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Early History of the Fields of Practice of Training and Development and Organization Development

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Abstract
The Problem:
 While the time and place of the birth of the Academy of Human Resource Development are documented, the field of human resource development (HRD) has historical roots that began decades earlier with the emergence of training and development and organization development as fields of practice.
The Solution:
This article addresses the early history of training and development and organization development, and begins with the influence of World War II on work-related education and training and ends in the mid-1990s. It traces the origins of the field up to, but not including, the founding of the Academy of Human Resource Development in 1994. The historical development of training and development and organization development is shown to be a confluence of historical events and the intellectual contributions of seminal thinkers.
The Stakeholders:
Stakeholders for this article are researchers, practitioners, and others interested in the history of training and development and organization development.

Keywords : HRD history, training and development history, organization development history

The earliest history of training and development and organization development (OD) is rooted in the origins of education itself. An examination of the history of education from the beginning shows a continuum of human progress from survival-driven learning; to education rooted in antiquity, the classics, and religious beliefs; to the influences of war and military strategy on scientific and technical education; to the job skills training and scientific management spawned by the industrial revolution; to the post–World War II era leadership development programs and the training of teams; and, finally, to the development of individuals, organizations, and communities for a variety of work-related purposes (Swanson & Torraco, 1995). Although the fields overlap, training and development and OD are considered separate fields of practice, a recognition reinforced by McLagan (1989). The discussion in this chapter is limited to the early history of training and development and OD in the United States.

Emergence of Training and Development

Training and development in the United States emerged in the period during and after its involvement in World War II. During this period, there was a dramatic increase in the demand for trained workers brought on by the expanding wartime economy and by technological innovations. The rise of the U.S. labor movement during this period also contributed to the growth of employee training and development. After overcoming substantial resistance to its establishment during the early 1900s, the U.S. labor movement has become a strong proponent of training (Glass, 2013). As Swanson and Torraco (1995) stated, "Although the popularity and influence of labor unions has undergone significant change over time, organized labor has consistently supported extending the availability of education and training seen as broadening the skill base of its membership" (p. 34).

World War II, Training Within Industry (TWI), and the G.I. Bill
A major influence on the emergence of training and development in the post–World War II period was the legacy of the TWI service developed during World War II. The TWI service was a nationwide partnership between industry and the U.S. War Manpower Commission to rapidly scale up the production of military hardware and efficiently train millions of new workers and supervisors needed for the enormous transformation to a wartime economy. TWI helped to establish technical training programs in 16,511 manufacturing plants nationwide with new methods such as the four-step *job instruction program* (Dooley, 1945). By the time TWI was shut down in 1945, it had trained 23,000 people as trainers and certified 1,759,650 production supervisors. During the war, training had become established in many companies. With the gradual return to a peacetime economy, training, although reduced in size, was to remain a permanent fixture in most companies. As a catalyst to the development of human resource development (HRD) decades later, the wartime training movement had also established a new profession—the training director (Carnevale, Gainer, & Villet, 1990). The increasing prevalence of training directors across industry and business and the need for a professional network and forum for continuing education led to the formation in 1945 of the American Society of Training Directors, the precursor to the American Society for Training and Development (ASTD) and the Association for Talent Development (ATD) (Steinmetz, 1976).

Education and training in the post–World War II era also was significantly affected by the Servicemen's Readjustment Act of 1944, commonly known as the G.I. Bill (Frydl, 2009). Considered by economists and historians as a major political and economic success, the G.I. Bill provided members of the military returning from World War II with several benefits (e.g., low interest loans, mortgage assistance, and unemployment compensation) including tuition and expenses to attend college, complete high school, and participate in vocational education (Olsen, 1974). The G.I. Bill's beneficial effects were seen in the dramatic growth of education and job training programs stimulated by the legislation and in the level of participation; an estimated 2.2 million veterans attended post-secondary education, and 5.5 million participated in job training programs sponsored by the G.I. Bill in the decade following its passage (Bound & Turner, 2002).

Emergence of Systems for Training and Instructional Technology
During the post-war period, industry gradually adopted the lessons learned about effective training during the war and acquired a major funding partner, the U.S. military (U.S. Civil Service Commission, 1969). The dominant forms of training during this period were

classroom training and on-the-job training. One of the first widely adopted models for designing training was the instructional systems development (ISD) model (Campbell, 1984). Unlike prior training methods, the ISD model emphasized the importance of needs assessment before training and evaluating its effectiveness after training. The five phases of the ISD model—analyze, design, develop, implement, and evaluate—gave rise to the acronym, ADDIE, the popular term used for this training model. During the 1980s and early 1990s, refinements to the ISD model were made (Dick & Carey, 1990) and applications of the model beyond the classroom appeared (i.e., workplace, laboratory, field settings) (Gagne, Briggs, & Wager, 1992). The training for performance system (TPS) is an adaptation of this model that combines the five phases of development with a strong work performance orientation (Swanson, 1994; Swanson & Sisson, 1980). An additional advancement was the application of instructional technology to the workplace through structured on-the-job training which offered an efficient, cost-effective means of providing most types of job skills training (Jacobs, Jones, & Neil, 1992). The ISD model was widely regarded as providing systematic rigor to training that, prior to its introduction, was often amorphous and unreliable. The widespread use of structured approaches to training was accompanied by calls for their refinements including recommendations to decrease the lengthy, pre-training analysis phase (Rossett, 2009) and better integrate learning with working (Torraco, 1999); more realistic and adaptive instructional design (Allen, 2012); and greater context sensitivity (Tessmer & Wedman, 1995).

