

Human Performance Consulting: Transforming Human Potential into Productive Business Performance

© 2000 by Butterworth-Heinemann Ltd., London, UK
ISBN 0-87719-352-5 / \$37.95

By James S. Pepitone

Chapter 1: The Industrial Roots of Performance Improvement

The improvement of human work performance is not a new objective. For as long as people have been employed, managers have been trying to improve their performance. And the methods most managers use to try to improve employee performance are not new, either. The methods used today are essentially the same methods used more than a hundred years ago.

The industrial roots of today's approach to improving employee performance, including the fundamental goals of work simplification and standardization, which were developed in situations that were dramatically different from those faced by businesses today. A hundred years ago, managers were dealing with inexperienced laborers whose work required meeting the intolerant needs of machines and machine-like processes. That's a far cry from today's situation.

To illustrate just how dramatic the changes have been during the past one hundred years, consider the following list of major human resource developments in this century. The list was compiled in a survey of labor economists in 1992 and is presented here in the order in which these developments originated.ⁱ

- Evolution of human work from machine-labor tasks to knowledge-based responsibilities through automation, standardization, simplification, etc. [1900s]
- Development of the social sciences, including sociology, psychology, behavioral science, education, economics, and many other disciplines. [1920s]
- Advances in instructional technology that enhanced human learning and enabled people to learn faster, more effectively, and more reliably than ever before. [1940s]
- Emergence of a comprehensive management technology (beginning notably with Peter Drucker's book, *The Practice of Management*, published in 1954) to guide business management following World War II. [1950s]
- Cultural advancement of modern society, including great advances in education (e.g., the G.I. Bill and expanded public education), consumerism, technology, and conveniences. [1960s]
- Application of biological "systems theory" to provide a more accurate explanation of complex circumstances and the strategic effects of decisions than the traditional cause-and-effect explanation. [1960s]
- Evolution of information technology and the introduction of personal computers. [1970s]
- Limits to resources and growth, which spawned a tremendous search for new products, new markets, new sources of labor, new sites for production, and new thinking in almost every aspect of business. [1980s]

- Competition at world-class levels, including best quality, speed, cost, convenience, and innovation. [1980s]
- Downsizing and the new “implied” employment contract that ceased to recognize loyalty as a feature of employment that employers valued. [1990s]
- Need for adaptive “learning” organizations that promoted innovation, risk-taking, empowerment, and participation in order to tap the knowledge and expertise of every employee. [1990s]
- Outright dominance in the workplace of knowledge and service workers—now exceeding 80 percent of all employment in developed economies—in place of production and logistics workers, forcing dramatic changes in the design and management of organizations. [1990s]

In the face of these developments, and in recognition of the substantial changes they have brought to the nature of work and workers during this period, reflective managers and staff professionals will want to question their continuing widespread use of century-old methods in an effort to improve human work performance. It makes sense that if today’s organizations are to be their most successful, then performance-improvement methods will need to suit the current nature of work and workers.

To better understand this need for fundamental change, we will begin the search for new performance-improvement opportunities with a quick look back at how the current methods came to be.

Looking Back

Prior to the 1700s, the kind of work performed by most people was determined most often by their circumstances at birth, and the design and performance were learned through a combination of observing a master and hands-on experience. Workers were less than eager to share their knowledge with outsiders because they wanted to preserve the economic value this knowledge provided. Crafts remained within families for generations, and apprentices were often sworn to secrecy.

In the early 1700s, this craft knowledge was first transformed into an easily transferred and applied technology—rules, principles, methods, and materials—to guide, improve, and regulate the practice of manual skills. The *Encyclopedie*, published in 1751, assembled the knowledge of most crafts known at the time, consequently allowing even nonapprentices to learn them. Putting technical knowledge into written form ultimately led to the establishment of agricultural, engineering, and medical schools, which taught concepts and procedures that defined and guided effective performance. Distinguished from schools whose purpose was to provide education in the liberal arts, these professional and trade schools taught people how to perform a particular kind of work.

Machine Organization

The Industrial Revolution introduced innovations that improved labor productivity and fueled an unprecedented economic expansion in Europe and the United States. The development of machine technology and steam-generated power led to a concentration of production in large-scale factories that required large amounts of capital, energy, and human labor. Many trades developed into industries, and most craft work was eventually replaced by machine labor. Machine technology simplified the human challenge in crafts and made it possible for people to easily learn a particular task or type of work, thus enabling companies to prepare a workforce of the size required for mass production.

