

PROSPECTIVE TEACHERS' AFFORDANCES AND CHALLENGES OF SEEING STUDENTS' MATHEMATICAL STRENGTHS

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Keywords: Instructional Activities and Practices, Equity and Diversity

Educational policy and national reform movements in mathematics education emphasize the importance of drawing on students' resources, fostering students' identities, and attending to power dynamics during instruction (Nasir & de Royston, 2013; NCTM, 2008). This poster shares initial findings from a cross-institutional study of 223 prospective teachers (PTs) enrolled in elementary mathematics methods courses with a focus on how to see students' strengths.

The research question was: *What affordances and challenges arose for PTs as they reflected upon and attempted implementation of pedagogical strategies focused on seeing students' strengths?* Across seven institutions, mathematics teacher educators (MTEs) chose Skinner and colleagues' (2019) *Learning to See Students' Mathematical Strengths* as a common text for their courses because it highlights strengths-based teaching and offers five strategies PTs could enact in their varied PreK-6 field experiences. The text's strategies are (1) trusting students with complex tasks, (2) randomly grouping students, (3) having conversations about smartness in math, (4) noticing power and privilege, and (5) using critical friends to challenge and support you. The strategies were used as a framework to examine specific ways PTs consider and build upon students' mathematical strengths.

Data sources included PTs' written responses to (a) pre-reading questions, (b) post-reading reflection prompts, and (c) reflective questions at the end of the semester. Post-reading prompts included questions that asked PTs to identify which strategy seemed easiest to implement in practice and which might be most difficult. While PTs were not required to implement any of the strategies in their field experiences, at semester end they were asked to specify if they had attempted any strategies and why, and to identify which strategy they might focus on next and why. Data was examined by the MTEs across student, across prompt, and across course, and then cross-intuitively for prominent themes in PTs' responses.

Initial findings across institutions indicate that trusting students with challenging tasks was perceived as the second-most difficult strategy for PTs to implement yet was also the most attempted strategy during field experiences. Noticing power and privilege had the lowest occurrence of all the strategies, and examination of corresponding qualitative data revealed that PTs may not feel ready or equipped to do this work. Of note is that only one of the 223 PTs responded that they would not consider using any of these strategies in their future practice. The poster explores how PTs discussed each of these strategies, and potential pathways to leverage the affordances of a common text across institutions to support PTs' seeing strengths.

References

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