, and incentives) for both the work environment and the human performer. The model is shown in Figure 1.4.

This model became the fundamental building block for the field. In a simple and direct way, it described what we do (information), how we do it (instrumentation), and why we do it (incentives). As you'll see throughout the remainder of this book, with the B.E.M. Tom Gilbert laid out a path for those who followed.

One of Tom Gilbert's disciples and business partners, Geary Rummler (2005), describes the human performance system this way in what he calls "The Results Chain" in Figure 1.5.

Figure 1.4
The Behavior Engineering Model

	Information	Instrumentation	Incentives
Environment	Data	Tools and Resources	Bonuses Promotions "Att-a-boys"
People	Training	Capacity	Motivation

Source: Gilbert, 1978.

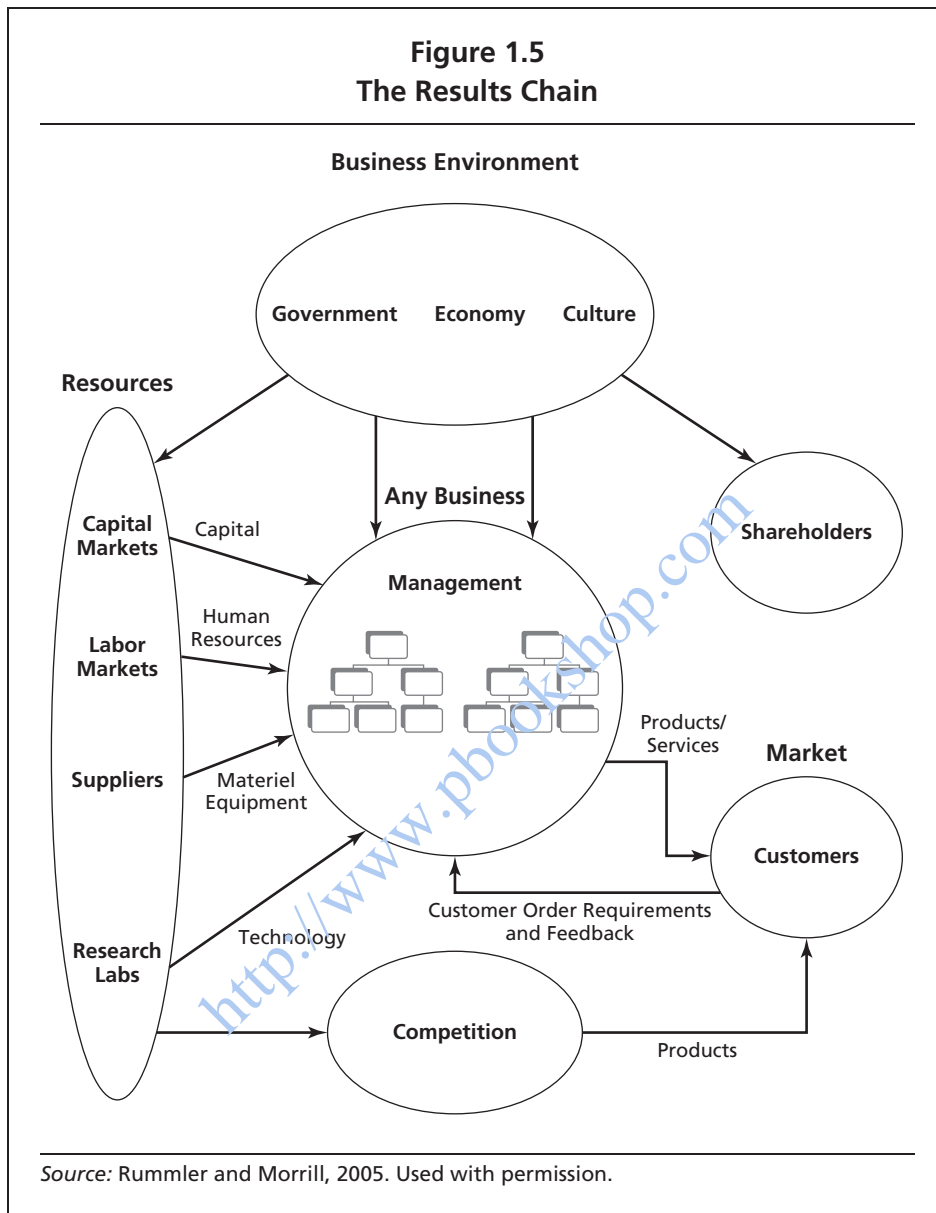Rummler and Morrill point out several factors about any human performance systems:

