AMERICAN SOCIETY FOR TRAINING & DEVELOPMENT

HANDBOOK FOR WORKPLACE LEARNING PROFESSIONALS

ELAINE BIECH, EDITOR

an excerpt from

ASTD Handbook for Workplace Learning Professionals

edited by Elaine Biech
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Contents

Foreword

The American Society for Training & Development (ASTD) is the world's largest professional association dedicated to the workplace learning and performance (WLP) profession. Trainers, designers, facilitators, human resource practitioners, consultants, and other WLP professionals turn to ASTD for the world's most comprehensive and powerful network of people, tools, and information.

The *ASTD Handbook for Workplace Learning Professionals* is a great example of ASTD's commitment to delivering relevant tools and information to the profession. It has been compiled for learning professionals at all levels of expertise: those new to the profession who are trying to understand the nuances of the field, as well as experts in the profession who need a reference guide or information on a specific topic.

The *ASTD Handbook for Workplace Learning Professionals* is the culmination of the efforts of many of the most influential and respected leaders in the field, whose work continues to shape the profession. I hope you find it a valuable resource for many years to come.

Tony Bingham
President and CEO, ASTD
May 2008

Introduction to the *ASTD Handbook for Workplace Learning Professionals*

Any book with the word *handbook* in the title suggests a tremendous amount of work was required to produce it. The *ASTD Handbook for Workplace Learning Professionals* is no exception. Certainly its more than 60 contributors and dozen or so editors, designers, and ASTD staff members have put in thousands of hours to produce this volume. All this effort has led to a book—which is substantial both in form and in content—that will serve as a reference and a go-to guide, bringing together in one volume methodologies, practices, processes, theories, and other key information for workplace learning professionals.

This *Handbook* brings together many of the best practitioners in the field to present professionals like you with authoritative and critical information. It summarizes and integrates many areas of the broad field known today as *workplace learning and performance.* It is a standard reference guide for definitive answers, as well as a source of practical ideas. Need a refresher on Bloom's taxonomy? It's here. Need implementable ideas for how to make your training session more interactive? It's here. Want more information on distance learning or performance models? It's here.

How Did the Contents of the *Handbook* Transpire?

The word *handbook* suggests an exhaustive and comprehensive document, but, in actuality, the field of workplace learning and performance is so broad as to make it impossible to include everything the profession touches. An editorial advisory board, which consisted of John Coné, Tora Estep, Pat Galagan, Pat McLagan, Mark Morrow, Nancy Olson, Dana Gaines Robinson, Cat Russo, Marc Rosenberg, and myself, did a laudable job of narrowing down an expansive list of topics that could have filled many volumes into the single volume you are holding.

We started by identifying a list of everything you ever wanted to know about training, development, and workplace learning and performance. But because we were writing a handbook, not an encyclopedia, we needed to narrow the scope. Topics were combined, some were eliminated, and others changed focus. As you can imagine, we had several lively discussions. And in the end, a table of contents emerged that we thought would resonate with our audience—you.

The next task was to identify authors who are experts in the identified chapter topic. We decided early on that we wanted only the best of the best and were delighted when the authors agreed to write the selected chapters based on their areas of expertise.

Tora Estep did a yeoman's job of coordinating the contributions from the authors. The advisory board read and edited the chapters as well as the pillar sidebars. The result is a handbook that meets the needs of the WLP professional.

What Are the Components of the *Handbook*?

The *Handbook* is divided into nine sections, and although there may be a slight amount of overlap, in general, each section represents a major area of the profession:

- Learning in the Workplace
- Assessing and Analyzing Needs
- Designing and Developing Effective Learning
- Face-to-Face Delivery—As Important as Ever
- Delivering Technology-Enabled Learning
- Measuring and Evaluating Impact
- Organizational Level Applications
- Managing the Learning and Performance Function
- The WLP Professional.

Each section is introduced by a luminary—an individual who has reached legendary stature in the profession. These are individuals who are leaders in the field and have achieved prominence as philosophical practitioners, including

- Geary Rummler, author; performance analysis, design, and management consultant; past president of the International Society for Performance Improvement (ISPI); former member of the ASTD Board of Directors; Distinguished Contribution to WLP Award recipient; and member of the HRD Hall of Fame
- Robert Mager, author and originator of the criterion-referenced instruction (CRI) methodology, currently applied worldwide; and Distinguished Contribution to HRD Award recipient

- Elliott Masie, chair of the Learning CONSORTIUM, CEO of the MASIE Center, author, internationally recognized futurist, e-learning guru, and Distinguished Contribution to WLP Award recipient
- Don Kirkpatrick, former national ASTD volunteer president, Gordon Bliss Award and Lifetime Achievement in WLP Award recipient, member of the HRD Hall of Fame, author, and creator of the four levels of evaluation.

The other luminaries represent corporate leaders:

- Bill Wiggenhorn, originator of Motorola University, acknowledged expert in various WLP arenas, senior executive at Xerox, chief learning officer at Motorola and Cigna, and currently on the Board of Governors for the Center for Creative Leadership
- Bill Byham, cofounder, chairman, and CEO of Development Dimensions International (DDI), an internationally renowned human resource training and consulting company with more than 1,200 associates around the world, author of 22 books, and Distinguished Contribution to HRD Award recipient
- John Coné, one of the founders of Motorola University, vice president of human resources and chief learning officer for Sequent, vice president of Dell Learning, interim CEO of ASTD, named by *Training* magazine as a visionary in organizational learning, former chair of the ASTD Board of Directors, and Gordon Bliss Award recipient
- Donnee Ramelli, current vice president and chief learning officer for Fannie Mae, past president of General Motors University, vice president of learning and organization development for Allied Signal/Honeywell, and member of the ASTD Board of Directors
- Tony Bingham, current president and CEO of ASTD.

All these individuals are seen as authorities in the sections that they introduce. It's easy to see why we are honoring them with a "luminary" designation. You will enjoy reading their particular perspective on the section topics they introduce.

These sections are made up of a collection of 49 chapters, written by an elite team of experts, all writing in their area of expertise. The names of these authors read like a billboard list of who's who in the field of WLP. So who are they? These are individuals who have influenced the profession for many years and have more than 2,000 years of experience among them.

I am humbled by what these WLP professionals have accomplished. If you read the short biographies after each chapter, you will be amazed at what they have done—and in most cases are still doing. They have written and edited hundreds of books—and counting; they have written a couple thousand articles and chapters. They are members of the HRD Hall

of Fame and former members of the ASTD Board of Directors. They have received hundreds of awards and have been honored by ASTD and well-known magazines, journals, and organizations. They have advised some of the largest private and public organizations in the world, trained millions of participants, presented at thousands of conferences, and led *Fortune* 100 businesses. Truly, the chapter contributors represent the best, most experienced practitioners in the world.

These are names you know. Names you rely on every day. Here's a sample:

- Dana Gaines Robinson, performance consulting leader, Distinguished Contribution to WLP Award recipient, and former member of the ASTD Board of Directors
- Rita Bailey, former chair of the ASTD Board of Directors and leader of Southwest Airlines University for People
- Pat McLagan, author, consultant, WLP expert, Gordon Bliss Award recipient, and former member of the ASTD Board of Directors
- Harold Stolovitch, author of the wildly successful *Telling Ain't Training*
- Bob Pike, trainer extraordinaire, model for most trainers around the world, and former member of the ASTD Board of Directors
- Mel Silberman, scholar, author, and authority on active learning
- Marv Weisbord, OD Network Lifetime Achievement Award recipient and author
- Thiagi, facilitation master of games and simulations
- Jean Barbazette, train-the-trainer expert and author
- Allison Rossett, expert on job aids and performance support, Distinguished Contribution to WLP Award recipient, and former member of the ASTD Board of Directors
- Chris Argyris, author, Harvard University professor, and recipient of 13 honorary degrees and the Lifetime Achievement in WLP Award
- Peter Senge, senior lecturer at MIT, founding chair of the Society for Organizational Learning Council, author of *The Fifth Discipline,* and Distinguished Contribution to WLP Award recipient
- Geoff Bellman, wise and warm consultant and author.

