

1077-M1-2580      **Claire Wyn Wladis\*** (cwladis@gmail.com) and **Alla Morgulis**. *A Controlled Study of Collaborative Learning in Intermediate Algebra*.

This project tested the hypothesis that a change from a traditional lecture-based format to a more student-centered and collaborative one would increase student success in Intermediate Algebra and Trigonometry. Six pilot experimental sections ran each semester, each with a comparable control section with the same instructor offered at a similar day/time and using the same assignments. Pilot instructors underwent training to ensure effective and consistent use of techniques. Student and faculty surveys and interviews, student scores on departmental exams, and data on success rates and retention were also used to assess the intervention's effectiveness. The statistical analysis suggested that specific collaborative learning projects used as a part of a comprehensive course structure can have a significant effect on student success. However, this success is contingent upon a suitable period of instructor practice, training, and revision of course structures and assignments. With a bit of experience, collaborative group work in stable base groups can lead to increases in student performance on exams of approximately two-thirds of a letter grade and about a 13 percentage point gain in successful course completion compared to standard courses using a lecture format. (Received September 22, 2011)