1. We all work in a processing system whose purpose is to convert customer needs into valued outputs.

2. The system is adaptive, constantly changing to reflect changes in any or all of its components.

3. The organization must guarantee alignment among the organization's strategies and goals, its business processes, and the jobs that support these processes.

Let's take a deeper look at each component of the human performance system and its implications for human resource management, in Table 1.5.

In recent years, there has been a great deal of focus on what constitutes a high performance work system, or HPWS (Pepitone, 2000). This approach to organization design is intended to maximize human performance in a work setting. These elements, modeled after high performing work teams, include:

1. A market-driven, versus an internally driven, design and operation. This design mirrors customer requirements and the external environment.

Figure 1.5
The Results Chain

Business Environment

Government   Economy   Culture

Resources

Any Business

Capital Markets — Capital →

Management

Shareholders

Labor Markets — Human Resources →

Suppliers — Materiel Equipment →

Products/Services →

Market

Customers

Customer Order Requirements and Feedback

Research Labs — Technology →

Competition — Products →

Source: Rummler and Morrill, 2005. Used with permission.

2. An optimized work system, designed to optimize human work performance and productivity.

3. Clear directions and expectations that reflect the purpose of the work, the output requirements, and measures of performance.

Table 1.5
Managing the Human Performance System

Category	Critical Components	HRD Implications
Input	Recognizable indications of the need to perform	Provide job training and coaching that replicates actual job conditions as closely as possible
	Necessary resources to perform	Ensure that the resources used by top performers are available to everyone and provide guidance in their use
	Necessary knowledge and skills to perform	Training and performance support focused on the required skills and knowledge
	Capacity to perform	Competency maps for each position
		Structured hiring practices
		Focused job placement—the right person in the right job
	Willingness to perform	Match incentives to what motivates the individual
Output	Standards for judging successful performance	Results-based, not activities-based standards
		Measurable and observable standards
		Standards clearly communicated to all job performers
Consequences	Sufficient, positive consequences to performance	Clearly identify the implications of positive (and negative) performance
		Establish fair and consistent consequences
Feedback	Frequent and relevant feedback on performance	Embed performance feedback into the performance management process
		Provide coaching or other performance support as needed

4. Empowered and self-managed work teams that decide how best to do the work and manage themselves.

5. Capacity to redesign the work process. The team has the ability to redesign the core work processes to meet changing customer and environmental demands.

6. Job flexibility and performance support. Roles and responsibilities are shared among the work team members, expanding each member's knowledge and capabilities while providing intrinsic motivation.

7. Supportive management systems and culture, including planning, budgeting decision making, and management processes.

8. Supportive human resource policies, including group-based selection of team members, skill-based pay, performance support, peer feedback, and minimal rank and hierarchy.

9. Open access to information about the environment, technology, variances in output, and relevant performance data.

10. Variance controlled at the source through the ability to detect errors at their source and correct them.

Exercise

Think of the job you currently have or one that you had recently. As you think about this job, list below as many elements (including tools, technology, resources, management support, team support, incentives, skills, etc.) as you can that contributed to you being a solid performer in that position. In other words, what needed to be in place for you to be a top performer?

Look at your list. How many of these factors can be learned in training? How many of them are skill related?

