

Abstract Submitted
for the MAR13 Meeting of
The American Physical Society

Using In-class Group Exercises to Enhance Lectures and Provide Introductory Physics Students an Opportunity to Perfect Problem Solving Skills through Interactions with Fellow Students JOSEPH TROUT, JARED BLAND, Richard Stockton College of NJ — In this pilot project, one hour of lecture time was replaced with one hour of in-class assignments, which groups of students collaborated on. These in-class assignments consisted of problems or projects selected for the calculus-based introductory physics students. The first problem was at a level of difficulty that the majority of the students could complete with a small to moderate amount of difficulty. Each successive problem was increasingly more difficult, the last problem being having a level of difficulty that was beyond the capabilities of the majority of the students and required some instructor intervention. The students were free to choose their own groups. Students were encouraged to interact and help each other understand. The success of the in-class exercises were measured using pre-tests and post-tests. The pre-test and post-test were completed by each student independently. Statistics were also compiled on each student's attendance record and the amount of time spent reading and studying, as reported by the student. Statistics were also completed on the student responses when asked if they had sufficient time to complete the pre-test and post-test and if they would have completed the test with the correct answers if they had more time. The pre-tests and post-tests were not used in the computation of the grades of the students.

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Date submitted: 14 Nov 2012

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