Chapter 25

Workforce Development and Higher Education Partnerships: Transdisciplinarity in Practice

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ABSTRACT

Workforce development and higher education can benefit from collaborative efforts that incorporate and apply teaching, learning, and research from a variety of environments. This chapter introduces the context of workforce development innovation and the impact on employees. Partnerships, in general, are defined and workforce development and higher education partnerships are examined that have influenced building collaborative relationships. Also included is a review of best practices and future trends related to workforce development and higher education partnerships.

OVERVIEW

The purpose of this chapter was to identify and discuss workforce development and higher education partnerships that have been created to apply teaching, learning, and research efforts. These partnerships promote the transdisciplinary nature of the relationship in that they form a bond between and among multiple disciplines. Partnerships can serve as a platform across multiple elements to support the application and incorporation of theory, research, and practice. Innovation and initiatives can then support the development of workforce development alliances and reduce workers’ skills gap. Establishing partnerships to further workforce development ventures and enhance higher education collaborations has economic and social implications. Manufacturing industries rely on a competent workforce, yet,
shortages are being reported in the technological-skilled areas. Global competition has reduced the number of industrial and manufacturing companies and furthered the need for additional service or information-oriented businesses. This chapter will review the definition and context of workforce development innovation legislation and implications for training and professional development programs. Also discussed and defined are partnerships and their impact as they evolve around communities, organizations, universities, or businesses. Meaningful partnerships should be collaborative and balance the needs of all partners. Workforce development and higher education partnerships can benefit from the development of a framework that incorporates numerous perspectives from education, industry, government, and the community. Identifying the best practices in terms of cross-sector partnerships and closing the competency skills gaps continue to be critical steps. The objectives of this chapter are to define partnerships; describe workforce development and higher education partnerships; and, address future trends in workforce development and higher education partnerships. The chapter is organized using the following sections: introduction, employee retention in manufacturing industries, overview of partnerships, workforce development and higher education partnerships, university and industry centers, best practices, future trends, and conclusions.

**INTRODUCTION**

For most educators in today’s well-connected and technologically driven society, partnerships—either in at will, general, limited, joint venture, or a strategic alliance—are mandatory to succeed. Particularly, organizations in higher education and business and industry, have found the purpose of partnerships advantageous—to increase innovation. Even as advancements in technology occur daily, there continues to be the need for a framework, conceptualization, and best practices of cross-sector partnerships between higher education and business and industry regarding workforce development initiatives. The culture surrounding partnerships has changed and all stakeholders are expected to be active participants, contributing both constructive feedback for improvement as well as solutions for advancement and innovation.

Over the last several decades, the nature of workforce development in the United States has grown increasingly complex (Kompier, 2006). Organizations operate in a variety of different contexts to build and retain their workforce and employees can span five generations (Kowske, Rasch, & Wiley, 2010). This is especially true for manufacturing industries, who continue to be dependent on skilled and certified workers to operate, build and produce manufactured goods and products. In a study conducted by Soltesz, Rutkofsky, Kerr and Annunziata (2016), seventy percent of manufacturing executives reported talent shortages in advanced manufacturing areas such as computer automation, technology training (i.e., 3D printing), and technical skill training (robotic programming, maintenance/repair). During the late 1990’s, the United States experienced a rise in global competition and as a result, industrial manufacturing jobs began to diminish and were replaced by more service-oriented organizations. The Clinton administration delivered signed legislation, the Workforce Investment Act (WIA) in August 1998 which was aimed at addressing the concerns of employers by restructuring publicly available jobs and training services to the nation’s citizens (Ellis, 2001). A decade later, the WIA provided limited evidentiary support in meeting the purpose and objectives set forth in the original rollout, thus prompting legislators to pass the Workforce Innovation and Opportunity Act (WIOA) to replace the WIA (Spaulding, 2015).

Foundational tenets of the WIOA established amendments to help address deficiencies of the WIA regarding educational certification and development, external funding and instructional design and