Community-Based Participatory Research through the Lens of Decision Science

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There is a long tradition of methods to work closely with members of a community, or with organizations and institutions that employ members of a community, or are owned, directed or responsible to community organizations in order to build knowledge, technical capacity and voice for advocacy and social change. These methods go by many names; I will refer to them here as ‘community-based participatory research’ (CBPR). The purpose of this essay is to explore the meaning and importance of CBPR through the perspective of the decision sciences, as opposed to the more traditional perspective of the social sciences. The former, in order to have meaningful impact in localized settings where social policy is important, must rely on knowledge generated by the latter. In other words, decision science-based models for public impact should be evidence-based.

This importance of this essay lies in the potential for decision science-based CBPR methods to contribute to identifying and solving problems in which equity, inclusion and opportunity are important, and where traditionally underserved and underrepresented communities are participants and beneficiaries. Solving such problems using methods like CBPR is in turn important to discuss because traditionally decision scientists don't speak the language of engagement, voice, social justice and community change. In the current moment, where many official organizations may not have the best interests of poor people and people of color at heart, a more localized and values-infused approach to decision modeling could be useful.

In a community-based participatory research process, community members take a co-equal role with trained researchers and professionals in four ways. First, they identify and define a problem to be studied. Next, they define values and principles that distinguish one way of knowing about the problem from another. They also generate characteristics of the problem that allow identification of alternative courses of action and attributes by which to assess progress toward an improved state. Finally, they define criteria by which one might determine that a new way of doing things generates, or is likely to generate, outcomes that represent an improvement over the status quo. It is especially desirable for community stakeholders, with researchers, to be able to generate one or more new states of affairs that are likely to be, or are guaranteed to be, the best possible new outcomes as compared to the status quo.

There are two approaches that seem relevant here. The first is answering the question, what do we know about the current state of affairs, and what might be the case in the future, or as a result of some sort of intervention or policy change. This requires working with community members to define quantities that are important for learning about a situation, or problem, then to make these quantities measurable (though these measures could be qualitative as well as quantitative), then to generate actual values for these quantities, through primary or secondary data collection. This is a process I call community data analytics (Johnson 2015). The challenge is to let the problem, or situation, define what you want to learn, rather than starting with particular datasets, or sources for data. If we do it right, we learn what to measure, how to measure, and what our measures are good for.
One example of this first approach is youth in a predominately minority lower-income community working with a university-trained worker to learn about what their peers know regarding job-readiness and access to local employment opportunities. This program, called *Youth Hub* (Gardner, Snyder and Zuguy 2018) required developing new metrics, survey instruments and data gathering methods. The payoff was identifying opportunities for service providers to meet young people where they were, not assuming they knew about certain organizations’ services when they didn’t.

The second approach is answering the question, based on what we know about the current and possibly future (or alternative) state of affairs, what can we do that is new or different to achieve particular social goals. In other words, what particular actions — services to provide, facilities to locate, relocate or demolish, products to build, transport, sell, resources to allocate towards various ends — should we take to balance multiple social objectives, subject to constraints on what actions can be taken in some circumstances but not others. Traditionally, this problem framework, usually referred to as operations research, is understood using crisp definitions and conceptually clear processes, as one might see in a private-sector context (e.g. logistics and distribution), or where the focus is on organizations that provide essential services (e.g. public safety). There are lots of textbooks that describe this process (e.g. Albright and Winston 2015) But if there is uncertainty about what qualifies as a ‘problem’, or what a ‘solution’ might look like, in other words where problem formulation is difficult, and community input is essential to really understanding what is to be done, then methods called community-based operations research (Johnson 2012) or community operational research (Johnson, Midgley and Chichirau 2018) can be particularly helpful in figuring out, with, but not necessarily for, community members and community-based organizations.

One example of this second approach is a project to design community-based responses to foreclosures that were responsive to the mission and technical capacity of different community-based organizations, and incorporated multiple analytic approaches for problem structuring and problem solving, all to answer the question: what properties, at various stages of foreclosure, might our organization consider acquiring, at what date, across our service area, to maximize the likelihood of strong social impacts? (Johnson et al. 2016)

References:


