

These are not included to give you a model to copy but to provide examples of how others have completed this task. Make sure you write your own statement in your own words.

Writing Sample # 1

I entered economics research because I enjoy modeling real-world situations with math. This interest was confirmed by my research work, which included projects on mortgages, optimal surveys, and consumer savings. These research experiences also led me to discover that I enjoy theory work, especially theory fields that see wide use in empirical research, fields like game theory and mechanism design. My interest in game theory and behavioral economics recently led me to explore the subfield of learning in games, in which I have a few research ideas.

I entered economics research because I enjoy the process of modeling social situations, the process of looking at an economic phenomenon, thinking about the key empirical factors, and making the correct variable and structural choices to generate a tractable model that explains the situation. For example, one project I worked on involved finding a formula that gave the best time to refinance mortgages. In this project, I enjoyed contemplating the various tradeoffs between simplicity and richness that went into the model design. Should we model interest rates as mean reverting, or is a simple random walk sufficiently approximate? Should we be precise and model mortgage amortization time, or should we avoid an extra state variable and instead just use a time-stationary hazard rate? These tradeoffs were interesting to think about, and existed in all projects: for example, my work on optimal surveys required careful consideration of response interaction complexity. Overall, my research work confirmed my interest in economic model building.

In doing research work, I also began to discover a new interest in economic theory, especially in theory work that is heavily used by empirical economics. For the mortgage-refinancing project, my major personal contribution was finding a closed-form solution for the refinancing formula. I discovered that I enjoy carefully thinking about the highly mathematical parts of the problem, like the existence conditions for the formula's solutions or the analytic details of the bellman equations. Similarly, I enjoyed the process of finding mathematical insights in my optimal survey project. One insight involved using a multidimensional envelope theorem; another insight involved pushing a standard delta-method technique in statistics to infinite cases. In both projects, I was especially satisfied to know that these theoretical results advanced practical goals in empirical research. For mortgage research, a closed-form solution significantly advances the paper's goal of providing a simple formula homeowners can use. For optimal survey research, the math insights led to a method of construction of the best survey possible. The method was put to actual use for a separate journal article on empirical intertemporal discount rates. Through all these projects, I both enjoyed generating mathematical insights and knowing that these theoretical advances have real empirical benefits.

My revealed interest in economic theory led me towards theoretical fields with wide applications, fields like game theory and mechanism design where advances in theory increase the power and scope of all of economics. For example, in game theory, sequential equilibrium in extensive form games allows richer dynamic models. In mechanism design, the revelation principle simplifies mechanism calculations. Implementation theory allows economists to design novel institutions to meet an objective that was previously untenable. The applicability of such theory work appeals greatly to me.

In addition to game theory and mechanism design, behavioral economics also interests me because of my recent exposure to the field in research assistance work. Behavioral economics is appealing because it questions the basic assumptions of rationality in an attempt to generate more accurate predictions about human behavior. However, work in behavioral economics often lacks unity. Instead of a central model that explains a wide set of phenomena, oftentimes, there are numerous models that each explain a specific phenomenon without the ability to generalize further. For example,

in the subfield of learning in games, reinforcement models like Roth and Erev (1995) explain trends in learning but predicts convergence much too slowly in coordination games (Boylan and El-Gamal 1992). In contrast, belief learning models like Fudenberg and Levine (1998) allow hypothetical reinforcement and hence faster learning, but performs slightly worse on zero-sum games (Battalio, Samuelson, and Van Huyck 1997; Mookerjee and Sopher 1997). Camerer (1999) synthesizes these two models in an Experience Weighted Attraction (EWA) model, but EWA has a high number of parameters that vary widely for different games, and still exhibits poor performance in zero-sum games. These models predict zero sum games poorly because they fail to consider a fraction of players who overpredict reinforcement learning in opponents. The missing component then is having players who are heterogeneous in level of sophistication, a structure in the style of Nagel (1995) or Stahl and Wilson (1995). However, instead of nth order reasoning, the correct concept seems to be nth order sophistication, an idea that Camerer (2007) broaches with the Cognitive Hierarchy (CH) model. CH is a static model however and needs to be extended to a dynamic setting, perhaps by allowing player sophistication to rise over time, or by basing the actions of level zero player on historic outcomes as in Stahl (1996). This model would explain quick convergence in median action games – sophisticates jump to the median very rapidly. This model also explains reinforcement overprediction in zero-sum games: level-one player's number higher than level-zero players. If such a theory is confirmed through experiments, it would advance the goal of having more general models for behavioral economics.

