

Meeting: 1003, Atlanta, Georgia, MAA CP V1, MAA Session on Research on the Teaching and Learning of Undergraduate Mathematics

1003-V1-384 **Edwin P Herman*** (eherman@uwsp.edu), Edwin Herman, Department of Mathematics, University of Wisconsin, Stevens Point, Stevens Point, WI 54481. *Playing Games to Learn College Mathematics*. Preliminary report.

How beneficial is the use of a competitive game in the classroom as a tool to inspire new learning and aid in the retention of previous material? The goal of this research is to find out.

Last spring I designed and tested a board game in my business calculus course. The game was played eight times (taking up the entire period each time). Overall, the feedback was positive and the game seemed to inspire interest in the material.

Use of the game is quite costly in terms of class time, so the obvious question is whether it is worth it. Certainly, the students enjoyed it, but did they learn as much as a more traditional teaching method (or more)? This fall I have two sections of business calculus. I randomly chose one to take part in the "quizzing game," while the other will do a more traditional worksheet on those days. In other respects I will treat the two classes identically. By comparing similar questions on finals, I will hopefully identify which class (if either) has performed better. Obviously, there are several confounding variables, but this should indicate whether further research is warranted.

In the talk I will describe the game design and feedback as well as the results. (Received September 13, 2004)