

SUPPLEMENTARY MATERIALS

Methods

Integration. Beyond simply using multiple methods, integration can enhance the quality and value of mixed methods research (Creswell & Plano Clark, 2011). In this study, integration occurred via *connection* (Fetters et al, 2013) at the sampling stage, where students were initially recruited for surveying in a larger study, then the teachers of these students were sampled for exploration of the main concepts in the present study (i.e., formative experiences and teacher identity). Last, the student sample was revisited to validate the themes in the teacher interviews.

During the reporting and interpretation of results, the qualitative interview data was presented first. Next, the qualitative and quantitative data were *weaved* (Fetters et al, 2013) during the presentation of the classroom observation findings; since the observation data consists of both structured observations and extended qualitative notes on those observations. The teacher interviews were also brought into this weaving stage for instances in which teachers may have explained classroom processes that were also directly observed. Third and finally, student survey and achievement data were presented through a process (i.e., mediation) model; however, this also included a variable that represented the quantification of the themes that arose during the teacher interviews (also known as *data transformation*; Fetters et al., 2013). An inherent limitation in quantifying qualitative data is reducing its initial complexity. In this study, the two profiles most likely represented two potential points on a broader continuum; however, quantifying these profiles reduced them to two mutually exclusive profiles. However, the advantage of this quantification was the ability to test the validity of these teacher profiles by relating them to other measured constructs.

Positionality

I have reflected on the role my positionality may have played in the data collection and findings. The two interviewers in this study were people of color with critical perspectives on the role of race, poverty, and discrimination in U.S. K-12 education. We were also outsiders to these school communities, known as academic researchers. Hence, our status, race, and personal beliefs may have influenced the content and direction of the interviewees' responses, particularly for white teachers who might have been uncomfortable discussing topics of race and discrimination, as well as for teachers who may have wanted to appear socially conscious due to social desirability bias. In light of this, we were intentional about practicing sound interviewing protocols, eliminating biased questioning, probing, or gesturing, and taking notes on instances where interviewees may have done or said something that reflected they may have felt threatened or negatively evaluated by us.

Results

Turbulent profiles within the people-support typology

There were two teachers (Mrs. Brenda & Mrs. Bairos), who while reflecting on the role of people-support in their formative experiences, did not neatly fit into this typology and thus were coined as turbulent examples of this profile. Kaplan and Garner (2017) might describe these individuals as existing in “repellor” states, which reflect instability, disequilibrium, or tension between their multiple beliefs and external experiences. Most significant in these teachers' reflections was a realization of the need for people-support as students without having actually received it. This lack of support created stress, confusion, and self-doubt (i.e., turbulence). Mrs. Brenda reflected on eleventh grade in an algebra II class, where she was falling behind and in need of support.

I remember being in the class and raising my hand when I didn't understand something and asking the teacher to slow down approximately at a few things and she just wouldn't. She had to cover the material or whatever and because I had difficulty that year I noticed that it [*her algebra difficulties*] showed up again when I got to Calculus.

Interestingly, Mrs. Brenda, as well as Mrs. Bairos, saw their lack of people-support during their season of crisis as pivotal experiences in their personal history. They both believed this negatively impacted their mathematical development and confidence, which seemed to have a ripple effect on their self-perceptions as capable mathematicians currently: “I don’t know that I’m a good Math teacher. I’m an okay Math teacher” (Mrs. Bairos). However, these lack of support experiences may have also enhanced their caring practices as teachers, helping them realize the critical nature of people-support for their own students, “I’ve been cited on my evaluations that one of my strengths is the community environment” (Mrs. Bairos). In other words, through their lack in their own formative experiences, they developed ontological and epistemological beliefs regarding the central importance of people-support for their students.

References

- Creswell, J. W., & Plano Clark, V.L. (2011). *Designing and Conducting Mixed Methods Research*. Thousand Oaks, CA: Sage Publications, Inc.
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs—principles and practices. *Health services research*, 48(6pt2), 2134-2156.