Chapter 1
Improving Workforce Education and Adult Learning:
New Concepts

Victor C. X. Wang
Florida Atlantic University, USA

Jeff Allen
University of North Texas, USA

ABSTRACT

Workforce education and adult learning cannot and should not be separate. These two closely interrelated fields continue to produce a sustainable competitive advantage in a competitive and global 21st century workforce. This chapter highlights some of the major concepts used to improve workforce education and adult learning in the hope that future researchers can replicate and continue to generate new knowledge when change reshapes the nature of the adult learner's work. The authors have addressed existing and emerging concepts in these two fields, from a very different perspective than most articles of this nature, to assist in redefining workforce education and adult learning in the 21st century. It is hoped that everyone, including those in key leadership positions, will take a renewed interest in these vitally important fields and seek to leverage the respective theories, models, and frameworks to produce a more productive citizen of the world.

INTRODUCTION

The term *vocational education* immediately reminds one of adult learning simply due to the fact that practitioners of vocational education are adult learners engaged in lifelong learning and the world of work. Adult education has been defined as "activities intentionally designed for the purpose of bringing about learning among those whose age, social roles, or self-perception define them as adults" (Merriam & Brockett, 1997, p. 8). It is difficult and impractical, in most cases, for scholars and scholar-practitioners to disregard the fact that our adult lives, and learning, are intimately tied

DOI: 10.4018/978-1-4666-2181-7.ch001

to our work lives. Our career and our ability to "thrive and survive" are woven in a manner that allows very little room for separation. Relationships to family, colleagues, and friends, life values, interaction with others, socio-economic status, gender roles, work-life balance, beneficial solutions, intellectual renewal, general efficacy, and even spirituality are all closely tied to our view of both work and everyday life of the adult learner.

The prominent educator and philosopher John Dewey (1966) advocated that occupations be the vehicle of instruction at elementary and secondary levels; nevertheless, elementary and secondary school children have not yet entered the workforce to formally earn a living. Theories of project, performance, and service learning integrate many similar principles are widely accepted. However, these principles are not often directly tied directly from adult education to the practice of workplace learning in the classroom. Adult learners gain meaning through their involvement, employment, and interactions with workforce education. It is futile for scholars to separate vocational (workforce) education from adult education or vice versa (Parker, 2010).

Therefore, a simple conceptual argument would be that adults and their chosen occupations would be integrally connected – and should be connected at the elementary, secondary, postsecondary and lifelong levels. However, it is an often an ignored aspect of both formal and informal education. The fields of workforce education and adult learning are like conjoined twins; trying to separate one from the other would likely cause both to die. It is not surprising that most land-grant universities offer vocational education and adult learning programs in one department (Wang & King, 2007). Although some universities separate the two programs, they, more than likely, remain in one college where courses from one program serve the other program as well. The fact is that university courses in vocational education and adult learning share similar historical and philosophical foundations. We must build on this rich relationship and better study the overlapping theories, models and frameworks to implement richer learning and teaching methods for lifelong learners.

BACKGROUND

The disciples of Aristotle, Plato, and Confucius were adult learners, meaning that adult learning as a concept and practice preceded pedagogy, or the "the art and science of teaching children." According to its current definition, as long as a child has reached the age of 18, she is considered an adult and therefore an adult learner. However, it is not as simple as biologically defining an age of adulthood. The long accepted theoretical ideas of pedagogy, andragogy, and geragogy (older adult learning, coined in 1950s) provide a basic start but can be better described as a continuum of theory rather than standalone theoretical constructs to be studied separately. It is important that we recognize that adults are not a homogeneous group. People tend to become increasingly different as they age (Allen & Hart, 1998). Differences in education, experience, health, and experiences are so diverse that few generalizations are accurate (Caswell, 1994).

By certain standards in many societies, advances in workforce education technologies and adult learning can be used to determine how advanced or not. Western industrialized countries entered the Information Age after experiencing industrialization, which helped those countries move from an agricultural society. Today, in the United States, the number of farmers is less than 1% (Wang & King, 2007) of the general population. Had it not been for the technological advances in vocational/workforce education, more Americans would have remained farmers. When adult learners relied on simple tools made out of stone, wood, or metal, agricultural societies lasted from several hundred to several thousand years. As workforce technologies developed, adult learners enjoyed the benefits

of the locomotive, sewing machine, telegraph, and power loom, among other new technologies. Industrialization helped Western countries raise their standard of living. In the Information Age in the same countries, *computer* has become the ubiquitous word to define its presence. Thus in the same way vocational education and adult education are conjoined in development.

Many occupations rely heavily on the use of computers, and vocational education has kept pace with new computer technologies evidenced by the change in title for vocational education. Prior to 1900, vocational education was known as manual training work mostly performed by human hands. Mechanization was not prevalent on a large scale, and many countries remained primarily agrarian. Even today, half the world is still highly dependent on agricultural sciences as the primary economy, being dependent on manual labor and learning through vocational education. In 1903, the term manual training was changed to industrial arts to reflect the stronger connection between the technology and the art of using such technology. Later, industrial arts was changed to *vocational education*, a term in use for several decades. In the early 1990s, scholars moved from vocational education to *career and technical education*, or *workforce education* – in some cases *career and technical education* to reflect, once again, the technological aspects of the field. The term *career* was used to show the association of the world of work with the lives of adult learners.

Indeed, adult learning should be relevant to one's career. However, knowledge in technologies quickly becomes obsolete; once individuals master the skills of operating one technology, a new technology comes to the market. When people say that they are technologically challenged, they actually find it difficult to master the new technology. There is no doubt that technologies have driven the progress of modern workforce education; and hence society. However, it is humans who develop technologies as labor-saving machines while at the same time the maintenance of those machines becomes increasingly challenging. Educational leadership must be aware of this dialectical relationship between humans and technology. The use of technology requires one to follow the "scripts" designed by the crafters of technology (Akrich, 1992), and this necessarily means that technology shapes one's actions and, potentially, one's thoughts (Berger, 2011). Akrich (1992) argued that any technology requires particular steps or scripts to be followed in order for its use to be effective. Berger(2011) argued that adult learners had the option of following such scripts, ignoring the scripts altogether and avoiding the use of technology, modifying the scripts and risking less effective use of the technology, or even misusing the technology. The more we attempt to use new and developing technologies, the stronger the demand to learn and relearn new scripts. With an ever-increasing outflow of new technologies, adult learners face increasing demands to adopt and use those technologies in the workplace, thus requiring more workplace and vocational education.

As adult learners have become the backbone of any knowledge-based society, individuals should not frown upon workforce education just because it grew from and with blue-collar workers. Those who view workforce education negatively probably lack knowledge of its history and its contributions to the development of society. Without workforce education, individuals would remain where they were hundreds of years ago. The success of a nation depends on its workforce education because the technologies and adult learners associated with workforce education are the driving force of any society. In a typical American family, for example, the father and mother make a living while the children attend school. The parents depend on their careers to make a living for the whole family, but they are less likely to succeed without modern technologies, regardless of whether they are blue-collar or white-collar workers. Specialization in most fields has created skill sets that require technological

skills and proficiency in order to be successful. Auto mechanics now depend on computers to diagnose problems for cars and other vehicles while white-collar workers face a similar challenge as new software and computer-monitoring systems become available.

As technology develops, a subsequent increase in wages follows. Plumbers using more advanced technologies receive more pay for their work. In the 1800s, President Andrew Jackson advocated, "The attainments of a farmer or merchant are on the same level as those of an educated classical scholar" (Wang, 2012, p. xv). Both required specific knowledge and skills comparable to the skills required in today's workplace – such as critical thinking and problem solving, creativity and innovation, leadership, cross-cultural understanding, information fluency, computing and information technology fluency, and career and learning self-reliance (Trilling, 2008). In other words, the dividing line between the blue-collar worker and the white-collar worker has become blurred due to the reliance upon and prevalence of technology. Success in today's workplace requires knowledge of and proficiency with technology; and workforce education seeks to help adult learners gain that knowledge and skill. Workforce education is defined as education for work for all its practical purposes. According to the U.S. Department of Labor and the U.S. Department of Education (Wang, 2003), jobs of the future will have the following characteristics:

1. Will require some postsecondary education for the first time in history.
2. Only 2% will fall into low-skill categories, compared to 40% of jobs today.
3. Jobs that are in the middle of the skill distribution today will be the least skilled occupations of the future (p. 28).

