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Bridging Policy, Practice, and Research in Science Education

My Vexation:

Scholar activism. I have recently come out publicly with a strong endorsement of this construct. The notion appeals to me on many levels, but perhaps none more so than the idea of bringing meaning (and relevancy) to my work in the academy. As I have begun to think through the reality of activism, I have come to think in terms of impact. But impact on what? On whom? As the title of my proposal indicates, policy, practice, and research seem to offer a potentially useful framework for considering impact as an outcome of activism, yet these areas are both individually and collectively broad in scope and depth and from an operational perspective may ultimately offer little by way of focus.

Historically, my own work has been at a local and regional level. My teaching and professional development work has been targeted toward district level improvement, often involving individual teachers. Until very recently, the policy work I have engaged in has also been at the district level, addressing such issues as mandating district-wide minimum time allowances for science education at the elementary level. More recently, I have been invited to participate at the state level on an invited board of professionals directly informing the Governor of our state on issues of science education. Such issues include revising required science content area hours for preservice training and the like. Although my research has taken on questions which play out at the local level, I suppose one might consider my agenda to be a national/international one, or at least have broad appeal beyond my local context given the venues I have chosen for publication.

If left unresolved, I fear my work will not only continue to be fractured in a way which compromises my overall productivity across my professional life, but will ultimately fail to have a significant impact in any one area – let alone all three realms listed in the title. I base my notion of bringing together these three ideas upon my earlier work in the academy where I sought the blending of the boundaries between teaching, research, and service.

Nearly a decade ago, as a new professor on the tenure track, my goal of being awarded tenure served as a powerful motivator to seek a pathway characterized by productivity and efficiency. As a staunch supporter of academic freedom as a necessary element of a free and open society, I saw tenure as a milestone which would afford me the opportunity to engage in research questions and issues without the fear retaliation for espousing my beliefs. The vexation I presently face is underpinned by a similar underlying principle of breaking down traditional barriers which serve to merely compartmentalize constructs which, by their very nature, ought to be construed holistically. That is, the reward system of the academy (tenure, merit pay for productivity in terms of volume, etc.) seems to serve as a significant obstacle to the idea of impact.

Research seems the key. Not only is it central to the mission of the academy, but it seems that both policy and practice ought to be “informed” by relevant and timely findings from thoughtful, well designed studies. On a more personal level, it is what I do. Serving on the faculty at a research extensive university was a deliberate professional move on my part. So, how do I bring research to the venues of policy and practice?

Bridging Policy, Practice, and Research in Science Education**My Venture:**

In an attempt to define and narrow the various constituencies representing policy and practice, I have made some decisions. First, I am most immediately interested in considering the nexus of research and policy. I harbor the uneasy sense that critical decisions are routinely being made about funding for science education, requirements for science teacher education, and other key facets of our professional with little or no research (evidence) to inform the outcome. Ironically, education is purportedly in an era of accountability, and yet that seems to be narrowly implemented at the K-12 school level and doesn't seem to drive decision-making at the governmental level. A recent experience pursuing a grant opportunity confirms my sense that decisions are indeed being made with little or no input from scholars. The RFP (request for proposals) clearly indicated my State was looking to fund research to investigate the feasibility of utilizing instructional coaching models as a means to promote science leadership and professional development within K-12 schools. What they funded were several pre-packaged, cookie-cutter initiatives which seemed to imply Connecticut officials believe there are little or no unresolved questions with regard to the most effective model for such an undertaking. The idea of instructional coaching seems promising, but before we invest an untold amount of public dollars, the science education community ought to have a programmatic sense of what might work and why. Please don't interpret this vignette as sour grapes for not being funded, but as another source of frustration with regard to having a real impact in the field. Instructional coaching in Connecticut is now science education policy – I view this as a missed opportunity for research to play a key role in shaping how this could have played out.

I wonder if elected and appointed officials in our federal government even know that a community of science education researchers even exist?

It's time we go to Washington DC and pay our government officials a visit. I envision the idea of a "blitz on DC." I imagine several dozen science education advocates dressed in expensive suits (I'm certain we can rent them somewhere) strutting through the halls of the Capitol armed with business cards and policy papers meeting with the movers and shakers of our government. However, such a vision lacks several key details which are necessary to even consider such a move. Who are the movers and shakers in DC with regard to science education policy? What do these policy papers contain? What are the key issues presently being debated? Who writes them? When should such a blitz occur? How long might it take to prepare for such an event? Have other groups attempted such a move? To what end – what was the impact? Where do you rent an Armani suit? I have no real sense of how this might look, but I know in my gut that a well organized effort involving knowledgeable, well prepared and energetic individuals will serve as the foothold for impact to take root. Perhaps such an endeavor could overlap with our next crossroads meeting?

I am feeling marginalized, and I wonder if others share my frustration? Even making such a claim about being sloughed off to one side seems silly given the clear position of professional privilege that I enjoy in our society. But with privilege comes responsibility. I feel a tremendous calling to leverage my position to impact our professional beyond the walls of my office, classroom, and university. As I have indicated, this is a very personal quest for me. I am looking to bring relevancy to my life in the academy. Yet my motivation is not merely job satisfaction, but the sincere desire to leave things better off than I found them. A mentor of mine once said, "It's important to leave your fingerprints all over whatever it is you do." I think it's time to shake some hands and knock on some doors of governmental leaders so together we can make a difference.