Influence of Vocational Education

Despite a shared mission of developing the workforce and overlapping knowledge bases, vocational education (now, often called career and technical education) and training and development have operated more in parallel than in partnership (Holton & Trott, 1996). Nonetheless, vocational education has had a noteworthy influence on the development of the field. Just as apprenticeships served as an instructional delivery model that was adapted for secondary and post-secondary vocational education, applied academic and vocational skills served as the basis for structured on-the-job training programs (Jacobs & Jones, 1995). Academic programs in HRD emerged in the 1980s primarily in U.S. university departments of vocational and adult education (Gaudet & Vincent, 1993) and shared, at least in the beginning, institutional structure, resources, and faculty (Kuchinke, 2002). No other specialization within education shares a philosophical and pedagogical interest in the relationship between education and work. Yet, despite these similarities and calls for closer ties (Gray, 1997; Holton & Trott, 1996; Kuchinke, 2002), the fields of vocational education (especially in secondary schools and community colleges) and training and development have remained on separate tracks.

Human Capital Theory and Economic Value of Training

Becker's (1975, 1993) work on human capital theory catalyzed its subsequent application to education (Levin, 1987; Psacharopoulos & Woodhall, 1985), training (Phillips, 1997; Swanson & Gradous, 1988), and employee selection (Schmidt, Hunter, Outerbridge, & Trattner, 1986). Although mainstream education is valued for its own sake, early proponents of training struggled to justify its costs to financial decision makers. Unlike in schools and free-standing training institutes, where the main purpose is education and training, providing a product or service is the main purpose of most business organizations and other non-school settings. Consequently, employee training must compete with other business prerogatives, such as research and development, operations, and customer service, for

the allocation of perennially scarce resources. Human capital theory (Becker, 1975, 1993) provided the basis for the perspective that training is an investment in employees and productivity rather than a cost. Several methods of demonstrating the financial benefits of training were developed during this period (Cascio, 1987; Fitz-enz, 2000; Parsons, 1997; Phillips, 1997; Swanson & Gradous, 1988). With roots in the 1980s, the perception of employee training as a value-added function today still depends on the ability to demonstrate its return on investment, especially during periods of reduced business spending. Despite greater awareness of the importance of justifying education and training expenses, the challenges associated with these methods limit their use (Brinkerhoff, 2006).

The 1990s witnessed the influence of the performance paradigm (Stolovitch & Keeps, 1992) and emphasis on training's ability to improve performance (Rummler & Brache, 1995). Training became more diverse and sophisticated and included employee skills inventories (Homer, 2001), just-in-time training (Iannarelli, 2009), independent training consultants and vendors (Robinson & Robinson, 1995), and advanced methods to measure the behavioral and financial results of training (Cascio, 2006). As the appeal of investing in training grew among employers, its funding increased and employers.

Employee Training—From Classroom to Computer to Realistic Context

Corporation schools (or factory schools) emerged to provide technical training in the skills and trades needed to keep pace with production during the early 1900s. These were precursors to the employer-sponsored job skills training held on-site for employees still in use today. Despite the availability of on-the-job training and apprenticeship, classroom training was the most popular form of instruction because it was efficient and minimized interference with production; many workers could be trained by one instructor, and classroom training prevented distractions on the production floor (Broadwell, 1976).

The increasingly sophisticated nature of work, coupled with advances in instructional technology, moved the primary locus of training away from the classroom. Describing how the expectations of workers have changed, Swanson and Torraco (1995) stated,

> Today's workers increasingly need to understand work operations as a whole, rather than what used to be their specific tasks within it. Monitoring and maintaining the work system or process is becoming in today's workplace what operating a single machine had been for mass production work. (p. 39)

At the same time, advances in instructional technology have broadened the range of training methods available to organizations and enabled a better match between training methods and desired outcomes. Beginning in the 1980s, several instructional innovations were introduced, including the ISD model, on-the-job training, and the use of videos and simulations. In the 1990s, the widespread use of personal computers and the introduction of computer-based training prompted the rethinking of traditional models of employee training. Its speed, visual display, and accessibility of multiple learning resources from a single computer facilitated the rapid adoption of computer-based training. Training options expanded in the late 1980s and early 1990s to include more computer-based options, including electronic performance support systems (EPSSs) and automated performance support (APS) (Gery, 1991) that were designed to balance learning and performance value with ease of use for non-computer experts. The emergence of the Internet and computer-based training during this period provided the foundation for today's elaborate e-learning systems.