Within the mind-expanding chapters by these renowned authors are sidebars that feature distinguished professional leaders, or "pillars," who have influenced the content of the chapter in which they appear. These pillar sidebars describe some of their accomplishments and contributions to the field of WLP. Of course, some of these pillars have had a far-reaching effect on the profession and could quite conceivably appear in several chapters.

How Do You Get the Most Out of the *Handbook*?

This *Handbook* is not meant to be read from cover to cover. The editorial advisory board repeatedly brought up the need for a practical, go-to resource—a source where practitioners, students, librarians, or experts can find the information they require when they need it.

If you need general information about a subject, such as web-based learning or data collection, use the table of contents to locate a section or a specific chapter. If you require information about specific topics such as Bloom's taxonomy or copyright guidance, turn to the comprehensive index in the back of the book. Likewise, if you need information about a leader in the profession—for example, Malcolm Knowles, Thomas Gilbert, Robert Gagné, or Ned Herrmann—the index will lead you to a pillar sidebar that provides a synopsis of that individual's accomplishments. A glossary in the back of the book provides definitions to key words you may encounter in the *Handbook.*

In addition, the CD-ROM provides additional tools, such as worksheets, checklists, activities, case studies, and more.

And the *Handbook* Would Not Have Been Possible Without . . .

- The editorial advisory board. You created the vision and ensured that we stayed true to it throughout. You and Rhonda Munford also gave your time to review the chapters to ensure that they support the overall intent of the project; contribute to the profession; and deliver worthwhile, accurate content. Thank you.
- The luminary guest contributors. You skillfully introduced each section, which is just another example of why you are the leaders in our profession. Thank you.
- Authors. Your contribution of time and expertise has turned an exciting ASTD project into a tool that will be used globally. Thank you.
- Justin Brusino and Maureen Soyars. You researched and wrote about the pillars of the WLP profession. Thank you.
- ASTD staff. You envisioned a handbook, a resource for WLP professionals at all stages in their careers. Thank you for the opportunity to be a part of this worthwhile project.

Elaine Biech
May 2008

Section I

Learning in the Workplace

Section I

Learning in the Workplace

Luminary Perspective

A. William (Bill) Wiggenhorn

In This Chapter

- Learn five keys to learning
- Understand how to learn from those around you

My mentor, Robert W. Galvin, former chairman of Motorola, is well-known for his unconventional wisdom, innovation, curiosity, and modeling of lifelong learning. Bob taught us to use "scouts" to chart the way to new territories. Back in the days when only one executive in our company had a passport and everyone knew where he was, Bob continuously challenged us to learn more about the world, to scout out new geographies, new global partnerships, potential products. The company grew and times changed. Suddenly it seemed that everyone in the company had a passport, and no one knew where anyone was. We were making history, however, as scouts in developing countries, charting new territories for our rapidly expanding business model. The global thrust of our company forced us to expand and refine our development efforts.

Bob gave me a mantra that changed my life for the better. I have carried his teaching with me throughout my career, and I am pleased to share it with you in the context of learning and performance.

"Bill," he would admonish, "be sure you always travel with two suitcases—one filled with everything you know and a second empty one to fill with what you will learn from others along the way."

This introductory chapter gives me the opportunity to share less of what I alone know—and more of what I've learned from the thousands of people I've met and hundreds of locations to which I've traveled. Over the years, my empty suitcase has overflowed with the following learnings:

- The world turns quickly.
- Adapt to the future or fail.
- Honor Harry Potter's generation.
- Learning is the ultimate antioxidant.
- Frequently take stock of your leadership legacy.

The World Turns Quickly

In this section of the book, we are reminded of the evolution of workplace learning and human performance improvement. It's been quite a ride. Think of the basics of telling employees that they were our most important assets and, because of that, we were going to nurture them and grow them. Consider how that has changed to the model of giving people learning experiences during their moments within our companies, knowing that they will likely travel on and accrue additional learning at other firms. We've moved from lifelong employment to the whim of Wall Street and an ebbing and flowing competitive landscape.

I've seen telegraphs segue into fax machines and brick-sized cell phones evolve to those the size of candy bars, and I've experienced the wonder of how wired and wireless the world really is.

I spent considerable time last year winging the world—from Michigan to Moscow, from São Paulo to Santa Clara, from Shanghai to Sydney to Cairo to South Bend. In these varied geographies, I have continued to fill my suitcase. In each client location, I've learned even more about the importance of assessment; how to engage the younger, slicker learner; why "face" still matters; and how critical leadership development and skills enhancement continue to be.

Adapt to the Future or Fail

My personal commitment to lifelong learning has resulted in experiences and opportunities that have evolved from the days of classroom training and purely instructor-led experiences to the richness of blended learning and morphing technology.

We've come a long way from the days of flip charts, chalk, overheads, and extension cords. The workplace of tomorrow is here, and it houses many faces, languages, and ages. Baby Boomers interact with Generation X, Generation Y, and Generation Next. Learning is offered in blogs, podcasts, portals, and Skype.

Honor Harry Potter's Generation

You might be asking yourselves, what's an old guy like him know about Skype? Well, someone put it in my suitcase—about three weeks before Moscow. It's called just-in-time learning. The someone who introduced me to this new communication technology is actually a mature colleague (whom I am convinced learned it from one of his very with-it kids). For most things technological, I rely on the Harry Potter generation.

My nephew Robert was born the same year as Harry Potter. Being a combination CEO-wannabe and engineer, Robert has been leading me kicking and screaming through technology for the past several years. Robert programs me, wires me, wirelesses me, and challenges me to keep up with technology. He once (almost) complimented my wife, Pat, by telling her that she was one of the most technologically astute older people he had ever met. She's still mulling that one over.

Seriously, in the age of emerging learning systems, global interaction, compressed timeframes for learning, record-breaking changes in technology, I've learned that it would be easy to become a dinosaur if I didn't keep up and connect every day. My connectivity secret is my nephew.

The business case for learning, which you will read about in chapter 3, is rock solid. My client organizations and I have seen absolute proof that learning drives performance. We know that if we don't continuously adjust our thinking and provide buzz and click and blog and pods to our toolkits, we lose.

By the way, Pat and I got back at Robert in an unusual way. For his high school graduation gift, I took him with me to Beijing for the sole purpose of introducing him to the competition he will face for the big jobs of the future. He got the message.

Learning Is the Ultimate Antioxidant

The most critical—and exciting—learning from my suitcase is that the more you learn, the younger you stay. There's an energy and an excitement to continuing in the game of learning and teaching and stretching and flexing. There's a lethargy that sets in when learning no longer matters. I've seen people drop out and drift off too early in life. It's important to remember that when you hang up your shoes and opt out, you are out of the

The Legend of the Divine Dr. M

I've learned over the years that to survive in our industry, one must be, if nothing else, flexible and willing to adapt to the next new thing. Here's how I was reminded of that during a recent program I ran in Moscow.

