

Abstract Submitted
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Teaching Interventions to Increase Outside Class Study Hours of Non-Science Majors Taking Physical Science Courses LIANG ZENG, Dept. of Physics and Geology, The University of Texas-Pan American, G. HEROLD POELZER, Dept. of Educational Psychology, The University of Texas-Pan American, MATTHEW COWAN, Dept. of Physics and Geology, The University of Texas-Pan American — This quasi-experimental study, conducted in the Physics and Geology Department at a predominately Hispanic university in South Texas, measures the change in average outside-class-study- hours per week of non-science majors taking physical science courses. The experimental group received four teaching interventions that were implemented to motivate these students to increase their study hours: Frequent oral encouragement, the Study Hour Formula sheet, the Weekly Priority Task list, and The Attributional Rating Form for Test Scores that was handed to students after each of four regular physical science tests. Both the experimental and comparison groups kept detailed logs of their outside-class-study-hour sessions, handed in to the instructor on a weekly basis. A pretest was administered to both groups at the beginning of the semester, and the same test will be administered at the end of the semester. A Multivariate Analysis of Variance is used to determine whether the increase in achievement between the pretest and posttest was greater for the experimental group. In addition, trends of individual weekly outside-class-study-hours per week and quality of study hours were examined in relation to improvement in test scores throughout the semester.

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