Research in the areas of experiential learning (McCall, 1988), social learning theory (Bandura, 1977), transfer of learning (Holton, Bates, & Ruona, 2000), systems thinking (Senge, 1990), and situated cognition (Brown, Collins, & Duguid, 1989) have expanded the context of training beyond the classroom and computer. Learning through coaching, mentoring, networking, self-directed learning, and experiential learning, all considered types of informal learning that are less structured than classroom instruction, provide authentic experiences and job challenges as the primary context for learning (Marsick & Watkins, 1990). By the mid-1990s, the end point of this discussion of the early history of training and development, the field enjoyed a variety of realistic contexts that enabled a better match between the type of training and the capabilities that employees were expected to acquire through training.

Origins of OD

As with training and development, the growth of OD followed the industrial expansion and social and economic development of the post–World War II period. The term, *organization development*, is believed to have been coined by Richard Beckhard and Robert Tannenbaum. Referring to how Beckhard and Tannenbaum gave the field its name, Gallos (2006) stated,

> Their reasoning went something like this: If *individual development* is the term for human growth and change in response to challenge and opportunities, then the growth and development of organizations and large social systems logically should be called *organization* — not *organizational* — *development*. (p. 2)

French (1969) cited Douglas McGregor's work with Union Carbide in 1957 as one of the first cases of the organization-wide implementation of OD. While no particular set of circumstances gave rise to the practice of OD, most historical accounts associate the U.S. origins of OD with laboratory training and T-groups, Kurt Lewin's work on group and organizational dynamics, and early work in action research, survey feedback, and sociotechnical systems (Alban & Scherer, 2005; Burke, 2006; Cummings & Worley, 2015; McLean, 2006; Mirvis, 1988).

Stating that "it is necessary to go back to the 1940s and 1950s to understand the societal conditions that preceded OD's birth" (p. 60), Mirvis (2006) described the social, economic, and political context in which the workplace was gradually changing from predominantly industrial conditions and autocratic management, to a setting influenced by human relations and attention to the needs of workers, to a more dynamic workplace in which participatory change and OD were possible.

One account of the history of OD describes its precursors as sensitivity training, sociotechnical systems, and survey feedback (Burke, 2006). Another historical account situates OD's origins in five stems of OD practice: laboratory training, action research and survey feedback, normative background, productivity and quality of work life, and strategic change (Cummings & Worley, 2015). Another history of OD shows it to be the product of the confluence of laboratory training, survey feedback technology, action research, and sociotechnical and socioclinical approaches to change (French & Bell, 1989). The early history of OD discussed here is drawn from across these accounts of the origins of OD, as well as the author's experience of studying, teaching, and practicing OD during the last thirty years.

Major Influences on the Development of OD

The early development of OD was influenced by the strong positivist orientation of the latter half of the 20th century. As a young field, OD was shaped by the dominant paradigms of the time, such as the scientific method of problem solving and data-based change. The presumption of a single, discernible reality that could be characterized objectively and used as the basis for change is reflected in OD's adoption of survey feedback and other methods of organizational assessment and diagnosis. As Marshak (2006) stated, "Classical OD is based explicitly or implicitly on an ontology and epistemology that assume an objective, transcendent, knowable world" (p. 834). This worldview of OD is being challenged today by social constructionism and postmodern ways of knowing, such as found in appreciative inquiry (Cooperrider & Srivastva, 1987).

Multiple accounts of the history of OD agree on the centrality of Kurt Lewin's work to the origins of OD (Burke, 2006; Cooke, 1998; Mirvis, 2006). Schein (1990) observed that "there is little doubt the intellectual father of contemporary theories of applied behavioral science, action research, and planned change is Kurt Lewin" (p. 239). Burke (2006) stated, "(Lewin's) thinking has had a more pervasive impact on organization development, both directly and indirectly, than any other person's" (p. 25). Lewin's many contributions to the field, all still in use today, include his threephase theory of change, field theory (and force-field analysis), action research, and his groundbreaking work on sensitivity training and T-groups. Lewin's influence on OD, not yet a professional discipline and field of study, began in the summer of 1946 when Connecticut asked him to provide a workshop to improve community leadership and interracial relationships. During the workshops, participants became more sensitive to their own behavior as perceived by other group members, and the impact their behavior was having on group dynamics. This became known as sensitivity training.

Sensitivity training, laboratory training, and T-groups. OD grew out of attempts to apply the values and principles learned from sensitivity training and T-groups to the entire organization (Burke, 2006). Sensitivity training, laboratory training, and T-groups (a term abbreviated from training groups) all refer to the same outgrowth of Lewin's workshops—small, unstructured groups in which participants learn from their interactions with others about themselves, interpersonal relationships, group dynamics, and leadership. Burke (2006) traced the connection of T-groups to OD: "During the late 1950's when this form of education began to be applied to industrial settings for organizational change, the T-group became one the earliest so-called interventions of organization development" (p. 15).