Let us mirror this argument in another setting: A learner (high school student) is asked: What is your college major going to be? This simple question ignores that basic question that every parent really wants to know: What job will you be qualified for when you exit school? A college major, or any educational endeavor, is a process for reaching a destination– a job, skill, or knowledge. In the same way, learning or education are simply the "airplane ticket" of life. As adults, we first ask the destination: Where are you going? and not *How* are you going to get there? When we first know where we are going, the way we get there (the college major/the ticket) becomes a secondary consideration to the goal (the destination). Adult education is not simply a question for the young; it is a question for all and is tied to our perception of ourselves and our value to society.

REDEFINING WORKFORCE EDUCATION AND ADULT LEARNING IN THE 21ST CENTURY

Workforce education can aid adult learners in gaining basic skills in the workplace. More importantly, people need career and technical education in order to have a meaningful work life. By the year 2015, most education will be delivered by electronic media to learners at their convenience rather than the provider's (Wang, 2003). This trend demonstrates the growing reliance upon distance learning and technologies to provide education, even workforce education. In fact, the largest online university is the University of Phoenix located in Arizona, where over 100,000 adult learners from all over the world are actively pursuing advanced degrees in workforce education or adult education. Traditional universities cannot afford to lag behind. It is not surprising when a traditional university offers one third of its courses online. Recently, the University of Georgia began to offer 100% online courses for working adult learners. Now numerous other universities are launching online programs to reach learners

from other states and other countries. King (2006) provides examples of adult learners' learning anywhere, anytime through the use of distance and educational technologies:

- The working mother in rural Nebraska completing her bachelor's degree online through her local state university while her children sleep at night.
- The single young man in New York City studying for the GED exam via public television and telephone tutoring.
- The mid-career business woman executive pursuing her doctorate in education via hybrid online and residency program in order to change careers.
- The retired bus driver engaged in a collaborative webinar for his class through a University of Beijing class on the Eastern perspective of global issues (p. 16).

Workforce education technologies have boosted the expanding body of knowledge concerning adult learning. Between 1965 and 1975, knowledge concerning adult learners had doubled. It doubled again between 1975 and 1985 and has been in the process of doubling since 1985. If the role of workforce education is to help people become skillful in making and facilitating continuous change, then both educators and adult learners should rely on workforce education technologies and new advances in adult learning.

Traditionally, workforce education instructors and adult education professionals have relied on adult education theories to advance the field. While workforce education instructors have depended on "competency-based" or "hands-on" education to train workforce workers, many adult learning professionals have depended on the theory of andragogy (Knowles, Holton, & Swanson, 2005) to help adult learners learn in the field. The father of andragogy, Malcolm Knowles, made the distinction between the education of children and the education of adults in the early 1970s, and this distinction has brought a revolution in education and training. However, educators, whether they are in a K-12 education setting or an adult education setting, conform to the same pedagogical standards. We have seen a reluctance to adopt andragogical principles, even in adult education settings. Recently, an instructor was assigned to teach an online adult education class with 24 students, all adult learners from all over the world. The lead instructor insisted that he call her to receive instructions and training from her, although he had been helping adult learners for the past 8 years. In other words, he does not teach his learners; he helps them learn in the field. The lead instructor called with the following instructions: "The associate dean insisted that you respond to each student on the discussion board at least four times a week; you 'must' provide in-depth comments on each major assignment; you 'must' post two announcements twice per week; you know if you don't do it this way, three other instructors are waiting to take your job as an online instructor." The threatening tone of the lead instructor and the associate dean is indicative of lack of knowledge in creating a safe and inviting environment where adult learners may become self-directed learners and instructors become facilitators or "guides on the side."

To fully utilize workforce education technologies and advances in adult learning, adult learners need to possess some basic workplace skills. According to the American Society for Training and Development (ASTD) and the Department of Labor (DOL), workplace basics for adult learners include the following:

1. **Learning How to Learn**
2. **Competence in Reading, Writing, and Computation**
3. **Listening and Oral Communication**
4. **Adaptability:** Creative thinking and problem solving.

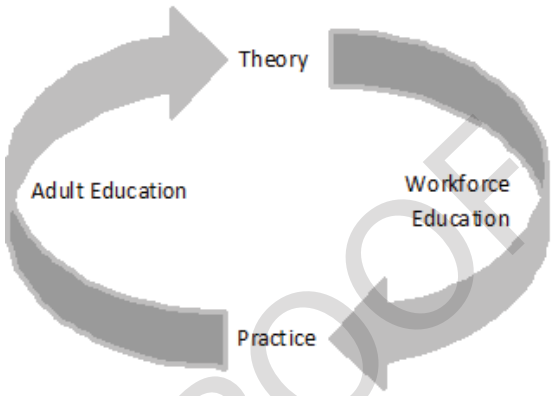
5. **Personal Management:** Self-esteem, goal setting/motivation, and personal/career development.
6. **Group Effectiveness:** Interpersonal skills, negotiation, and teamwork.
7. **Organizational Effectiveness and Leadership** (Wang, 2003, p. 31)

A closer examination of the above seven points specified by ASTD and DOL reveals the close connection between workforce education technologies and advances in adult learning. The purpose of this chapter is to remind people not to underestimate the value of workforce and adult education. Workforce and adult education and technologies play a major role in improving our inherently flawed society. Such vital concepts as freedom, discipline, and responsibility can be comprehended by experiencing them through a variety of inspired learning experiences in a host of workforce and adult education programs.

Major contributors such as Carl Rogers, Malcolm Knowles, Ralph Tyler, John Dewey, Jack Mezirow, Patricia Cranton, Stephen Brookfield and even Confucius among others have advanced the field of workforce and adult education through their theories, which have shaped the thinking of many generations of workforce/adult education instructors, scholars, and students. Needless to say, these contributors have devoted their entire lives to this field of scholarship. Workforce and adult education encompasses many fields of study. Under this umbrella, many sub-subjects have developed and evolved. For example, agricultural education, business education, industrial education, technical education, health occupations education, technology education, home economics, English education, and workforce guidance are housed under workforce and adult education. Figure 1 shows the adult and workforce education continuum.

The Information Age requires new concepts to help advance workforce and adult education. In earlier times, workforce and adult education differed from today's training. During the Industrial Revolution, new inventions, including the railroad system, put a strain on workforce and adult education training methods. Due to new inventions, a large pool of trained workers or adult learners was needed because training methods such as "manual training" proved insufficient. The tools used to train workers and adult learners have evolved, especially during the past 20 years. Adult workforce education instructors used to depend on transparencies 20 years ago. Today, computers, projectors, and flash drives have replaced those transparencies, and had allowed data to travel from computer to computer in a fraction of the time for both adult workforce instructors/practitioners and learners. Allen, Bracey and Gavrilova (2010) further this argument:

Figure 1. Adult education and workforce education continuum



Lifelong learning is now a competitive necessity and technological fluency is becoming a graduation requirement. More distance education programs are necessary because of increased enrollments, yet resources and qualified instructional designers are limited in some parts of the world. Mobile learning has emerged as a learning resource, and there is a trend towards more technology-facilitated mentoring, as well as flexibility in technology-based professional development (p. 58).

No longer can adult or workforce education instructors segment what is meant by "typical" or "technological" instruction. No longer does the workplace or the lives of adult learners allow such a differentiation. Technology/innovation includes "the utilization of theory, system, processes, and tools that advance society by improving skill sets, promoting global and local connectivity, and increasing productivity and knowledge (Allen, Bracey, & Pasquini, 2012, p. 49).

A globally competitive and connected world requires a much more integrated viewpoint of lifelong learning. Traditionally, adult workforce instructors/practitioners have not deviated much from traditional instructional methods despite workforce education technologies and advances in adult learning. As Knowles, Holton and Swanson (2011, p. 60) argued, "the whole educational enterprise has been frozen into the pedagogical educational model (K-12 education)." However, traditional instructional methods contradict the advances in adult learning. A number of adult workforce instructors/practitioners simply teach the way they were taught. Workforce education technologies and advances in adult learning do not seem to help change their instructional preferences.

Over the years, researchers/scholars in workforce and adult education have developed innovative instructional methods out of workforce education technologies and advances in adult learning. The reality is that few instructors/practitioners conform to these innovative instructional methods, as shown in Table 1.