Human performance consulting shares its birthright with other disciplines, as we'll see in Chapter Two. Systems thinking in general has been prevalent for years, and one of the most significant contributions to systems thinking was Peter Senge's *The Fifth Discipline* (1990). In that publication, Senge pointed out that systems thinking requires a "shift of mind" toward "seeing interrelationships rather than linear cause-effect chains, and seeing processes of change rather than snapshots" (p. 73). This is the heart of performance consulting—a disciplined approach to seeing the effect of the whole rather than attempting to manipulate one aspect of performance (e.g., training).

Add to that the changing nature of work over time. As society moved from narrowly defined work characteristics of the Industrial Revolution to a more knowledge-based system, not only did the skill requirements change but

Table 1.6
Work Systems

Work System Feature	Mechanistic	Organic
Work assignment	Jobs with specialized and clearly defined tasks	Roles with broad responsibilities and flexible activities
Coordination and control	Supervision, defined roles, clear standards, training	Consultation among all with related tasks, subjective measures, changing goals
Communication	Top-down	Multidirectional, networks
Supervision and leadership	Non-participative, loyalty to superiors	Participative; stress on team, expertise
Sources of knowledge	Local, internal	External, professional, cosmopolitan
The best fit is when …		
Industries are …	Production and logistics	Knowledge and service
Nature of work is …	Making and moving things	Creating and applying knowledge

Adapted from Pepitone, 2005, pp. 28–29.

the methods for analyzing the work environment evolved. These changes are captured by Pepitone (2000) in his comparison of what he calls "mechanistic work systems" (narrowly defined, "blue collar" jobs) and "organic work systems" (knowledge-based work environments that typify today's workforce). Pepitone's work is seen in Table 1.6.

IMPLICATIONS

One lesson we can take away at this point is that the changing nature of work in the 20th and 21st centuries requires a new and different way of addressing performance. When work was narrowly defined, predictable, and limited in its scope, performance analysis could function in much the same way. Time and motion studies, detailed task analysis, and so forth were sufficient tools for the job.

With the increasing complexity of work, however, it becomes increasingly more difficult to select a solution before we fully understand the problem. This is the strength of performance consulting: its approach matches the nature of work today. The history and concepts that support performance consulting are likely to appeal to those in the HRD/training professions today because:

- They're intuitive—we've known they're there; we just haven't been able to attach a name to them.
- The processes and skills required to become a performance consultant will require many of the competencies already inherent in HRD professionals.
- The nature of performance consulting will align us more directly with where our organizations are going in the future.
- We're no longer confined to a single solution to an organizational problem (i.e., training).

In the future, our solutions will vary from one challenge to the next. The world of the performance consultant also carries with it a number of challenges:

1. A competent performance consultant has to have a variety of interventions at his or her disposal. As a result, a good deal of professional development and experience is required to be considered competent.

2. The consultant needs to have a broad and deep understanding of the internal and external client environments to add value to clients. As a result, the bulk of time spent in a typical performance consulting intervention focuses on the needs assessment phase.

3. It could be argued that the tools of a performance consultant should be mastered by everyone who can effect change in an organization, not just human resource professionals.

4. In addition to being skilled in the selection and use of performance improvement tools, the performance consultant should possess strong communication, negotiation, and influence skills.

Let's go back to the scenario we described at the beginning of the chapter. You'll recall that Alicia, the manager of her company's training department, is feeling a little unsettled since being exposed to performance consulting ideas as part of her graduate degree program. Let's imagine that Alicia receives a call from the firm's sales manager requesting a refresher course on SPIN Selling, a popular sales technique. Alicia knows that all salespeople have been trained in the technique within the past two years and wonders what's behind the request. Looking back on what she learned in the performance consulting course, she decides to meet with the sales manager to collect more information.

DISCUSSION QUESTION

Reflecting on the human performance system presented earlier, what types of questions do you think Alicia should ask the sales manager when they get together?

As you've seen, performance consulting and its associated field of study, human performance technology, require a variety of skills and competencies in order to be accomplished successfully. In spite of this, these skills can be learned and practiced in a relatively short period of time when supported by structured learning and practice. The following case study from Miller (1997) demonstrates this fact.

