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Summary: Novice secondary mathematics teachers attempting teaching consonant with the National Council of Teachers of Mathematics [Professional standards for teaching mathematics. Reston, VA: National Council of Teachers of Mathematics (1991; ME 1991e.00332); Mathematics teaching today: improving practice, improving student learning! Reston, VA: National Council of Teachers of Mathematics (2007)] experience many stresses related to their attempts at student-centered instruction; prominent among those were novices’ challenges when orchestrating whole-class mathematical discussions with students taking a central, substantive role. During such discussions, students offer conjectures, ideas, and solutions and use mathematical argumentation and verification processes. Such teaching can create uncertainty and stress as teachers occupy a revised teaching role. They avoid evaluating student ideas during class; instead, they ask questions to move students’ thinking forward, pose problems that deepen students’ mathematical understanding, and choose between competing directions the discussion may take. Ultimately, teachers decide whether to continue pursuing such teaching goals or revert back to more familiar, teacher-centered methods. Supportive networks showed promise at helping novices navigate their first few years of teaching; organized networks helped novices meet their teaching goals while limiting the impact of their challenges on their well-being and teaching goals. The results of this study may inform teacher educators, administrators, and colleagues on how to support novices in pursuing teaching better aligned with novices’ teaching ideals and reformer’s visions.

Classification: D30 D40

Keywords: NCTM standards; discourse; educational reform; teacher stress; novice teachers