Climate, planning, diagnosis of needs, goal setting, lesson plan design, learning activities, and evaluation are clearly the "seven-step instructional process" developed by Knowles. He popularized this seven-step instructional process at national and international conferences and workshops. The beauty of his process is that Knowles has specified or prescribed the specific roles for both pedagogical (K-12 education) and andragogical instructors. This andragogical model was innovative in that it was derived from Ralph Tyler's pedagogical model, which was only a four-step instructional process (Wang & Parker, 2011):

1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?

Table 1. Replacing the pedagogical model with Knowles's andragogical model in adult education

Elements	Pedagogy	Andragogy
Role	**Teacher-Directed**	**Self-Directed**
Climate	Formal authority-oriented, competitive, judgmental	Informal, mutually respectful, consensual, collaborative, supportive
Planning	Primarily by leader	By participative decision making
Diagnosis of needs	Primarily by leader	By mutual assessment
Setting goals	Primarily by leader	By mutual negotiation
Designing a learning plan	Content units, course syllabus, logical sequence	Learning projects, learning content sequenced in terms of readiness
Learning activities	Transmittal techniques, Assigned readings	Inquiry projects, independent study, experiential techniques
Evaluation	Primarily by leader	By mutual assessment of self-collected evidence

(Adapted from Knowles, 1995, as cited in Wang, 2009, pp. 172-200)

3. How can these educational experiences be effectively organized?
4. How can we determine whether these purposes are being attained?

The validity and reliability of the four fundamental questions are inherent and the 4 step instruction method derived from Tyler's 4 questions:

1. **Motivation:** Before adult workforce education instructors present any workforce education technologies and advances in adult learning, they need to do everything they can to motivate learners to learn.
2. **Presentation:** After the motivation phase, it is time for adult workforce educators to present pertinent information/core body of knowledge in the field.
3. **Homework:** After the presentation phase, it is time for adult workforce educators to assign homework to adult learners.
4. **Follow Up:** It is the evaluation phase whereby adult workforce education instructors "evaluate" adult learners' work (Wang & Parker, 2011, pp. 51-54).

Neither Tyler's four-step instructional model nor the four-step instruction considers the difference between the education of adults and the education of children. Knowles made this distinction in the 1970s. Neither model considers the characteristics of adult learners in workforce and adult education. Certainly, many other factors should be reviewed when prescribing any learning activities for adult learners. The notion of replacing the pedagogical model with Knowles's andragogical model in adult education is the result of many years of research and experiment. As a model, it reveals many new concepts. It is lamented that these new concepts have not been well applied in practice. For example, too many instructors/practitioners still conform to the pedagogical model, or Tyler's model, regardless of their background and learning situations. Later, Knowles, Holton, and Swanson (2005, 2011) developed a manuscript called *Andragogy in Practice* to remind instructors and practitioners to practice andragogy in adult workforce education while taking into consideration many other factors (see Figure 2).

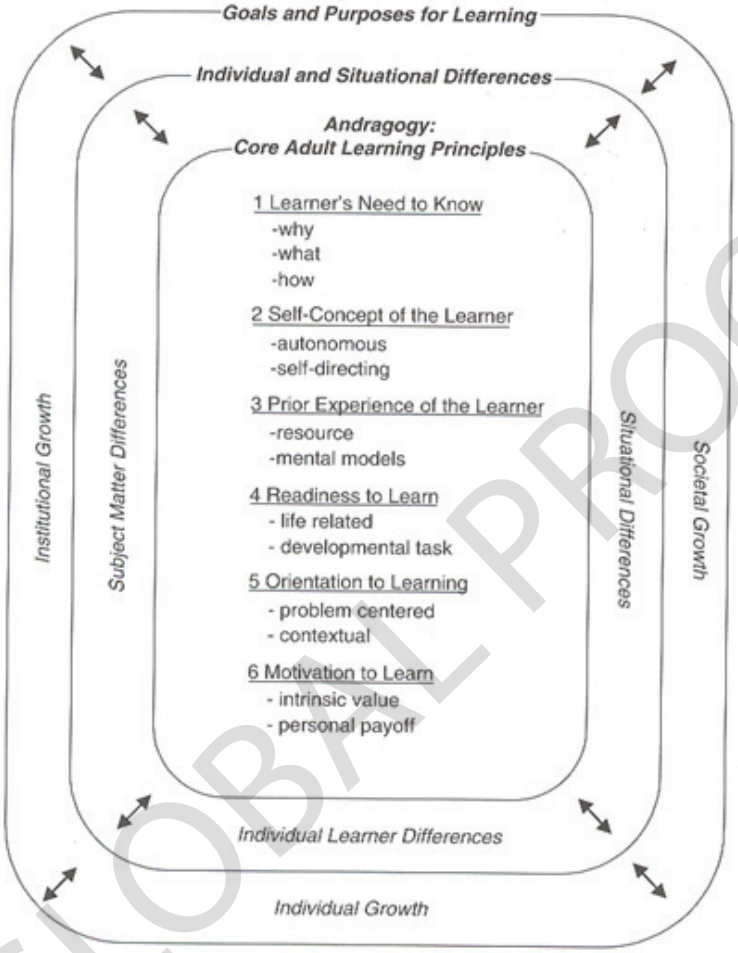
To apply the core adult learning principles to practice in adult workforce education is nothing new as the theory or model was generated in 1833 in Germany. New concepts in adult learning stem from the fact that contemporary adult educators consider various factors such as societal growth, institutional growth, situational differences, individual learner differences, and even subject matter differences. All these factors may make up cultures and even subcultures in different societies or countries. Brookfield (1986, 1993, 2000) indicated that culture or subculture may put a strain on the beautifully well-reasoned theory of andragogy. What Brookfield presented, in essence, is a new concept in the field.

As readers digest the new concepts in workforce education technologies and advances in adult education in this book, they may come across terms such as adult education, adult learning, vocational education, adult vocational education, career and technical education or vocational and adult education. These terms are used to refer to more or less the same field of study or closely related fields. Similarly, adult vocational education instructors can be called adult learning professionals, adult educators, learning facilitators, andragogues or even guides. Rather than meaning to confuse, these terms are presented through stories and history. Their meaning will be revealed and clarified as the reader acquires new knowledge of concepts in workforce education technologies and advances in adult learning.

FUTURE TRENDS

Will these new workforce education technologies and advances in adult learning replace the existing concepts in the field? What are the existing

Figure 2. Andragogy in practice (adapted from Knowles, Holton, & Swanson, 2005, 2011)



concepts in workforce and adult education? The existing concepts or theoretical frameworks have prepared learners to enter the workforce. Are they adequate enough to prepare adult learners to enter the 21st-century workforce? How have the new concepts emerged? A plethora of these questions will be probed by different authors in this book. Do they provide definitive answers? Perhaps the answer is self-evident.

Learners, young and old, have been introduced, at some point, to the term competency-based education and the distinction between the education of children and the education of adults. The concepts of self-directed learning and transformative learning are all existing concepts applied in the field of workforce and adult education as well as nursing and military science. However, the same workforce education technologies and advances in adult learning need to be tested in order to determine whether they will fit the new/rapid societal development in the new century. Once they are tested, new concepts will emerge. This chapter and other chapters in the book will provide the opportunity to study existing workforce education technologies and advances in adult learning. More importantly, this research will provide the opportunity to review the entire process of how new concepts have been tested and emerged from

the field in order to guide students, scholars, and practitioners in this and related fields.

It is true that most people wish to be contributors to society rather than takers from society. Having this noble goal in life is not enough; action is needed. Scholars must immerse themselves in the study of workforce education innovations and advances in adult learning. Above all, they should learn the new concepts that have emerged from workforce education technologies and new advances. No one should forget that the theory of andragogy brought a revolution (radical change) to education and training. These are some of the trends that we have highlighted for future researchers in this area.

CONCLUSION

Success, in the 21st-century, demands a global, competitive, and sustainable workforce. From training, human resource development, adult learning to workplace learning these strategies for success should aim at maintaining this competitive advantage. Scholars and scholar-practitioners cannot underestimate the power theories, models and frameworks derived from a rich history of workforce education and adult learning literature. These parallel and connected, Siamese twins, have assisted organizations to maintain a sustainable competitive advantage from the remote past to the present.

