Preface

Mention of vocational education immediately reminds people of adult learning simply because practitioners in vocational education are adult learners who are engaged in lifelong learning. Although the prominent U.S. educator/philosopher, John Dewey (1966) advocated that occupations in vocational education should be the vehicle of instruction at elementary and secondary levels, these elementary and secondary children have not entered the workforce to formally earn a living. It is adult learners who practice in various vocations in the field of vocational education. Therefore, it would be a futile effort on the part of scholars in this particular field to separate vocational education from adult education or vice versa (Parker, 2010). Philosophically, theoretically and practically, vocational education cannot be separated from adult education. The two fields are just like Siamese twins. Trying to separate one from the other would cause either one 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 these two programs, they stay in one college. One of the primary reasons for this separation is probably due to administrative convenience whereby some department chairs may have taken more courses in vocational education while others may have taken more courses in adult learning when they were graduate students. The bottom line is the fact that university courses in vocational education and adult learning share the same historical and philosophical foundations.

Back in Ancient history, the disciples of Aristotle, Plato and Confucius were all adult learners. They were not children. This means adult learning has preceded pedagogy, which is "the art and science of teaching children." Even back during the Stone Age when humans were hunters and gatherers, these people were adults or "bread earners." According to its current definition, as long as a child has reached the age of 16, she/he is considered a bona fide adult or an adult learner. By any standards in any societies, vocational education technologies and advances in adult learning, can be used to determine whether a society is advanced or backward. The Western industrialized countries entered the Information Age after these countries experienced industrialization, which helped these countries walk out of agricultural status. In the USA alone, the number of farmers is less than 1 percent (Wang & King, 2007). If distribution problems can be solved, the farmers in the USA have the potential to feed the rest of the world. Had it not been for the technologies in vocational education, more Americans would have remained as farmers. Technologies in vocational education have played a major role in moving the Western industrialized countries forward. When adult learners used simple tools made out of stone or wood or metal, the agricultural societies lasted very long from several hundred years to a couple of thousand years for different countries. When adult learners enjoyed the benefits of the locomotive, sewing machines, the telegraph, the power loom and depended on the railroad system, the industrialization helped the Western industrialized countries raise the standard of living to a new height. In the Information Age in the same

countries, computer has become the "ubiquitous" word to describe its presence. Every vocation cannot be performed without the use of the computer. Take a look at the evolution of the name, vocational education. It has evolved simply because technologies behind vocational education have evolved from the Stone Age to modern civilization. Prior to 1900, vocational education was labeled as "manual training". Well, the work prior to 1900 was mostly performed by the use of human hands. Mechanization was not on a large scale. Many countries remained agricultural societies. Even to this day, half of the world is still backward, depending on manual training to boost vocational education. In 1903, manual training was changed to "industrial arts" to reflect the technological aspects of vocational education. After that, industrial arts was changed to vocational education. Vocational education was in use for several decades. In the early 1990s, scholars decided to call vocational education "career and technical education" to reflect on once again the technological aspects of the field. The term career was used to show its association with adult learning. Indeed, adult learning should result in one's career. Career and adult learning should not be separated. As most countries compete with one another in offering vocational education programs, no one can predict what career and technical education would be called in the next ten or fifteen years. One's knowledge in technologies becomes obsolete very quickly. Just as one has mastered the skills of operating one technology, a new technology has come on the market. When people say that they are technology challenged, they are really saying that they are learning to use new technologies in order to be in control. Otherwise, humans, especially adult learners may never get rid of the fear that machines would replace humans. There is no doubt that technologies have driven the progress of vocational education, hence the whole society. However, it is humans who are the chief engineers of technologies. Humans design labor saving machines and at the same time, maintaining these machines become more and more challenging. People should be aware of this "dialectical" relationship between human beings and technologies.

As adult learners have become the backbone of any society, human beings should not frown upon vocational education just because it is associated with blue collar workers. This image does not appeal to our high school students. Those who view vocational education negatively probably do not know its history and its contributions to the development of society. Without vocational education, humans would remain where they were hundreds of years ago. It is fair and safe to say that the rise or fall of a nation depends on its vocational education. The technologies and adult learners associated with vocational education are the driving force of any society. Take for example a typical American family, the bread earners are the father and the mother and the children go to schools. The parents depend on their vocations to make a living for the whole family. Their vocations cannot be performed without modern technologies regardless of whether they are blue collar workers or white collar workers. Due to "specialization" in our society, not everyone can become a white collar worker. Those bona fide auto mechanics who are considered bona fide blue collar workers nowadays depend on computers to diagnose problems for cars and other vehicles. Those white collar workers have to change their flat tires even if they have never been trained to perform this task. Plumbers with more advanced technologies are definitely paid more for the same work they perform. Back to 1800s, former President, Andrew Jackson advocated "The attainments of a farmer or merchant are on the same level as those of an educated classical scholar" (Wang & King, 2007). The implication is far reaching. Knowledge possessed by farmers or merchants should be equal to that possessed by scholars. In this modern civilization, both school leaders and parents should hold high the egalitarian doctrine of knowledge that was advocated by President Andrew Jackson. In other words, the dividing line between the blue collar worker and the white collar worker has become blurred. Which individual is to survive and thrive without modern technologies? Whose career or vocation is

