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ARCH Draft Abstract/Summary

My study centers on examining relationships between academic performance, self-efficacy and student identity. To do so, I take a two pronged approach: 1) a focus on whether or not a correlation exists between student interactions with high-achieving students and student overall academic performance, and 2) the correlation between verbal recognition by peers or instructors and student academic performance. I predict a positive correlation between the interactions of high-achieving students and student overall course grade, as well as a positive correlation between the verbal recognition by peers or instructors and student course grade. In order to determine these outcomes, three different types of surveys are administered at Florida International University to students in specific sections of introductory Physics I (w/ Calculus) and introductory Physics 2 (w/Calculus), which differ from other sections in that they involve a lot of student interactions and group-work. The surveys include a pre- and post- self-efficacy in physics survey [i.e., Sources of Self-Efficacy in Science Courses-Physics (SOSESC-P)], a pre- and post- Identity Survey, and the Social Network Analysis survey (SNA). From these surveys, the outcomes of these student networks and how they affect the students' overall performance will be analyzed utilizing RStudio, which will then allow for interpretation of the data collected. This particular study is significant as it could provide insight on what factors affect variables that are relevant in a student's ability to perform well academically. The outcomes of the study could also potentially lead to changes in the methods and environment in which students are taught in order to improve not only student overall academic performance, but student self-efficacy and identity, as well.