Organizations without a sustainable competitive advantage will simply see globalization as an empty slogan. A lack of understanding critical 21st century global skills (e.g, cross-cultural understanding, information fluency, computing and information technology fluency) creates a lack of fluency that is detrimental to organizational success in partnering with a global workforce of adult learners (Trilling, 2008). Competitive advantage is not, simply, monetary it also includes knowledge, skills and attitudes. A depth of understanding about our diverse differences and tremendous similarities offers a tremendous wealth of knowledge for our organizations. Organizations must learn to grow. The 21st century information society, or knowledge society, will demand that adult learner grow and learn at a more rapid pace than at any time in history. This rapid pace will demand that scholars leverage knowledge from other fields to better facilitate learning throughout the lifespan.

Rowden (2007) indicated, "Adult learners learn on demand and they use technology as a tool to achieve that end. They use the latest technological advance and their goal will be to find coaching or immediate answers to problems they confront" (p. 124). Rowden's provocative statements derived from existing workforce education principles and adult learning theories that have continued to serve as the theoretical foundations in these two fields that are so vital to a nation's workforce. Manpower needs would not be successful fulfilled without the advancement of new concepts in workforce education and adult learning. This chapter has illustrated the importance of applying these new concepts in workforce education and adult learning to practice in this new era in which adult learners are required to transform people and the places where they work.

Scholars and scholar-practitioners require a new lens if they are to improving workforce education and adult learning in the 21st century. Rouna and Lynham (2004, p. 154) state:

How we see the world shapes and directs how we think about the world; that how we think about the world shapes and directs how we act in the world; and how we act in the world, in turn, reflects and influences how we think about and consequently see the world.

The authors have posed a different lens for both workforce education and adult education. The symbiotic and rich histories of these fields demand no less from their scholars.

REFERENCES

Akrich, M. (1992). The description of technical objects. In Bijker, W. E., & Law, J. (Eds.), *Shaping technology/building society: Studies in sociotechnical change* (pp. 205–224). Cambridge, MA: MIT Press.

Allen, J., Bracey, P., & Gavrilova, M. (2010). Learning in 2010: Instructional challenges for adult career and technical education. [IJAVET]. *International Journal of Adult Vocational Education and Technology*, *1*(4), 48–62. doi:10.4018/javet.2010100104

Allen, J., Bracey, P., & Pasquini, L. (2012). Learning and performance innovation. In V. C Wang (Ed.), *Encyclopedia of e-leadership, counseling and training* (pp. 48-64). Hershey, PA: Information Science Reference. doi:doi:10.4018/978-1-61350-068-2.ch005

Allen, J., & Hart, M. (1998). Training older workers: Implications for HRD/HPT professionals. *Performance Improvement Quarterly*, *11*, 91–102. doi:10.1111/j.1937-8327.1998.tb00109.x

Berger, J. (2011). Perceived neutrality of technology and its potential impact: Recontextualizing technology into adult learning settings using a cultural studies approach. In Wang, V. C. X. (Ed.), *Encyclopedia of information communication technologies and adult education integration* (pp. 810–823). Hershey, PA: Information Science Reference.

Brookfield, S. D. (1986). *Understanding and facilitating adult learning*. San Francisco, CA: Jossey-Bass.

Brookfield, S. D. (1993). Self-directed learning, political clarity, and the critical practice of adult education. *Adult Education Quarterly*, *43*(4), 227–242. doi:10.1177/0741713693043004002

Brookfield, S. D. (2000). Transformative learning as ideology critique. In Mezirow, J. (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 125–148). San Francisco, CA: Jossey-Bass.

Caswell, D. (1994). Training for older people: A handbook [book reviews]. *Labor Studies Journal*, *18*, 79–80.

Cranton, P. (2006). *Understanding and promoting transformative learning* (2nd ed.). San Francisco, CA: Jossey-Bass.

Dewey, J. (1966). *Democracy and education*. New York, NY: The Free Press.

King, K. P. (2006). Introduction. In King, K. P., & Griggs, J. K. (Eds.), *Harnessing innovative technology in higher education: Access, policy, & instruction* (pp. 15–28). Madison, WI: Atwood Publishing.

Knowles, M. S. (1995). *Designs for adult learning*. Alexandria, VA: American Society for Training and Development.

Knowles, M. S., Holton, E., & Swanson, A. (2005). *The adult learner* (6th ed.). Boston, MA: Elsevier.

Knowles, M. S., Holton, E., & Swanson, A. (2011). *The adult learner* (7th ed.). Burlington, MA: Elsevier.

Merriam, S. B., & Brockett, R. G. (1997). *The profession and practice of adult education: An introduction*. San Francisco, CA: Jossey-Bass.

Mezirow, J. (2000a). Transformative learning. In Mezirow, J. (Eds.), *Learning as transformation* (pp. 1–33). San Francisco, CA: Jossey-Bass.

Mezirow, J. (Ed.). (2000b). *Learning as transformation: Critical perspectives on a theory in progress*. San Francisco, CA: Jossey-Bass.

Parker, J. (2010). Adult learning and CTE: A shared history influenced by technology. In Wang, V. C. X. (Ed.), *Definitive readings in the history, philosophy, practice and theories of career and technical education* (pp. 180–196). Hershey, PA: Information Science Reference. doi:10.4018/978-1-61520-747-3.ch011

Rouna, W., & Lynham, S. (2004). A philosophical framework for thought and practice in human resource development. *Human Resource Development International*, *7*(2), 151–164. doi:10.1080/1367886031000163066 5

Rowden, R. W. (2007). *Workplace learning: Principles and practice*. Malabar, FL: Krieger Publishing Company.

Trilling, B. (2008, April-May). Engineering the future of learning. *Technology Century, 13*(2), 24-27. Retrieved from http://ww2.esd.org/publications/TechnologyCentury.htm

Wang, V. C. X. (2003). *Principles of adult education: A guide to optimal performance in adult education*. Boston, MA: Pearson.

Wang, V. C. X. (2009). Implementing andragogy in China. In V. C. X. (Ed.), *Curriculum development for adult learners in the global community, Volume 2: Teaching and learning* (pp. 172-200). Malabar, FL: Krieger.

Wang, V. C. X. (Ed.). (2012). *Vocational education technologies and advances in adult learning: New concepts*. Hershey, PA: Information Science Reference.

Wang, V. C. X., & King, K. P. (Eds.). (2007). *Innovations in career and technical education: Strategic approaches towards workforce education around the globe*. Charlotte, NC: Information Age Publishing.

KEY TERMS AND DEFINITIONS

Adult Learning: Became a major field of study in the 1920s in North America. Students can seek teaching credentials for PhDs in this field.

Andragogy: Defined by Malcolm Knowles as the art and science of helping adults learn.

John Dewey: The first American philosopher/educator who advocated that "occupations should be the vehicle of instruction at the elementary/secondary level in workforce education."

Malcolm Knowles: Considered as the father of adult education worldwide who popularized the concept of andragogy during his lifetime.

Ralph Tyler: Hailed as the "king" of curriculum development based on pedagogy, the art and science of teaching children.

Workforce Education: Formerly known as "vocational education," which concerns education for work.

Chapter 2
Transformative Learning in the Workplace

Patricia Cranton
University of New Brunswick, Canada

Ellen Carusetta
University of New Brunswick, Canada

ABSTRACT

Using two silent-dialogue scenarios as a basis for discussion, this chapter provides an overview of how workplace learning can be framed by transformative learning theory. Based on the literature on workplace learning, the authors review the primary kinds of workplace learning that can be found in diverse workplace contexts. In contrast to the debates occurring in adult education about what is and what is not transformative learning, here they suggest that each kind of workplace learning has the potential to be a transformative learning experience. The chapter concludes with a discussion of paradoxes and implications. In this chapter the authors explore the nature of workplace learning from the perspective of transformative learning theory. In order to do this, they present two scenarios, one related to employer-sponsored learning in the workplace, and one related to leadership development facilitated by an external consultant. For each scenario, the authors use a silent dialogue—revealing the thoughts of the educator as the scenario unfolds, and the thoughts of one of the participants during the same timeframe. The silent dialogues reveal the conflicts and issues inherent in the scenarios. Drawing on the literature on workplace learning, the chapter provides an overview of kinds of workplace learning, and then analyze the first scenario. This is followed by the presentation of the second scenario and an analysis of that scenario, next turning to transformative learning theory, and using that framework to better understand the kinds of workplace learning and how they can be transformative. The chapter discusses the paradoxes inherent in applying transformative learning theory to workplace learning and lists some implications for practice, theory development, and research.