to be advanced without modern technologies? Now back to the definition of vocational education. It is defined as education for work for all its practical purposes. Now, take a look at the jobs of the "future" according to the U.S. Department of Labor and the U.S. Department of Education:

1. The majority of new jobs will require some postsecondary education for the first time in history.
2. Only 2 percent will fall into low skill categories, compared to 40 percent of jobs today.
3. Jobs that are in the middle of the skill distribution today will be the least skilled occupations of the future.

The bottom line is that vocational education is responsible for the basic skills in the workplace. More importantly, humans need more and more education, especially vocational education for work. Primitive men did not need much education for work. It is not the case with modern human beings. In addition, it is predicted that by the year 2015, most education will be delivered by electronic media to learners at their convenience rather than the provider's. Once again, it says a great deal about the importance of using technologies to deliver vocational training programs to adult learners. Indeed, those adult education programs have pioneered online education programs. The largest online university is the University of Phoenix located in Arizona, USA where over 100,000 adult learners from all over the world are actively pursuing higher degrees in vocational education or adult education. Traditional universities do not want to lag behind. It is not surprising if a traditional university puts one third of their courses onto the computer screen. 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. Because of vocational education technologies and advances in adult learning, King (2006, p. 16) has this to say about the benefits of adult learners' learning anywhere, anytime:

- 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.

Vocational education technologies have boosted the expanding body of knowledge about adult learning: Between 1965 and 1975, the body of knowledge about adult learners had doubled. It doubled again between 1975 and 1985, and is in the process of doubling again between 1985 and the 21st Century. If the role of vocational education is to produce people who are skillful in making and facilitating continuous change, then both educators and adult learners should rely on vocational education technologies and new advances in adult learning.

Traditionally, vocational education instructors and adult education professionals have relied on traditional theories to advance the field. While vocational education instructors have depended on "competency-based" or "hands-on" education to train vocational workers, adult learning professionals have depended on the theory of andragogy or the most recent one called transformative learning (Cranton, 2006; Mezirow, 2000) to help adult learners learn in the field. The father of adult education,

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, the reality may be that the whole educational enterprise has been frozen into the "pedagogical" mode. In other words, educators whether they are in a K-12 education setting or an adult education setting conform to the same pedagogical standards. Recently, I was assigned to teach an adult education class online in which all the 24 students are adult learners from all over the world. The lead instructor insisted that I call her to receive instructions and training from her. I have been "helping" adult learners learn for the past 6 years and my doctoral degree is in vocational and adult education. In other words, I don't teach my learners; I help them learn in the field. When the lead instructor called, this is what she said on the phone, "the associate dean said you must 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, 3 other instructors are waiting to take your job as an online instructor…" After all her instructions, I began to ask her a question, "are we required to teach andragogically or pedagogically? Have these leaders taken any classes regarding andragogy?" Then, the lead instructor began to tell me how frustrated all other instructors have been. She said that all the courses were designed by instructional designers who know nothing about the difference between pedagogy and andragogy, let alone the theory of transformative learning or competency-based education. The threatening tone of the lead instructor and the associate dean is indicative of the fact that they may know nothing about creating a safe environment where adult learners may be able to teach themselves. They don't realize that they are simply "guides on the side." The point being made here is that as vocational education technologies and advances in adult learning emerge due to the knowledge explosion in our society, everyone should be equipped with existing vocational education technologies and advances in adult learning. Without this solid foundation, people would find it hard to make progress. As discussed earlier, vocational education technologies and adult learning theories can really push a whole society forward as they have done so in the past from an agrarian society to the industrialized society. Now not everyone is living in the Information Age. Some peoples in some other countries are still struggling below the poverty line without taking advantage of vocational education technologies or advances in adult learning.

