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Sarah K. Bleiler* (sarah.bleiler@mtsu.edu). *Evaluating Peers' Arguments as the Catalyst for Learning in an Introduction to Proofs Course*. Preliminary report.

Introductory proof concepts are frequently taught through instructor demonstration, followed by student replication of form and representation to similar problems. When students learn about proof primarily through seeing a “polished” completed proof, they may miss opportunities to make sense of why a particular mode of argumentation (e.g., direct or indirect proof) is appropriate, how a particular mode of argument representation (e.g., visual or symbolic) most clearly communicates a mathematical idea, or when a proof can be considered complete. The purpose of this presentation is to share the design of my introduction to proofs course, where evaluating student arguments served as the primary catalyst for engaging students in making sense of some of these essential proof-writing concepts. Student work was collected before each class session and used to inform the design of subsequent class activities. We worked to establish a communal understanding of what counts as proof. Based on this evolving understanding, students actively engaged in evaluating their peers’ arguments, which in turn encouraged them to take a critical stance toward their own proof writing. In this presentation, I share student work and describe class activities that promoted students’ learning of proof. (Received September 13, 2013)