Tuesday evening, a call came in from the company coordinating our travel. "Dr. M," our facilitator for the critical Wednesday and Thursday portions of our program had a visa problem and would not be allowed into Russia. Instead, Dr. M was put on a plane and flown back to North Carolina. How in the world would we save the day?

It didn't hurt that Dr. M is a young, intelligent, resourceful, and energetic professor. With the flick of a switch we, with our laptop camera and Dr. M with another, Skyped across the ocean for one-and-a-half days.

Was it crystal clear, in sync video? No. Was it pretty darn good? Yes. Was it on a par with the level of teleconferencing we did years ago? It was much, much better.

So, flexibility, technology, and solving the problem in real time were key.

Our audience of 30-something high potentials loved the experience. We saved face, and that is another important learning. At the end of the day, the reason Dr. M engaged and captivated our audience is that, filled with pixels though it was, the delivery was definitely "face to face." Live, energized facilitation remains at the center of learning differentiation and effectiveness—even when it's "virtual."

game. I've found that keeping in touch with my older mentors and listening to my younger clients is enriching and, in deference to my late father and father-in-law, much more fun than golf.

As learning professionals, you wield enormous power. It is your job to show those around you how and why learning matters. Think of the political currency you have at your fingertips:

- You align and integrate learning in support of your organization's strategy.
- You create leadership bench strength for growth and succession.
- You enable the introduction of new products and services.
- You educate your customers and your community.
- You improve processes.
- You model the way.
- You scout.

Frequently Take Stock of Your Leadership Legacy

At this stage in my life, I am living the wisdom of Steven Covey's advice to "begin with the end in mind." James Kouzes and Barry Posner (2006) write about *A Leader's Legacy.* This is critical advice. It is important to leave our mark and pull others up behind us. It is up to each of us, individually and collectively, to live and learn and grow and model and teach—and share our suitcases. For therein lies our legacy: giving what we know and gleaning what we don't in order to lead others to greatness. What a privilege!

About the Author

As principal of the Main-Captiva consulting business, A. William (Bill) Wiggenhorn partners with corporate clients to develop customized executive development, talent management, retention, and strategy programs. An acknowledged expert in the fields of training and development, leadership development, e-learning, marketing, and global business strategy, Wiggenhorn currently serves on the board of governors of the Center for Creative Leadership.

Best known for establishing Motorola University (MU) as the benchmark corporate university, he expanded MU's international reach to encompass 101 education offices in 24 countries. Wiggenhorn served as a senior learning and development executive at Xerox, as CLO (chief learning officer) at Motorola and Cigna, and on several for-profit and nonprofit boards.

Reference

Kouzes, James, and Barry Posner. 2006. *A leader's legacy.* San Francisco: John Wiley & Sons.

Chapter 1

The Evolution of the Training Profession

Tora Estep

In This Chapter

- Learn how the training profession has developed over time
- Understand the roots of training practices in use today

The training profession has changed dramatically over the last 15 years. Today the profession receives more of the respect it deserves as a partner in the ultimate success of organizations around the world. This development is welcomed by training professionals. However, change is not without cost or, well, change—much of it good and some of it questionable. The good part—increased respect for the contribution of learning and participation at the highest levels in strategic and financial decisions—is undeniably positive. The unfortunate part of this positive development is that the term that most identifies the profession—*training*—has taken a back seat. Taking its place are other broader, more strategic terms: workplace learning professional, performance consultant, workplace learning and performance (WLP) professional. Even the title of this book represents part of this ongoing transition.

These changes are not necessarily wrong, or even reversible. They represent the most recent development in a profession that must continually change to stay relevant and vital.

In its history, the training profession has changed many times from its initial focus on skills training to individual development to systems theory and organization development to learning and, most recently, to performance. However, a good part of the profession considers the term *trainer* to be as complete a description as needed. So with that as an introduction, what follows is a brief and inclusive history of the training profession, from its roots in medieval history to modern-day online training.

Early Learning Models and Practices

Learning is as critical to human life as breathing. Without it we can't feed ourselves, talk to each other, protect ourselves from heat and cold, and raise healthy offspring, let alone achieve great results as individuals and organizations. Thus the history of training and learning begins with the very beginning of humankind with elders teaching the young how to find and recognize edible plants, hunt and process game, care for children, and make weapons and tools from local materials. But these are basic skills that people need to survive. When and how did training first develop as a profession?

The advent of agriculture enabled societies to create a surplus of food, which in turn allowed people to become more specialized in their job roles. As a result, the need to train individuals in specific trades became more pressing. To meet this need, on-the-job training, apprenticeships, guilds, vocational and manual schools, factory schools, and vestibule training arose (see Figure 1-1 for a time line of early training and learning practices).

On-the-Job Training

The earliest form of training was on-the-job training, which is one-to-one training in which an experienced craftsperson shows a novice how to do a task (Sleight, 1993). On-the-job training is still common today, in part because of its simplicity; all that an organization needs to do is assign an experienced employee to show a new employee how to do the job. Furthermore, on-the-job training obviates any problems with transfer because training takes place in the job setting, so the learner has no problem in understanding how the learning applies to the work. However, some drawbacks of on-the-job training are that the experienced employee is unable to accomplish any productive work while he or she is providing training and that any equipment and resources in use during training will be out of commission for production. In addition, being experienced at one's job is not necessarily an indicator of ability to teach or train well.

Apprenticeships

While on-the-job training was the earliest form of training, it was typically informal in nature. A more formal arrangement arose with the apprenticeship system. Although

Figure 1-1. Time Line of Early Learning and Training Practices

	Antiquity	The Middle Ages and the Renaissance	The Industrial Revolution	WWI	1920s	1930s
Training formats and theories	On-the-job training	Apprenticeships	Vocational or manual training schools; factory schools; vestibule training; gaming situations; case method; role-play method	Show-tell-do-check method (Charles B. Allen)	Eduard C. Lindeman challenges idea of teaching adults with pedagogical methods; sales training; Hawthorne studies	U.S. government-instigated training programs
Societal influences		Formation of guilds; invention of the printing press	Emergence of factories and mass production	Scientific management (Frederick Winslow Taylor); assembly lines	The post-war boom discourages the application of training to industry	The Great Depression

Source: Compiled by Tora Estep, ASTD.

Steinmetz (1976) notes that rules governing apprenticeships appeared in the code of Hammurabi in 2100 B.C., apprenticeships really took root in the Middle Ages when jobs became too complex to master with just a few days of on-the-job training (Sleight, 1993).

Apprenticeships typically took several years. In exchange for work, the master trained a beginner in a craft. The beginner, who lived with the master and got no pay, became increasingly proficient in a particular craft and eventually became a journeyman or a yeoman. Although apprenticeships are generally thought of as applying only to artisanal crafts, they were not restricted to such jobs but could apply to medicine, law, and education (Steinmetz, 1976). Apprenticeships still exist today. In the United States, where apprenticeships are less common, apprentices are safeguarded by the U.S. Department of Labor, which ensures equality of access to apprenticeship programs and provides employment and training information to sponsors and the employment and training community.

In Asia and Europe, however, modern apprenticeship programs are more common. In Germany, they are an important part of the successful dual education system, which combines apprenticeships with vocational education. In India, the Apprenticeship Act, enacted in 1961, regulates the way that apprentices are trained so that their training conforms with Central Apprenticeship Council standards and meets industry needs. The United Kingdom has more than 160 apprenticeship frameworks—including National Vocational Qualifications—which now extend beyond craft and skilled trades to other areas of the service sector without an apprenticeship tradition. Although apprenticeship declined in the United Kingdom in the early 2000s, the percentage of young people completing apprenticeships began to increase again in 2004 after the government established the Modern Apprenticeships Advisory Committee to make recommendations on the apprenticeship system.