To fully utilize vocational education technologies and advances in adult learning, adult learners need to possess workplace basics. These workplace basics will equip adult learners with the necessary foundation to learn any new concepts in vocational education technologies and advances in adult learning. According to the American Society for Training and Development (ASTD) and the Department of Labor, 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.

A closer examination of the above seven points specified by ASTD and the Department of Labor reveals that they are closely related to vocational education technologies and advances in adult learn-

ing. For example, Creative thinking and problem solving is derived from the theory of transformative learning and also from andragogy. Items 5 and 6 have to do with andragogy while 2 and 3 have to do with competency-based education theory in vocational education. This volume is to remind people not to under estimate the value of vocational and adult education. Vocational and adult education plus cutting edge 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 vocational and adult education programs.

As you flip through the pages, you will come across names such as Carl Rogers, Malcolm Knowles, Ralph Tyler, John Dewey, Jack Mezirow and even Confucius. These prominent educators/philosophers and many others have advanced the field of vocational and adult education. The theories they have developed have shaped the thinking of many generations of vocational/adult education instructors, scholars and students in this particular field. Needless to say they have devoted their whole lives to this field. Vocational and adult education encompasses many fields of study. Under this umbrella, many sub-subjects develop and evolve. For example, agriculture education, business education, industrial education, technical education, health occupations education, technology education, home economics, English education, vocational guidance, all belong to vocational and adult education. Therefore, you would not be surprised to read a chapter on business education in this book because it is part of vocational and adult education. The authors of this book are all front line professors/scholars who are interested in advancing new concepts in vocational education technologies and advances in adult learning. They are interested in sharing their proven research results with others. They are engaged in writing about their latest research results and disseminating their research at national and international conferences.

In this Information Age, new concepts are needed to help advance vocational and adult education. Vocational and adult education has never been the same in history as illustrated earlier in this preface. During the Industrial Revolution, new inventions including the railroad system all put a strain on the vocational and adult education training methods. Due to these new inventions, a large pool of trained workers or adult learners were needed during the Industrial Revolution. Training methods such as "manual training" methods became insufficient. The tools we use to train workers and adult learners have evolved especially during the past 20 years. Adult vocational instructors used to depend on "transparencies" twenty years ago. Nowadays computers, projectors and tiny "flash" drives have replaced those transparencies. And data travels from computers to computers in a fraction of the time to reach both adult vocational instructors/practitioners and learners.

Will these new vocational education technologies and advances in adult learning replace the existing concepts in the field? The existing concepts or theoretical frameworks have prepared our learners to enter the workforce. Are they adequate enough to prepare our adult learners to enter the 21st Century workforce? What are the existing concepts in vocational and adult education? How have the new concepts emerged? A plethora of these questions will be probed by different authors of this book. Do they provide "definitive" answers? You will have to read every single chapter to figure that out. Perhaps, the answer is self-evident. Without keeping our readers "suspended", learners, young and old, have heard about the term "competency-based" education or even the distinction between the education of children and the education of adults. These and many other concepts such as self-directed learning and transformative learning are all existing concepts heavily applied in the field of vocational and adult education and in some other fields such as nursing and military science. However, it is the same vocational education technologies and advances in adult learning that need to be "tested" in order to find out whether they will fit the new/rapid societal development in the new century. Once they are tested, new concepts will

emerge. With this purpose in mind, the internationally reputable publisher, IGI Global, located in Hershey, PA, USA, has decided to publish such a book titled *Vocational Education Technologies and Advances in Adult Learning: New Concepts* to provide a textbook and premier reference source for not only students/ practitioners, but also instructors/scholars in this field and related fields of study. This book will provide the opportunity to study not only existing vocational education technologies and advances in adult learning. More importantly, the book will provide the opportunity to see the whole process of how new concepts have tested and emerged from the field in order to guide our students, scholars and practitioners in this and related fields. Therefore, the book should serve as a premium required textbook for many who aspire to be "productive" citizens in our society and who aspire to access prosperity in our society. It is true most people wish to be contributors to society, instead of being "takers" from society. Having this noble goal in life is not enough. Action is needed. That is, immerse oneself in studying vocational education technologies and advances in adult learning. Above all, study hard these new concepts that have emerged from vocational education technologies and new advances. No one is to forget that the theory of andragogy (called so by the father of adult education, Malcolm Knowles; others accept it as a model) has brought a revolution (radical change) to education and training. IGI Global's new book is intended to do the same in the field. As IGI Global's president, Jan Travers approached me with such a wonderful idea of publishing a useful book for our learners, practitioners, and scholars in the field, I did not hesitate to welcome this idea with open arms. Indeed, President Travers is visionary and supportive of our learners, practitioners and scholars. Without her dedication and continued support, such a book would not come to fruition. Worthy of note is the fact that an excellent team is working under her leadership at IGI Global. As a practitioner/scholar in the field, I congratulate her and her team on their vision and being an innovative publisher who can predict precisely what books learners, practitioners and scholars will need in their fields.