DOI: 10.4018/978-1-4666-2181-7.ch002

FIRST SCENARIO: EMPLOYER-SPONSORED LEARNING IN THE WORKPLACE (SILENT DIALOGUE)

Educator: *It is with great anticipation that I have been planning a three-day workshop for faculty on how to use a new course management platform. I am excited about having this opportunity. I think I have covered everything, though it seems difficult to get all of the details of this platform thoroughly covered in just three days. I know that some of the participants will have little experience with online teaching and learning, while others tend to take every workshop we offer. I'll have to find the right balance between the two. I hope I am prepared for that.*

Learner: *Perhaps this workshop will actually be useful. It is bad enough that we are forced to take professional development workshops; it is worse when they waste my time which could be better spent planning lessons or grading papers. Since I teach online, I might as well go to the workshop. I'm not sure I'll learn anything new, but at least it won't tax my brain.*

Educator: *First day. The room is buzzing in the morning. We have a computer lab for the workshop, so everyone will be behind a computer and will be able to follow along, doing the same thing that I am projecting from my computer. Lots of people seem to know each other from prior workshops, but there seems to be about one-third of the group that do not know anyone (they sit quietly by themselves). There are twenty or twenty-five people in the room. I have a colleague to assist with helping people who need individual instruction. The "old pros" in the room start asking very technical questions, and I respond to some of these, but then I realize this may be intimidating for those who are unfamiliar with online teaching, so I hand out the agenda for the three days and quickly move into the first item, which is an overview of how software for an online course platform works.*

Learner: *My goodness, what a mix of people. Did they really have to put all these people who haven't got a clue in with those of us who know what we are doing? At least the teacher recognizes what is happening. It is interesting that she handed out the agenda just as all the questions started flying. I always like to keep my students guessing. The agenda really starts with the basics. I suppose I could read some papers while she goes through this section or I could help the guy with the blank look on his face sitting next to me. I have no idea who he is or any of the others for that matter. Introductions would have been nice. One of the good things about these workshops is talking to colleagues from other places. And, if the teacher had asked, she might have understood the mix she's got in her group.*

Educator: *After about half an hour, I ask everyone to login and go to the course site. To my astonishment, there are at least two people, maybe more, who don't seem to know how to do this. The old pros are already scanning through the course site and looking at the options and resources, but some are stuck on a blank screen or unsure of what to do next. I go to help one, and my assistant goes to help another. Others in the group start checking their e-mail and looking up unrelated things. I had not expected this. I ask one person if he can help another person get logged in, but he is reluctant to abandon his e-mail. Finally, we all get on the same page. But the timing of my agenda is now off. I'll have to speed up the next part, or perhaps shorten the morning break.*

Learner: *Login – really? – I've already gone through the course. I guess if I'm not going to learn anything new, I could at least help my seat mate. From the timing of the agenda,*

we are way off. We had better not lose our break. I missed breakfast and I am starving.

Educator: *Ok, here goes. I'm going to take everyone through the basics of the platform. I ask everyone to watch closely what I do and to do the same thing as I am doing. I show them the file manager, the grade book, quizzes, chat, discussion forums, all of the basic tools. Then I show them how to set up a content module for a course they will be teaching, and I ask them to do this. I can't see their screens, as they are sitting in rows in front of me, so I walk around a little. It seems that most people are going through the screens I have shown, though a few are several screens behind.*

Learner: *It seems the teacher is not going to consider those of us with experience. She continues to work from the lowest level. This is a waste of my time. If I did not need this workshop I'd leave after break.*

Educator: *End of the day at last. I am exhausted. Some people left after lunch. Others left during the afternoon break. They didn't say why they were leaving. If these instructors want to participate in the pilot study of this software, they need to present a certificate that they completed the workshop, so I am not sure what to do about that. I'll see what happens tomorrow, I guess. At the end of the afternoon, there was quite a clamor of instructors around me and my assistant. They were mostly those with a lot of experience wanting more technical information. I stayed behind for about an hour, then drove the two hours home. I need to think about what I should do for the next two days.*

Learner: *I think a group of us gave the teacher something to think about. We really don't want to spend our time doing things we already know. Hopefully she will be able to come up with a plan so that we can learn something too.*

Kinds of Workplace Learning

What was originally called "worker education" has a long history in adult education. As Spencer (1998) points out, early initiatives such as the Mechanics' Institutes, Frontier College, and the Antigonish Movement centered on workers' education—"non-vocational education available to all workers" (p. 164). The term "union education" was used to describe training that had as a goal the strengthening of the unions; the term labor education was an umbrella term that incorporated union education and programs offered to workers by educational institutions (Spencer). In the 1990s, the term "workplace learning" began to replace workers' education. Also, in the 1990s, the term "learning organization" emerged from the field of organizational development and took its place in adult education (Marsick& Watkins, 1996; Senge, 1991). A learning organization creates learning opportunities for individuals, encourages collaboration, and develops a collective vision. Fenwick (1998) provides an early critique of the concept of the learning organization, pointing out that individuals in an organization cannot be viewed as a "single, monolithic organism that somehow 'learns' and has memory" (p. 144).

Today, workplace learning is broadly defined within adult education. Fenwick (2005), for example, defines workplace learning as "human change in consciousness or behavior occurring primarily in activities and contexts of work, however defined and located" (p. 673). She identifies five strands in the literature: the relation of learning to changing forms of work, people's life stories in relation to work, educational initiatives in the workplace such as mentorship and job rotation, practice-based or informal learning, and equity and ethics in relation to a concern for workers' well-being. Ananiadou (2005) emphasizes basic skills training programs and workplace literacy in her discussion. These programs are designed to improve communication, reduce errors in the workplace, and increase customer satisfaction.

From a different point of view, a critical theory perspective, workplace learning is not tied to increasing productivity, but rather to creating more meaningful and fulfilling work (Brookfield, 2012).

Peterson (2010) distinguishes employer-sponsored learning in the workplace from other learning opportunities, but she emphasizes that employer sponsored learning should benefit both the individual employee and the organization rather than only the organization as was the case in the earlier workplace learning literature. Among employer-sponsored learning programs, she identifies apprenticeships, on-the-job training, quality circles, career development, leadership development, and mentoring and coaching.

Drawing from this diverse literature, we can say that the kinds of workplace learning include (but are not likely limited to) the following:

- Acquiring new skills
- Enhancing existing skills
- Improving communications
- Develop problem solving abilities
- Foster teamwork and collaboration
- Encourage critical questioning
- Promote critical thinking
- Support innovation
- Develop leadership qualities

With this background in mind, we return to the first scenario and explore what was happening in the silent dialogue.

What Was Happening in the First Scenario?

In the first scenario, the educator viewed the session as a training session for the acquisition of new skills. She planned all three days based on a mandate given to her by the instructional technology group without checking to see who was enrolled in the workshop and without knowing the nature of their experience with online teaching and learning. It may be that she had a well-designed program for that goal—the acquisition of new skills, but the goal didn't match the expectations of most of the participants. Even for those new to the learning, it seems that the workshop leader made assumptions about the participants (that everyone knew how to access the course site, for example).

The participant who does have the background and experience does not see how to usefully engage in the process. She thinks briefly about helping the person sitting next to her, but this is not encouraged or supported, and she does not do this. She essentially withdraws and waits for the break and a snack, thinking about the time she is wasting. If the workshop leader had asked participants to introduce themselves (name, department, and prior experience with online teaching), or even if she had asked for a show of hands from people who had extensive experience, some experience, and little or no experience, then perhaps participants would have seen how they could engage in the session in a more meaningful way.

The educator/trainer in this scenario focused only on the goal of acquisition of new skills. If she had had a broader perspective on workplace learning, including fostering communication, teamwork, and problem solving, for example, she could have incorporated other approaches into the workshop whereby people worked with each other and helped each other to learn. Even though skills acquisition is technical learning, people in most contexts benefit by talking to each other and working together; this may be especially true when people come from different contexts (in this case, subject areas and departments) and when they have different levels of experience.

We now turn to a second scenario in a very different context. Following this scenario and its analysis, we introduce transformative learning in relation to workplace learning and discuss both scenarios using the lens of transformative learning.