Action research and survey feedback. Kurt Lewin was also involved in the development of action research. Action research is an iterative process for problem solving that has become a well-established method of OD. Lewin is cited as conducting work similar to, but in parallel with, John Collier to lay the groundwork for action research (Cooke, 1998). Based on the assumption that organizational members themselves should be actively engaged in the process of change, Lewin, Collier, and others believed that problem solving must be closely linked to action through an iterative cycle of data collection and analysis, feedback, and action for organizational members to participate fully in the change process. French (1969) provided the first conceptual diagram of how the action research model could be integrated with the OD process in a figure titled "An Action Research Model for Organization Development" (p. 28).

Survey feedback, often used as part of action research, involves systematically collecting data on attitudes and perceptions across the organization for the purpose of organizational assessment and diagnosis. Data are analyzed and then fed back to members so that they can identify strengths on which to build and sources of problems to be resolved (McLean, 2006). Early work on survey feedback encountered inconsistent results because, although data were properly collected and analyzed, in some cases, data were not fully divulged and discussed with members and, in other cases, groups failed to make plans for improvement based on survey feedback (Burke, 2006). The early use of survey feedback was compromised further because it is assumed that the relevant dimensions of the organization to be included in the survey could be identified ahead of time (Schein, 1990). McLean (2006) argued that "collecting data using two or more methods—an approach known as triangulation—can be very helpful in determining whether the data are the same regardless of the method used" (p. 96). With roots in the immediate post–World War II era, action research and survey feedback are now essential elements of the OD-based change process.

During the 1970s and early 1980s, applied research in several areas generated new streams of knowledge that influenced OD, a field that was just assuming its own identity at that time. Although they originated separately, these influences on the early development of OD affected each other and included work on sociotechnical systems and quality of work life, the quality movement, participatory management, and the importance of organizational culture to OD and change.

Sociotechnical systems and quality of work life. In the United Kingdom during the same time that T-groups and laboratory training began in the United States, applied research conducted by the Tavistock Institute gave birth to sociotechnical systems by showing that organizing work to optimize the balance between social factors and technological changes increased effectiveness, efficiency, and employee morale (Cherns, 1976). The earliest work demonstrating the benefits of sociotechnical work design was done by Eric Trist and Ken Bamforth in a British coal mining company. Prior to their involvement with the company, teams of six coal workers were responsible for the entire process of extracting the coal and getting it to the surface and were paid on the basis of team effort and work unit productivity, not individually—an arrangement that fostered teamwork and cohesion among members (Trist & Bamforth, 1951). Then, when new mining equipment was introduced that made work performance more individualized and specialized, teams were no longer needed and problems arose. As phases of the coal mining process, and the workers themselves, became disaggregated, productivity declined, and absenteeism increased.

Recognizing the benefits of both the new mining equipment and the discarded team approach to work performance, Trist and Bamforth (1951) recommended a new form of work design that utilized the new equipment and brought back the collaboration and teamwork of the previous period. Its implementation resulted in improved productivity and reduced absenteeism, and demonstrated the benefits of organizing work for joint optimization of both social and technical factors and not, as was done previously, emphasizing one factor at the expense of the other (Trist, 1960).

As sociotechnical systems migrated to the United States, it was combined with existing initiatives to enhance productivity, such as self-managed teams, job enrichment, and labor-management collaboration, and became known as quality of work life programs (Davis & Sullivan, 1980). The scope of quality of work life gradually expanded to include other features that were deemed to enhance employee motivation and productivity, such as management styles, reward systems, and flexible work environments. What began in the late

1950s and early 1960s as quality of work life programs are the basis for OD interventions to promote employee involvement that are used today (Cummings & Worley, 2015).

The quality movement and participatory management. In the immediate post–World War II period, Japanese manufacturers supplied the U.S. market with products that were mostly of low quality, such that the label "Made in Japan" came to signify an inferior product. This negative image changed when quality improvement transformed manufacturing in Japan. The 1980 NBC television broadcast of *If Japan Can, Why Can't We?* alerted the country to the dramatic improvements in Japanese manufacturing methods and added to concerns that the U.S. was losing ground in international competitiveness, especially to Japan (Cummings & Worley, 2015). Major organizations quickly began adopting Deming's (1986) approach to quality management, encouraged by Crosby's (1979) demonstration that system-wide quality improvement, rather than raising costs, could result in lower costs in the long run. Key characteristics of this new approach to quality improvement included its organization-wide scope, emphasis on managing systems and processes within organizations, and continuous process improvement using data, statistical process control, and the Six Sigma quality standard. Quality improvement's emphasis on the full participation and empowerment of all employees, not just managers, has become a central tenet of OD. The quality movement accompanied the emergence of participatory management, a management style that fostered greater employee autonomy, supported employee development, enhanced productivity, and reduced the hierarchical, top-down structure of organizations (Ouchi, 1981). Although precursors to participatory management appeared earlier (Likert, 1967; McGregor, 1957), it was not until the late 1970s that management began to recognize that more attention to the needs and development of employees could also improve productivity and profits (Lawler, 1986; Ouchi, 1981).

