

Abstract Submitted  
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**A Search for Correlations Between Teaching Style, Academic Gain, and Epistemology of Introductory Physics Students<sup>1</sup>** ABIGAIL BOGDAN, DENNIS KUHL, Marietta College — Ideally, a physics class would improve both students' academic abilities and their attitudes towards physics. This study was designed both to investigate any correlation between academic ability and epistemology, and to examine the effects of teaching style on academic and epistemological growth. Over four hundred students in high school and college introductory physics courses were given two pre- and post-instruction surveys: the Force and Motion Conceptual Evaluation (FMCE) to measure knowledge of physics and the Epistemological Beliefs Assessment for Physical Science (EBAPS) to quantify epistemological beliefs about physics. The average normalized gains from each class were then compared to teaching style. It was found that, though different teaching styles produced drastically different academic gains, student epistemologies remained fairly constant.

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