



Department of Mathematics and Statistics



Special Colloquium



Research Talk: Critical Statistical Literacy Habits of Mind

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Abstract: The Common Core State Standards (National Governors Association Center for Best Practice & Council of Chief State School Officers, 2010) initiated an emphasis on statistics and representations of real data sets across the middle and high school standards. More recently, individual states have moved to include an even larger focus on statistics and data science in their standards, including from the consumer perspective of statistical literacy (making sense of statistical messages in the real world). This emphasis is particularly evident in California's new push for the inclusion of data science and big data (e.g., Gewertz, 2020). Making sense of real world statistical messages requires more than understanding the statistics, it also requires the adoption of a critical lens (e.g., focus on power and equity). How statistics are wielded and presented in the real world cannot be separated from the fact that social issues operate within systems of marginalization, privilege, and power. As such it is important for teachers and students to develop critical statistical literacy habits of mind (CSLHM). The purpose of this talk is to share the inspiration behind my study of CSLHM, present the theoretical framing of CSLHM, very briefly share some findings from my study on preservice secondary mathematics teachers, and briefly describe where I plan to go next with this strand of research. Ultimately, the goal of this body of work is to better understand how people enact the CSLHM so the field can begin to research how to support individuals to develop CSLHM. Perhaps more importantly, how preservice mathematics teachers can be supported in developing CSLHM so they can support their students to do the same.

Keywords: Critical statistical literacy, habits of mind, preservice mathematics teachers.

Thursday, Dec. 8, 11:05 – 11:50 am in 4-1-314