Organizational culture and change. Schein (1985) believed that only when trying to change an organization does one begin to understand it more fully. Building on earlier work in social psychology, group dynamics, and systems theory, he developed the first comprehensive theory of organizational culture (Schein, 1985). Discerning the difference between climate and culture, Schein (1990) stated that, "climate is only a surface manifestation of culture" (p. 110). He believed that a deeper understanding of organizational dynamics and culture was needed because "we need to find out what is actually going on in organizations before we rush in to tell managers what to do about their culture" (Schein, 1990, p. 112). Schein's theory of organizational culture includes a model of the levels of culture, the reciprocal relationship of leadership and culture, methods for analyzing organizational culture, and the importance of organizational culture to OD and change.

Creating strategic change and economic value. By the mid-1990s, the end point of this discussion of the early history of OD, its role in strategic change and its effects on creating economic value for organizations were major influences on the development of the field. OD began to broaden its scope to include the strategic value of organizational learning (Schwandt & Marquardt, 2000) and large-scale strategic change interventions (Worley, Hitchin, & Ross, 1996). However, throughout OD's brief history, it has struggled to balance its emphasis on humanism and collaboration with calls for greater organizational productivity and financial performance (Beer & Nohria, 2000; Buller, 1988). OD's emphasis on culture and participation is intended to create emotional attachment and commitment to change but not at the expense of creating economic value and sustainable competitive
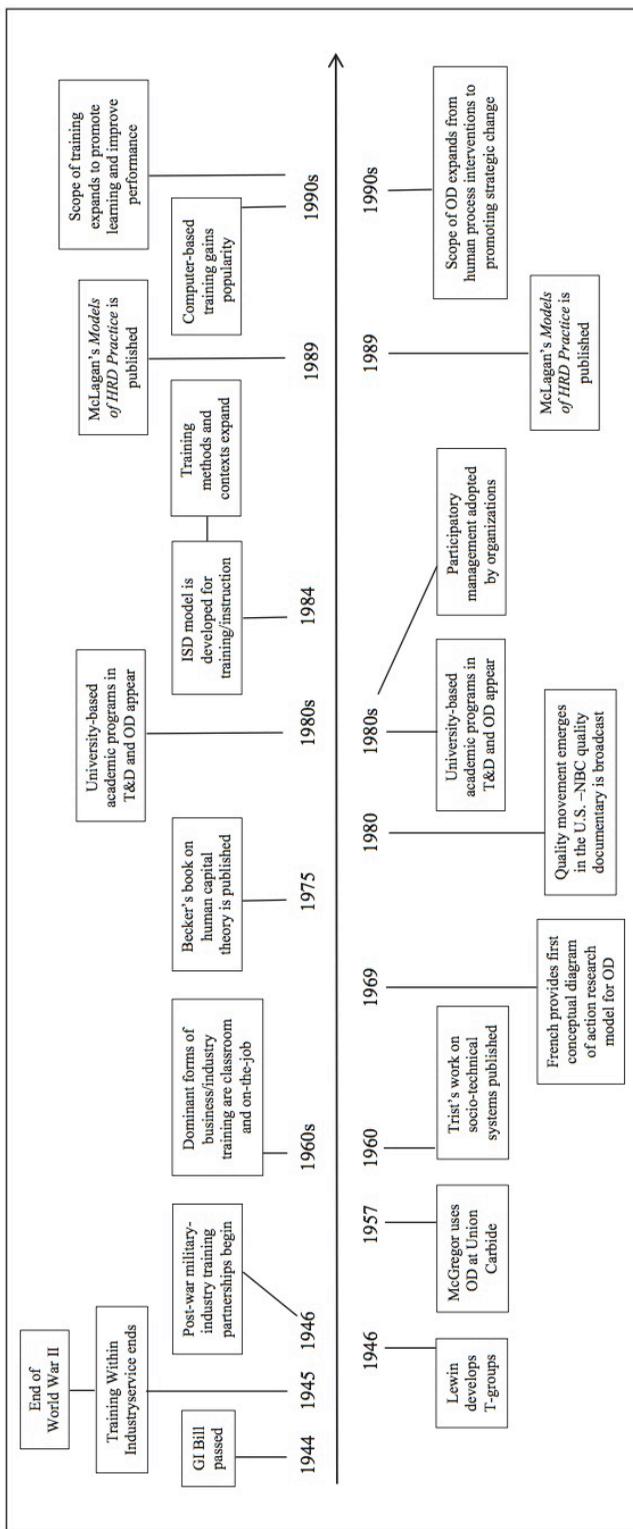
Figure 1. A timeline of the early history of T&D and OD.
Note. Events in the early history of T&D appear above the line; events in early history of organization development appear below the line. T&D = training and development; OD = organization development; ISD = instructional systems development; HRD = human resource development.

advantage (Jelinek & Litterer, 1988). There is still concern that OD professionals, especially those internal to the organization, would have greater influence and credibility if OD had a stronger link to strategy (Bradford & Burke, 2005; Kotter, 1995).

This discussion of the early history of training and development and OD is summarized in a timeline that shows the sequence of events in the early history of these fields (see Figure 1).

Implications and Conclusion

The early history of training and development and OD was shaped by historical events and the transformative contributions of pioneering thinkers. This early history has implications for the fields and their stakeholders. The origins of each of the fields were influenced by different people and historical events. Yet the fields also were affected by similar environmental factors and, since the 1980s, have influenced each other's development. This implies that the fields will continue to develop in both distinctive and complementary ways, as each field interacts with its stakeholders and with each other. People and influences from multiple disciplines were responsible for the early development of these fields. So as we look to the future, we can expect the research and practice of training and development and OD to be strongly influenced by the multidisciplinary complexion of the fields. Each of the fields will be challenged to adapt its expertise for developing human resources to a global community increasingly characterized by rapid change, uncertainty, and conflict. And although each field has expanded its scope since the 1990s, neither field has strayed from the humanistic, inclusive, and developmental values they share. The history and commitment of the fields to these values suggest that this will not change.

In conclusion, although they evolved in different ways and are considered to be separate fields of practice, training and development and OD share similar values, methods, and goals. Reflecting their complementarity, the research, teaching, and practice of one field rarely occurs without reference to the other. In addition, both training and development and OD draw on knowledge from many disciplines: economics, instructional technology, social psychology, cognitive science, human performance technology, organizational behavior, sociology, and others. The future direction of training and development and OD should continue to be informed by the diversity and richness of their early histories.

References
Alban, B. T., & Scherer, J. J. (2005). On the shoulders of giants: The origins of OD. In W. J. Rothwell & R. L. Sullivan (Eds.), *Practicing organization development: A guide for consultants* (2nd ed., pp. 81-105). San Francisco, CA: Pfeiffer.
Allen, M. W. (2012). *Leaving ADDIE for SAM: An agile model for developing the best learning experiences*. Alexandria, VA: American Society for Training and Development.
Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall. Becker, G. S. (1975). *Human capital: A theoretical and empirical analysis with special refer*

ence to education (2nd ed.). New York, NY: Columbia University Press.

Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis with special reference to education* (3rd ed.). Chicago, IL: University of Chicago Press.

Beer, M., & Nohria, N. (Eds.). (2000). *Breaking the code of change*. Boston, MA: Harvard Business School Press.

Bound, J., & Turner, S. (2002). Going to war and going to college: Did World War II and the G.I. Bill increase educational attainment for returning veterans? *Journal of Labor Economics*, *20*, 784-815.

Bradford, D. L., & Burke, W. W. (2005). *The crisis in OD*. San Francisco, CA: Jossey-Bass.

Brinkerhoff, R. O. (2006). *Telling training's story: Evaluation made simple, credible, and effective.* San Francisco, CA: Berrett-Koehler. Broadwell, M. M. (1976). Classroom instruction. In R. L. Craig (Ed.), *Training and development handbook* (2nd ed., pp. 33-1-33-13). New York, NY: McGraw-Hill.

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, *18*(1), 32-42. Buller, P. F. (1988). For successful strategic change, blend OD practices with strategic management. *Organizational Dynamics*, *16*(3), 42-55.

Burke, W. W. (2006). Where did OD come from? In J. V. Gallos (Ed.), *Organization development: A Jossey-Bass reader* (pp. 13-38). San Francisco, CA: Jossey-Bass.

Campbell, C. P. (1984). Procedures for developing and evaluating vocational training programs. *Journal of Industrial Teacher Education*, *21*(4), 31-42.

Carnevale, A. P., Gainer, L. J., & Villet, J. (1990). *Training in America: The organization and strategic role of training*. San Francisco, CA: Jossey-Bass.

Cascio, W. F. (1987). *Costing human resources: The financial impact of behavior in organizations*. Boston, MA: PWS-Kent.

Cascio, W. F. (2006). The economic impact of employee behaviors on organizational performance. *California Management Review*, *48*(4), 41-59.

Cherns, A. B. (1976). The principles of sociotechnical design. *Human Relations*, *9*, 783-792.

Cooke, B. (1998). Participation, process, and management: Lessons for development in the history of organization development. *Journal of International Development*, *10*, 35-54.

Cooperrider, D. L., & Srivastva, S. (1987). Appreciative inquiry in organizational life. In W. Pasmore & R. Woodman (Eds.), *Research in organization change and development* (Vol. 1, pp. 129-169). Greenwich, CT: JAI Press.