In addition to giving me ideas, my past work has also given me the skills needed for graduate school. To build a technical toolbox, I have taken theoretical math, graduate statistics, and graduate economics classes, culminating in earning an A on the graduate micro generals last year. To experience working with real research, I have done research in behavioral economics and consumer finance with John Jonson and in auction theory work Barbara Babson. I have been exposed to many parts of the research process: I have solved mathematical models in mortgage refinancing work; I have advanced theoretical proofs in my optimal survey research; and I have analyzed large data sets including US Census for behavioral research. These experiences have given me skills for graduate work and have confirmed that research work is something I enjoy.

Overall, I am fascinated with economics and very much enjoy research. I especially enjoy building models and doing theory work with empirical impact. I am interested game theory, mechanism design, and behavioral economics, and would like to explore these and other economic fields in graduate school. My fascination with research will provide me with the necessary ambition to succeed in Western Kentucky's program, while my extensive coursework and field preparation will provide me with the necessary skills to succeed in Western Kentucky's program.

Writing Sample #2

The doctoral program will provide me with an opportunity to learn more about higher education and prepare me to be a senior level college administrator. I have had several educational and life fulfilling opportunities to work with many administrators to help contribute to the field. Due to the nature of this program; I believe it will provide me with an opportunity to continue to be a catalyst not only within higher education, but my community as well. In addition, this program will help me further my understanding of first generation African American college students' expectations and knowledge about college prior to enrolling in the their respective institutions by participating in pre-college programs.

My professional goals are to learn as much as I can about higher education that would strengthen my awareness about trends within the field and how I can contribute to the overall mission and purpose of the profession. I would like to someday become a dean of students or vice president for student services or student affairs as well as a faculty member. I believe my past and current experiences have prepared me tremendously to serve as a senior level administrator.

As a graduate student at Western Kentucky University (WKU), I studied and worked in a number of capacities i.e. graduate assistant, supervisor, advisor, and practitioner within an urban environment. Located in Bowling Green, KY, WKU challenged me to think critically and provided me with skills to work with a number of different cultures, lifestyle, beliefs, and backgrounds. Classes such as College Student Development, Higher Education Law, Finance, and Administration, and my study abroad experience to England, Scotland, and Ireland deepened my understanding of the field and how colleges and universities operate. These experiences provided me with an opportunity to enhance my understanding of higher education and how to apply theory to practice.

As an active member within a number of different organizations that work to improve the lives of others, I believe I have not only been a catalyst for change but have instilled a "sense of hope" for many students. Currently, I serve as an advisor to the Gamma Club (GC) of Detroit, Michigan, which is a youth auxiliary of Beta Beta Beta Sorority, Inc. This youth auxiliary was established in 1970 and designed to assist young females between the ages of 8 – 18 providing them with opportunities to work with college and professional women on a regular basis, exposing sorority national programs and services, and preparing them for academic and career success. Many of the young women who participate in this program are raised by single parents/guardians (predominately women); therefore, my colleagues and I work extremely hard to ensure these students are provided with the necessary skills to be successful and influenced by positive female role models. In addition, I serve as a committee member for the MLK Weekend Celebration in Detroit, Michigan. Last year, the committee implemented an essay competition to encourage high school students to think critically and display their creative writing abilities. With access to college becoming more burdensome and stressful for many college students, I worked with university officials at NASPA University, which is located in Denver, Colorado to establish a scholarship (Dr. Martin Luther King, Jr. Scholarship) for the first, second, and third place winners of the essay competition. The university agreed to support this initiative to help offset costs during their first semester of study at the university.

In my current role as a Residence Hall Director at NASPA University, I strive to educate the campus community about diversity, multiculturalism, and inclusion, and how it plays an essential role within our society. Part of my responsibility includes monitoring minority students academic and career success and preparing them for graduate or professional schools through the Graduate Recruitment Program (GRP). As advisor to GRP, I believe I have been influential in empowering these students through seminars, workshops, and programs that encourages them to continue to seek higher education.

I believe my experiences have greatly prepared me for the EdD program at Western Kentucky University. I am confident that this program will continue to enhance my understanding of higher education and prepare me to help my colleagues and future colleagues to be catalyst within the profession.

Writing Sample #3

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.