1125-G1-848 Milos Savic, OK, and Emily L Curtis*, 601 Elm St., Norman, OK 73019. Productive Failure in Proving – Perspectives of a Student and Instructor. Preliminary report.

One aspect of inquiry-based learning that has been emphasized is the concept of a productive failure, in which a student fails in their problem-solving process, attempts to correct their solution, and reflects meta-cognitively about why that failure was productive for future problem-solving attempts. However, in our search, there has been little investigation into what a productive failure looks like from the student and teacher perspective. We aim to present a case study in which both the instructor and the student share their perspectives prior to the productive failure. The productive failure, on the second exam of an abstract algebra course, was presented to the class, and a reflection of that presentation by the instructor and student will also be presented. This dissection of a productive failure might be helpful to future instructors who want to demonstrate a "typical" productive failure. (Received September 20, 2016)