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Abstract

Using a design-based orientation, this mixed-method study explored ways to support computing science and engineering students whose study strategies may be inadequate to meet coursework expectations. Learning support workshops, paired with university courses, have been found to assist students as they transition to university learning, thereby contributing to lower attrition rates. Unfortunately, at-risk students are less likely to attend paired learning support initiatives. To broaden participation, incentives can be provided to all students. However, doing so entails that learning support workshops provide students, in general, with relevant insights on learning. Our first research question involved determining the kind of learning support deemed valuable within the discipline by juxtaposing students' perceptions of their coursework challenges, study strategies, motivation, and

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attitudes with instructors' expectations for student learning. Aligned with a design-based orientation, our second research question explored those aspects of learning that the design of our learning support workshop should address. One hundred fifty-four students responded to an online questionnaire and five instructors were interviewed. Our findings provided us with insights on disciplinary learning, which are to be supported by our workshop design. Specifically, the meta-inference themes of give it a real try; disciplinary craft; and learn from/with others reflect aspects of learning that computing science and engineering students are encouraged to develop. We recommend future research into instructors' disciplinary learning beliefs and how paired learning support can be designed to initiate first-year students into those aspects of learning valued by their respective disciplinary fields. (HRK / Abstract übernommen) Guloy, Sheryl, E-Mail: sga55@sfu.ca