Ryan J Zerr* (ryan.zerr@und.edu), University of North Dakota Mathematics Dept, Witmer Hall Room 313, 101 Cornell Street Stop 8376, Grand Forks, ND 58202, and Jessica M Zerr (jessica.zerr@und.edu), University of North Dakota English Dept, Merrifield Hall Room 110, 276 Centennial Drive Stop 7209, Grand Forks, ND 58202. Using Peer Reviews in Proof-Based Mathematics Courses.

We report on the use of peer reviews as an integral component in various proof-based mathematics courses. This system, which was inspired by the way peer reviews are used to teach English composition, involved students writing proofs, critiquing the proofs of their peers, and then responding to the feedback they received. In this way a critical reading component can be added to an existing course by requiring students to carefully read and analyze proofs which are not known a priori to be correct.

In addition to a description of this peer review process’s implementation, we present data that was collected from student work produced over the course of a semester. These data provide evidence for the effectiveness of the process in helping students to be more reflective about their proof writing, and also suggest that students would benefit from the inclusion of more opportunities to critique incorrect proofs. (Received September 10, 2008)