Piloting a new assessment tool for data science education researchers

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With the growing popularity of introductory data science courses, there is a need for quality research assessment tools developed and validated for general use across institutions and programs in order to compare and contrast curriculum interventions, pedagogical innovations, etc. This project has set out to develop a research assessment to measure learning outcomes for introductory data science students before and after a first course. A team of statistics and data science education researchers examined syllabi and resources in use by experienced introductory data science instructors, and then drafted and revised an assessment tool aligned with the core knowledge, skills, and abilities. The team then conducted structured interviews with experienced data science instructors with expertise in statistics education, computer science education, and/or educational measurement. Interviews invite both holistic feedback (e.g., essential topics for a data science assessment) as well as a detailed critique of each item and its contribution. This lightning talk discusses current successes and challenges in the assessment development process, progress toward a larger scale pilot of the assessment tool, and invite both feedback and participation from colleagues in the ICER network.

Additional Key Words and Phrases: data science education, statistics education

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