Guilds

The guild system also developed in the Middle Ages, in England before the Norman invasion of 1066. Guilds were "associations of people whose interests or pursuits were the same or similar. The basic purpose was mutual protection, assistance, and advantage" (Steinmetz, 1976). The guild system controlled the quality of products by establishing standards and regulating the people who were authorized to produce them. This also meant that apprenticeships came under the authority of the guild, which determined when a worker had reached a certain level of proficiency. Within the guild there were three levels of workers: the master, who owned the materials and directed the work; the journeyman, who worked for the master in return for pay; and finally the apprentice. Guild guidelines determined when a worker had reached a certain level of proficiency and was able to graduate to journeyman or master level.

Guilds also strictly regulated workers' hours, tools, prices, and wages and required that all workers have the same privileges and pursue the same methods. These conditions coupled with the ever-growing capital investment required to start a workshop and the increasingly high standards set by masters made it so difficult for journeymen to attain master status that they banded together in yeomanry guilds, which became the forerunners for today's labor unions (Steinmetz, 1976).

Vocational and Manual Schools

The guild and apprenticeship systems continued to dominate training and learning until the Industrial Revolution, which began in England, spread to France and Belgium, and then to Germany and the United States (Miller, 2008). However, the onset of industrialism started the acceleration of change in business that we see today as well as changes in training and learning practices. One of the new forms that learning took at this time was vocational and manual schools. These schools were intended to provide training in skills related to specific jobs. One of the earliest vocational schools was established by the Masonic Grand Lodge of New York in 1809; in 1824, Rensselaer Polytechnic Institute in Troy, New York, became the first technical college; and in 1828, the Ohio Mechanics Institute opened in Cincinnati, Ohio (Miller, 2008; Steinmetz, 1976).

Vocational schools—which lost popularity in the United States and have only recently begun to resurge—have continued to be an important force in training especially in Europe, which has included vocational training in the draft Constitutional Treaty establishing the European Community. To establish a vocational training policy that would apply to all members of the European Community, "two important schemes were devised: Europass-Training, which described skills acquired by training abroad, and Europass, which combines five documents aimed at providing a clear and simple picture of the qualifications and skills of citizens throughout Europe" (European Communities, 2007). Germany's successful vocational training program has also served as a model for Australia's vocational training program.

Manual training started in the United States around 1825. It started primarily as a correctional tool based on the idea that it was better to give idle hands something productive to do but then became widely established by the late 1880s. One of the greatest leaps forward in learning in the United States at this time was the passing of the Land Grant Act of 1862. In signing this act, Abraham Lincoln provided a way for average people to get an education, which had previously been restricted to the wealthy.

Factory Schools

By the time that Hoe and Company in New York City started its factory school in 1872, classroom training had become the norm in education. The innovation was to attach the

school directly to the factory and to develop the curricula based on tasks that were carried out in the factory. Sleight (1993) explains why factories turned to classroom training at this time:

> The machines of the Industrial Revolution greatly increased the ability of the factory to produce concrete goods quickly and cheaply, so more workers were needed to run the machines. The factory owners wanted the workers trained quickly because there was a large demand for the produced goods. Since the machines were much more complicated than the tools of the agrarian society of the past, and training needed to be accomplished quickly, the training methods of the past were inadequate.

The benefits of classroom training, compared with on-the-job training and apprenticeships, were that many workers could be trained at once and that fewer trainers were required. Also, learning was taken off the factory floor, minimizing distractions and leaving equipment in production. However, classroom training had some downsides as well. Learners needed to remember what they had learned until they got to work, and they also needed to transfer what they had learned back to the workplace. Furthermore, learners now had to learn at the trainer's pace and did not get the same level of feedback that they would have with on-the-job training and apprenticeships.

Vestibule Training

Around the turn of the 20th century, an innovation came about that addressed some of the problems of classroom training, namely vestibule training. Also called "near-the-job" training, vestibule training took place as close to the factory floor as feasible and contained the same equipment that the worker would use on the job. The trainer was an experienced employee in the company and would train six to 10 people at a time. This combined the benefits of classroom training (economy of scale, minimal distractions on the floor, equipment kept in production) with the benefits of on-the-job training (more hands-on, more feedback, fewer problems with transfer, fewer accidents). It did have some downsides, however. It was expensive, requiring duplication of the production line and full-time instructors, so it was restricted to situations in which many workers needed to be trained at once on unskilled or semiskilled tasks. Nonetheless, this form of training was popular through both world wars (Sleight, 1993).

The World Wars—Systematic Training

The world wars—especially World War II—saw the profession of training and learning really start to take off. The wars brought on a massive surge in demand for products, at

the same time that large numbers of experienced workers were enlisting. As a result, industry needed workers not only to fill positions left empty but also to fill new positions. Zuboff (1984), as quoted in Sleight (1993), summarizes the situation, "With the growing complexity and size of factories, expanding markets that exerted a strong demand for an increase in the volume of production, and a rising engineering profession, there emerged a new and pressing concern to systematize the administration, control, coordination, and planning of factory work."

In response to these conditions, Frederick Winslow Taylor proposed a method to shorten the amount of time that it took to complete a task by studying workers and eliminating nonproductive time, which is referred to as scientific management. Another innovation conceived to speed up production was the assembly line. Training methods also had to be developed to train workers faster and more thoroughly than before. During World War I, Charles R. Allen put forward the show–tell–do–check method of training to train shipbuilders, which he adapted from the 18th century German philosopher, psychologist, and educator Johann Friedrich Herbart's five-step framework for pedagogy. Herbart's framework included preparing the students, presenting the lesson, associating the lesson with ideas previously studied, using examples to illustrate, and testing pupils to ensure they learned (Clark, 1999).

Allen's work and Army research gave rise to several training principles. Sleight (1993) summarizes these principles:

- Training should be done within industry by supervisors who should be trained how to teach.
- Training should be done in groups of nine to 11 workers.
- The job should be analyzed before training.
- Break-in time is reduced when training is done on the job.
- When given personal attention in training, the worker develops a feeling of loyalty.

Although these principles were used in training, a systematic approach to training did not develop until World War II. At this point large numbers of women and men over the age of 40 were entering the workforce to replace the men who had been called up for the war. These people needed training, but the supply of vocational school instructors ran out before the need was fully met (Shaw, 1994; Steinmetz, 1976). To supply much-needed trainers, the Training Within Industry Service of the War Manpower Commission developed the Job Instructor Program, or JIT. The JIT's purpose was to teach first- and second-line supervisors how to teach their skills to others. These train-the-trainer programs came to be known as J programs and expanded to include topics such as human relations, job

methods, safety, and program development. Influences on these topics included Abraham Maslow's "A Theory of Human Motivation" (1943) and Kurt Lewin's first experiments with group dynamics (1948).

In concert with systematic training came a systematic approach to instructional design. During World War II, the military applied a systems approach to learning design, which became the forerunner for today's instructional systems design (ISD). The research and theories of B.F. Skinner on operant conditioning affected the design of these training programs, which focused on observable behaviors. Training designers created learning goals by breaking tasks into subtasks, and training was designed to reward correct behaviors and remediate incorrect behaviors.

During the war, industry also came to recognize how important the training of supervisors had become. As Steinmetz (1976) puts it, "management found that without training skill, supervisors were unable to adequately produce for the defense or war effort. With it, new production methods were being established by the aged, the handicapped, and industrially inexperienced women." The need for leadership in training had become obvious, and so the title of training director became increasingly common in management hierarchies. In 1942, the American Society of Training Directors (ASTD) formed during a meeting of the American Petroleum Institute in New Orleans, Louisiana (for more on the history of ASTD, see the sidebar later in this chapter).

