

Abstract Submitted
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Student-Identified Themes Around Computation in High School Physics THEODORE BOTT, DANIEL P. WELLER, PAUL W. IRVING, Department of Physics & Astronomy, Michigan State University, MARCOS D. CABALLERO, Department of Physics & Astronomy, Michigan State University; CREATE for STEM Institute — We are developing a survey which evaluates the attitudes of students exposed to computational learning activities in their high school physics classrooms. We administered a pilot questionnaire in various classrooms and conducted a thematic analysis on student responses. Several themes were identified for investigation via teacher interviews while further themes emerged from analysis of open-ended responses to initial survey items. Those themes included the applicability of physics ideas in coding, computational thinking practices, and the usefulness of computation. This work lays the foundation for the development of a robust and validated survey that assesses students opinions, expectations, and attitudes towards learning computation in their science classes.

Nita Kedharnath
University of Michigan

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