

PSF13-2013-000087

Abstract for an Invited Paper
for the PSF13 Meeting of
the American Physical Society

Facilitating Transfer of Learning and Problem Solving in Physics¹

N. SANJAY REBELLO, Kansas State University

Transfer of learning – the ability to apply what one has learned in one context to a different context – is an important aspect of problem solving physics. In this talk, I will briefly review contemporary perspectives on transfer of learning and discuss how these perspectives inform a theoretical framework that underpins our research over the past few years. I will present results of studies that demonstrate how instructional strategies based on this framework can facilitate problem solving in a calculus-based physics class. I will also discuss how our perspectives on transfer of learning inform our ongoing research on visual cognition and its application to developing visual cues that facilitate conceptual problem solving in physics.

¹Supported in part by U.S. National Science Foundation grants 0816207 and 1138697.