

Portfolio 1 Personal Essay

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In my [initial goals statement](#) I wrote that I wished “to dig deeper into what has been already discovered and to become a part of the community whose work expands and refines that knowledge,” and to “stimulate and to satisfy my own curiosity, to add to the body of existing research, and to continue to do meaningful work.” At this point in my journey my goals have not changed, though my understanding of their implications continues to clarify.

Academic Goals

When I entered the program my academic experiences had reached the levels consistent with master’s degree and professional degree programs I had completed. My graduate-level training in the field of education had prepared me to teach at the secondary level. My Master’s Degree program had prepared me with the tools necessary to practice as an instructional designer. As expected in programs of that type, the work was practical and centered on advancing specific career goals. Though I had stated a “wish to dig deeper” I, of course, did not grasp yet what that would mean at the doctoral level.

The courses I have completed in my specialization of Mathematics Education Leadership have brought to me an understanding of the historical roots of the field, major areas of study, and topics that need further exploration. Each of the courses I have completed have given me the latitude to explore topics I have been drawn to. Initially those explorations did not wander far from the examples and foundational literature that we were reviewing in the courses. As I gain more confidence and my levels of understanding rise with each completed course, I find that I

am looking forward to refining my approach to future coursework and focusing on the topics that reside in areas where I hope to situate my research.

Initially I was not sure how I would be able to integrate research in mathematics education with my designated secondary specialization in instructional technologies in spite of the assumed easy symbiosis of mathematics and technology. Though I have not yet found literature on the application of instructional design to mathematics education, I will be exploring the intersection of the two areas of study. If I am unsuccessful at finding existing research, I will bring to bear what is understood in one field to the other. I expect that instructional design processes will function as a tool to support the understanding of mathematics education research.

Research Goals

I had described myself as a consumer of research in my initial goals statement. As my knowledge of literature in my specializations increases I now view existing research, not as something to be consumed, but as the elements and supporting structure of my future research. I have learned that research is colored by the passion and dedication of the researchers involved. I find that I am beginning to get a clearer sense of where I wish to work and which researchers I wish to understand more fully. I know I have only scratched the surface of the existing literature and still need to learn more about what work has already been done. If I am to add to the body of existing research, it is essential that I fully understand not only what is known, but what questions remain.

So far I have found that while past research on the use and impact of technology on mathematics education is often obsolete, it still offers a window on past approaches and methods. It is clear to me that any research that attempts to understand the impact of technology on

learners is challenged by the fluid, ever-changing nature of what technology is and how we interact with it. I intend to work toward the development of technology based solutions to support mathematics students and teachers. I anticipate that my past work and continuing exploration of instructional design research will assist me in this process.

My goals through research to are to understand how technology does or does not support student learning. Do theories that were developed to analyze and understand technologies in use 30 years ago apply to the always-on connected mobile technologies that students use? In developing my research I plan to dig deeper into the literature covering automaticity, positive psychology, and affective response to mobile technology use.

It is too soon to determine what methodologies I will employ in my research design. At this point I can see possibilities for both quantitative and qualitative methods. Technology allows for potentially reaching a large group of participants which may provide the number of responses needed to conduct valid quantitative research. In addition, a desire to understand the experiences of individual participants may lead to a qualitative approach. As all of my research methods professors have stated: Ultimately the research question will drive the research design.

Professional Goals

I wrote at some length about my relationship with the students in my private practice in my initial goals statement. It is work that is important and meaningful to me and continues to inform my research. Conversely, the work that I have done this far in the program has informed and enriched my teaching.

When I stated that “it is time for me to take a more active role in the larger world of practicing educators,” I did not know what that role would be. Since beginning this program, in

addition to my work in my studio, I have had the opportunity to teach undergraduate communications courses at the University and high school students in private supplemental mathematics courses. It has been a great joy to be back in the classroom. I have learned that no matter what other work I do, I will want to continue to teach.

Working with these students has helped me to understand where my research goals and my professional goals meet. For my research to be meaningful I must be able to bring what I have learned into practice. In addition, I have learned that research exposes more than the answers and questions that are explicit in the literature. Embedded in the work are the goals and values of the researchers. I know now that academic research is deeply personal. Not only do I wish to gain the knowledge and skills that will make me the most effective researcher that I can be in my chosen domain, but I also wish to conduct research that reflects well on me.