

**Center for Teaching Excellence – Reflective Practice**  
**Teaching Circle Mini-Grant Application ~ 2014-2015**

*Cover Sheet*

**DUE NO LATER THAN 4:30 pm on October 10, 2014**

**Contact Person(s):** Wanda Minnick

**Department:** Safety Sciences

**University Address:** 117 Johnson Hall, Indiana, PA 15431

**University Telephone:** 724-357-3276      **E-mail Address:** wanda.minnick@iup.edu

**Project Title:** Active Learning Strategies for Safety and Health Educators

**Collaborating Faculty Names:** Safety Sciences Reflective Practice Teaching Circle: Drs Tracey Cekada, Wanda Minnick, Eric Nelson, Helmut Paschold, Laura Rhodes, Jeremy Sladlev, Jan Wachter, Maied Zreiqat

**Amount Requested:** \$285.04

**Brief Project Abstract (attach longer proposal of 1-2 pages; 500 word maximum):**

The primary goal of the Safety Sciences Teaching circle is to identify active learning strategies for safety, environmental and health educators that can be used in both brick and mortar and web-based settings. Last semester safety sciences faculty discussed forming a teaching circle in which we could discuss active learning strategies specific to our discipline with the ultimate goal of publishing a book or several articles. The enthusiasm grew over the summer, we formally established our teaching circle this fall and we have recently reached out to National Safety Council (editor) who expressed interest in a book on this topic. We are currently using our teaching circle to operationalize this effort with each of us offering expertise in a specific content area. We are seeking the purchase of 3 books (qty of 4 each) to rotate among our reflective practice team to help in developing material for our book/articles.

According to the Bureau of Labor Statistics, 3.0 million nonfatal workplace injuries and illnesses were reported by private industry employers in 2012 while fatalities totaled 4,405 in 2013. Although injuries and fatalities have declined over the years, there is still a continued effort needed to further reduce injuries and fatalities. The National Institute of Occupational Safety and Health has acknowledged the importance of training effectiveness, training development and training dissemination on injury reduction by making them priorities within the agendas for specific industries including manufacturing, oil and gas extraction, and construction (CDC, 2014). The primary purpose of the safety sciences teaching circle is to develop safety and health active learning strategies that can be applied in brick and mortar and web-based scenarios as well as industrial settings.

The effectiveness of training is largely dependent of the transfer of learning, which some argue is best achieved through active learning (Michael, 2006). In a study regarding computer-based safety training, Wallen and Mully (2004) contend that “the problem educators and trainers face is that far too often, learners who appear to have acquired knowledge and skill and can answer questions in the classroom, are unable to apply that knowledge and skill in work settings (p. 258).” Research has indicated that the use of active learning has been useful in the transfer of learning in both the industrial and academic settings. In a meta-analytic study of safety and health training, Burke, Sarpy, Smith-Crowe, Chan-Serafin, Salvador & Islam (2006) concluded that the most engaging training had the biggest impact on improving safety knowledge, safety performance and reducing negative outcomes such as accidents, illnesses, and injuries. In the academic setting, a study was conducted that compared passive learning to active learning. Those from the active learning group evidenced significantly higher conceptual learning than the other participants (Benware and Deci, 1984).

It makes sense to consider active learning strategies for safety and health topics not only for the reasons already stated but because workforce demographics are changing. A generation that is equal in size to the baby boomer generation, the Millennials or Generation Y (birth year 1981-2001), are entering the workforce by the tens of thousands each year and “by the year 2025, three out of every four workers globally will be Gen Y” (Time, 2012). It is important then to learn the way in which Generation Y learns. In a study on how nursing educators can adapt to teach Millennials, it was noted that Millennials prefer, expect and appreciate technology in learning and they can assimilate the technology faster than the faculty can integrate it into the lesson plans. Millennials learn best when they can work through simulation, by doing and discovering through collaborative work, when they can actively work through situations and problem solve (Mangold, 2007).

We are requesting the purchase of 3 books (4 each) that focus on how to develop active learning strategies. These 12 books will be rotated among the members of the teaching circle. The titles of the books and their costs are listed on the next page.

Title	Cost at Amazon.com	Qty	Total
Meier, D. (2002). The Accelerated Learning Handbook. New York: McGraw Hill.	\$21.97	4	\$87.88
Silberman, M. (1996). Active Learning: 101 Strategies to Teach Any Subject. Pearson.	\$30.00	4	\$120.00
Rutherford, P. (2012). Active Learning and Engagement Strategies (Teaching & Learning in the 21 <sup>st</sup> Century). Just ASK Publications.	\$19.29	4	\$77.16
			\$285.04