Impact of Learning Assistant program participation: FCI changes over time

JOSEPH HOOK, AARON COLLINS, JESSICA CONN, DAVID DONNELLY, ELEANOR CLOSE, Texas State Univ-San Marcos — The physics department at Texas State University has implemented a Learning Assistant (LA) program as part of its transition to reformed instructional methods. Over the last 4 years the LA program has grown to include all sections of the calculus based introductory sequence, with over 30 LAs currently participating in the program each semester. LAs assist with instruction in the introductory course lectures and are also encouraged to participate in the educational mission of the department in other ways, including opportunities to teach laboratory sections and tutoring in our walk-in Physics Help Center. We have documented large improvements in students’ conceptual learning in the introductory mechanics course using the Force Concept Inventory (FCI). LAs also take the FCI during their Physics Cognition and Pedagogy course, which is a requirement to participate in the program. In this talk, we will describe trends in LA FCI scores, including comparisons of results for various subsets of LAs such as those currently in upper or lower division courses, and those who have or have not taken the FCI previously. This analysis is a component of our larger research investigation of the ways in which LAs benefit from their participation in the program.