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Angie Hodge* (Angela.Hodge@ndsu.edu) and Christina D Weber

(Christna.D.Weber@ndsu.edu). Success in the university mathematics classroom: Learning from the voices of students.

How do we begin to develop a more humanistic approach to teaching university mathematics? In this presentation, we will address this question through an analysis of research data we have collected (both quantitative surveys and qualitative interviews) over the past two years. In this research, we focus on what has helped students succeed in the mathematics classroom. We are particularly interested in understanding what has helped women and other minority groups thrive in mathematics classrooms that serve science, technology, engineering, and mathematics (STEM). In particular, we are interested in how instructors can develop equity and equality in mathematics programs and fields where mathematics acts as a gatekeeper. Given the lack of women and minorities in the STEM fields, our research concerns focus on how to help keep these groups in the mathematics classroom, which are essential to success in these fields. We will include in our presentation the interrelationship between students' demographic backgrounds and classroom dynamics to see how we can better serve women, minorities, and those from rural and first generation university backgrounds. (Received September 21, 2010)