

Abstract Submitted  
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**Using Quantitative Observations of the Use of Language in an Introductory Science Class to Better Understand Student Learning** JAMES ROLLER<sup>1</sup>, University of Arkansas — Results of a measurement of the total written output of students in an introductory science class at the University of Arkansas are presented. This measurement is used to construct quantitative measures of the quantity and quality of the quantitative, qualitative, and graphical expression in the course. Correlations of these measures with test average, Hake Gain, and behavior data allow the determination of the importance of written expression in quantitative and conceptual learning.

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