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Enes Akbuga* (akbuga@umich.edu), School of Education, University of Michigan, 610 East University Ave. #2400, Ann Arbor, MI 48109. *Motivation intervention through calculus tasks with science and engineering applications.*

Calculus students often ask: "why are we learning this?" If students are not given the opportunity to see this connection, they might become disengaged and unmotivated (Harackiewicz, Tibbetts, Canning, & Hyde, 2014). This study was based on Expectancy-value model (Eccles et al. 1983) that include utility-value as an essential component. The aim of this study is to examine the impact of an interdisciplinary approach to student motivational aspects: utility-value, interest, and performance expectations. Participants were enrolled in an introductory calculus course and approximately 81 students (from six sections) were involved. The study followed a quasi-experimental research design. The intervention sections were given the application tasks twice during the semester. The intervention was comprised of three calculus tasks with applications to science, technology, and engineering disciplines. However, the data only came from a survey (twelve Likert items). The results showed that the intervention wasn't significant on student motivation. However, a unique aspect of this study was the idea of implementing applied calculus tasks that were explicitly developed by potential future instructors of students in computer science, physics, and engineering fields. (Received September 25, 2018)