

Mathematics education has been my passion since I was a little boy. The beauty of mathematics has always drawn me to it; it amazes me that something so complex looking as a fractal can actually be generated by simple formula. This complex-simple oxymoronic idea that ties to almost all of mathematics is what I see as beautiful and I want to share that with others. A key way to share this beauty is through the role of mathematics teacher.

As I have grown older, I have found myself evolving and refining this goal of becoming a math educator. First, it developed into a high school mathematics teacher which prompted my choice in undergraduate degree. However, as I was finishing my student teaching experience and my last year of undergraduate work, I realized that I did not feel like my education was yet done. I desired to continue in both the fields of education and mathematics. Through this turn of events, I had the privilege of becoming a graduate assistant for the Department of Mathematics and Statistics at Northwest Missouri State University. This allowed me to continue studying mathematics and teaching while also giving me the opportunity to teach at the college level. I have come to learn that I feel much more comfortable teaching at the university level than at the secondary level. While in my first semester of graduate school, I was invited to observe interview-style research with one of the mathematics faculty. I found the whole process fascinating. I came out of that experience with an idea for a research project in mathematics education and the support of my department to conduct it. Thus, I began my first-ever mathematics education research project; I fell in love with research, hard. This opportunity has shown me what I am truly passionate about: researching mathematics education and working to improve student understanding of mathematics.

Two of the professors at Northwest knew that I would find my calling through this and began to suggest going on for my Ph. D. in Mathematics Education. Armed with their encouragement, a few suggestions of schools and the list of institutions that the MAA Sigma RUME had put together, I began my search of potential schools. As I narrowed down my list of potential programs, I spent quality time with each school's website and each program's website. After consideration, I feel that the program at Arizona State University is the program that most satisfies my desire to be academically challenged both in pure mathematics and mathematics education.

At Arizona State University, I hope to pursue a course of study involving the nature of mathematics and the development of mathematical communication skills in undergraduate students. With continued calls for the instruction of reading and writing across all content areas as well as the desire to engage undergraduate students in meaningful, mathematical discussion, it is well worth the time to explore these areas. In addition to merely exploring these areas, we need to develop pedagogies that will help students develop and refine these skills.

I am therefore applying for admission to Arizona State University's School of Mathematical and Statistical Sciences doctoral program in mathematics education with the teaching assistantship option. The experience, the education, and the degree that I hope to earn from Arizona State University will enable me to pursue a career in teaching and research at the university level, and to make lasting contributions to a dynamic and important discipline. I am confident that my academic and professional experiences have imbued me with the depth, maturity, and drive that your program demands, and that, given the opportunity, I could be a valuable asset to your department. I hope that you will seriously consider my qualifications and arrive at the same conclusion.