CASE: CHEMICAL MANUFACTURER ADDRESSES EXCELLENCE

A major chemical manufacturer decided to address the challenge of achieving excellence in human performance at one of its plants by creating a network of performance specialists referred to as the performance development implementers (PDIs). These implementers were set the task of identifying human performance improvements to support a major reengineering effort. This approach replaced the old paradigm of informal training and ''learning on the job'' that had been standard procedure.

PDI teams were chosen from a variety of positions in the plant and had little experience with the requirements placed on them as PDIs. A network of implementers was created and chartered with a series of strategic goals. These goals included:

- Use state-of-the-art practices to support key goals and initiatives.

- Implement competency-based training to support business goals.

- Support achievement of safety goals.

- Partner with management to form strategic plans that meet business goals.

To support the new PDIs in their roles, a competency model was developed that included behavioral examples and best practices. The model focused on job-specific and interpersonal competencies. Some examples from each category:

Category	Competency
Job-Specific	Business and organizations
	Performance management
	The company's training systems
	Data collection and analysis
	Computer skills
	Management/project planning
Interpersonal	Consulting
	Communication
	Influencing skills
	Self-awareness and respect for others

These and other competencies identified in the model were meant to address some key gaps that existed among PDIs who were not experienced in performance analysis. Such gaps included:

- How to conduct a performance analysis

- How to consult with ''clients''

- How to evaluate the impact of interventions

During the first month of the PDI network's existence, training was provided that focused on three sets of topics:

- Set One: Performance improvement. This included topics such as linking performance improvement efforts to company strategy, conducting an environmental scan to uncover threats and opportunities, and gathering data on best practices.

- Set Two: The PDI role. This set addressed the changes in their roles, how to address managers about these changes, and how to deal with difficult situations that might arise.

- Set Three: The corporate training system. This included the instructional systems approach to training design and how to evaluate training (including return on investment).

Each PDI was assigned a coach/mentor who worked for a consulting company skilled in performance analysis and training.

Some of the projects undertaken by the PDI teams included implementing:

- Organization alignment
- A performance management system
- Safety team facilitation
- Maintenance performance in line with benchmarks
- Control operator training

To sustain the PDI initiative, a toolkit was produced that included job aids and other resources to support human performance improvement processes. A computer network was also established by which PDIs could share learning and experiences with one another.

Another key to the success of the project was a comprehensive communication kit designed to inform the plant of the services provided by the PDI network. In addition to guidelines for communicating with plant management and leadership, the implementers were given guidance on how to describe the PDI network to others along with scripts and overheads for more formal presentations.

As a result of this project, implementers gained a much deeper understanding of the business and how to think about performance from a much broader point of view, rather than jumping immediately to a training solution. Plant leadership saw the advantages of the approach and began to take a more active role in directing the network's activities.

As a result of the project, a number of lessons were learned that apply to organizations wishing to make the transition from training to performance consulting:

1. Advocates must continually communicate the goals of the change, the strategy for achieving these goals, the nature of the new

(performance consultant) roles, and the benefits to be gained by the transition.

2. The shift to performance consulting can be a long journey. In addition to learning new skills and competencies, people must become comfortable with their new roles.

3. The management and leadership team must be kept in the loop. Their support will come through constant communication practices and listening to what they have to say.

The next chapter will introduce you to the architects of performance consulting and their contributions. You'll learn the terminology, the major premises of performance consulting, the models that have influenced its growth, the competencies and roles that you'll need to be a successful performance consultant, the spread of performance consulting around the globe, and, finally, the ethical guidelines that influence the profession.

CHAPTER SUMMARY

As we've seen, the world of work and performance is evolving. From the days when training was seen as an activity that was done *to* someone, it is now rightfully seen as one of many interventions in a large toolbox of interventions. Performance improvement specialists have expanded their field of vision from a narrow range of options to more of a systems view of performance. The role of a performance consultant is intended to fill this need.

