Promoting Team Learning in the Classroom

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ABSTRACT

The new workplace is a key arena for learning in today’s society. The spiraling demand for knowledge in the workplace has increased interest in learning, especially team learning. Team learning can be viewed from multiple perspectives, making it difficult for career and technical educators (CTEs) to know how to prepare students for a team-based work environment, especially one that includes virtual teams. In addition, emerging technology adds to the confusion about how to provide effective learning experiences that mirror what is occurring in the workplace. To prepare the workforce of tomorrow, CTE instructors can become facilitators of team learning by providing ample opportunity for learners to practice team skills in a low-risk learning environment. By providing the exposure and practice to team learning skills and technology tools, CTEs may help equip students with added skills in entering a global workplace.

Keywords: Career and Technical Education, Collaboration, Team-Based Work, Team Learning, Technology

INTRODUCTION

The new workplace is a key arena for learning in today’s society. Because of the rapid pace of change brought about by new forms of work, globalization, and technological advances, learning the need for learning is pervasive in all types of organizations. The speed of change influences workplaces whether they are businesses, governmental agencies, health care organizations, not-for-profit groups, or educational institutions. The spiraling demand for knowledge in the workplace has increased interest in learning, especially team learning. Fenwick (2008) notes that prior to 1990 most of the literature viewed learning in the workplace as an individual experience. Since then, concepts such as the “learning organization” (Senge, 1990), Total Quality Management (Deming, 2000) and criteria for “high-performing teams” (Dyer, W & Dyer, J, 1987) have shifted the focus from the individual as the learner to the team as the learner. “Twenty-first century organizations will need to be highly nimble, capable of deploying spontaneous teams of employees within ever-changing organizational configurations in response to shifting market conditions” (Raelin, 2008, p. 11). In instances where individuals do not have sufficient knowledge to solve problems teams outperform the individual (Scholtes, Joiner, & Streibel, 2003). Not only is team learning prevalent in most
workplaces, workers are now required to be on teams with members in other states or even countries. Yet team learning can be viewed from multiple perspectives making it difficult for career and technical educators (CTEs) to know how to prepare students for a team-based work environment, especially one that includes virtual teams. In addition, emerging technology adds to the confusion about how to provide effective learning experiences that mirror what is occurring in the workplace.

“Career and technical education is about preparing people, young and old, for the world of work” (Wang, 2010, p. 72). The world of work requires not only traditional skills, but also includes the ability to learn in teams. Although most areas of curriculum in career and technical education focus on individual achievement, increasingly learning as a team has become a foundational skill. How do teams learn and how can technology help instructors integrate team learning into the CTE curriculum? We propose to address these questions by reviewing the concept of team learning, identifying research that contributes to understanding team learning from multiple perspectives, describing recent technological advances that have the potential to enhance team learning, and providing implications and recommendations for the encouragement of team learning by CTEs.

**DESCRIBING TEAM LEARNING**

As learning shifts from the individual to the collective, using research to describe team learning provides multiple lenses from which to understand how learning in groups is different from learning on one’s own. How does a team learn? Some authors contend that team learning differs from individual learning and goes beyond team development. For example, Kasl, Marsick, and Dechant (1997) note that although teams might work their way through Tuckman’s (1965) stages of forming, norming, storming, and performing they may not create the new knowledge of collective learning. In another example, Pawlowsky (2001) suggests that team learning occurs in four phases information generation, diffusion, integration, and action. In the first phase, participants identify and generate information about a common goal. At this point, only individual learning is occurring. Second is diffusion or the exchange of information from individuals to the team. This phase is like a conversation where individual team members voice their ideas and better understand the ideas of others. Third is the integration and modification of the information. In this phase, isolated bits of information are integrated into the knowledge of the group as a whole, different from the information contributed by any one individual. Similar to a conversation, this phase is somewhat unpredictable as team members build on one another’s ideas. And fourth is the action that results from applying the knowledge. This action may cause the team to reevaluate what it knows if the application is different from what they thought it would be. These stages are not necessarily sequential but provide insight into how individual contributions contribute to team learning. Likewise, McCarthy and Garavan (2008) agree with Pawlowsky (2001) saying that even when an individual learns on a team, that learning must be transferred to the group. This transfer or diffusion is an essential aspect of team learning. This is the step where learning as a team begins. Remembering what is learned presents a challenge when it is a team memory rather than an individual memory.

Wenger (1987) introduced the term *transactive memory system* as the team’s memory that they achieve by documenting their interaction and their decisions. The transactive memory system includes encoding, storage and retrieval processes that can be both individual, which is within the individual memory, and external that can be retrieved from books, data, or in the case of the team, other team members. A transactive system occurs when team members document what they learned so they can share it with others and learn others’ areas of expertise.
Women, Information and Communication Technologies, and Lifelong Learning
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