The economic transformation that resulted from the Industrial Revolution established employment as the new way most people earned their livelihood. In 1780, approximately eighty percent of the U.S. adult population was self-employed. By 1880, only thirty-seven percent remained self-employed.ⁱⁱ

Machine technology was considered the greatest achievement of society at the turn of the twentieth century. The pursuit of machine-based capabilities soon influenced every aspect of people's lives. They had to make adjustments to their routines in order to satisfy the needs of machines. People became the flexible resource, adapting to the inherent inflexibility of machines and the large production operations they required.

The organization and management of work soon followed the design of machines. Organizations were not established as ends in themselves but were created to keep machinery productive. In fact, the word *organization* is derived from the Greek word *organon*, meaning "a tool or instrument." Therefore, it is understandable that organizations have been oriented around tasks, objectives, skills, plans, and goals, and that members have been expected to behave as if they were parts of machines—routinized, efficient, reliable, and predictable.

Early rules for organizing and managing work evolved from concepts pioneered by Frederick the Great, who ruled Prussia from 1740 to 1786. Frederick inherited an unruly mob for an army and set out to apply practices of Roman and sixteenth-century European armies along with concepts inspired by the mechanical inventions of his day. He set out to shape his army into a reliable and efficient war machine, introducing such concepts as ranks, regulations, task specialization, standardization of equipment, and training. The concepts that mechanized Frederick's army were gradually transferred to industrial-age factories.ⁱⁱⁱ

Classical Organization Theory

Henri Fayol (1841-1925), a Frenchman who owned a large coal mine, thought through organization design and developed the first rational approach to the organization of enterprise, which he called the functional principle.^{iv} Fayol was one of the early management theorists interested in the practical problems of management, and he sought to assemble the current knowledge about managing organizations. Drawing from military and engineering principles that were applied in successful factory operations, he was among the first to outline the best management thinking of the late 1800s in his fourteen management principles, represented in Figure 1.1.^v

Figure 1.1. Fayol's "Fourteen Management Principles"

Principle	Description
1. Division of Labor	To increase efficiency, workers should specialize in tasks for which they are best suited.
2. Authority	Managers should have authority, the right to issue orders. With authority comes responsibility for ensuring that the work is done.
3. Discipline	The organization should expect obedience from its employees, and in turn, employees should expect to be treated with dignity by their employers.
4. Unity of Command	Each employee should report to only one supervisor.
5. Unity of Direction	Each activity of an organization should have one leader and one plan.
6. Subordination of Personal Interests	Management must ensure that decisions are made from a rational standpoint and not solely to placate self-interested individuals or groups.

7. Remuneration	People should be paid in order to motivate them.
8. Centralization	The issue of orders creates a degree of centralization in all organizations. However, it is possible to increase employee autonomy (decentralization) or decrease it (centralization).
9. The Scalar Chain	Authority is hierarchical and must be made explicit. In other words, it must be clear who reports to whom.
10. Order	All materials and all activities should be kept where they are appropriate.
11. Equity	Employees should be treated justly.
12. Stability of Tenure	People resources should be planned for.
13. Initiative	Managers should encourage workers to be enthusiastic about their work.
14. Esprit de Corps	Management should encourage harmony and discourage destructive conflict within the organization.

Fayol's principles are known today as classical management (or organization) theory, and they are so commonplace in traditional management literature that they are taken for granted. His concept of creating a theory of management that could be studied, taught, and practiced was an important milestone in the history of the field. However, Fayol himself cautioned that managers could not operate solely on the basis of these principles—managers needed to know more than how to plan, organize, command, coordinate, and control. Each business was different, and managers had to have extensive knowledge of the businesses they managed.

Though Fayol's principles were established for their effectiveness in organizing and managing industrial work in the late 1800s—work that barely exists today in developed economies—they remain in common use in many organizations.

Human Resource Function

The first recorded attempts to provide staff support to employees for the purpose of improving their performance were carried out in 1897 by persons in the new position of “social and welfare secretary.” Persons with this title handled grievances, operated the sick room, provided for recreation and education, arranged transfers for unhappy workers, managed the dining facilities, and looked after the moral behavior of unmarried female employees. This concept of welfarism was soon followed by the expanded role of “employment management,” which was prompted by the growing trend toward “scientific management.” This trend created the need for assistance to first-line supervisors who had responsibility for the selection, training, and retention of employees.

