Bob
Behn's Performance Leadership Report

An occasional (and maybe even insightful) examination of the issues, dilemmas, challenges, and opportunities for improving performance and producing real results in public agencies.

On why learning *how* a new policy works requires getting inside

"What were they thinking?"
Vol. 12, No. 5, January 2015

The Black Box of Randomized Controlled Trials

Evidence! Everyone wants evidence—for which the gold standard is the randomized controlled trial.

Such RCTs can reveal *whether* a policy works. That is, does the experimental policy produce a better result than the control (doing nothing new)?

But the trial does not tell you *how* the policy works. It doesn't tell you *what caused* the improvement. And this may make it difficult to adapt the policy to different circumstances.

If the "policy" is a vaccine, you don't need to know how it works. This policy has only one moving part, the vaccine. If you give the vaccine to some and deny it to others, and if you don't let any other influence confound the experiment (for example, by preventing doctors, nurses, and patients, from knowing who is in which group), any difference in outcomes can be attributed solely to the vaccine.

But if the "vaccine" is a policy—a longer school day or charter schools—there are multiple moving parts that could influence the results.

Will schools with a longer day provide the same quality of instruction during their extra hours? They might not even provide the same instruction. Yet what happens during those extra hours is at least as influential as the number of hours.

Charter schools have even more moving parts. Because they are free from a lot of rules and regulations, they can make multiple and different changes. So if, on average, charter schools do better than traditional schools on whatever measure you choose, what created this difference?

Did mere freedom from regulations cause the improvement? This would suggest that every charter school is better than any traditional school. And we know that this isn't true.

Or was the cause how the charter schools used their freedom? If so, what was the causal connection: Freedom causes *what* that causes the improved learning?

For almost any RCT for a policy, this is an important question. For, in contrast to a medical experiment, almost any RCT for a policy cannot be "double-blind." If neither patients, nor doctors, nor nurses know who is in which group, this knowledge, and thus the associated expectations cannot affect anyone's behavior.

Maybe, for a charter-school RCT, the children don't know. But certainly, the parents who entered the charter school lottery know.

The parents of the children assigned to the treatment group all know that their children "won" the special, fancy school. And the parents of those assigned to the control group know that they "lost." Could this affect the parents' behavior?

> A randomized control trial can tell *whether* a policy works. But it cannot reveal *how* the policy works. What exactly *caused* the working? Something is going on inside the black box. Yet it is not obvious how to adapt this working in a different setting.

If the charter schools perform better, what is the cause? Is it the schools' freedom? Is it what happens at these schools? Is it the behavior of the teachers? Or could it be the behavior of the parents?

The parents of a child who "won" the lottery might have said to themselves: "This is our kid's lucky break. We need to make sure that she takes full advantage of it. We need to be sure that she always does her homework, that she always gets to school on time, that she always . . . ."

The parents of a child who "lost" the lottery might have a different reaction: "Damn. Our kid lost his big chance. He's stuck in the same stodgy school with the same stodgy teachers and the same stodgy curriculum. There's nothing we can do . . . ."

Is the causal "treatment" effect on the schools, the teachers, the students, or the parents? If the RCT is not double-blind it is hard to tell.

The most significant causal impact just might be on the behavior of the parents not on the behavior of the children. Or to the extent that the behavior of the children changed, it just might be because putting the children in the charter school changed the behavior of the parents towards their children's education. And if the impact wasn't that direct, it just might be because the charter school more effectively engaged the parents, getting them to take an active role in their children's education.

Since the publication of "The Coleman Report" nearly half a century ago, we have known that parents have a big impact on their children's learning. Parental socioeconomic status (education, occupation, income) is obviously influential. But so are parental behaviors that are correlated (but not perfectly) with socioeconomic characteristics. For example, do the parents have high expectations for their educational achievement?

Of course, a parent's expectation for a child's educational achievement could be influenced by the child's past educational success. But it just might also be influenced by the perceived quality of the child's school.

And parents who enter a charter-school lottery expect that, if they win, their child will get a better education.

What's the treatment? What is the causal connection? A randomized controlled experiment can tell you that something different is going on inside the black box of the treatment group. But it doesn't tell you what. B

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