Crosby, P. (1979). *Quality is free*. New York, NY: McGraw-Hill. Cummings, T. G., & Worley, C. G. (2015). *Organization development & change* (10th ed.).

Stamford, CT: Cengage Learning. Davis, L. E., & Sullivan, C. S. (1980). A labor-management contract and the quality of working life. *Journal of Occupational Behavior*, *1*, 29-41.

Deming, W. E. (1986). *Out of the crisis*. Cambridge, MA: Center for Advanced Manufacturing Study, Massachusetts Institute of Technology.

Dick, W., & Carey, L. (1990). *The systematic design of instruction* (3rd ed.). New York, NY: HarperCollins.

Dooley, C. R. (1945). *The Training Within Industry Report 1940-1945*. Washington, DC:

Training Within Industry Service, War Manpower Commission, Bureau of Training.

Fitz-enz, J. (2000). *The ROI of human capital: Measuring the economic value of employee performance*. New York, NY: AMACOM.

French, W. L. (1969). Organization development objectives, assumptions and strategies. *California Management Review*, *13*(2), 23-34.

French, W. L., & Bell, C. H. (1989). A history of organization development. In W. L. French, C. H. Bell, & R. A. Zawacki (Eds.), *Organization development: Theory, practice, and research* (3rd ed., pp. 18-32). Homewood, IL: BPI/Irwin.

Frydl, K. (2009). *The G.I. Bill*. Cambridge, UK: Cambridge University Press.

Gagne, R. M., Briggs, L. J., & Wager, W. W. (1992). *Principles of instructional design* (4th ed.). New York, NY: Holt, Rinehart and Winston.

Gallos, J. V. (2006). The OD field: Setting the context, understanding the legacy. In J. V. Gallos (Ed.), *Organization development: A Jossey-Bass reader* (pp. 1-2). San Francisco, CA: Jossey-Bass.

Gaudet, C., & Vincent, A. (1993). Characteristics of training and human resource development degree programs in the United States. *Delta Pi Epsilon Journal*, *35*, 138-159.

Gery, G. J. (1991). *Electronic performance support systems: How and why to remake the workplace through the strategic application of technology*. Tolland, MA: Gery Associates.

Glass, F. (2013). *Work, money and power: Unions in the 21st century* (3rd ed.). Berkeley: The UC Berkeley Center for Labor Research and Education.

Gray, K. (1997). Seeking a "tie that binds": Integrating training and development/human resource development and teacher preparation. *Journal of Industrial Teacher Education*, *34*(4), 80-86.

Holton, E. F., Bates, R. A., & Ruona, W. E. A. (2000). Development of a generalized Learning Transfer System Inventory. *Human Resource Development Quarterly*, *11*, 333-360.

Holton, E. F., & Trott, J. W. (1996). Trend toward a closer integration of vocational education and human resource

development. *Journal of Vocational and Technical Education*, *12*(2), 1-10.

Homer, M. (2001). Skills and competency management. *Industrial and Commercial Training*, *33*, 59-62.

Iannarelli, B. (2009). Just-in-time training (JITT) and its implications for teaching and learning. In P. Rogers, G. Berg, J. Boettcher, C. Howard, L. Justice & K. Schenk (Eds.), *Encyclopedia of distance learning* (2nd ed., pp. 1297-1305). Hershey, PA: Information Science Reference.

Jacobs, R. L., & Jones, M. J. (1995). *Structured on-the-job training: Unleashing employee expertise in the workplace*. San Francisco, CA: Berrett-Koehler.

Jacobs, R. L., Jones, M. J., & Neil, S. (1992). A case study in forecasting the financial benefits of unstructured and structured on-the-job training. *Human Resource Development Quarterly*, *3*, 133-139.

Jelinek, M., & Litterer, J. (1988). Why OD must become strategic. In W. Pasmore & R. Woodman (Eds.), *Organizational change and development* (Vol. 2, pp. 135-162). Greenwich, CT: JAI Press.

Kotter, J. P. (1995, March/April). Leading change: Why transformation efforts fail. *Harvard Business Review, 73*(2), 59-67.

Kuchinke, K. P. (2002). Strengthening ties between career-technical education and human resource development. *Journal of Vocational Education Research*, *27*, 179-196.

Lawler, E. E. (1986). *High-involvement management*. San Francisco, CA: Jossey-Bass. Levin, H. M. (1987). Cost-benefit and cost-effectiveness analyses. *New Directions for Program Evaluation*, *1987*(34), 83-99. Likert, R. (1967). *The human organization: Its management and value*. New York, NY:

McGraw-Hill. Marshak, R. J. (2006). Emerging directions: Is there a new OD? In J. V. Gallos (Ed.), *Organization development: A Jossey-Bass reader* (pp. 833-841). San Francisco, CA: Jossey-Bass.