Welfarism fit the dominant religious beliefs about how people should be treated, and scientific management kept productivity high so companies could survive. A good example of how the employment management function operated is found in Henry Ford's formation of a “Sociological Department” in 1914 to deal with a tight labor market and worker turnover of 10 percent. Later that year, the function implemented a plan that included cutting the work day from nine to eight hours and raising the minimum wage from \$2.50 to \$5.00 per day, which Ford explained simply as profit-sharing and efficiency engineering.

The success of Henry Ford did much to encourage other companies to establish employment departments, as employers concluded that this added concern for their workers led to greater prosperity for both labor and management. Between 1919 and 1920, the number of such departments formed equaled the number that had been created up to that time.^{vi} A U.S. Bureau of Labor Statistics study determined at the time that modern employment practices reduced labor

turnover, thus reducing training and other costs while also providing workers with more-stable employment.

Interest in the people and in the potential of human resource (then personnel) management led to significant changes in assumptions about the value, needs, and treatment of people in organizations. Much of what was learned and practiced was based on a behaviorist, or cause-and-effect, model of human behavior that stemmed from the concepts of scientific management. The commonplace tools of this era included job analysis, job descriptions, psychological tests, methods of interviewing and selection, merit ratings, promotion policies, analysis of labor turnover, and training. In addition to the training of workers, the training of supervisors was common. However, relatively little attention was paid to developing high-level management.

Human Performance Improvement

In the early 1880s, Frederick W. Taylor (1856-1915), an American engineer and thus particularly capable among factory foremen, was particularly concerned by the lack of compassion and support shown by most factory foremen for workers who did not perform the required work at high levels of productivity. Taylor's concern ultimately prompted his study of work design—how factory tasks were designed and accomplished—as a viable approach to improving relations between the two groups. His goal was to reduce the hostility between workers and owners by making workers more productive through the redesign of their work, which in turn would increase their value to owners and thus justify better wages and increased respect.^{vii}

Taylor studied work tasks and designed ways to accomplish them most effectively and efficiently. He observed workers as they instinctively completed a task, and then collected data on the physical and mental activities involved. He solicited the one or two best workers from the group and, with their assistance, redesigned the task, trying to eliminate unnecessary time, motion, and variation as well as material waste. The new approach would then be taught to all workers. By tapping into the “best practices” for completing a task, Taylor felt he could improve the work performance of anyone who wanted to learn.^{viii}

Taylor summarizes his philosophy about productive work at the conclusion of his book, *Principles of Scientific Management*, published in 1911:

Science, not rule of thumb.
Harmony, not discord.
Cooperation, not individualism.
Maximum output, in place of restricted output.
The development of each man to his greatest efficiency and prosperity.^{ix}

Taylor's greatest legacy to industry is perhaps his application of intelligent and innovative thought to factory work in an effort to improve performance. Before Taylor's studies, intelligent people felt it was beneath them to apply their knowledge to work. Labor was labor, and they wanted no part of it. His application of knowledge to work and to the standardization of production and logistics labor enabled workers to improve their performance and employers to achieve steady increases in productivity. Taylor's “scientific management” principles ultimately became a foundation of the curriculum of the Harvard Business School and subsequently many other business schools.

Taylor's innovative contributions to the practice of consulting, time and motion studies, the study of best practices, the orientation and training of workers, and other methods for improving worker performance have sustained a four percent compounded increase in industrial productivity in the United States for more than one hundred years. Management scholar Peter Drucker contends, “Taylor's greatest impact all told was probably in training. Taylor-based training became the one truly effective engine of economic development. The application of knowledge to work explosively increased productivity. Since Taylor began, productivity has increased some fifty-fold in all advanced countries. On this unprecedented expansion rest all the increases in both standard of living and quality of life in the developed countries.”^x

Institutionalization of Training

Between 1880 and 1950, workplace training established its performance-improvement capability by having a dramatic impact on work performance, workers, and organizations. Training was able to change the way work was performed by implementing improved work designs throughout the workplace—improving the capability, behavior, performance, and productivity of factory workers.

The result was improved quality and efficiency in factory work, increased production capacity and industry productivity, refined products and expanded markets, added income, and increased return on investor capital. Moreover, training prepared unskilled and inexperienced people to perform valuable work and increased the productive value and resulting standard of living for factory workers.

Then, between 1950 and 1970, the use of training methods was expanded to address a much wider range of employee communication, education, and development issues. In particular, training became broadly utilized by management as a technique for standardizing characteristics of organization behavior that were much less directly related to task performance than ever before. The new objectives ranged from instructing organization members on more-general information, values, and behaviors that management wanted to see followed in the workplace, to programs intended to improve employee morale, motivation, and work effort.

Training was soon treated as a nearly universal methodology for the design of classroom events to ensure communication with employee groups, to change attitudes and behaviors, and to perform cultural transformations. Whenever there was an employee issue, so it seemed, the solution would be training. Practical limitations to training's capability and effectiveness were ignored. And because only limited evaluation of the success of such efforts was ever made, management merely presumed that to have exposed people to the communication or experience of training was sufficient.^{xi}

The Training Function

The creation of separate staff functions to provide this expanded volume of training seemed to further increase training's misuse. This practice dissociated training from work itself and from the specific needs and character of specific operations. The success of training was no longer tied to the preparation of workers for work and to the increase of worker performance and productivity. It was only natural that the management of this new function would become more concerned with increasing the volume of training provided for any purpose, simply because increased activity would lead to increased staff, budget, and status.

Training continues to be used as a universal solution to performance improvement. Particularly in larger organizations, employees receive training for almost every deficiency imaginable, from a lack of innate ability to a lack of motivation. Some organizations even require employees to attend training just because other employees need it, or to get a certain number of hours of training annually. In other organizations, people can attend training simply if they want to, or if they can't get the training they need without their supervisor's agreement and funding. Sometimes employees are sent to training just because they've had no training in a while; others may be permitted to attend a program because they are loyal to the organization or hard-working and deserve the time off from work.

Training's basic methodology of modeling standardized tasks for the purpose of equipping people to do productive work continues to be effective in this challenge. However, the misuse of training as a performance-improvement method has led to considerable confusion about its effective application. Emphasis on new technologies for conducting training has added further confusion by creating the illusion that training is appropriate for any challenge.

Given these misapplications of training, it is no wonder that most managers are disillusioned with training as an approach to improving human performance. Beyond its immediate negative effect

on productivity—pulling people off the job—there is often little or no change in employee performance once they return to work. Task training continues to be as valuable for organizations today as it was when introduced for this purpose by Taylor, but the multitude of other applications that have been found for this methodology in organizations probably adds little or no value.

Emerging Management Theories

As early as the 1950s it was evident to many that significant change was needed and inevitable. Yet it was not until the 1970s that management had sufficient insight into new alternatives to recognize the nature and direction of likely changes and to realize that appropriate management methods would ultimately have to vary with the work of an organization. It would no longer be sufficient for all organizations to utilize the mechanistic methods as they had in the past.

This conclusion has led to a tremendous increase in organizational research and management theories during the years since, although their naturally gradual unfolding has only added to management's bewilderment and lack of initiative. Developments in management science are by their nature accompanied by too little application data to be taken seriously enough by management to prompt radical changes. Consequently, management, still unaccustomed to the growing problem and unaware of the real solution, has yielded to a substantial increase in training in the form of a wide variety of promoted programs in hopes of finding an effective answer.

These programs—often promoted by theorists, consultants, and corporate staff professionals driven more by their personal beliefs than by sound logic—have frustrated management's attempts to resolve this dilemma. Though these typically expensive efforts did not resolve the issues, they did silence the reproach of critics that nothing was being done. Many of these programs have mobilized great efforts that have resulted in placebo-effect improvements, perhaps still without a greater understanding of the underlying problem that will not go away. Such treatment of the challenge did not solve government's and industry's productivity problems, did not address workers' performance needs in a substantive way, and did not pave the way for future improvements.

Quality Improvement Initiatives

While the human resource functions were working with sociologists and organization-development practitioners to find a new management paradigm, industrial engineers were at work responding to the increasing threats to U.S. manufacturing dominance by learning from the Japanese how to improve production quality. Following World War II, Japan's industry and labor leaders learned a new set of work principles from industrial engineer Joseph Juran and statistician W. Edwards Deming, American consultants brought in to support the rebuilding of Japan's industry.

