

1135-D5-3070

Milos Savic* (savic@ou.edu), **Houssein El Turkey**, **Emily Cilli-Turner**, **Gail Tang**,
Gulden Karakok and **Mohamed Omar**. *Exploring the Intersection of Fostering Mathematical
Creativity and Inquiry Teaching*. Preliminary report.

Few mathematics education studies on creativity have been undertaken at the undergraduate level. In particular, investigations on pedagogical actions that foster creativity in undergraduate mathematics courses are rare. Coincidentally, there is a dearth of research on pedagogical actions that define inquiry-based learning. Our aim is to add to both fields by illuminating the pedagogical actions in which inquiry teaching could help foster creativity. We collected and transcribed Livescribe pen audio of five class sessions of an introduction-to-proofs course, interviewed seven students, and obtained instructor journals of preparation for and reflection on the course. A preliminary analysis utilizing six principles to maximize creativity (Sriraman, 2005; Moore-Russo & Demler, in press) along with four components of inquiry-oriented instruction (Kuster, Johnson, Keene, & Andrews-Larson, 2017), showed two of the six principles had a clear alignment with three of the components of inquiry-oriented instruction: generating reasoning, building on student thinking, and developing a shared understanding. We detail those two principles, and discuss the reasons for which the other four principles did not purely align. (Received September 26, 2017)