**Abstract**

We examined the effects of several interventions in a standard CS2 fall semester. Interventions included integrating assignments into a new, overarching lab, implementing a series of process points designed to encourage good coding habits, and adding a guided project dedicated to inheritance. We measured and compared student efficacy, retention, engagement and learning between a standard CS2 course offered in Fall 2015 and a Fall 2016 course that integrates these interventions. We hypothesize that the interventions will result in a positive increase across the stated metrics. Supporting our hypothesis, we find that students exhibited a significant increase in grades across several areas, including the final grade, the in-class labs, and the first guided project. We also examined several demographics and found that every racial subset demonstrated improvement, with minorities (African Americans, Native American, Hispanics, and Pacific Islanders) displaying the most improvement.