Statement of Purpose

If admitted, I intend to pursue the Ph.D. in Curriculum and Instruction on a part-time basis (at least initially) and thus would not be eligible for a Graduate Assistantship.

My ultimate goal is to complete my doctorate so that I can teach future teachers, conduct research within the classroom, and make a contribution to the improvement of mathematics education. Over the past fifteen years, my journey towards this goal has been circuitous at best. It has carried me through many schools and multiple states, presenting opportunities to work within every grade from kindergarten to college. My compass has guided me to discover methods to improve my craft as a teacher and the role that research plays toward that end. Writings such as The Teaching Gap, by Stigler and Hiebert (1999), helped fuel this interest. Ideas such as the lesson study model and others provided the chance for me to focus my pedagogical lens. Collaboration with pre-service and practicing teachers helped me see the need to bring research back to the classroom and to lead teachers toward a better understanding of math. By completing a doctorate, I plan to improve my own proficiency in mathematics and math education so that I can help bridge the gap between research and practice.

As an educator, one hopes to continually make decisions that positively impact student learning. Researchers hope that this decision-making process includes the ideas and lessons learned from educational research. Practitioners realize that there are myriad decisions to make every day, ranging from curricular choices, to classroom management, to assessment strategies, to choices of presentation and pacing that address different learners. The demand to simultaneously manage all of these decisions in a thoughtful, reflective manner requires more time than is available. First-year teachers are often so overwhelmed that mere survival is considered a victory. More experienced teachers hone their skills in the hopes of focusing their energy on decisions that have the greatest impact on student outcomes. So how does educational research impact the majority of current teacher practices? Unfortunately, many practitioners indicate there is little to no impact at all.
For many teachers, research does not seem to factor into their decision-making process. Dr. Judith Sowder (2000) writes, “Many teachers and policy makers believe that most research has little relevance to the decisions they must make” (p. 106). Research is often seen as impractical or written in a form that is not accessible to many teachers. Sowder cites an article by Kennedy (1997) in *Educational Researcher*, stating that teachers often feel research does not answer the questions they have; nor does it adequately consider their constraints. All of these hurdles limit the connection between research and practice.

During my tenure as a math department chair and as a district math resource teacher, I found this aversion to research a prevailing mindset. Less experienced teachers were often so overwhelmed with the daily pace that they simply wanted tips on classroom management and survival techniques. More experienced teachers usually resisted using research for one of three main reasons. First, they had endured too many poorly run professional development activities in which research seemed impractical. Second, they felt their “curricular tool bag” was full, and they no longer needed to grow pedagogically for their students to achieve. Lastly, even if they felt they might benefit, they often felt overwhelmed by the amount of material to wade through and underwhelmed by the resources they had to assist them in the cause.

If math educators value research and hope to make a positive impact on student learning from the results they achieve, then they must find a way to help practicing and future teachers see research as relevant to the choices they make. My experience in graduate school reinforced my desire to help bridge this gap between teachers and research. Through my work with pre-service teachers, I was able to create the norm of using research to guide instruction. I saw the benefit of exposing future teachers not only to research findings, but also to ideas that might help shape their own conceptual understanding of mathematics. My interactions during this time, both with pre-service teachers and their mentors, reinforced my belief that greater understanding of mathematical proficiency is required from teachers before adequate gains in students’ mathematical skills can be achieved.

We hope that our students will gain a proficient understanding of mathematics. Yet to afford this opportunity, we expect our teachers to comprehend what *mathematical proficiency* means. In *Adding It Up* (2001), Kilpatrick, Swafford, and Findell describe this proficiency as containing five different components: conceptual understanding, procedural fluency, strategic competence, adaptive reasoning, and productive disposition. Exploring these ideas with teachers, I realized that many considered proficiency simply to mean procedural competency.
Others would create a dichotomy between conceptual understanding versus calculational fluency. My interactions with teachers taught me the necessity of reflecting on these and other mathematical ideas through collaboration and discourse. The reality is that this is not a simple task, and it demands that teachers explore their own understanding of mathematics. If we can expose teachers to the process of using research early in their careers, we might create a habit of mind that affords future classroom success.

Paul Tough, in his book Whatever it Takes (2008), describes the approach taken by Geoffrey Canada, a social activist, who felt driven to break the cycle of poverty for children in Harlem. As the president and CEO of the Harlem Children’s Zone, Canada has taken the radical approach of trying to change everything in these children’s lives, starting with how parents interact with their children during the first three years of life. As documented in the book, one of the biggest factors that influences the future success of these children is the amount of time their parents spend reading to them. This early exposure to reading pays incredibly large dividends toward their future readiness and success in school. I believe this same early exposure can transfer from toddlers to teachers. We need to improve the connection between research and practice, and this connection needs to be instilled early.

I believe in starting at inception as well, and inception for teachers begins during their pre-service college experience. I hope to find ways to help teachers utilize and improve their pedagogical content knowledge. If norms can be created with pre-service teachers that help them link ideas from research to facilitating their success in the classroom, then it is possible that research can become a regular resource for problem solving. Simply put, I realize the benefit of research in education and I am ready to start building the bridge.

Summarizing a literature-based example of topics related to his research interests to illustrate how his interests may be able to contribute to the field at large. Implicit in this argument is the notion that a Ph.D. program will be able to help him develop the knowledge and skills to contribute to improvement in mathematics education.

After grounding the preceding text in both personal experiences and understanding what some others are writing about in the field, the final paragraph summarizes his purpose for pursuing a Ph.D. in Curriculum & Instruction.

**OVERALL COMMENTS ON STRENGTHS:**

1. Appropriate use of basics of writing (grammar, connecting sentences, one main idea per paragraph, etc.)
2. Builds a coherent argument for doctoral study, including both grounding his interests in his own experiences as well as a brief summary of some work by others in the field (see reference list below).
3. Demonstrates an ability to process and frame ideas (his and others) into a logical and persuasive presentation – an important skill in doctoral work.
4. Indicates focus on some particular areas of interest but is not so specific as to make the applicant appear too narrow or not open to ideas.
5. Demonstrates a thoughtful and intentional purpose to pursuing Ph.D. work by making the case for why this is right for him at this point in his career.
6. A nice example of attention to detail is this applicant’s use of American Psychological Association (APA) style of references, demonstrating both his knowledge (or possibly initiative and investigative skill) in identifying and using the most common referencing style in scholarly works in education.
Additional Information -

(1) It is appropriate to include the names of faculty at UofL in the Department of Teaching and Learning whose interests and expertise are particularly relevant to your interests. Inclusion of their names indicates that you have investigated and thought about the UofL program and what it can offer you. You might find it helpful to access the Curriculum Vitae of our faculty from our webpages to identify the specific research work they have been doing.

(2) For all students, we expect that their interests in doctoral studies will be transformed by their coursework, interactions with faculty and graduate students, and the opportunities they take advantage of in attending special lectures, conferences, and other professional meetings. Thus, your interests do not need to be fully formed when applying for the doctoral program. Rather, your statement should demonstrate your interests and initiative in specific ways (instead of vague but essentially meaningless statements), but simultaneously NOT suggest that these interests are permanently fixed since your doctoral work is likely to broaden horizons.

(3) The Statement of Purpose should make it clear that you understand that the doctoral program is a dynamic process involving the interests of the student, the expertise of faculty, and the courses taken. Doctoral studies, therefore, are strongly based on the interests and initiative of the student and this commitment to initiative should be clear from the Statement of Purpose.

References


