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Writing as a Mediator for Critical Thinking and Conceptual Change: A Targeted Activity to Help Students Uncover Their Misconceptions in an Introductory Physics Class. ANTOINETTE STONE, University of California, Merced — This poster reports the essay analysis of a targeted writing assignment, designed to examine how well physics students developed a more complex conceptual framework regarding microscopic models of friction and to the extent the writing task mediated critical thinking to achieve that framework. The assignment directed students to write an essay which examined the results of *other student's* misconceptions about microscopic friction, by reading research articles that reported classroom dynamics involving these students and their misconceptions. This study linguistically examines the submitted essays for sentence structure and use of lexicon, to evaluate learning as modeled by conceptual change through negotiation of conceptual conflict and misconception. The results suggest that the writing assignment helped a majority of students to begin to restructure their ideas of microscopic friction as distinctly different from macroscopic models of friction.

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