Background Literature
There are two different perspectives of mathematical creativity: a creative product (Runco & Jaeger, 2012), or a creative process (Guilford, 1967). For either perspective, one must ask, "For whom is the product or process creative?" This question yielded the discussion of two different perspectives on creativity: relative and absolute. Relative creativity is mathematical creativity that is relative to the person and their background in mathematics (Vygotsky, 1982, 1984), whereas absolute creativity is creativity that is recognized in the mathematical field. Our research is focused on the relative process of undergraduate students' creativity in proving. This investigation addresses a gap in the existing undergraduate proof literature.

Creation of the Rubric
Our research group used four different sources to create the Creativity-in-Progress Rubric (CPR) on Proving: past mathematics education research on creativity (e.g., Silver, 1997; Lelin, 2009), interviews with mathematicians about their views of creativity (Karokak, Savic, Tang, & El Turkey, in press), student interviews (Tang, El Turkey, Savic, & Karokak, in press), and students' proving processes obtained via Livescribe pens. The first version of the CPR on Proving (Savic, Karokak, Tang, & El Turkey, in press) had three categories, but one of the categories (Creating Ideas) was a by-product of the other two categories, described below the rubric.

There are two categories, Making Connections and Taking Risks, and subcategories for each of the two main categories. For each subcategory, there are three levels. A student’s proving process will score anywhere on the continuum arrow for each subcategory.

Current/Future Research
We have collected Livescribe pen data from four semesters of discrete mathematics (which is considered in both universities as the introduction to proof course), along with student interviews. We are in the process of analyzing the data to examine:

• How much creativity was developed during the course of the semester in the proving process?
• One class was taught using the CPR on Proving as a main aspect of the course. What impression did this pedagogical choice have on the students?
• What aspects of the rubric were the most difficult to attain for students?
• Since the CPR on Proving focuses on the proving process, what does a creative product (or final proof) rubric entail?

Making Connections
The ability to connect the proving task with definitions, theorems, multiple representations, and examples from the current course that a student is in, and possible prior experiences from previous courses.

Taking Risks
The ability to actively attempt a proof, perhaps using multiple proof techniques, posing questions about reasoning within the attempts, and evaluating those attempts.

References