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Martha Makowski^{*} (martha.makowski@gmail.com), 612 W Church St Apt 41, Champaign, IL 61820. Learning For or Through Problems?: Exploring Differentiating Experiences in a Problem-centered Developmental Math Class. Preliminary report.

In the last five years, the use of problem solving and group work based materials in developmental mathematics classrooms has increased markedly. Success rates from early implementations are promising but provide little information about how developmental students experience these classes. Using grounded theory, this study contrasts the self-reported experiences of eight students in one problem-centered developmental mathematics class taught by a course designer to highlight emerging tensions between the experiences of high- and low-achieving students. Their experiences are supplemented with classroom audio of the students working in their groups and instructor interviews. At least some of the differences in the experiences of the high and low-achieving students can be understood by whether the students are learning algebraic content for the first time through problem solving or if they have had algebraic instruction before, and are thus learning algebra for problem solving. These results suggest that instructors of these classes should consider methods of deliberately supporting high-achieving students in understanding the needs of their low-achieving peers. (Received September 20, 2016)