Marsick, V. J., & Watkins, K. E. (1990). *Informal and incidental learning in the workplace*. London, England: Routledge. McCall, M. W., Jr. (1988). Developing executives through work experiences. *Human Resource Planning*, *11*(1), 1-11.

McGregor, D. (1957). *The human side of enterprise*. New York, NY: McGraw-Hill.

McLagan, P. A. (1989). *Models for HRD practice*. Alexandria, VA: American Society for Training and Development. McLean, G. N. (2006). *Organization development: Principles, processes, performance*. San Francisco, CA: Berrett-Koehler.

Mirvis, P. H. (1988). Organization development: Part 1. An evolutionary perspective. In R. W. Woodman & W. A. Pasmore (Eds.), *Research in organizational change and development* (Vol. 2, pp. 1-57). Greenwich, CT: JAI Press.

Mirvis, P. H. (2006). Revolutions in OD: The new and the new, new things. In J. V. Gallos (Ed.), *Organization development: A Jossey-Bass reader* (pp. 39-88). San Francisco, CA: Jossey-Bass.

Olsen, K. (1974). *The G.I. Bill, the veterans, and the colleges*. Lexington: University Press of Kentucky. Ouchi, W. G. (1981). *Theory Z: How American business can meet the Japanese challenge*. New York, NY: Avon.

Parsons, J. G. (1997). Values as a vital supplement to the use of financial analysis in HRD. *Human Resource Development Quarterly*, *8*, 5-13. Phillips, J. J. (1997). *Handbook of training evaluation and measurement methods* (3rd ed.). Houston, TX: Gulf Publishing.

Psacharopoulos, G., & Woodhall, M. (1985). Cost-benefit analysis. In G. Psacharopoulos & M. Woodhall (Eds.), *Education for development: An analysis of investment choices* (pp. 3951). Washington, DC: The World Bank.

Robinson, D. G., & Robinson, J. C. (1995). *Performance consulting: Moving beyond training*. San Francisco, CA: Berrett-Koehler.

Rossett, A. (2009). *First things fast: A handbook for performance analysis* (2nd ed.). San Francisco, CA: Pfeiffer.

Rummler, G. A., & Brache, A. P. (1995). *Improving performance: How to manage the white space on the organization chart*. San Francisco, CA: Jossey-Bass.

Schein, E. H. (1985). *Organizational culture and leadership*. San Francisco, CA: Jossey-Bass. Schein, E. H. (1990). Organizational culture. *American Psychologist*, *45*, 109-119.

Schmidt, F. L., Hunter, J. E., Outerbridge, A. N., & Trattner, M. H. (1986). The economic impact of job selection methods on size, productivity, and payroll costs of the federal work force: An empirically-based demonstration. *Personnel Psychology*, *39*, 1-30.

Schwandt, D. R., & Marquardt, M. J. (2000). *Organizational learning: From world-class theories to global best practices*. Boca Raton, FL: St. Lucie Press. Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Doubleday Currency.

Steinmetz, C. S. (1976). The history of training. In R. L. Craig (Ed.), *Training and development handbook* (2nd ed., pp. 1-3-1-14). Alexandria, VA: American Society for Training and Development.

Stolovitch, H. D., & Keeps, E. J. (1992). *Handbook of human performance technology*. San Francisco, CA: Jossey-Bass. Swanson, R. A. (1994). *Analysis for improving performance: Tools for diagnosing organizations and documenting workplace expertise*. San Francisco, CA: Berrett-Koehler.

Swanson, R. A., & Gradous, D. (1988). *Forecasting the financial benefits of human resource development*. San Francisco, CA: Jossey-Bass. Swanson, R. A., & Sisson, G. R. (1980). Training technology: A hands-on course for trainers. *Training and Development Journal*, *34*(1), 66-68.

Swanson, R. A., & Torraco, R. J. (1995). The history of technical training. In L. Kelly (Ed.), *The ASTD technical and*

skills training handbook (pp. 1-47). New York, NY: McGraw-Hill.

Tessmer, M., & Wedman, J. (1995). Context-sensitive instructional design models: A response to design research, studies, and criticism. *Performance Improvement Quarterly, 8*(3), 38-54.

Torraco, R. J. (1999). Integrating learning with working: A reconception of the role of workplace learning. *Human Resource Development Quarterly, 10*, 290-311. Trist, E. (1960). *Socio-technical systems*. London, England: Tavistock Institute of Human Relations.

Trist, E., & Bamforth, K. (1951). Some social and psychological consequences of the long wall method of coal getting. *Human Relations, 4*, 1-8. U.S. Civil Service Commission. (1969). *Application of a systems approach to training: A case study* (Training Systems and Technology Series, No. 11). Washington, DC: Bureau of Training.

Worley, C., Hitchin, D., & Ross, W. (1996). *Integrated strategic change: How organization development builds competitive advantage*. Reading, MA: Addison-Wesley.

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