One of the learning goals of the mathematics content course for pre-service elementary teachers at University of Michigan is improved mathematical communication. In past semesters, I have given students opportunities to submit revisions of their graded work, hoping this would lead to improvement. However, I was rarely satisfied with the results because (1) their second drafts seldom incorporated original revisions, (2) they seemed to make changes I suggested pro forma instead of with thoughtful consideration, and (3) they did not generalize the feedback and apply it to future problem sets.

In response I’ve implemented a mechanism for giving my students a more active role in evaluating their justification-intensive problems. I no longer grade their first drafts of justification-intensive problems. Instead, students revise their own first drafts in class in light of class discussion. Later, they evaluate sample solutions of problems online. Finally, they submit revisions in a portfolio, including a description of their revision process.

In this talk I’ll present examples of student work from this semester and discuss the kinds of revisions students make to their solutions using this system. (Received September 23, 2012)