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Enhancing Student Attitudes about Physics: A multi-university study KARA GRAY, School of Education, University of Colorado -Boulder, VALERIE OTERO, School of Education, University of Colorado - Boulder — Despite improvements in students' conceptual learning associated with research-based teaching techniques, studies in physics education research continue to show that student attitudes toward physics get worse over a single semester of physics instruction. Even courses that measure very high conceptual learning gains show degradation in students' attitudes. This is observed in courses designed for physics majors as well as in courses designed for non-physics majors. The Physics and Everyday Thinking (PET) curriculum is designed especially for non-science majors, particularly prospective and practicing elementary teachers. In addition to the foundational content in physics, the PET curriculum explicitly helps students think about what it means to learn physics as well as introducing them to broader issues about the nature and practice of science. Because the curriculum explicitly addresses issues about learning physics and the nature of science, we hypothesized that PET students' attitudes about physics would improve over one semester. We studied students from seven different universities and found small to large positive shifts in attitudes about physics among students enrolled in PET courses. We will discuss these unusually high shifts and compare them to pre/post measurements using the same attitude instruments and different curricula.

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