Abstract Submitted
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Mentoring Partnerships in Undergraduate Physics and Astronomy Education[1] ANDRIA SCHWORTZ, ANDREA BURROWS, None — Relationships are the root of being able to teach well, regardless of the context. In this project, the researchers draw parallels between two studies into collegiate STEM learning where mentoring of students proved beneficial to the participants. The first study used an action research approach to partner a researcher with the community of a collegiate studio physics electricity and magnetism course. Mentoring partnerships between students and their teaching assistant via student/TA conferences resulted in improvements to the student/TA relationship, though students were reluctant to voice their opinions. The second study took a quantitative approach to determine participant learning after a three-phase astronomy dataset activity. Female undergraduates exhibited lower levels of learning than male undergraduates, or either male or female science educators. Implications included the need for further investigation into the challenges faced by female undergraduate students in both physics and astronomy. Connections are made across these two studies, and possible causes and future strategies to create stronger partnerships with students are discussed.

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