In addition to the development of leadership in the training function came the recognition of the need for development in leadership more generally, which led to the emergence of the first management development programs. According to Steinmetz (1976), these programs were sponsored and guided by universities and colleges, which offered college-level courses in management and technology.

The 1950s

After World War II, the economy boomed as the efficiencies that had been gained in industry to accommodate the demands of war production were harnessed for peacetime reconstruction. However, some of the methods that had been used to achieve those efficiencies—specifically, scientific management—were beginning to prove demotivating to employees. As a result, human relations training grew increasingly popular, and supervisors were often trained in psychology (Shaw, 1994).

Training departments had become widely established during the war. Businesses wanted to continue training their workers but at the same time lower the costs of training and increase its efficiency. In 1953, B.F. Skinner's book *Science and Human Behavior* was

B.F. Skinner

B.F. Skinner was a renowned behavioral psychologist and a major proponent of behaviorism, an influential school of psychological thought that was popular between World War I and World War II. Skinner, who is categorized as a neobehaviorist, believed that the best way to learn about human nature was to explore how an organism responds to stimuli, both from the external environment and from internal biological processes, in a controlled, scientific study. Skinner's scholarly interests were influenced by psychologists such as Ivan Petrovich Pavlov; Bertrand Russell; and the founder of behaviorism, John B. Watson. Skinner's major works include The Behavior of Organisms *(1938),* Walden Two *(1948), and* Science and Human Behavior *(1953).*

As a professor of psychology at Harvard University, Skinner devised experimental equipment to train laboratory animals to perform specific acts as tests of his behaviorist theories. One of his most famous experiments was teaching pigeons how to play table tennis.

These experiments led to the development of Skinner's principles of programmed learning. Skinner discovered that in most disciplines, learning can be most effectively accomplished when it is taught through incremental steps with instantaneous reinforcement, also known as reward, given to the learner for acceptable performance. Programmed learning should be implemented using teaching machines, which present the user with a question, allow the user to answer, and then immediately provide the user with the correct answer. Programmed learning as an educational technique has two major types: linear programming and branching. Linear programming rewards student responses that lead toward the learning goal; other responses go unrewarded. A correct response also moves the learner along through the program.

The branching technique uses an electronic program that provides the learner with information, asks a question based on the information, and then responds to the learner based on the answer. A correct answer results in a screen that reinforces the right answer then and moves the learner along in the program toward the learning goal. A wrong answer returns the learner to the original information or provides further tutorial.

published, introducing behaviorism, which was built on the work he had done during the war. Behaviorism and the concept of job analysis formed the basis for a new form of training—individualized instruction—which would answer business's need for cheaper and more efficient training. Sleight (1993) describes the practice:

> Individualized instruction in essence replaces the teacher with systematic or programmed materials. Programmed materials are instruction that has been divided into small steps which are easily understood by the learner. After each

> step is required an active response by the learner in the form of answering a question, drawing a graph, solving a problem, and so on. Immediate feedback is given after each response.

Individualized instruction was later automated through the use of teaching machines in the 1960s and also formed the basis for early computer-based training. It had the advantages of enabling learners to learn at their own pace, giving them privacy to correct mistakes, and reducing training time and error rates when back on the job. However, it could be expensive to produce, included only what the designer put into it, and required the learner to transfer knowledge back to the workplace.

Another development in ISD that occurred during the 1950s was the introduction of Bloom's taxonomy of educational objectives. In 1956, Benjamin Bloom presented this classification of learning objectives, which describes cognitive, psychomotor, and affective outcomes. Cognitive outcomes, or knowledge, refer to the development of intellectual skills. Psychomotor outcomes, or skills, refer to the physical movement, coordination, and use of motor skills to accomplish a task. Affective outcomes, or attitudes, refer to how people deal with things emotionally (ASTD, 2006). These categories are often referred to as KSAs (knowledge, skills, attitudes) and relate to the way that learning objectives are written to specify the types of learning to be accomplished. For example, a knowledge objective might be to describe how the increased production needs of World War II affected the field of training and learning.

At the end of the decade, ASTD published Donald Kirkpatrick's articles about four levels of evaluation in *The Journal of the American Society of Training Director* (later *T+D*), which introduced a new theme into the field: *measurement.*

The 1960s

The introduction of measurement into the field of training tied closely with another theme that started to emerge in the 1960s: the need to understand the business. Already during the 1950s more and more articles had appeared noting the importance of involving top management in training, and in 1960 Gordon M. Bliss, then executive director of ASTD, urged members to seek "wider responsibilities" and to understand "the vernacular which is used to report profits" (Shaw, 1994). To reflect this broader focus, ASTD changed its name to include the word *development* in 1964.

Another sign that the training profession was beginning to broaden its horizons at this time was the adoption of organization development (OD). According to the Organization Development Network, a professional organization for OD practitioners, "Organization

Time Line of ASTD's History

1942: The American Society of Training Directors (ASTD) is formed on April 2, 1942, at a meeting of the American Petroleum Institute, in New Orleans, Louisiana. Fifteen training directors hold their first meeting on January 12, 1943, in Baton Rouge.

1945: ASTD publishes the first issue of *Industrial Training News,* a quarterly publication that is eventually to become *T+D* magazine. ASTD also holds its first national conference, on September 27 and 28, in Chicago, Illinois.

1947: *Industrial Training News* changes its name to *Journal of Industrial Training* and becomes a bimonthly periodical.

1951: ASTD opens its first permanent office in Madison, Wisconsin, the hometown of Russell Moberly, the secretary-treasurer who keeps all the records at the time.

1952: Membership reaches 1,517. There are 32 chapters across the country.

1954: *Journal of Industrial Training* changes its name to *The Journal of the American Society of Training Directors.*

1959: *The Journal of the American Society of Training Directors* publishes Donald L. Kirkpatrick's article establishing four levels of evaluation for training: reaction, learning, behavior, and results.

1961: ASTD begins publication of *Training Research Abstracts,* later incorporated into *Training & Development Journal.*

1963: *The Journal of the American Society of Training Directors* changes its name to *Training Directors Journal.*

1964: ASTD changes its name to the American Society for Training and Development.

1966: *Training Directors Journal* changes its name to *Training and Development Journal.*

1967: McGraw-Hill publishes the first edition of *Training and Development Handbook.*

1968: Membership reaches 7,422. There are 65 chapters.

1972: ASTD and the U.S. State Department sponsor the first international training and development conference in Geneva, Switzerland. Two hundred people from six continents attend.

1975: ASTD opens a branch office in Washington, D.C.

1976: ASTD holds White House Conference on HRD in the World of Work in Washington, D.C.

1978: In Washington, D.C., ASTD hosts the seventh annual conference of the International Federation of Training and Development Organizations. Membership reaches 15,323; chapters number 110. Following ASTD's efforts in Congress, the Employee Education Assistance IRS exemption is approved. ASTD's publishes its first competency study, *A Study of Professional Training and Development Roles and Competencies,* by Pinto and Walker.

1979: ASTD elects its first woman volunteer president, Jan Margolis.

1980: Kenneth James Kukla becomes the 20,000th member of ASTD.

1981: ASTD moves its headquarters from Madison, Wisconsin, to Washington, D.C.

1983: ASTD publishes its second competency study, *Models for Excellence,* by Patricia McLagan.

