

Urias, G., Armstrong, C., Do, M., & Ihorn, S. (2022). Self-Efficacy and Self-Concept Threat in First Generation Computer Science Students. Poster presented at the annual meeting of the Western Psychological Association, Portland, OR.

Although the Computer Science (CS) field has taken steps to create an equitable learning environment for all students, first-generation college students continue to question their place and success (Johnson et al., 2011). Students' feelings around self-concept threat and self-efficacy can impact overall educational success. Self-efficacy is an individual's belief in their ability to perform behaviors in a particular situation (Creer & Wigal, 2016). Self-concept threat is a form of stereotype threat where an individual fears conforming to a negative stereotype (Shapiro & Neurberg, 2007). This study examines the relationship between learning self-efficacy and self-concept threat in college students taking introductory CS courses at a diverse, urban public university.

Data collection is in progress. Currently, data for 386 participants has been collected – we anticipate that our total sample size will be approximately 450. Results from initial analyses (106 students) are presented here, with the understanding that findings may change. Participants enrolled in introductory CS courses completed an online Qualtrics survey with items from the Self-Efficacy subscale of the Motivated Strategies for Learning Questionnaire (Pintrich et al., 1991) and the Achievement Goal Questionnaire – Revised (Elliot & Murayama, 2008). For first-generation college students ($N = 54$), there was no correlation between learning self-efficacy and self-concept threat ($r = -.014$). For students with college-educated parents ($N = 52$), there was a small negative correlation between their learning self-efficacy and their self-concept threat ($r = -.293$). No significant difference was found between the correlations for the two groups ($z = -1.439$, $p = 0.15$) nor between groups on their self-efficacy scores or their self-concept threat scores.

Though findings are tentative, first-generation college students reported no relationship between their learning self-efficacy and their self-concept threat in their CS courses, but a negative correlation was found between learning self-efficacy and self-concept threat for students whose parents went to college. Previous research has shown that self-efficacy explains the relationship between environmental supports and academic progress (Garriot et al., 2015), whereas the effect of self-concept threat on performance is influenced by task difficulty level (Nadler & Kamarraju, 2016). Expanded discussion, limitations, and implications for education practice will be presented.