MATHFEST 2022
Selected Sessions

THURSDAY AUG 4, 2022
8:00-10:55 am. The Impact of Interdisciplinary Collaborations: Lessons from SUMMIT-P
8:20- 8:35 am. Scenario-Based Teaching and Learning by Piercey, Bishop and Stone, Ferris State Univ.
9:00-10:55 am. Data for Good: Bringing Social and Professional Responsibility into the Statistics
Classroom by Grant Innerst, Shippensburg U.

1:00-2:50 pm. Teaching Mathematics Through the Lens of Social Justice, Part A. Branson and George **
1:00-5:20 pm. Pursuing Justice in and through Mathematics
1:40-1:55 pm. Math for the People: A Textbook for Teaching Quantitative Reasoning Through Social
Justice. Branson and George **
2:20-2:35 pm. Helping Prepare Teachers to Teach for Justice **
3:40-3:55 pm. Empowering Students for Social Justice through Math, Liberal Arts, and EML **

1:00-4:15 pm. Quantitative Literacy and Reasoning as Tools for Learning Across the Disciplines
3:00-3:15 pm. Statistical Literacy: A Tool for all Disciplines by Milo Schield

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4:00-5:20 pm   Rosenthal Prize: Innovations in Math Teaching   https://momath.org/rosenthal-prize/

5:00-6:20 pm   SigMAA-QL. Luke Tunstall.   Salon F **
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FRIDAY AUG 5
9:20- 9:35 am New Instrument in Motivational Attitudes Toward Statistics/Data Science   Posner Salon K

1:00- 2:50 pm   Teaching Math through Lens of Social Justice, Part B
1:40- 1:55 pm   High School Summer Program in Mathematical Epidemiology

2:30- 3:50 pm Alternative Post-Secondary Mathematics Pathways.
2:30- 3:50 Using Excel to Make Service Courses More Effective. Salon C.
2:30- 3:50 Henry L. Alder Award for Distinguished Teaching.
3:00- 4:50 Re-imaging the Mathematics Curriculum in the First Two Years in Collaboration with Partner
Disciplines -- the SUMMIT-P Model, Part B.   Salon K.   Piercey and Doree.

Statistical Literacy: A Quantitative Tool for all Disciplines
Milo Schield, University of New Mexico

Statistical literacy goes beyond quantitative literacy. Here are 6 important distinctions between statistical literacy (statistics) and quantitative literacy (math): (1) Induction vs. deduction. (2) Statistics vs. numbers (matter vs. form). (3) Causation vs. association. (4) Confounder vs. covariate (mediator or mechanism). (5) Adjusted/standardized association vs. crude associations. (6) Experiments (doing) vs. data analysis (seeing). Statistical literacy (S/L) is a quantitative tool for all disciplines. Statistical Literacy enables students to think critically about statistics found in the everyday media. Many -- if not most -- of today's arguments use statistics as evidence. Numeracy must include statistical literacy in order to be a quantitative tool for all disciplines.

Slides: www.StatLit.org/pdf/2022-Schield-Mathfest-Slides.pdf
Paper: www.StatLit.org/pdf/2022-Schield-Mathfest.pdf

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