Now commonly referred to as "quality" or "quality function deployment," this improvement initiative applied many aspects of the new management paradigm to the continuous task-level improvement of primarily production and logistics products and services. Workers at all levels were assigned the responsibility of applying science-based management principles to the design of their work.

U.S. industry began to apply new concepts such as this only in the late 1960s, particularly in order to compete with Japan, which at the time achieved greater value at lower cost in several industries. In the 1970s and early 1980s, many astute companies launched quality improvement initiatives with the ultimate goal of better satisfying customers. Then, in the late 1980s, information-systems specialists began to focus management on the potential for reengineering cross-functional processes, making possible significant reductions in the number of unnecessary tasks and workers. To accomplish these quality-improvement and reengineering initiatives, managers began to experiment with teamwork initiatives, finally trying cooperation over competition to better accomplish work.

By the mid-1980s, quality-improvement initiatives had expanded beyond the production floor and point-of-service delivery to incorporate required changes to fundamental management practices throughout organizations. A significant lesson learned in earlier attempts at quality improvement was the need to make supporting changes in areas beyond the factory floor. It was crucial for interrelated organization units and levels to adopt supporting goals in order for the targeted operation to fully realize its quality goals.

Performing at higher levels of quality, it was learned, is the result of many integrated factors, including a substantial role for management's basic methods of operating an organization. Many companies responded with aggressive large-scale programs to institute sweeping changes in fundamental management practices throughout their organizations, adopting "Total Quality Management" as a metaphor for the new ways in which the company would work and be managed. Although many organizations had attempted similar changes through massive training initiatives in years prior, usually with limited success, unprecedented competitive pressures forced this fundamental change in management practices.

Reengineering

Both quality improvement and reengineering shifted the focus of performance improvement away from the worker and to the work and the work situation. And whereas quality improvement is based on systematic problem-solving at the task level of work, reengineering takes a more revolutionary approach and redesigns work at the business process level. The fundamental shift of work away from manual tasks to knowledge- and service-based work created the need to focus on knowledge-work processes just as factories focused on production processes. By focusing on business processes in this way, organizations can redesign workflow and restructure work groups to remove functional barriers, eliminating task-level work in part by utilizing today's vastly superior technological capability to support human work. In most cases where reengineering initiatives were successfully implemented, sizable increases in workforce productivity were achieved.

Successful reengineering yields process and work roles that optimize productivity in much the same way that quality improvement yields tasks that optimize performance. The goals and most of the principles are very similar. The difference is the shift in focus from task-level work (quality) to business-process work (reengineering), and the shift in methods from problem-solving to competitive leadership.

Not all reengineering initiatives have been successful. In fact, freely offered assessments suggest that the majority of reengineering projects were not successful. There are several explanations, including perfunctory attempts to implement reengineering initiatives without the committed leadership and professional support that were required, reduced workforce cooperation once reengineering initiatives were associated with downsizing, and the lack of financial support to implement expensive information technology systems that were the linchpin of reengineering success.

Basic process-redesign methodology remains a powerful approach to improving productivity; however, skillful implementation is necessary to achieve the potential gains.

Looking Ahead

Although it was not obvious at the time, an evolution in the science of human work was in progress during the past three centuries. When basic labor was elevated to the mystery work of crafts, it created value for workers who had special skills. Next, craft knowledge was organized into technology, which disrupted the monopolistic crafts but initiated the open communication of work methods and gave birth to the Industrial Revolution. Then, to improve labor productivity, Taylor pioneered methods for better integrating people with production machinery and processes and taught workers how to be productive. And following World War II, social scientists uncovered

ways to humanize a productive workplace and make it even more productive, enhancing the effectiveness of industrial engineering efforts to improve product quality.

The systematic improvement of all knowledge and service work is as vital to industries and governments today as the redesign of manual work was in Taylor's time. Such improvement is now the obvious, if not the only, way to improve performance and increase productivity, since knowledge and service work now accounts for 80 percent of the work in most organizations.

At the beginning of the twenty-first century, however, organizations remain challenged in their attempts to increase the productivity of knowledge and service workers. Achieving such increases has been a major strategy for organizations since the late 1980s and, notwithstanding recent quality and reengineering initiatives, remains a challenge unmet. Organizations continue to perform well below their potential.