Traditionally, adult vocational instructors/practitioners do not deviate much from the traditional instructional methods despite vocational education technologies and advances in adult learning. As Knowles and his associates argued, "the whole educational enterprise has been frozen into the pedagogical educational model (k-12 education)." This is probably okay as vocational education sometimes falls under the umbrella of k-12 education even though learners are considered adult learners when reaching the age of 16. However, the traditional instructional methods contradict advances in adult learning. A number of adult vocational instructors/practitioners simply teach the way they were taught. Vocational education technologies and advances in adult learning do not seem to help change their instructional preferences. Over the years, researchers/scholars in vocational and adult education have developed innovative instructional methods out of vocational education technologies and advances in adult learning. The reality is that very few instructors/practitioners conform to these innovative instructional methods as contained in the Table 1.

Climate, planning, diagnosis of needs, goal setting, designing a lesson plan, learning activities, and evaluation are clearly the "seven step instructional process" developed by Knowles which took him his whole life. He presented this seven step instructional process at numerous national and international conferences and workshops to popularize it. One of the beauties of this seven step instructional process is the fact that Knowles has specified or prescribed the specific roles for both pedagogical (k-12 education) and andragogical instructors. To say this andragogical model is innovative is that this model is derived from Ralph Tyler's pedagogical model or based on Tyler's model, which was only a 4 step instructional process by asking 4 questions:

Table 1. Replacing the Pedagogical Model with Knowles's Andragogical Model in Adult Education

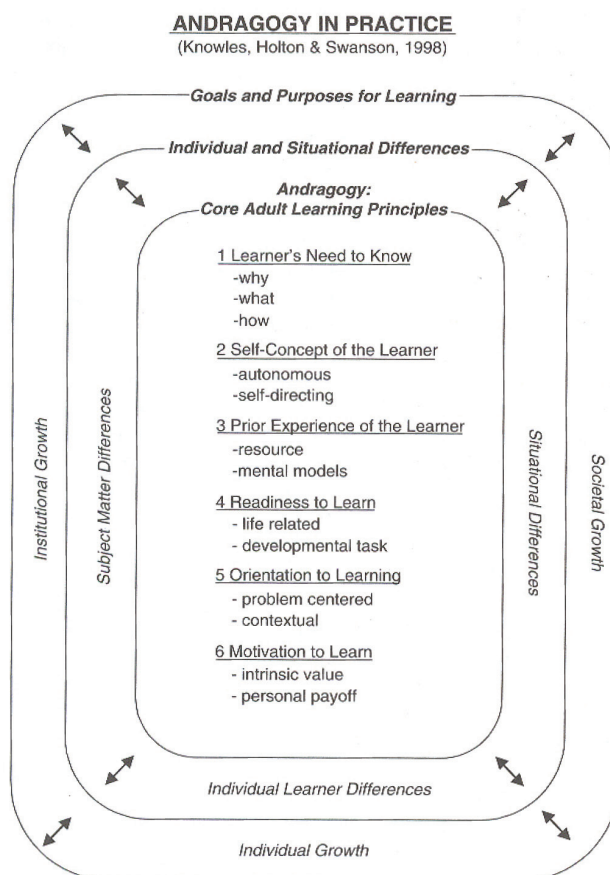| Elements	Pedagogy	Andragogy
Role of teachers	Teacher-directed	Self-directed
Climate	Formal authority-oriented, competitive, judgmental	Informal, mutually respectful, consensual, collaborative, supportive
Planning	Primarily by leader	By participative decision making
Diagnosis of needs	Primarily by leader	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 Wang, 2009, p. 175).

1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can we determine whether these purposes are being attained?

No one is to question the validity and reliability of the four fundamental questions and the 4 step instruction that is derived from Tyler's 4 questions:

1. Motivation. Before adult vocational education instructors present any vocational 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 vocational educators to present pertinent information/core body of knowledge in the field.
3. Homework. After the presentation phase, it is time for adult vocational educators to assign homework to adult learners.
4. Follow up. It is the evaluation phase whereby adult vocational education instructors "evaluate" adult learners' work.

