

1135-M5-2087 **Elise Lockwood***, 064 Kidder Hall, Department of Mathematics, Oregon State University, Corvallis, OR 97331, and **Branwen Purdy** and **John S. Caughman**. *Reinventing the Multiplication Principle*.

In an effort to better understand students' understanding of a fundamental aspect of combinatorial enumeration, we had two undergraduate students reinvent the Multiplication Principle during an eight-session teaching experiment. In this presentation, we report on the students' progression from a nascent statement to a sophisticated statement of the principle, and we highlight three key mathematical issues to which students attended through this process. We additionally present potential implications and directions for further research. (Received September 25, 2017)