

Supplemental Material S2. Qualitative methods and limitations.

Qualitative Methods

Open response questions were coded by the first author using data-driven thematic analysis (Braun & Clarke, 2006). The goal of the qualitative analyses was to provide context and nuance to quantitative results. Because the COVID-19 pandemic is a novel event, and because open response questions covered wide-ranging aspects of student experience, coding was conducted one open-response question at a time and was exploratory and data-driven (rather than theoretically motivated).

During the first phase of analysis, all open-ended responses were read by the first author and initial codes were assigned using NVivo software (Version 12.6, QSR International). Each meaningful unit within a given participant's response was coded; therefore, a given participant's response could be coded once or many times, depending on the number of differentiable meaningful units. In the second phase of analysis, codes were sorted into candidate themes. During this phase, no codes were discarded. All codes were organized into candidate themes. In the third phase of analysis, candidate themes were reviewed. All coded data aggregated under a candidate theme was reviewed to ensure that data within a theme were coherent internally, and that there were clear distinctions between themes (internal homogeneity and external heterogeneity; Patton, 1990).

Limitations

The most significant study limitation is the qualitative analysis in which coding was conducted by a single author. All thematic coding was conducted by the first author. While there are disagreements about the utility of inter-rater reliability measures in qualitative research (for discussion, see O'Connor & Joffe, 2020), the preponderance of qualitative methodologists agree that multiple coders improve the validity and quality of thematic analysis. Therefore, qualitative analyses and conclusions presented below should be considered exploratory.