Teodora B Cox* (Teodora.Cox@fredonia.edu), Department of Mathematical Sciences, SUNY Fredonia, Fredonia, NY 14063. Elementary Teachers' Perceptions of the Nature of Mathematics and Math Anxiety: Implications for Teaching Mathematics.

The purpose of this study is to examine the perceptions of future elementary teachers about math anxiety and the nature of mathematics, and how these perceptions inform their teaching of mathematics. I sought to gain an understanding of the relationships among the teachers' professed forms of math anxiety, their beliefs about the nature of mathematics, and their orientation toward teaching mathematics. Some of the known causes for math anxiety include parent, teacher and peer anxiety, as well as societal, educational and environmental factors. A strong argument is made for connection between math anxiety and negative classroom experiences, and especially anxiety-inducing instructional methods. The education community needs to identify math anxiety in its complexity as well as the multiple factors that induce it and continue to reinforce it. Once we have better identified it, we need to find ways to reduce it so that students can experience mathematics more fully and feel successful. Instead of focusing on short-term remedies,I hypothesize that we cannot expect drastic changes in students' attitudes towards mathematics until there is a change in the way all of us look at mathematics. My work is beginning to pave the path toward research that informs this hypothesis. (Received September 26, 2006)