

1023-I1-1280 **Feryal Alayont*** (alayontf@gvsu.edu), GVSU, Math Dept, 1 Campus Drive, Allendale, MI 49401. *Converting Calculus Students from Showing Work to Explaining*. Preliminary report.

First year calculus students generally come to the course expecting to solve a lot of problems during the semester, but not expecting to be asked to explain their solutions in addition to showing their work. In fact some students consider showing work to be the same as explaining. Over the past few years, I have experimented with the format of homework assignments in my calculus courses in order to improve students' ability to communicate in mathematics. I have varied the number of problems that students have to explain in each assignment, asked assignments to be done individually and in groups, added a requirement that one solution be typed and assigned students to act as editors to create a homework solution from those submitted by their peers. In this talk, I will report how students responded to these different forms of homework assignments, and how both the quality of explanations and correctness of their solutions changed depending on the format. In particular, I will share some student work to compare the quality in hand-written and typed solutions in detail. (Received September 25, 2006)