

K-12 Partnership *Report*

Developing Workforce Skills Through Project Based Learning

In the 21st century workplace, employers increasingly rely on their employees to work in teams and to complete projects. Whether in business, construction, information technology, food services or art and design, project managers oversee complex series of tasks which result in finished products. Many competing nations have been focusing on project management for years and are incorporating project management concepts into their education systems to instill these skills into their students.

What is project management? While traditional managers may focus on managing one group of people, who may only be focused on one task within an organization, project managers focus on teams of people who work together to complete specific projects. For example, various teams inside and outside a company may work together to develop and introduce a new product, including everything from arranging for raw material inputs to production and delivery. Project managers are responsible for making sure every aspect of a project comes together in a cost-efficient and timely manner. Successful project managers typically have a Project Manager Professional certificate, but they must also have excellent communications skills, be able to think analytically, and have the ability to multitask. In addition, potential project managers need sophisticated communication skills, a flair for teamwork, respect for diversity, and a talent for ad-hoc decision making, according to an article written by Dr. Yvonne Marie Andres, co-founder of Global SchoolNet.

By incorporating project management skills, practices and techniques into school curricula, public schools in the United States can help students prepare for the workforce. "Worldwide, we have seen a tremendous growth in the need for project managers," said Gregory Balestrero, chief executive officer of the Project Management Institute (PMI), an international association for the project management profession. "There is a global project manager shortage so the profession of project management is an excellent one for students to consider," he said.

Innovative education systems in the United States and around the world are developing project-based learning (PBL), an instructional methodology in which students learn important skills by completing actual projects. Students apply core academic skills and creativity to solve authentic problems in real-world situations.

According to Dr. Andres, PBL "is based on 'constructivist' learning theory, which finds that learning is deeper and more meaningful when students are involved in constructing their own knowledge." The thinking is that when students choose a topic which interests them and then create their own project plan, learning becomes more relevant and more meaningful to the student. Using this method, teachers become mentors instead of lecturers and the work becomes more collaborative overall.

The PMI Education Foundation/DeVry partnership

The PMI Education Foundation is in the business of spreading the word on project management skills and is partnering with DeVry University and the School District of Philadelphia to implement the "Philadelphia PM Project" in which high school seniors learn project management concepts in the classroom. "We're working to put together a sustainable program—and the key word is sustainable," said James R. Snyder, a founder of the Project Management Institute, a fellow of the institute, and a past president and chairman of the board. "So many projects get started and then they run out of steam." In this program, students receive a solid introduction to project management. The partnership ran a pilot program last summer, and a pilot that began last fall and continues through the end of this school year.

"To be considered for one of the three classes, a student must be an incoming senior, have a B+ grade average and have a 93% or above attendance record during the 2007-2008 school year," said Cassandra W. Jones of the Philadelphia School District. The project, which offers a college-level curriculum, teaches project

management practices and such 21st century skills as global literacy, problem-solving, innovation and creativity.

The Philadelphia PM Project conforms to Pennsylvania state and national guidelines and addresses Perkins Title IV requirements. “We think the program could be introduced in other cities and eventually become a national program, but first we have to evaluate the three pilot courses,” said Dr. John Byrne, associate professor of business programs at DeVry University’s Keller Graduate School and a Project Management Professional (PMP®).

While research on the Philadelphia PM Project is not complete, evaluation studies have been conducted on PBL in general. According to a study conducted by the Center for Research in Educational Policy in 1999, PBL students improved test scores in all subject areas over a

two-year period, out-performing control schools by 26%. However, “I think we spend too much time and money on testing,” said Snyder, when asked about the difficulty in setting performance measures, particularly in light of the fact that the project focuses on high school seniors.

Resource Links

PMI Education Foundation
www.pmi.org

DeVry University Project Management Program
www.devry.edu/programs/project_management/about.jsp

The Center for Research in Educational Policy
<http://crep.memphis.edu/>