

1116-H5-22

**Jeffrey A. McLean\*** (jamcle01@syr.edu). *Eliciting Bootstrapping: The Development of Students' Informal Inferential Reasoning.*

This talk will focus on the development of introductory statistics students' informal inferential reasoning while engaged in an instructional unit eliciting the resampling method of bootstrapping. Researchers have asserted that bootstrapping is intuitive to novice statistics students and promotes student learning of the logic of inference. The instructional unit consisted of activities that: encouraged students to generate descriptions, explanations, and constructions of sampling and inference in order to reveal how they were interpreting situations; focused on the mathematical structure of sampling with TinkerPlots software; and transformed their developing reasoning of sampling and inference to investigate more complex problems. The first section of the unit elicited students to repeatedly sample from an available population and construct a means to make inferential claims from the data. In the second section the population was no longer available. Students had only one sample from the population and constructed the resampling method of bootstrapping to draw inferential claims. I will describe the development of students' reasoning of sampling and inference, the methods of resampling that they constructed, and how these methods were used to draw inferential claims. (Received May 16, 2015)