

Diversity, Equity, and Inclusion: Gathering Community College Students' Perspectives

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In this poster, we share our design process and protocols for gathering longitudinal data of students' perspectives on equity, diversity, and inclusion in the college algebra classrooms at community colleges with the goal of documenting their understanding of these terms in the context of college algebra. While some studies explored student experiences in college algebra (Gardner, 2020) and other studies document undergraduate students' experiences of inclusion and belonging in mathematics classes at predominantly white institutions (Leyva et al., 2021), we do not have studies that investigated community college students' understanding of equity, diversity, and inclusion nor how students come to understand these ideas.

We are engaging in an initial cycle of a grounded theory approach (Charmaz, 2006) with the goal of providing an initial understanding of these constructs from students' perspectives. Since community colleges draw students from their local communities, the details of students' experiences vary, and their understanding of equity is influenced by contextual aspects of the institution and of the community. As such, we plan to collect data from 80 students (10 from each college) enrolled in eight carefully selected community colleges, two from each of the following regions: Northwest, Southwest, Central, and Midwest. These colleges were selected for the diversity of students enrolled on their campuses. We seek to recruit students with particular identities including race, gender, ethnicity, physical diversity, and neurodiversity. As student recruitment is critical, our recruitment process will use a multipronged approach that includes reaching out to college units that support a diversity of students.

To capture students' views they will participate in a series of four interviews within a year. During the interviews, students will (1) discuss their personal and mathematical histories related to their current understanding of equity, diversity, and inclusion; (2) provide commentary on short videos of classroom instruction tagging specific characteristics that can be associated with equity, diversity, and inclusion; (3) engage in a Q-sort exercise (Rieber, 2020) of student statements from previous interviews geared to elicit their understandings of equity, diversity, and inclusion; and (4) reflect on this process over time. The time interval between interviews will allow for analysis of student data and fine-tuning of interview protocols. Data collected within an institution and across institutions will complete one cycle of the grounded theory approach which will generate initial theoretical propositions about students' understanding of equity, diversity, and inclusion.

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References

- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Sage.
- Gardner, A. (2020). *Listening to College Algebra survivors: A natural history ethnography* (Doctoral dissertation, University of Colorado at Denver).
- Leyva, L. A., McNeill, R. T., Marshall, B. L., & Guzmán, O. A. (2021). “It seems like they purposefully try to make as many kids drop”: An analysis of logics and mechanisms of racial-gendered inequality in introductory mathematics instruction. *The Journal of Higher Education*, 92(5), 784-814. <https://doi.org/https://doi.org/10.1080/00221546.2021.1879586>
- Rieber, L. P. (2020). Q methodology in learning, design, and technology: An introduction. *Educational Technology Research and Development*, 68(5), 2529-2549.
- Wheeler, D. L., & Montgomery, D. (2009). Community college students’ views on learning mathematics in terms of their epistemological beliefs: A Q method study. *Educational Studies in Mathematics*, 72, 289-306.