

1023-G5-1113 **Penelope H Dunham*** (pdunham@muhlenberg.edu), Muhlenberg College, 2400 Chew Street, Allentown, PA 18104. *The Thrill of Victory: Conquering Anxiety with Mastery Grading.*

Helping math-anxious students learn that they can "do math" and solve problems is a challenge. With mastery grading and a focus on process as well as the answer, I create a safe environment for students to build problem solving skills and improve attitudes. For nonroutine problems, I use writing, longer deadlines, structured feedback, and resubmissions with mastery grading (no grade until right). Students submit journals describing the plan of attack, strategies used (including dead ends), with analysis of the answer (or partial solution). For incorrect (or poorly written) answers, I ask questions, give strategy pointers, and return the entry without a grade. Students with four or five tries on a stubborn problem have been thrilled to finally get it right —without the stigma of a lower grade on initial attempts. By the end, almost all students produce a set of completed problems with explanations.

Writing plays to a strength of many students; it fosters reflection and metacognition and helps students monitor progress. Long deadlines and resubmission encourage persistence and lessen frustration. Data from surveys support these claims. I will show examples of student work, discuss mastery grading, and provide student comments about their changing views. (Received September 25, 2006)