

1154-A5-1682

**Vesna Kilibarda\*** (vkilibar@iun.edu), Indiana University Northwest, Department of Mathematics and Actuarial Sc., 3400 Broadway, Gary, IN 46408, and **Yuanying Guan** and **Xiaofang Wang**. *Role of Active Collaborative Learning Workshops in Changing the Introductory Mathematics Course.*

Literature have shown that active learning increases student performance in science, engineering, and mathematics courses, irrelevant of the field or the course type [Freeman, S. et al, 2014]. In addition, active learning has a disproportionately beneficial effect on members of minority groups in STEM fields [Treisman, U., 2009].

As a part of a larger project, Reimagining the First Year, our faculty developed active collaborative learning (ACL) activities for the mathematics general education course with a focus on increasing student success. After a preliminary run in several sections, our results have shown an increase of 6% in scores on common midterm and final exams for ACL compared to control sections and a 17% increase in retention.

After such encouraging results, we involved the whole department. We obtained a Teaching and Learning Prototype Grant, which awarded stipends for associate faculty to attend ACL workshops and become familiar with the ACL activities and course improvements. All instructors of the course added ACL activities. Our efforts resulted in improvements in both GPA and DFW rates. The overall class GPA for the course in fall 2018 was 2.15 with a DFW rate of 31% as compared to the baseline class GPA of 1.91 with a 44% DRW rate. (Received September 16, 2019)