John M Clement* (clement@hal-pc.org), 1222 Howard Ln, Bellaire, TX 77401. Applying Physics Education Research to math education.

There is now abundant evidence from physics education research (PER), and science education research that both science and math understanding can be improved by guided discovery pedagogy. Various lines of research starting with Robert Karplus, Heather Brasell, Anton Lawson, Shayer and Adey, and many others have shown that guided inquiry in the form the learning cycle result in dramatic improvement in learning. The author has applied some of these techniques to computer science education, and has some evidence that these techniques have improved learning. Various techniques and results will be discussed. (Received September 20, 2007)