SECOND SCENARIO: LEADERSHIP DEVELOPMENT WITH EXTERNAL CONSULTANT (SILENT DIALOGUE)

Workshop Leader: *This could be a breakthrough for me! My colleague and I have a contract for facilitating a session on leadership development for managers working in support positions and line functions within their organizations. They want us to help participants become better team workers, engage in collaboration, communicate more effectively with each other, appreciate the differences in styles among their co-workers, and generally improve their leadership initiatives within the organization. That's a tall order, but we should be able to make some progress toward these goals. We have planned a session that relies on the assessment of psychological type preferences and leadership styles as a starting point, then use a lot of group work to illustrate how this knowledge can enhance their work. We booked a conference room in the picturesque town of Niagara-on-the-Lake, and we made sure to arrange for a good caterer.*

Manager: *I hope I have made the right decision in giving the go ahead for this workshop. Our organization is a mess. Co-workers do not trust each other and the atmosphere in the office is terrible. People will do only their own assigned work and that is only after they have finished their games of solitaire on the computer or surfing the web. There is no attempt to help each other or work together. Even the lunch room has devolved into little cliques of people eating together.*

Workshop Leader: *First morning. The room is perfect. The coffee and Danishes and fruit smell and look appetizing. The tables in the room are arranged for group work, and people settle in at the tables with their coffee. It's hard to tell who knows who, but they seem to be talking to each other. We hand out the schedule for the day, and then ask individuals to introduce themselves to the group. Even though there are only about 15 people, everyone has a lot to say, and the introductions take a lot longer than I thought they would. Several people begin texting.*

Manager: *Just as I feared. The whole group is here and each little clique is sitting at its own table. I chose to sit with one of the more disparate groups. Of course they enjoyed the breakfast. The food may be the only thing that keeps them engaged at all. I am not surprised the facilitators are finding themselves behind schedule already. These people love to talk about themselves. If I have to listen to one more story about Bill's poodle…. I wonder what they would have said if they were asked to talk about their work instead. And, cell phones? Do these people have no sense of common courtesy?*

Workshop Leader: *Ok. Quickly. Onward. There's lethargy in the room now. Without much in the way of explanation, we hand out a psychological type inventory and a leadership style inventory, and ask participants to complete both of them. A few people say, "We've done this before, do we need to do it again?" We suggest that they do, so that they will have their profiles for the group work that follows. There's a bit of grumbling, but everyone goes ahead with the inventories.*

Manager: *I am starting to feel sorry for the facilitators. These people will resist every step of the way especially if they do not know why they are being asked to do something. I fear it is taking too long to get people engaged in groups. They need some good action to get them going.*

Workshop Leader: *A few people struggled with scoring their inventories and completing their profiles. We had to go through this individually with some, and that took up even more time. Finally, I asked people to circulate around the room and find two or*

three others who had a profile similar to their own. Getting up and walking around and talking to others seemed to energize the room again, but everything is taking a lot more time than I expected. Usually, this goes quickly.

Manager: *Finally people are moving about and talking to each other. These inventories are a great way to get people to talk to someone other than their own clique. Maybe this will work out better than I thought.*

Workshop Leader: *After lunch, now. The lunch was spectacular. But folks seem reluctant to get back to work. The morning groups went well, I think. There was a lot of talk, and people compared their profiles and told stories about their workplace. What I hope we can do next is to focus on how to collaborate and communicate with others who have different psychological and leadership preferences and styles. That's really the main goal for the day, and we haven't touched on it yet. I ask them to form groups where the individuals in the group have different profiles.*

Manager: *Thank goodness lunch was good. Without good food we may have had a revolt. The morning was slow, but I think people are starting to get the idea of what we are trying to do here. Hopefully they will cooperate.*

Workshop Leader: *I can't believe it! About one-half hour into the afternoon group work, one of the participants raised her hand and then said, "What's with this group work, group work, group work? We came here to learn from you. You're the expert on leadership, why can't you just talk to us about tips and techniques and things we can try back in the workplace?How about a handout on practical strategies for improved communication?" Of course, I have heard this before, but usually not in a leadership development workshop, where people are more conscious of the importance of teamwork and collaboration. What now?*

Manager: *Well – Mary blindsided the facilitators with her question. I guess I should have made it clearer to the facilitators that this group wants only to work independently. It is going to be hard to get them into the idea of teamwork, never mind the idea of coming up with the answers themselves. The facilitators keep throwing the questions back at the group to answer. When Doug asked: "Why do you say 'that depends – what do you think' all the time", I was impressed with the facilitator's answer.*

Workshop Leader: *I explain. But it sounds unconvincing and limp even to my own ears. Then I try to get the group to discuss the issue, but that seems counter-intuitive since it is group work they are complaining about. Still, I try to get them talking about it. I can't back away or switch to an instructor-centered approach now.*

Manager: *I am glad the facilitators are not backing down. Hopefully it will dawn on people what is happening here. Even if we don't get all the way to an understanding of team work, we do have people working together who barely spoke to each other before. I will be happy if we at least accomplish this. I do realize it will take more than one day to turn this group around. When I meet with the facilitators after the workshop, I will discuss strategies to continue what they have started.*

What Was Happening in the Second Scenario?

In the second scenario, the manager who engaged the facilitators was seeking to improve communications, foster teamwork and collaboration, and develop leadership qualities in the employees.In other words, they were concerned with the kinds

of workplace learning that have to do with people working together, understanding each other, and working as a group or team (rather than the acquisition of new skills or the enhancement of existing skills as was the case in the first scenario). Put another way, the goal was to foster communicative rather than instrumental or technical learning (Mezirow, 1991, 2000). These are lofty goals for a one-day workshop, and it is questionable whether such learning (essentially, changes to the workplace culture) can be accomplished in such a short timeframe. The problems encountered in this scenario also tend to relate to understanding the needs of the learner. Within this framework, there are four facets to consider: a) learning about the workplace culture before the session takes place, b) careful planning and timing of the workshop, c) considering learning styles and experiences, and d) being realistic about what can be accomplished in the allotted time.

While the physical and comfort needs of the participants were considered, it appears that how the participants engaged in their workplace was not considered. It would have been helpful for the manager to describe the problems in the workplace as a way of explaining the goals of the workshop. If this was not forthcoming from the manager organizing the workshop, the facilitators should have sought such information from the manager or from the participants themselves in advance of the session.

If the facilitators had understood the extent of dysfunction in the workplace, they might have taken a different approach in the beginning. This addresses the need for careful planning. While introductions are important, it may have been prudent to use an introductory exercise that also clarified the purpose of the day. With only one day to work with the participants, the facilitators needed all the time available to focus on the workshop goals.

An experienced facilitator should be aware of and expect that participants may not be comfortable with adult learning methods and group work. Teacher directed, instructor-centered learning may be the only learning participants have experienced. As soon as the first comment was made about learner-centered versus teacher-directed learning, the facilitators should have done a quick formative feedback to gauge the comfort of the learners in the process. This would have given them the opportunity to explain the process to the group.

If the facilitators had understood what was expected of them in relation to the realities of the workshop, they would have recognized how the goals of the manager were impossible to accomplish in one day. The manager began to understand this as the day progressed. Hopefully follow-up workshops or post-learning sessions were planned. Without a continuation of the learning, the potential of transformative learning being encouraged would be unlikely. We now turn to a description of transformative learning theory, how workplace learning can be transformative, and then to an analysis of the scenarios from that perspective.

TRANSFORMATIVE LEARNING

Scholars have identified a variety of perspectives on transformative learning. Transformative learning is described as cognitive and rational, as imaginative and intuitive, as relational, and as a means of promoting social change (Cranton & Taylor, 2012).

Based on research he conducted in the 1970s, Mezirow (1978) conceptualized a kind of learning in which individuals made a deep and significant change in their perspectives through a process of critical self-reflection. His theory was popularized more than a decade later (Mezirow, 1991) in his now-classic book, *Transformative Dimensions of Adult Learning*. It is Mezirow's view that meaning is constructed from experiences and how those experiences are viewed and interpreted. Individuals develop habitual expectations based on their experiences—what happens once, they expect to happen again. When a person encounters an

experience or perspective that calls into question what he or she has previously believed, there is the potential for critical reflection and possibly transformative learning. Although Mezirow (2000) certainly acknowledges the role of emotion, intuition, and relationships in transformative learning, his theoretical approach emphasizes cognition and the processes of reflection and thinking. Similarly, although Mezirow (2000) understands the role that transformative learning plays in social change, he sees the educator's role as one of helping individuals develop in ways in which they can promote social change rather than taking on a political agenda. The cognitive rational approach is also concerned with freedom, autonomy, and choice. People make a choice to engage with an alternative perspective; they are not coerced or manipulated into doing so.