At the same time, HRD professionals are faced with the challenge of integrating their work with other, non-HRD functions in support of the organization's strategy. This requires an alignment among all those responsible for effecting performance. Organizations who exemplify true performance consulting principles and practices have made this transition successfully. With more exposure to the practices of performance consulting, this evolution will have a positive effect on overall human performance.

DISCUSSION QUESTIONS

1. With the advancements in technology, management science and measurement, what are some of the critical changes that need to take place for human resource development professionals to be better aligned with the organizations they serve?

2. What are the implications for traditional training evaluation approaches (e.g., the Kirkpatrick evaluation model) resulting from an increased emphasis on enhanced measurement techniques?

3. Describe the evolution from a pure behavioral psychology approach to analyzing human performance to a systems approach as exemplified in most of today's human performance systems models.

4. How has the changing nature of work in general affected the way we assess and measure human performance?

References

Addison, R. (2004). Performance architecture: A performance improvement model. *Performance Improvement*, *43*(6), 14–16.

Ahmad, N., & Orton, P. (2010). Smartphones make IBM smarter, but not as expected. *Training and Development*, *64*(1), 46–50.

Anderson, C. (2011). Reasons for optimism: The learning industry in 2011. *Chief Learning Officer*, *10*(1), 46–49.

Becker, B.E., Huselid, M.A., & Ulrich, D. (2001). *The HR scorecard*. Cambridge, MA: Harvard Business School Press.

Bersin, J. (2004). *The blended learning book*. San Francisco: Pfeiffer.

Carnevale, A., Smith, N., & Strohl, J. (2010). *Help wanted: Projections of jobs and education requirements through 2018*. Washington, DC: Center on Education and the Workforce.

Clark, R.C. (2006). Evidence-based practice and professionalization of human performance technology. In J.A. Pershing (Ed.), *Handbook of human performance technology* (3rd ed.) (pp. 873–898). San Francisco: Pfeiffer.

Donovan, M. (2012). Begin with the business in mind. *Chief Learning Officer*, *11*(1), 38–47.

Galagan, P. (2010). Unformal: The new normal? *Training and Development*, *64*(2), 44–49.

Gilbert, T.F. (1978). *Human competence: Engineering-worthy performance*. New York: McGraw-Hill.

Gottfredson, C., & Mosher, B. (2011). *Innovative performance support*. New York: McGraw-Hill.

Lykins, L. (2012). Are your learning activities aligned with the business? *Chief Learning Officer*, *11*(9), 18–21.

Miller, K. (1997). Reinventing HRD from training to performance consulting. In J. Phillips & E.F. Holton (Eds.), *Leading organizational change* (pp. 41–54). Alexandria, VA: American Society for Training and Development.

Pepitone, J.S. (2000). *Human performance consulting*. Houston, TX: Gulf Publishing.

Rothwell, W.J. (1996). *Beyond training and development*. New York: American Management Association.

Ruark, B.E. (2008). ISD model building: From tabula rasa to apple peel. *Performance Improvement*, *47*(7), 24–33.

Rummler, G.A. (1996). In search of the holy grail. *Training and Development*, *50*(4), 26–32.

Rummler, G.A., & Morrill, K. (2005). The results chain. *Training and Development*, *59*(2), 26–37.

Senge, P. (1990). *The fifth discipline*. New York: Doubleday.

Silber, K.H., & Kearny, L. (2006). Business perspectives for performance technologists. In J.A. Pershing (Ed.), *Handbook of human performance technology* (3rd ed.) (pp. 55–92). San Francisco: Pfeiffer.

Solis, B. (2012). *The end of business as usual*. Hoboken, NJ: John Wiley & Sons.

Tosti, D.T. (2005). The big 5: The evolution of the performance systems model. *Performance Improvement*, *44*(9), 9–13, 48.

Wilson, D. (2009). The future of learning in organizations (pp. 1–11). Learning Innovations Laboratories. Cambridge, MA: Harvard Graduate School of Education.