Candidate: Kenneth Flowers
For the degree of: Doctor of Philosophy
Department: Educational Leadership, Research and Technology

Title: A Partnership between a Midwest Community College and the Highly Regulated Power Production Industry: A Case Study Regarding the Development of an Energy Production Technology Program

Committee: Dr. Richard Zinser, Chair
Dr. Louann Bierlein Palmer
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Time/Place: Tuesday, October 6, 2015
Noon to 2 p.m.
3309 Kohrman Hall

With nearly every industry predicting severe employee shortages, the available worker pipeline, including the employed, may need to upgrade their skills. In addition, the number of jobs available will soon exceed the number of available workers, even if all the workers were skilled. This study investigated the perceptions held by key individuals within the energy industry regarding an Energy Production Technology degree program developed at one Midwest community college to help address worker pipeline issues in the energy industry.

This study discovered a void within present literature discussing the interaction between community colleges and the nuclear energy industry concerning the development and progress of new Energy program development. For the purposes of this study, it was essential to assess the feedback process within this partnership to determine if the program was yielding effective results as perceived by program graduates and their employers. Of particular interest, a significant piece of the study looked at how the students in the program perceived how well the program prepared them for the workplace, as well as the perceptions of the employers regarding graduates’ preparedness. Through open-ended interviews and surveys, this mixed methods case
study includes the perceptions of 34 Energy Production Technology (EPT) program graduates, seven EPT program advisory committee members, and four employers of graduates from the industry.

The findings revealed that the program was successful for creating a worker pipeline; unfortunately there were not enough jobs to go around for all of the graduates. There was also conflict regarding the success of the feedback loop between the student, employer, and advisory committee. The employers and graduates equally believed that the program adequately prepared technicians for employment but they also felt that the military recruits were better prepared based on the nuclear culture in which they work.

This study affects policy and practice in career and technical education (CTE) by continuing to support the current practice of linking CTE education to third-party certified curriculum while also validating that the program development process requires a clear vision, flexible leadership, and continuous feedback from all stakeholders.