Using a depth psychology framework, Dirkx (2008, 2012) has taken the lead in exploring transformative learning as an intuitive, imaginative, and emotional process. In this perspective, the focus is on understanding the meaning of images, symbols, stories, and myths in our lives and learning. In some of his writing, Dirkx (1997) refers to this process as "nurturing soul," calling upon Jung's conceptualization of soul. Boyd and his colleagues (Boyd & Myers, 1988; Boyd & others, 1991) worked to understand the unconscious facets of small group learning, and Dirkx (2012) relies on this work in his continued efforts to describe the elusive processes involved in individuation and the bringing of the unconscious into consciousness.

Those theorists who focus on relational or connected transformative learning suggest that individuals learn through relationships with others. Collaboration, listening to others, and putting oneself into the shoes of another person takes precedence over competition and autonomous or separate learning (Belenky & Stanton, 2000). Relational learning is a process by which individuals suspend judgment and struggle to understand others' points of view; that is they work toward a holistic understanding of an experience or situation.

Critical social theory provides a framework for understanding transformative learning as a means to social change and social justice. Brookfield (2005) outlines seven learning tasks associated with critical theory: challenging ideologies, contesting hegemony, unmasking power, overcoming alienation, learning liberation, reclaiming reason, and practicing democracy. Brookfield (2000) primarily frames transformative learning as ideology critique, arguing that ideology critique "must be central to critical reflection and by implication, to transformation" (p. 128). He goes on to define ideology critique as "the process by which people learn to recognize how uncritically accepted and unjust dominant ideologies are embedded in everyday situations and practices" (p. 128). Brookfield sees reflection that does not lead to social action as a "self-indulgent form of speculation" (p. 143). When transformative learning is viewed through the lens of ideology critique, the focus is on questioning social structures—those based on culture, gender, race, etc.—or organizational and institutional social structures, such as those we find in the workplace. The content of the learning is centered on the world outside of the self and the individual's position in that world rather than on the self, as it is in previously discussed perspectives. Mezirow (2000) refers to these processes related to the external world as objective reframingand those that are related to the self as subjective reframing.

Transformative Learning in the Workplace

As can be seen in the overview of transformative learning theory given here, there is no particular kind of learning that is guaranteed to be transformative, nor can there be any specific approach to teaching and learning that will necessarily lead to transformative learning. What the educator

can do is to set up an environment, a context, and an atmosphere in which the potential for transformative learning exists. The educator can also use methods and strategies that are designed to encourage people to view things from a variety of perspectives, or at least from perspectives that are different than the one they currently hold. But whether or not a learning experience turns out to be transformative learning depends on the individual who is engaged in the experience—the person needs to be open to alternatives, willing to question her assumptions and beliefs, ready to consider making changes, able to engage in dialogue about issues with an open mind, and able to consider evidence and ideas that are contrary to her point of view. It also depends on events currently taking place in a person's life and workplace (life and work events can either facilitate or inhibit transformative learning).

In his 1991 book, Mezirow draws on Habermas (1971) to define three kinds of learning: instrumental, communicative, and emancipatory. Instrumental learning is the acquisition of objective knowledge about how to manipulate and control the external environment to provide shelter, grow food, and so on. Communicative learning is the acquisition of knowledge about social norms, our relationships with others, and the subjective world we live in. Emancipatory learning is the product of critically questioning and challenging instrumental and communicative knowledge, especially those assumptions that have been uncritically assimilated. The important point here, one that is often overlooked, is that these three kinds of knowledge are not independent; they are intertwined with each other and dependent on each other. That is, learning a new technical skill or elaborating on existing skills has the potential to lead to transformative learning, as does the acquisition of communicative knowledge. For example, a person who acquires the technical skills involved in learning to read, to operate new equipment, or to use a particular computer software package can come to see himself in new ways or can redefine his work in such a way so as to reshape his identify—learning that is potentially transformative.

With this in mind, we can see that each of the kinds of workplace learning introduced near the beginning of this chapter (acquiring new skills, enhancing existing skills, improving communications, developing problem solving abilities, fostering teamwork and collaboration, encouraging critical questioning, promoting critical thinking, supporting innovation, and developing leadership qualities) can be transformative experiences. Acquiring new skills, enhancing existing skills, and some forms of problem solving are likely to be instrumental learning. Improving communications, fostering teamwork and collaboration, and some forms of problem solving are likely to be communicative learning. Following Mezirow's thinking, each of these kinds of knowledge can be challenged and in doing so, can lead to transformative learning. And those kinds of workplace learning that include critical questioning and critical thinking are explicitly addressing emancipatory learning or ideology critique.

There has long been considerable debate in the literature about what is and what is not transformative learning. Brookfield (2000) complains that the term "transformation" has been used to describe so many kinds of learning that it has become meaningless as a concept. In a provocative article, Newman (2011) argues that fostering transformative learning is simply "good teaching," and if we cannot distinguish transformative learning from other kinds of learning, it likely does not exist. Another way of looking at this debate is that any kind of learning can become transformative depending on the person, the context, and the content. It could start out with learning how to nail two boards together, but in some circumstances for some individuals, this could spiral into a transformative experience—one in which there is a deep shift in perspective that leads to a more open, better justified, and more discriminating perspective.

Discussion of Both Scenarios in Relation to Transformative Learning

In the first scenario, it is unlikely that anyone (workshop leader or participants) expected the session to be a transformative learning experience. Learning how to use a new platform for online teaching is clearly a technical skill. Some of the participants routinely attended every workshop offered by the instructional technology group, and they would have come to expect the same kind of coverage of technical material, accompanied by demonstration and practice with the software. Novice online teachers likely had the same expectation, along with some anxiety and insecurity about their ability to follow the material. However, the workshop was voluntary in the sense that people could choose to participate in a pilot project of the new platform (if they wanted to participate, however, the workshop was mandatory).

Where is the potential for transformative learning in this scenario? As discussed earlier, the acquisition of new skills or the elaboration on existing skills can lead people to see themselves and/or their work in a new way; that is, meaning perspectives related to the self (psychological meaning perspectives) or meaning perspectives related knowledge and the acquisition of knowledge (epistemic meaning perspectives) can be called into question and revised through skills acquisition (Mezirow, 2000). It seems that it would be more likely for those participants who were new to online teaching to experience the learning in this way, but not necessarily so. A person who is well-entrenched in a particular point of view can be moved to critical reflection by an activity or circumstance that calls her point of view into question.

The second scenario is, on the surface at least, well-suited to have the potential to engage people in transformative learning in that it involves self-exploration, collaboration, and seeing others' perspectives through group work with individuals who have different psychological and leadership preferences. These are the kinds of workplace learning that could be expected to lead to critical reflection and critical self-reflection. However, as we saw in the silent dialogue for the scenario, the likelihood of this process being promoted depends on the individuals' expectations of the learning experience, the culture of their workplace, and the habits they have developed in their relationships with their colleagues. The participants in the second scenario had well-established sub-groups (or "cliques" as the manager said) that interfered with their ability to be open to communication with others holding different points of view.

Participants in the second scenario also had expectations related to the nature of workplace learning. Based on prior experience (we can assume), they expected an expert to come into the group and tell them how to improve their practice, especially through the use of practical and concrete techniques that they could immediately apply. They wanted to be told what to do and were impatient and annoyed when this did not happen. This is not a critique of that particular group or any other group who has that expectation, but rather it is a product of a workplace culture or an educational culture where teacher-directed learning is the norm. To foster a shift from teacher-directed to collaborative learning is, in itself, a paradigm shift. We cannot expect individuals to move quickly or easily into a quite different approach to learning. A one-day workshop is unlikely to foster this kind of change.

PARADOXES

There are two forces at play in workplace learning—the needs of the individual worker and the needs or goals of the system. Fenwick (2008) suggests the individual focus is on worker development, building solidarity and political consciousness, and improving skills. Those programs that focus on the system might be examining social learning processes and changes in practice. In her

earlier writing, Fenwick (1998) makes a stronger differentiation, one that draws out the paradox between these goals. She argues that an organization is not a stable and bounded entity; it consists of many sub-groups, cultures, and "shifting shapes with the nomadic movement of individual workers" (p. 164). From the individual worker's perspective, the workplace is only one part of an individual's life. When learning is defined in terms of the best interests of the organization, it is unlikely to meet the developmental needs of the individuals working within that organization. From this systems viewpoint, workers' learning that does not advance the organization's goals is incidental or even "dysfunctional" (Marsick& Watkins, 1990). A second question that Fenwick (1998) raises has to do with who controls the goals of workplace learning and for what purpose. The incongruence between the workers' perspectives and the managers' perspectives, Fenwick says, is inevitable.

