

# USING YOUR “EDGE IN KNOWLEDGE”

*AUTHOR: Rita Thornton received a PhD in environmental science at NJIT's 2006 commencement. Her parents' educational aspirations for their six daughters were at the heart of the family saga portrayed in the award-winning film The Ditchdigger's Daughters. Following are the thoughts Dr. Thornton shared as graduate-student speaker at commencement.*



When walking around the NJIT campus or going online you will see that the university has a new slogan...*the edge in knowledge*. What is an “edge?” And what does an edge have to do with “knowledge?” Webster’s dictionary has several definitions for the word “edge,” but two of them especially caught my attention.

First, edge can mean “the sharpened side of the blade of a cutting instrument.” This definition was very interesting because my father and mother taught my sisters and me that knowledge is the “cutting instrument” of life. People perish for the lack of knowledge, and with the proper knowledge you can cut through any obstacle that comes up in your life. But they also taught my sisters and me that in order to cut through any obstacle the cutting instrument must be razor-sharp.

I believe NJIT has given us that sharpness through its ability to attract students who think outside the box, its ability to challenge these students so that they want to find innovative ways to use science and technology for the betterment of their communities, businesses and governments. So having the “edge” can mean there’s a sharpness that surrounds your knowledge.

A little over four years ago, NJIT accepted me as one of those PhD graduate students who thinks outside the box, in that I had a dream to conduct a different type of community-based doctoral research that would address an urban environmental health issue in Newark...that being asthmatic preschool children. I was also blessed to have had a thesis advisor like Dr. Joseph Bozzelli, who believed in me and who encouraged me to continue thinking outside the box throughout my research. Now, this becomes important with the second definition of edge.

The dictionary also states that edge means “a dividing line or point of transition.” This second meaning intrigued me even more because if you look at the edge of anything there

is a dividing line or point of transition where there’s a shift in direction. But what does a point of transition have to do with knowledge?

Well, all NJIT doctoral students know that there comes a point in time where we realize our research may or may not work. And because we’ve been presented with a problem, we have to gather the knowledge to find an innovative solution to that problem. So we start reading research articles, collecting and analyzing data...and suddenly we hit an intellectual brick wall. There’s a shift in direction; nothing is working; we’re struggling to make sense out of the data; there’s turmoil and confusion. And then we realize there’s NO turning back. We’re faced with a point of transition where we have to move forward in the midst of the turmoil if we want to find a solution to the research problem.

In my case, in the midst of the turmoil and confusion, Dr. Bozzelli appeared. Surrounding this quiet, humble man there’s always been a sense of peace. When others questioned whether or not I could do this type of community-based research, it was Dr. Bozzelli who stated YES, I believe Rita can do it! The fact that I knew Dr. Bozzelli believed in me, and in my abilities in science, was one of the most precious gifts of “power” that any thesis advisor could give to his or her graduate student. Because, you see, it was that gift of believing in me that gave me the “edge” — the edge that I needed to stay focused on my research and not on the turmoil that surrounded me during the transition. He kept me so focused that now my dream is no longer a dream...but a reality.

I would like to close by saying to all 2006 NJIT graduate students, and to all those graduating today...DARE to dream as you now go forth and use your edge in knowledge. ■