The byline of a recent article by Drucker, "Management's New Paradigms," which appeared in the October 5, 1998, issue of *Forbes*, sums up the situation well:

In a fast changing world, what worked yesterday probably doesn't work today. One of the fathers of modern management theory herein argues that much of what is now taught and believed about the practice of management is either wrong or seriously out of date.^{xii}

Several principal forces must be considered in the design of successful initiatives to resolve this dilemma and continue the advance of workforce performance, productivity, and worker fulfillment. These forces are at the heart of the challenges faced by human resource specialists and the management they serve. Each is deserving of a book. But because condensed resources do not exist, I have discussed in the following chapters the essential elements of each factor and its implications for improving human performance.

Organization Science (Chapter 2)

Since World War II, new developments in organization science have paved the way for a new approach to organizing and managing today's workforce, and to the improvement, if not the optimization, of its performance and productivity. If practitioners working to improve performance and productivity are to be successful in the years ahead, they will need to acquire new and more-effective methods that are based on the highest levels of knowledge available for meeting this challenge.

Knowledge Work (Chapter 3)

During the twentieth century, we witnessed the fundamental shifts of economic production from machines to people, and of the nature of work from machine labor to human discretion. These continual efforts to automate work have shifted the roles of people in companies from production and logistics work (making and moving things) to knowledge and service work (creating and applying knowledge). Knowledge workers have emerged as the "means of production" for industry and government, and this development and its consequences will need to be better understood if management is to let go of the machine-age principles to which it is anchored.

Management's Productivity Challenge (Chapter 4)

One of management's responsibilities is to improve productivity. Yet if labor statistics can be trusted, they make clear the lack of success thus far in meeting this challenge. This failure suggests the need for a fundamental rethinking of the approach management takes toward meeting this responsibility. As practitioners learn through experience, it is essential that management drive or support any initiatives by staff functions to improve performance and productivity.

Creating Value-Added (Chapter 5)

Management has been disappointed in its efforts to solve the problem of creating value-added and has grown cynical about attempts to address it. Every option proposed is hyped as the ultimate solution, but the benefits promised never materialize. To move forward with management's support—to begin to make the changes that will achieve this potential—facilitators of performance improvements will need to come forward with specific initiatives that add “hard” financial value to operations.

© 1999 James S. Pepitone

Human Performance Consulting can be found at most major bookstores, or ordered online from Butterworth-Heinemann, Amazon, Barnes & Noble, Borders, or other booksellers.

ⁱ Pepitone Berkshire Piaget. *Human Capital: Untapped Financial Opportunity for Major Corporations*. Research Paper, Dallas: Pepitone Berkshire Piaget, 1992, pp. 66-67.

ⁱⁱ M. Reich, “The Development of the Wage Labor Force.” *The Capitalist System*. Eds. R.C. Edwards, M. Reich, and T. Weisskopf. Englewood Cliffs, NJ: Prentice-Hall, 1978, pp. 179-185.

ⁱⁱⁱ Gareth Morgan, *Images of Organizations*. Newbury Park, CA: SAGE Publications, Inc., 1986.

^{iv} Peter F. Drucker, *Management: Tasks, Responsibilities, Practices*. New York: Harper & Row, 1973, p. 24.

^v D. A. Wren, *The Evolution of Management Thought*. New York: John Wiley & Sons, 1994, pp. 184-188.

^{vi} R. F. Lovett, “Present Tendencies in Personnel Practice.” *Industrial Management*, Vol. 65, June 1923, pp. 327-333.

^{vii} Marvin R. Weisbord, *Productive Workplaces: Organizing and Managing for Dignity, Meaning and Community*. San Francisco: Jossey-Bass Publishers, 1987.

^{viii} C. D. Wrege, and Greenwood, R. G. *Frederick W. Taylor, The Father of Scientific Management: Myth and Reality*. Burr Ridge, IL: Irwin, 1991.

^{ix} Frederick W. Taylor, *The Principles of Scientific Management*. New York: Harper and Brothers, 1911.

^x Peter F. Drucker, *Post-Capitalist Society*. New York: HarperCollins, 1993.

^{xi} James S. Pepitone, *Future Training: A Roadmap for Restructuring the Training Function*. Dallas: AddVantage Learning Press, 1995.

^{xii} Peter F. Drucker, “Management’s New Paradigms.” *Forbes*, Oct. 5, 1998, pp. 152-176.