

Abstract Submitted  
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**Defining, Establishing and Ensuring Fairness on Concept Inventories** REBECCA LINDELL, Tiliadal STEM Education Solutions, RACHEL HENDERSON, West Virginia University and Michigan State University, JOHN STEWART, West Virginia University, ADRIENNE TRAXLER, Wright State University — While psychometricians developed procedures for establishing fairness of assessment inventories over 20 years ago, it was only recently that establishing fairness has become of such importance that the Standards for Educational and Psychological Testing released by AERA and APA (will be verifying which professional societies) now encourages that all educational and psychological tests should be reliable, valid and fair. In this talk, we seek to answer three large questions that concept inventory developers and users need to be aware of concerning fairness: 1) How do we define what it means to be a fair instrument, 2) How do we determine if an instrument is fair and 3) How do we ensure that instruments we develop are fair? We will accomplish this by reviewing the standards as well as the standard methods for establishing and ensuring fairness.

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