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Exploring student attitudes toward reformed instruction in introductory physics GABRIELLE HARMON, ELIZABETH CZAJKA, REBEL NICHOLSON, CHASE GAMMON, ELEANOR CLOSE, Texas State University — The physics department at TXST has implemented a Learning Assistant (LA) program with reform-based instructional changes in our calculus-based introductory sequence. Students in these courses spend a significant portion of class time in small groups, often working through materials from the research-based curricular supplement “Tutorials in Introductory Physics.” These instructional practices, while shown by numerous studies to dramatically improve student learning, are often in conflict with student expectations and their beliefs about how they learn best. In this study, we examine written reflections completed by students in the first course in the sequence for evidence of their attitudes and beliefs with regard to the research-based instructional methods (interactive small-group learning) and materials (e.g., Tutorials) used in the course. We explore the reasons they give for their attitudes and beliefs, whether they report that their beliefs change over time, and if so, what reasons students give for the change. Findings can inform instructors on how to effectively promote productive student engagement in research-based instructional activities.

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