

Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

A Taxonomy of Introductory Physics Concepts.¹ FRIDAH MOKAYA, AMIT SAVKAR, DIEGO VALENTE, Univ of Connecticut - Storrs — We have designed and implemented a hierarchical taxonomic classification of physics concepts for our introductory physics for engineers course sequence taught at the University of Connecticut. This classification can be used to provide a mechanism to measure student progress in learning at the level of individual concepts or clusters of concepts, and also as part of a tool to measure effectiveness of teaching pedagogy. We examine our pre- and post-test FCI results broken down by topics using Hestenes et al.'s taxonomy classification for the FCI, and compare these results with those found using our own taxonomy classification. In addition, we expand this taxonomic classification to measure performance in our other course exams, investigating possible correlations in results achieved across different assessments at the individual topic level.

¹UCONN CLAS(College of Liberal Arts and Science)

Fridah Mokaya
Univ of Connecticut - Storrs

Date submitted: 13 Nov 2016

Electronic form version 1.4