

## Chapter 1.11

# Teaching Adult Learners in Online Career and Technical Education

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### ABSTRACT

Online education is becoming an important component of career and technical education (CTE) in teacher preparation and at the graduate level. In the midst of such growth, and in response to questions about quality compared with traditional learning, there is a consensus that online courses and programs should be designed based on the needs of adult learners. However, much of the literature in online CTE lacks implicit connections to emerging notions of adult development and learning. This article provides an overview of the status of online education in CTE at the postsecondary level, discusses related issues and current research focus, and highlights adult learning developments and the implications for curriculum design, instruction, and use of technology. The article concludes with an outline of emerging trends bridging adult learning and

online education relevant to career and technical education.

### INTRODUCTION

Online education enrollments in higher education over the past decade are revealing. The online instructional delivery system is no longer an afterthought for postsecondary institutions as students are enrolling in related programs at higher rates compared to enrollments in traditional education. Practically all institutions of higher education now offer online education opportunities to meet the demand from students seeking alternatives to traditional on campus instruction (Allen & Seaman, 2008). Career and technical education (CTE) is no exception to this trend as the field has experienced similar growth at the undergraduate and graduate education level including doctoral programs (Flowers & Baltzer, 2006b; Havice

& Havice, 2005). However, as online education continues to grow, there are lingering concerns about the quality of curriculum and instruction, student experiences, and use of technology (Hernandez, Kirby, & McGee, 2004; Flowers, 2001; Kim & Bonk, 2006).

Furthermore, although the adult population is the target audience for CTE in teacher preparation and graduate degree programs, there is limited literature examining the connections to adult development and learning principles. Much of the literature focuses on demand for online education, related curriculum and program development, and perceptions about quality and barriers and opportunities for adoption (Flowers, 2005; Flowers & Baltzer, 2006b; Schmidt & Gallegos, 2001). As such, there is a need for an examination of adult learning principles in the context of online education and the implications for curriculum development, teaching, and use of technology. To this end, the objectives of this article are to: First, review the status of online education with an emphasis in career and technical education and related issues for adoption; second, highlight adult learning developments with potential to inform curriculum design and instruction; third, outline implications on the use of instructional technology; and fourth, point out emerging trends bridging adult learning and online education relevant to CTE efforts in this area.

## **BACKGROUND**

Online education is often used interchangeable with other terms such as distance education, virtual learning, Web-based learning, distributed learning and other variations associated with teaching and learning whereby instructors and students are not interacting in the same location in real time. In this context, distance education represents a larger umbrella including a wide array of formal and informal strategies bridging physical separation between instructors and students (King, 2008). In turn, online education

represents a formal asynchronous instructional system offered by educational institutions through courses and entire programs. Online education is characterized by the use of communication networks building upon varying combinations of online technology such as the Internet, electronic libraries, Web-based conferencing, virtual discussions, and e-mail communication. Typically, the delivery of online education is organized through a Web-based management system (e.g., Blackboard, WebCT) with many variations in delivery and support services depending on institutional resources and the nature of individual courses (e.g., size of student enrollment) (Aragon, 2003; Conrad, 2008; Paloff & Pratt, 2001).

Formal online education opportunities for adults are offered in higher education, often referred to as post-secondary or tertiary education, and may be available in formal and informal settings after high school. Although the term “higher education” is often associated with universities and colleges, it is in fact a broader term including formal programs leading to credentialing at community colleges as well as baccalaureate and graduate degrees granted by private and public universities (Clark, 1983). Similarly, while career and technical education (CTE) is often associated with programs at the secondary education level, it is also a prominent component of higher education. At the post-secondary level, CTE contributes with programs and services designed to help adult students promote their career development and transition into specific occupations or further education. Informal programs are also available in community and corporate settings for technical training and re-training purposes. Teacher preparation programs and opportunities for professional advancement through master’s degrees and doctoral programs are available at universities, while technical preparation and entry-level occupational credentialing are offered at two-year colleges (Athanasou, 2008; Hernández-Gantes & Blank, 2009; Johnson & Benson, 2003). Thus, the focus of this article is on reviewing issues relevant to

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