Neither Tyler's 4 step instructional model nor the 4 step instruction takes into consideration the difference between the education of adults and the education of children. It was Knowles who made this distinction in the 1970s. Neither model takes into consideration the characteristics of adult learners in vocational and adult education. Certainly, many other factors need to be considered 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 to practice. For example, too many instructors/practitioners still conform to the pedagogical model or Tyler's model regardless of their learning and learning situations. Later, Knowles and his associates

Figure 1. Andragogy in Practice (Adapted from Knowles, Holton, & Swanson, 2005)

ANDRAGOGY IN PRACTICE
(Knowles, Holton & Swanson, 1998)

Goals and Purposes for Learning

Individual and Situational Differences

Andragogy:
Core Adult Learning Principles

1 Learner's Need to Know
    -why
    -what
    -how

2 Self-Concept of the Learner
    -autonomous
    -self-directing

3 Prior Experience of the Learner
    -resource
    -mental models

4 Readiness to Learn
    - life related
    - developmental task

5 Orientation to Learning
    - problem centered
    - contextual

6 Motivation to Learn
    - intrinsic value
    - personal payoff

Institutional Growth

Subject Matter Differences

Situational Differences

Societal Growth

Individual Learner Differences

Individual Growth

developed a figure called Andragogy in Practice to remind instructors and practitioners to practice andragogy in adult vocational education while taking into consideration many other factors.

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

As you continue to digest the new concepts in vocational education technologies and advances in adult education in this book, you may come across the names such as adult education, adult learning, vocational education, adult vocational education or vocational and adult education. More than likely, you may understand that these terms are used to refer to more or less the same field of study or closely related fields. Likewise, the adult vocational education instructor can be called adult learning professional, adult educator, a learning facilitator, an andragogue or even a guide on the side. Rather than

confuse our readers, these names or terms come with long stories behind them. Their meanings will be revealed to you as you flip through the pages. Rest assured that these terms will make sense to you as you acquire new concepts in vocational education technologies and advances in adult learning. They are never meant to confuse you.

OBJECTIVE OF THE BOOK

This book aims to provide relevant theoretical frameworks and the latest empirical research findings in the area of vocational education technologies and advances in adult learning. Different innovative and strategic instructional approaches/concepts are explored. It is written for professionals who want to improve their instructional/training strategies revolving around vocational education and adult education. For those who seek teaching credentials, undergraduate and graduate degrees in vocational and adult education, this book provides a core body of knowledge.

Any books addressing only vocational educational technologies would not be complete. Likewise, any books addressing only adult learning would not be complete. This is why the authors of this book have made a meticulous effort to combine vocational education technologies and advances in adult learning. The objective of this book is to reveal to our readers new concepts/surprising research results that will help those reentering the world of work by applying these new concepts. Economic recessions would not last long. More and more adult learners will reenter the world of work. As the backbone of any economy, adult learners keep generating new knowledge/new concepts/new technologies to help themselves walk out of these economic recessions. People in this very field of vocational and adult education dream big and they are not empty dreamers. They are creative and practical doers.

TARGET AUDIENCE

The target audience of this book is composed of professionals and researchers working in the field of adult/higher education, vocational education (career and technical education), K-12 education and instructional technology. Naturally, these professionals and researchers come from universities, community colleges, vocational/technical institutes, adult schools, public schools, business and industries, correctional institutions, churches, museums, libraries, voluntary organizations, community action agencies, armed forces, and a plethora of other settings. Moreover, the book provides insights and supports executives concerned with using new concepts in vocational education technologies and advances in adult learning to educate and train today's traditional age and non-traditional age students in the information age.

ACKNOWLEDGMENT

This book went through the double blind review process. Therefore, the book before you should be considered a high quality book. In addition, the internationally reputable publisher, IGI Global provided "in-house" editors to help review the book. Their goal was to assemble the best minds and put together new concepts in vocational education technologies and advances in adult learning for our readers. This very act demonstrates true transformational leadership on the part of the publisher, IGI Global. Thank

you, Dr. Judith Parker for proofreading this preface and your contribution to the field. Dr. Parker also with a background in Physics and is an outstanding graduate in adult education from Teachers' College, Columbia University.

Last but not least, I wish to thank my fellow authors for their contribution to this book and I thank the readers for becoming consumers of this research product. Due to the rich information/knowledge provided by this book individual chapters can be selected according to readers' specific needs and interests.

Victor C. X. Wang
Florida Atlantic University, USA

REFERENCES

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.

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

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

Mezirow, J. (2000). Transformative learning . In Mezirow, J. (Eds.), *Learning as transformation* (pp. 1–33). 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 and Hangzhou, China: Information Science Reference and Zhejiang University Press. doi:10.4018/978-1-61520-747-3.ch011

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

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.