

## Chapter 9

# Using Technology to Address Workforce Readiness Skills

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### ABSTRACT

*All too often, students either drop out of school or graduate with poor workplace readiness skills. The lack of preparedness is costly both on a short- and long-term basis to students, families, employers, and societies in general. In the workplace, employers are forced to be at the vanguard of addressing critical basic skill deficiencies related to reading, writing, mathematics, and using computers, among others, to remain competitive. Addressing these worker skills gaps through training and development activities can be cost prohibitive to organizations, especially in tough economic times. Understandably, business leaders are becoming more critical of an education system that produces individuals with such gaps. The purpose of this chapter is to explore the use of technology as a productive means of meeting the developmental or remedial educational needs of various underprepared workers entering the job market.*

### INTRODUCTION

In a competitive marketplace, companies must continuously find ways to remain economically viable or face certain insolvency (Porter, 1985). A company's workforce is a major part of remaining competitive for the reason that it provides companies with an important reservoir of knowledge and expertise to draw upon as the need for taking risks, critical thinking and problem solving evolves (Barney & Wright, 1998; Ferguson & Reio, 2010). To develop this important human resource, companies must have a system in place to man-

age the inputs (employee skills and motivation) and processes (practices related to recruiting and selection, reward, and training and development) necessary to attain optimal organizational performance (Ferguson & Reio, 2010). One tried-and-true process for increasing a company's ability to meet current and future organizational goals is through recruitment and selection practices. In the course of such activities, human resource managers can ensure hiring those individuals with the technical and interpersonal skills, competencies, and experiences required to help companies meet market demands (i.e., workplace readiness

skills; McClain & McClain, 2007). Unfortunately, however, this is where companies come face-to-face with the reality that prospective employees frequently lack even the most basic workplace readiness skills to meet company needs.

The lack of skills, competencies, and experiences or workplace readiness necessary for success in the workplace continues to be at the forefront of much of the discourse surrounding adult education, business training and employability because employers are reporting a pronounced shortage of qualified workers (Amodeo, Jin, & Kling, 2009; Bruno, Jin, & Morris, 2010). Because of substantial skills gaps, workers are underprepared and therefore lacking in the workplace readiness skills necessary for securing and maintaining gainful employment. In particular, there is concern for the high-growth, high-tech industries of the future workplace, which will demand even more advanced skills.

At the most elemental level, too many prospective and current workers are lacking basic skills, despite completing a high school diploma (Bruno et al., 2010). Thus, high school drop outs are not the only ones less likely to possess the level of workplace readiness skills necessary for success. Upon entering the workforce, companies are finding high school graduates are not only missing basic reading, writing and mathematical skills, but they are also lacking in other skills required for attaining career goals, such as oral and written communication, self-discipline, time management, interpersonal skills and teamwork, problem-solving, numeracy, confidence and leadership, and motivation (Raftopoulos, Coetzee, & Visser, 2009). Of special note is that these deficiencies are not only limited to new high school graduates transitioning into their first jobs, but also recently displaced workers from previous positions who are forced to seek new lines of work.

Numerous workers may require remedial training before they can help address pressing workplace needs, yet have little access to training and development programs (ASTD, 2009;

Deckop, Konrad, Perlmutter, & Freely, 2006). These groups of underprepared workers form a pool of invisible talent that could be the basis for a revitalized workforce that helps companies attain and sustain competitive advantage (Ferguson & Reio, 2010). These same underprepared workers could be provided access to higher-demand jobs in the energy, health, technology, and science sectors, yet the costs remain daunting. More alarming is that those with low skills are too often overlooked for educational opportunity because of the lack of perceived need; that is, at least they hold a job, albeit a poorly paying one with limited opportunity for advancement or mobility. The waste of talent further exacerbates worker skill deficits being paid for by not only business and industry, but also by private citizens who are desperately trying to acquire, develop, and refine their workplace readiness skills through investing in their self-directed adult and postsecondary educational activities (Bruno et al., 2010). Addressing these remedial worker needs becomes quite an issue in that business leaders are increasingly critical of an education system that produces individuals with such gaps.

Distance learning technology is being used extensively to deliver learning instruction to address these gaps (e.g., GED programs, correspondence courses). However, online delivery methods (e.g., Internet) have grown most because of their flexibility, access to remote multimedia databases, just-in-time delivery, and cost-savings compared to traditional classroom delivery (Ghosh & Githens, 2011).

The purpose of this chapter is to explore the use of online technology as a productive, cost-effective means of meeting the remedial educational needs of those U. S. workers underprepared to successfully enter the workforce. We acknowledge that in much of the world deficient workforce readiness skills are a major concern (Ghosh & Githens, 2011), but delimit this chapter to the U.S. In the chapter, after first presenting a theoretical framework, the authors will provide a broad definition

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