(continued on next page)

Time Line of ASTD's History (continued)

1984: ASTD implements a new governance structure, resulting in a new leadership direction for the Board of Directors and the creation of a Board of Governors to look to the future. ASTD also launches *INFO-LINE,* a monthly publication designed to train the trainer in a broad array of topics.

1987: ASTD establishes a research function and receives a $750,000 grant from the U.S. Department of Labor. Research grants will reach almost $3 million by 1993. ASTD launches its second annual conference: National Conference on Technical and Skills Training.

1988: Membership reaches 24,451. There are 153 chapters.

1989: ASTD publishes its third competency model, *Models for HRD Practice,* by Patricia McLagan.

1990: ASTD and the U.S. Department of Labor publish *The Learning Enterprise* by Anthony P. Carnevale and Leila J. Gainer, as well as the more comprehensive *Training in America: The Organization and the Strategic Role of Training* by Carnevale, Gainer, and Janice Villet. Both publications establish the size and scope of the training enterprise in the United States. ASTD also launches a new magazine, *Technical & Skills Training.*

1991: ASTD publishes *America and the New Economy* by ASTD's chief economist, Anthony P. Carnevale, establishing the economic link between learning and performance. *Training & Development Journal* becomes *Training & Development.* The Benchmarking Forum is launched to benchmark learning and performance improvement processes, practices, and outcomes against the accomplishments of Forum members and to engage a worldwide network of high-level professionals and organizations.

1994: ASTD launches ASTD On-Line, an electronic information access service, and turns up on the Internet, where trainers are discussing the formation of a "cyberchapter" of ASTD. In addition, ASTD holds its 50th annual and first international conference in Anaheim, California.

1996: ASTD publishes its fourth competency study, *ASTD Models for Human Performance Improvement,* by William Rothwell.

1998: ASTD publishes its fifth competency model, *ASTD Models for Learning Technologies,* by George Piskurich and Ethan Sanders. The first Excellence in Practice Awards are given to recognize results achieved through the use of practices from the entire scope of workplace learning and performance. The first certificate program in human performance improvement is held. By 2007, ASTD offers 25 certificates. ASTD publishes the first annual State of the Industry report.

1999: ASTD publishes its sixth competency model, *ASTD Models for Workplace Learning and Performance,* by William Rothwell, Ethan Sanders, and Jeffery Soper. ASTD holds its first annual ASTD TechKnowledge Conference.

2000: ASTD starts a program to build a global community of practice, combined with local presence and action. By 2007, ASTD has 25 global networks. ASTD also launches its first online magazine, *Learning Circuits,* which covers topics related to e-learning.

2001: The ASTD Job Bank—a job site exclusively for workplace learning professionals—is launched. *Training & Development* magazine changes its name to *T+D.* The ASTD Certification Institute is established to govern certification and will launch certification for e-learning courseware in 2002.

2003: The first annual BEST Awards are held to recognize organizations that demonstrate enterprise-wide success as a result of employee learning and development.

2004: ASTD publishes its seventh competency model, *ASTD 2004 Competency Study: Mapping the Future,* by Paul Bernthal and others. This model forms the basis for certification.

2005: The ASTD Certification Institute launches the pilot of its certification program for individuals.

2006: The ASTD Certification Institute formally launches its individual certification program.

2007: In September, ASTD launches its first magazine directed exclusively to the learning executive audience, *Learning Executive.*

Development is a values-based approach to systems change in organizations and communities; it strives to build the capacity to achieve and sustain a new desired state that benefits the organization or community and the world around them." Its roots lie in the behavioral sciences, using theories about organization change, systems, teams, and individuals based on the work of Kurt Lewin, Douglas McGregor, Rensis Likert, Richard Beckhard, Wilfred Bion, Ed Schein, Warren Bennis, and Chris Argyris (Haneberg, 2005). For more on OD, see the sidebar.

The wider focus on business results also related to the emerging field of human performance improvement (HPI) or human performance technology (HPT). Performance improvement is a systematic, systemic, results-based approach to helping organizations meet their goals through the work of people. The work of Thomas Gilbert, Geary Rummler, Donald Tosti, and Dale Brethower moved the field of workplace learning from a singular focus on training to a wide variety of activities that improve business results. For more on the history of HPI, see chapter 2.

However, the general attitude toward business remained "let the adding-machine jockeys worry about the business." More popular were topics such as the psychology of influence, motivation, and attitude change. Topics related to the emerging American civil rights movement, such as workplace diversity, were also becoming more common.

In the areas of learning theory and design, the 1960s saw Jean Piaget, a Swiss developmental psychologist, create a model of cognitive development with four stages: the sensorimotor stage (birth to two years), the preoperational stage (age two to seven), the concrete operational stage (ages seven to 11), and the formal operational stage (11 and up). His theories form the foundation for the development of constructivism, which began to appear in the 1970s and 1980s.

Organization Development

Organization development work is, at its core, a purposeful and systemic body of work that improves how people and processes perform. Activities and initiatives represent a conscious and planned process to align the various aspects of the organization to meet its goals. Organization development professionals seek to improve the organization's capabilities as measured by its efficiency, effectiveness, health, culture, and business results. They do this by facilitating, consulting, coaching, analyzing, training, and designing.

There is some disagreement within the field about which practices and tools fit in OD. Some adopt a narrow interpretation that focuses on organization alignment and change intervention. Others see OD as a broader set of practices that includes leadership, diversity, and team training. There is some overlap of skills and practices among OD, training, human resources, project management, and quality improvement. To muddy the definition further, each company interprets these functional boundaries differently.

Warner Burke, an OD pioneer, said "Most people in the field agree that OD involves consultants who try to help clients improve their organizations by applying knowledge from the behavior sciences—psychology, sociology, cultural anthropology, and certain related disciplines. Most would also agree that OD implies change and, if we accept that improvement in organizational functioning means that change has occurred, then, broadly defined, OD means organizational change."

This definition, as well as the Organization Development Network's definition, share the notion that OD focuses on helping organizations get from point A to point B using a systemic approach based on knowledge of the behavioral sciences. The definitions also emphasize that OD work involves managing and implementing change.

Source: Haneberg (2005).

Meanwhile, Robert F. Mager proposed his model for instructional objectives in his 1962 book, *Preparing Objectives for Programmed Instruction.* This model indicates that objectives should have three components: behavior, condition, and standard. That is to say that the objective should describe the specific, observable behavior that the training should accomplish; indicate the conditions under which the behavior should be completed; and state the desirable level of performance. This type of objective is alternatively known as behavioral, performance, or criterion-reference objectives (ASTD, 2006).

Mager's theory of objectives was originally developed for use in programmed instruction. In the 1960s, programmed instruction became increasingly automated through the briefly popular use of teaching machines, which were electromechanical devices for delivering programmed instruction. Another development in technology at this time was the increasingly wide availability of minicomputers starting in 1965.

The 1970s

Sociotechnical-systems theory became widespread in the 1970s (Shaw, 1994). The theory indicates that the interaction of both social and technical factors support or hinder the successful functioning of an organization. As Pasmore (1988) describes it,

> The sociotechnical systems perspective considers every organization to be made up of people (the social system) using tools, techniques, and knowledge (the technical system) to produce goods or services valued by customers (who are part of the organization's external environment). How well the social and technical systems are designed *with respect to one another and with respect to the demands of the external environment* determines to a large extent how effective the organization will be. [emphasis in original]

Thus trainers began to understand that to achieve peak performance, both the technical and the social aspects of organizations had to be considered and optimized together. This aligned with the broader focus for the field that OD and HPI had begun to establish in the 1960s.

