

Abstract Submitted
for the MAR05 Meeting of
The American Physical Society

Will the No Child Left Behind Act Promote Direct Instruction of Science? RICHARD HAKE, Indiana University Emeritus — Education research in physics at the high school and undergraduate level strongly suggests that interactive engagement enhances students' conceptual understanding much more than traditional Direct Science Instruction (DSI). Similar conclusions can be drawn from K-8 science-education research. Nevertheless, DSI predominates in CA because of the DSI-orientation of the CA State Board of Education and Curriculum Commission [1]. Likewise the U.S. Dept. of Education's (USDE's): (a) DSI-orientation as demonstrated by its recent national-education summit showcasing of the research of Klahr and Nigam [2]; and (b) science achievement testing starting in 2007; threatens to promote DSI nationwide. It might be hoped that NRC's expert science education committees will steer the USDE away from promoting DSI, the antithesis of the NRC's own recommendations for inquiry methods. [1] R.R. Hake. "Direct Science Instruction Suffers a Setback in California - Or Does It?" (2004), <http://www.physics.indiana.edu/~hake/DirInstSetback-041104f.pdf>. [2] Klahr, D. & M. Nigam. 2004. "The equivalence of learning paths in early science instruction: effects of direct instruction and discovery learning" (2004), <http://www.psy.cmu.edu/faculty/klahr/papers.html>

Richard Hake
Indiana University Emeritus

Date submitted: 21 Mar 2013

Electronic form version 1.4