1046-C1-1417 Jennifer J. Kosiak* (kosiak.jenn@uwlax.edu), Mathematics Department, 1020 Cowley Hall, 1725 State Street, La Crosse, WI 54601, and Jon Hasenbank (hasenban.jon@uwlax.edu), Mathematics Department, 1020 Cowley Hall, 1725 State Street, La Crosse, WI 54601. Focusing on Algebraic Understanding using a Student-Centered Questioning Framework.

A recent report indicated that nearly one in four high school graduates do not possess the necessary prerequisite skills for success in college-level mathematics courses (NCES, 2001). As a direct consequence, undergraduate students who have not developed sufficiently deep understanding of mathematics procedures find themselves struggling in their mathematics courses that depend on solid algebra skills. This session will examine the effectiveness of refocusing instruction based upon a student-centered framework designed to help students develop deep and well-connected knowledge of procedures. As part of a larger teaching and learning project, a series of activities and assessments for two algebra-intensive courses (College Algebra and Math for Elementary Teachers II) were developed and implemented. These materials were used as part of a quasi-experimental design to collect evidence on improvements in student procedural skill and procedural understanding. The development of these activities, implementation issues, and the results in terms of student performance will be discussed. (Received September 15, 2008)