Abstract Submitted for the APR10 Meeting of The American Physical Society

Epistemological Effect of Assessment Style in Introductory Physics MARK BOWEN, UC Davis — Epistemologies were measured across two separate lecture sections of introductory algebra-based physics at UC Davis. Remarkable differences in epistemologies, as measured by the MPEX II survey were noted with one section's students (section A) showing significantly better gains in almost all epistemological categories than the other (section B). One difference between the sections was the style of the assessment (quizzes) employed by each lecturer. Section A's assessment required complex reasoning using basic physics concepts while section B's assessment consisted of standard physics problems which could be solved algorithmically. Although there may have been other important differences between the sections such as lecture style, we hypothesize the assessment in section A sent a strong, positive epistemological message to the students. In an attempt to control for any strong lecture style effect, a new investigation has begun, varying assessment style in two separate lecture sections, each with the same instructor.

> Mark Bowen UC Davis

Date submitted: 21 Oct 2009

Electronic form version 1.4