Peterson (2010) raises similar issues. Drawing on the work of Hull (1993), she describes the "deficit model" employed in discussions of workplace learning; that is, the fault for poor performance within an organization lies with those workers who are less skilled (including literacy skills). In spite of organizations' espoused commitment to the empowerment of workers through workplace learning, workers actually become further disengaged given the view that the organization has of their skills. Peterson also points out that programs related to leadership development, coaching, and mentoring tend to be primarily available to those employees who are at an executive level and exclude people at other ranks within the organization. What the organization says and what the organization does are two different things, and the lower the employee is in the workplace hierarchy, the less likely he or she is able to benefit from workplace learning. Fenwick (2008) proposes that the workplace culture can lead workers to accept and support the exploitative hierarchy, reproducing the power structure.

If transformative learning is seen to be an individual learning process in which people experience a deep shift in perspective that leads to more open, better justified, and discriminating perspectives, it seems clear that this is not always going to be in line with the vision of the organization, or perhaps more importantly (from the perspective of the organization) the productivity of the organization. If transformative learning is focused on the social structure of the organization, with a goal of making changes in that structure, then we run into the problem that Fenwick raises—that not all individual workers are going to be united in supporting this goal.

Implications for Practice, Theory Development, and Research

Workplace educators need to consider the kind of workplace learning they are fostering. Is it skills acquisition? Problem-solving? Teamwork? Ideally, a combination of goals, some reflecting instrumental learning and others reflecting communicative learning may have greater potential to lead to transformative learning. Participants in programs need to be aware of and participate in decisions made about the nature of the learning. Strategies can then be selected and developed that foster the kinds of learning we are interested in, especially strategies that provide an opportunity to explore alternative perspectives. The use of arts-based learning (film, drawing, poetry, fiction, and so on) helps to promote different ways of thinking.

Although workplace learning is considered to be a part of adult education, the two areas are not well integrated in the literature. In adult education handbooks and New Directions volumes, there is often a chapter on workplace learning, but beyond that, neither area draws on the theoretical frameworks of the other area. More specifically, transformative learning theory and workplace learning tend not to inform each other, aside from the work on learning organizations. As can

be seen from the discussion in this chapter, both workplace learning and transformative learning theory could benefit from bringing these concepts together. We need to look for a way to develop a unified theory of transformative learning (Cranton & Taylor, 2012); workplace learning is an extensive area of practice that is almost neglected in transformative learning theory. Simultaneously, viewing workplace learning through the lens of transformative learning theory would give that area a much-needed theoretical foundation.

Fenwick (2008) calls for "rigorous in-depth empirical research that traces what people actually do and think in everyday work activity, and for research methods that can help illuminate the learning that unfolds in everyday work. (p. 25). We need to, she argues, move away from prescriptive, depoliticized books that tell us what we "should" do. To that, I would add that we research on how workplace learning can be transformative would benefit practice and theory development in both areas.

REFERENCES

Ananiadou, K. (2005). Workplace basic skills training programs. In English, L. M. (Ed.), *International encyclopedia of adult education* (pp. 677–681). New York, NY: Palgrave Macmillan.

Belenky, M., & Stanton, A. (2000). Inequality, development, and connected knowing. In Mezirow, J. (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 71–102). San Francisco, CA: Jossey-Bass.

Boyd, R. D. (1991). *Personal transformation in small groups: A Jungian perspective*. London, UK: Routledge. doi:10.4324/9780203359099

Boyd, R. D., & Myers, J. G. (1988). Transformative education. *International Journal of Lifelong Education*, *7*(4), 261–284. doi:10.1080/0260137880070403

Brookfield, S. D. (2000). Transformative learning as ideology critique. In Mezirow, J. (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 125–148). San Francisco, CA: Jossey-Bass.

Brookfield, S. D. (2005). *The power of critical theory*. San Francisco, CA: Jossey-Bass.

Brookfield, S. D. (2012). Critical theory and transformative learning. In Taylor, E., & Cranton, P. (Eds.), *Handbook of transformative learning: Theory, research, and practice*. San Francisco, CA: Jossey-Bass.

Cranton, P., & Taylor, E. W. (2012). Transformative learning theory: Seeking a more unified theory. In Taylor, E. W., & Cranton, P. (Eds.), *Handbook of transformative learning: Theory, research, and practice*. San Francisco, CA: Jossey-Bass.

Dirkx, J. M. (1997). Nurturing soul in adult learning. In Cranton, P. (Ed.), *Transformative learning in action: Insights from practice* (pp. 79–88). San Francisco, CA: Jossey-Bass.

Dirkx, J. M. (Ed.). (2008). *Adult learning and the emotional self, no. 120*. San Francisco, CA: Jossey-Bass New Directions for Adult and Continuing Education.

Dirkx, J. M. (2012). Nurturing soul work: A Jungian approach to transformative learning. In Taylor, E. W., & Cranton, P. (Eds.), *Handbook of transformative learning: Theory, research, and practice* (pp. 116–130). San Francisco, CA: Jossey-Bass.

Fenwick, T. (1998). The concept of the learning organization. In Scott, S. M., Spencer, B., & Thomas, A. M. (Eds.), *Learning for life: Canadian readings in adult education* (pp. 164–175). Toronto, Canada: Thompson Educational Publishing.

Fenwick, T. (2005). Workplace learning. In English, L. M. (Ed.), *International encyclopedia of adult education* (pp. 673–677). New York, NY: Palgrave Macmillan.

Fenwick, T. (2008). Workplace learning: Emerging trends and new perspectives. In S. B. Merriam (Ed.), *Third update on adult learning theory* (no. 119, pp. 17-20). San Francisco, CA: Jossey-Bass New Directions for Adult and Continuing Education.

Habermas, J. (1971). *Knowledge and human interests*. Boston, MA: Beacon Press.

Marsick, V., & Watkins, K. (1990). *Informal and incidental learning in the workplace*. London, UK: Routledge.

Marsick, V., & Watkins, K. (1996). Adult educators and the challenge of the learning organization. *Adult Learning*, *7*(4), 18–20.

Mezirow, J. (1978). Perspective transformation. *Adult Learning*, *28*, 100–110.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco, CA: Jossey-Bass.

Mezirow, J. (2000). Learning to think like an adult. In Mezirow, J. (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 3–33). San Francisco, CA: Jossey-Bass.

Newman, M. (2011). Calling transformative learning into question: Some mutinous thought. *Adult Education Quarterly*. Retrieved fromhttp://aeq.sagepub.com/content/early/2010/12/17/0741713610392768.abstract?rss=1 doi:10.1177/0741713610392768

Peterson, S. (2010). Employer-sponsored learning in the workplace. In Kasworm, C. E., Rose, A. D., & Ross-Gordon, J. M. (Eds.), *Handbook of adult and continuing education* (pp. 243–252). Thousand Oaks, CA: Sage Publications.

Senge, P. (1991). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Doubleday. doi:10.1002/pfi.4170300510

Spencer, B. (1998). Workers' education for the twenty-first century. In Scott, S. M., Spencer, B., & Thomas, A. M. (Eds.), *Learning for life: Canadian readings in adult education* (pp. 164–175). Toronto, Canada: Thompson Educational Publishing.

Taylor, E. W. (2008). Transformative learning theory.In S. B. Merriam (Ed.), *Third update on adult learning theory* (no. 119, pp. 5–16). San Francisco, CA: Jossey-Bass New Directions for Adult and Continuing Education.

KEY TERMS AND DEFINITIONS

Critical Reflection: Questioning and challenging beliefs and assumptions that were previously uncritically assimilated.

Imaginative Learning: Learning through imagination, intuition, emotion, symbols and the arts.

Learning Organization: An organization that promotes collaboration, cooperation, learning opportunities, and critical questioning of the organization.

Relational Learning: Learning through collaboration and relationships with others.

Social Change: Challenging the social structures in an organization, community, or culture with a view of creating a more equitable society.

Transformative Learning: A deep shift in perspective that leads to a more open, better justified, and more discriminating frame of reference.

Workplace Learning: Changes in behavior and knowledge based on activities and programs experienced in the workplace.