At the same time, social movements, such as feminism, environmentalism, and the gay rights movement were having an effect on society as well as on how training took place in organizations. As a result, trainers increasingly turned their attention to social issues, such as pollution, racism, and discrimination against women.

Another popular training topic during the 1970s was sensitivity training—also known as the laboratory method—which was a form of human relations training that took place in groups and was designed to raise the attendees' self-awareness and understanding of group dynamics and enable them to modify their own behavior appropriately. The method was attacked by George Odiorne and others, who did not think it was appropriate for training to help "managers achieve authenticity and develop self-esteem," but its principal defender was Chris Argyris of the National Training Laboratories (Shaw, 1994).

Chief among new forms of training that developed during the 1970s was the case method, which had been used in business schools prior to this time but not in training programs. The case method involves the use of a case study to explore a topic. Trainers also begin to teach management by objective, introducing expectancy theory as a way to predict employee behavior (Shaw, 1994).

The area of learning theory saw several developments. Malcolm Knowles's book *The Adult Learner: A Neglected Species* was published in 1973, which introduced adult

learning theory. Although not the first to suggest that adults learn differently from children (already back in 1926 Eduard C. Lindeman challenged the notion that pedagogy was appropriate for adults in *The Meaning of Adult Education*), Knowles coined the term *andragogy* and presented five key principles that affect the way that adults learn:

- Adult learners have a need for self-direction and learn best when they have some control over what they learn.
- Linking learners' prior experience to learning is an important way to create powerful learning.
- Learners' readiness to learn is linked to their perception of its importance in filling their roles.
- Adult learners seek knowledge they can use immediately to solve a problem or complete a task.
- Adult learners are motivated to learn by internal incentives and curiosity (ASTD, 2006).

At about the same time, the nine events of instruction were presented for the first time in the 1974 book *Principles of Instructional Design,* by Robert M. Gagné and Leslie J. Briggs. Although Gagné originated from the behaviorist school of learning, the nine events represented a new theory in learning: cognitivism. While behaviorism focuses on outward behaviors, cognitivism focuses on how information is processed, stored, and retrieved in the mind.

Another learning theory that emerged in the 1970s is constructivism. With its roots in Piaget's theories about cognitive development, constructivism indicates that learning is a process of constructing new knowledge. Another important theorist related to constructivism, Jerome Bruner, saw learning as "a social process, whereby students construct new concepts based on current knowledge. The student selects information, constructs hypotheses, and makes decisions, with the aim of integrating new experiences into his existing mental constructs" (Thanasoulas, 2002). With the constructivist learning theory, the impetus in learning design is to create learning experiences that enable learners to discover and construct learning for themselves.

The 1980s

In the 1980s, productivity in the United States slowed down, while global economic competition became the biggest business challenge. Organizations in the United States underwent large downsizings, and many managers found themselves without jobs (Shaw, 1994). These events led organizations to look more closely at their training budgets, causing many training and development executives to focus more on training budgets and the

Malcolm Knowles

Malcolm Knowles is a key figure in adult education and is often regarded as the father of adult learning. Knowles made numerous contributions to the theory and practice of human resource development, but is best known for popularizing the term andragogy, *which is the art and science of teaching adults. Andragogy recognizes that adults learn differently than children and as a result need to be treated differently in the classroom. In 1973, Knowles defined four assumptions about adult learning in his book* The Adult Learner: A Neglected Species. *These were expanded to the six listed below in a subsequent edition (1984):*

- *Adults need to know why it is important to learn something before they learn it.*
- *Adults have a concept of self and do not like others imposing their will on them.*
- *Adults have a wealth of knowledge and experience and want that knowledge to be recognized.*
- *Adults become ready to learn when they know that the learning will help them with real problems.*
- *Adults want to know how the learning will help them in their personal lives.*
- *Adults respond to external motivations, such as the prospect of a promotion or an increase in salary.*

bottom line and on proving the value that training brings to organizations. For this reason and others, cost-benefit analysis and the concept of return-on-investment (ROI) became increasingly hot topics.

At the same time, women entered the field of training and development at an unprecedented rate. By 1989, women made up 47 percent of ASTD's members. Assertiveness training flourished. Other popular training topics were behavior modeling, teamwork, empowerment, diversity, adventure learning, feedback, corporate culture, and trainers' competencies (Shaw, 1994).

The latter—trainers' competencies—were the topic of two competency models published in the 1980s that increasingly positioned the field of training and development as part of the broader field of human resources work. The first modern attempt to define training and development—*Models for Excellence: The Conclusions and Recommendations of the ASTD Training and Development Study*—captured this expansion of the role of training (McLagan, 1983). By 1989, career development and organization development had been added to the repertoire of training and development work, and the report titled *Models*

for HRD Practice (McLagan, 1989) captured this new development by using Leonard Nadler's term for the field: *human resource development* (HRD). This report defined HRD as "the integrated use of training and development, organization development, and career development to improve individual, group, and organizational effectiveness." (For more on HRD, see the sidebar.)

In technology, the first electronic workstations came on the market in 1981. By 1986, PC-compatible laptop computers had also become available. The rise of these technologies was about to change much of how learning was designed, delivered, and managed in organizations.

The 1990s

In the 1990s, technology exploded. Proponents of e-learning, computer-based training, and online learning proclaimed that classroom learning was over. Early e-learning followed the same behaviorist model that informed the programmed instruction of the 1950s and the learning machines of the 1960s in which a learner went through a sequence of steps, after which he or she responded correctly (or incorrectly) and then continued to the next learning element or doubled back as required.

The benefits were also similar: learners could learn at their own pace, make mistakes and get feedback without being embarrassed, and repeat sections until they had mastered them. E-learning had the additional benefit of more branching capabilities than the old programmed instruction and learning machines, which allowed learners to automatically bypass sections they already knew and focus more on problem areas. Multimedia capabilities also made e-learning more effective by stimulating more of the senses and appealing to different types of learners. And finally, e-learning allowed greater accessibility to training by minimizing costs associated with travel to training, time off of work to attend, and facilities.

However, e-learning did have some drawbacks. For one thing, it was hard to keep learners involved. Without the interactivity of a classroom, learners frequently tuned out of e-learning programs. Also, e-learning did not work as well for training interpersonal skills as live training. Another problem was that it could be costly and difficult to maintain and keep up-to-date. Thus blended learning, which combines e-learning with live classroom elements, became an increasingly viable option. One way to use blended learning was for learners to use e-learning elements to complete any prerequisite training so that all participants in a classroom session started from the same point, thus minimizing time spent to get everyone up to speed and maximizing time on the new skills and knowledge to be learned.

Definition of HRD

HRD is the integrated use of training and development, organization development, and career development to improve individual, group, and organizational effectiveness.

- *Integrated* means that HRD is more than the sum of its parts. It's more than training and development, or organization development, or career development in isolation. It's the combined use of all developmental practices to accomplish higher levels of individual and organizational effectiveness than would be possible with a narrower approach.
- *Training and development* focuses on identifying, assuring, and helping develop, through planning learning, the key competencies that enable individuals to perform current or future jobs. Training and development's primary emphasis is on individuals in their work roles. The primary training and development solution is planning individual learning, whether accomplished through training, on-the-job learning, coaching, or other means of fostering individual learning.
- *Organization development* focuses on assuring healthy inter- and intra-unit relationships and helping groups initiate and manage change. Organization development's primary emphasis is on relationships and processes between and among individuals and groups. Its primary intervention is influence on the relationship of individuals and groups to affect the organization as a system.
- *Career development* focuses on assuring an alignment of individual career planning and organizational career management processes to achieve an optimal match of individual and organizational needs. Career development's primary emphasis is on the person as an individual who performs and shapes his or her various work roles. Its major solution is influence on self-knowledge and on processes that affect individuals' and organizations' abilities to create optimal matches of people and work.
- *To improve individual, group, and organizational effectiveness* means that HRD is purposeful. It is instrumental to the achievement of higher goals. Because of HRD, people and organizations are more effective and contribute more value to products and services: the cost-benefit equation improves.

Source: McLagan (1989).

An alternate use for e-learning technologies that gained popularity at this time was their use as a performance support tool. Performance support tools in the form of job aids had been around since World War II in the form of printed cards with step-by-step instructions (Sleight, 1994), but technology allowed performance support to become integrated into the work.

Another development in HRD in the 1990s was the introduction of the concept of the learning enterprise. In 1990, Peter Senge published his book *The Fifth Discipline*, which presented this concept. A learning organization commits itself to disciplines that

will allow it to develop its learning capacity to create its future. Ideas underlying the learning organization are systems thinking, mental models, personal mastery, and shared vision and dialogue.

These last two topics—performance support and learning organizations—were popular training topics in the 1990s. Other popular topics included "reengineering, reorganization and transformation of work, customer focus, global organizations, 'visioning,' and balancing work and family" (Shaw, 1994).

This decade also saw training gain legitimacy in the public sector. President Bill Clinton was elected on a platform that endorsed training. Robert Reich, a strong proponent of training, became U.S. secretary of labor and established the Office of Work-Based Learning (Shaw, 1994).

The 2000s

Since World War II, learning has evolved in many directions (see Figure 1-2 for a summary). In learning theory, behaviorism continues to have a strong influence on learning design, but cognitive and constructivist learning theories also have their effects through the use of Gagné's nine events of learning and discovery learning. Malcolm Knowles's theory of adult learning informs most training by emphasizing making learning relevant, using learners' experience as a platform for learning, and giving learners some say in how or what they learn.

In learning design, the basic ISD model has evolved; new models have developed that are applicable to different situations and have different emphases, such as rapid prototyping and learning modules. However, Bloom's taxonomy and Mager's model for learning objectives continue to influence the way that learning objectives are written today by specifying first the type of learning—knowledge, skill, or attitude—and then the behavior, condition, and degree.

Measurement is another strong theme in the field of training and development. Kirkpatrick's classic four levels of evaluation—reaction, learning, behavior, and results—and the work of people such as Jack Phillips and others in ROI still dominate the ways that learning is measured and reported. Measurement plays a big part in the drive to understand the business and to make the learning and performance function a strategic part of organizations. New in this area is the launch of the ASTD WLP Scorecard, which is an online real-time benchmarking and decision support tool that enables organizations to

- Monitor and benchmark a broad range of learning function indicators
- Compare the quality of the learning function with other organizations

Figure 1-2. Learning and Development Time Line, World Wars to Present

Training

WWII	1950s	1960s	1970s	1980s	1990s	Present
Systematic training; train-the-trainer (J) programs; management training; foundation of ISD	Programmed instruction (chunking subject matter): Bloom's taxonomy; Kirkpatrick's four levels of evaluation	HPI/HPT; OD; Mager's model for training objectives; teaching machines	Case method; sensitivity training/ laboratory method (Chris Argyris)	Assertiveness training; cost-benefit analysis; electronic workstations and laptops; cross-cultural training; competency-based training	E-learning; the learning enterprise, learning organizations (Peter Senge)	Just-in-time learning; m-learning; skills gap; certification

Theoretical underpinnings

Maslow's theory of human motivation; Lewin's group dynamics	B.F. Skinner; behaviorism; motivation theory	John Piaget's cognitive development; cognitivism; Richard Beckhard coins the term *organization development*	Malcolm Knowles's *The Adult Learner* (andragogy); Gagné's nine events of instruction (behaviorism); Jerome Bruner (constructivism)			

Societal influences

Industry shifts to war production; entry of massive numbers of women and men over the age of 40 into the workplace	Emergence of the idea of involving top management in training	Emergence of the civil rights movement	Sociotechnical systems; feminism; environmentalism; the gay rights movement	Large numbers of women enter the workforce; global economic competition; globalization		Rapid proliferation of new technologies: games, MP3 players, Web 2.0

Source: Compiled by Tora Estep, ASTD.

- Diagnose strengths and weaknesses in the learning function
- Make decisions about all aspects of learning.

On the international stage, the explosive growth of China and India is having an increasing effect on business as well as on training and development worldwide. Chinese companies are beginning to see the importance of developing managerial and professional talent, which ties in to another trend in the field: talent management (Law, 2006). Pressure to grow and change organizations is causing executives to become more concerned about current and future shortages of talent in the workforce. Consequently, the field of learning and performance is evolving toward a focus on managing talent across the enterprise by integrating functions that often exist in isolation even though they all concern the development of human capital. These are some of the elements that companies may include in talent management:

- Leadership development
- Career planning
- Succession planning
- Learning and training
- Competency management
- Retention
- Professional development.

This shift in thinking presents an opportunity for learning professionals who are well equipped to play leading roles in managing talent across an organization. Many see this as one more sign of the increasing relevance for the profession.

The dominant learning-related trend in India is growth in developing custom e-learning content (Harris, 2006). India's dominance in the area of providing custom e-learning content relates to the overall way that technology continues to grow and branch at an ever-increasing rate and the ways that training professionals continue to find new ways to put it to use for learning. For example, iPods and cell phones are harnessed for mobile learning (m-learning); Web 2.0 technologies allow people to connect to each other to enhance collaborative learning; and wikis, knowledge management systems, and more allow workers to find the knowledge and learning they need, when they need it.

Despite the growth in these technologies, traditional classroom learning continues to be a strong and excellent way to improve people's skills and knowledge. The exuberance over e-learning in the 1990s has been tempered by experience; the understanding now is that each form has its best uses and that one does not replace the other but instead complements it.

In Closing

Also complementary are the fields of training and development and performance. This feature lies behind the most recent term for this profession: workplace learning and performance. Training focuses on the business results to be achieved as an outcome of the training, while performance has much of its roots in the same behaviorism that has informed training. Although *training* remains the word that most people in the field identify with, the term *workplace learning and performance* reflects the ways that WLP professionals are trying to contribute more to their organizations by encompassing technology, applying business acumen, demonstrating bottom-line value, and managing talent in organizations. This broader definition of the profession informs the contents of this book and lies at the heart of the most recent ASTD competency study (Bernthal et al., 2004) and the certification program that is based on it. The history of training and learning reveals a recurring theme in the profession: expansion and growth. It shouldn't really be a surprise that the profession has continually expanded over the years—from training to HRD to WLP—when considering that the focus of the work has been on learning and growth for individuals as well as for organizations.

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Tora Estep is a senior associate editor at ASTD, where she has been a staff editor and writer for more than five years. She edited *Infoline,* ASTD's monthly publication dedicated to training workplace learning and performance professionals in a wide variety of topics and wrote several issues, including "Be a Better Manager," "Meetings That Work!," "Basics of Stand-Up Training," and "Managing Difficult Participants." She has also contributed several articles to *T+D* and was part of the editorial and writing team that produced the *ASTD Learning System,* a 10-volume study guide for practitioners preparing to take the CPLP knowledge exam. Prior to ASTD, she worked as an editor for International Communications Inc., editing books and magazines for the World Bank, the International Development Bank, the U.S. Southern Command, and more.

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