What Does It Take To Improve Schools?
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Module #2: Intro to Theories of Action & Improvement Science

Too often, designs for new schools, emphasize the "new" – the many different features meant to distinguish "new" schools from "old" schools. Instead, those who seek to design schools and learning experiences should focus on the theories of action and logic that explain how specific learning goals will be achieved. The attached module provides an introduction to theories of action and the emerging "science" of improvement. These "tools for change" can be used to examine some of the prevailing (and often taken-for-granted) assumptions behind a variety of school improvement initiatives, programs and policies, and they can also be used to interrogate our own assumptions and develop our own designs for learning and and improvement efforts. The primary goal of this module is to enable participants to describe how improvement efforts are supposed to work as well as to identify factors that can help explain why they might or might not work.

Introduction

Theories of action are the beliefs and assumptions, often implicit and unarticulated, which lead people and groups to act in certain ways. Theories of action reflect the underlying logic that explains *how* particular goals are to be achieved (Cuban, 2003). For example, while members of a school may adopt a common goal such as enabling all students to reach high standards of achievement, the theory of action is also reflected in the way resources are allocated, the kinds of activities pursued, and the ways those goals are operationalized and measured. A school that focuses time and resources on monitoring how teachers are doing and in establishing rewards and consequences for meeting particular benchmarks suggests that increasing motivation is central to achieving higher standards. In contrast, a school that invests their time and resources in professional development to pursue new teaching strategies in the classroom suggests that further expertise needs to be developed before significant improvements can be made.

While the term "theories of action" is used widely, it is worth noting that it is used in somewhat different ways and for different purposes. For many evaluators, for example, identifying the theories of action reflected in the plans and in the work "on the ground" serves as a key means of gauging how well plans are working and of identifying gaps in plans/strategies that need to be addressed (Weiss, 1995). At the same time, many school leaders have also articulated specific theories of action that can be used to guide their efforts to improve instruction (City et. al., 2009) and/or as a basis for shared agreements with their boards (MacAdams, 2006). Recent efforts to develop improvement science build on both the work of evaluators and leaders to establish specific tools and strategies for identifying critical problems and "root causes" and for developing clear hypotheses and action plans that can be tested and

revised to address those problems in relatively short periods of time.

This module begins by focusing on using theories of action to analyze the logic underlying policies, reform programs, school "models", and improvement efforts. This approach begins with the premise that plans and strategies will always have some gaps and contradictions in logic that can be exposed even before implementation begins. However, theories of action can also be used to explain what is (and is not) working as plans and strategies are implemented and to predict what might happen in the future. The module also provides an introduction to improvement science and some of the tools and strategies that can help to structure improvement efforts. The work on improvement science builds on related work in health and other areas to support more systematic learning across organizations and fields.

In the process, this module raises several key questions, including:

- What are theories of action?
- (How) Can changes in policy contribute to improvements in practice?
- What "logic" drives improvement efforts and how can that logic be discerned, articulated and evaluated?
- What might make improvement a "science"? Why might that be useful?

Assignment #1: Intro to Theories of Action

An introduction to theories of action and an examination of the theories and assumptions behind school reform efforts and recent policies

***Required reading*:**

Coffman, J. (1999). Learning from logic models: An example of a family/school partnership program. Cambridge MA: Harvard Family Research Project. http://www.gse.harvard.edu/hfrp/pubs/onlinepubs/rrb/learning.html

Cuban, L. (2010). So much hype, so little mindfulness: The practical importance of knowing the logic of a reform-driven policy.

Hatch, T. (1998). "The differences in theory that matter in the practice of school improvement," *American Journal of Education 35*: 3-31.

Recommended reading:

Cohen, D. K., & Moffit, S. (2009). "Title 1" & "Epilogue" (pp. 179-231) in *The ordeal of equality: Did federal regulation fix the schools?* Cambridge, MA: Harvard University Press.

For further reading on different approaches to theories of action:

City, E. A., Elmore, R. F., Fiarman, S. E. , & Teitel, L. (2009). *Instructional rounds in education: A network approach to improving teaching and learning*. Cambridge, MA: Harvard Education Press.

McAdams, Donald R. (2006). *What School Boards Can Do: Reform Governance for Urban Schools*. NY: Teachers College Press.
Morgan, N. & Levenson, N. (2011). Theories of Action: Aligning Priorities and Resources. *The District Management Journal*.
Weiss, C. (1995). Nothing as practical as good theory. In J. Connell, A. Kubisch, L. Schorr, & C. Weiss (Eds.), *New approaches to evaluating community initiatives* (pp. 65-92). Aspen, CO: The Aspen Institute.

To get a general understanding of the "logic" underlying reform efforts and how that logic can unearthed and critiqued, read the Coffman and Cuban articles. Then read the Hatch article for an in depth example of the problems that can result from the failure to articulate and examine the "logics" or "theories of action" underlying improvement efforts. For that article, pay particular attention to the fact that improvement efforts are usually made up of a host of different initiatives (and people), each of which and each of whom may operate with different implicit theories. In this case, the differences in theory included different assumptions about learning, about schooling, and about the process of change itself. Those who are interested in trying to uncover the logic underlying other reform efforts can read the recommended chapters in Cohen & Moffit. As you read, think about the theories of action that underlie the federal programs they describe (Title 1, NCLB etc.):

- What problems does the program focus on? Why? What's the rationale?
- What strategies/activities do they pursue?
- What resources do they use to address the problems?
- What outcomes are supposed to be achieved?
- What is assumed or taken for granted? What might make it difficult to achieve the outcomes?

This same approach can be taken to analyzing contemporary policies like the Common Core and programs like Success for All, Core Knowledge, Expeditionary Learning Outward Bound, and KIPP.

Assignment #2: Intro to Improvement Science?
An introduction to the "science of improvement"

***Required reading*:**

Bryk, A., Gomez, L., Grunow, A., & LeMahieu, P. (2015). *Learning to improve* (2014). Introduction – chapter 3. Cambridge, MA: Harvard Education Press.
Provost L, & Bennett B. (2015). What's your theory? Driver diagram serves as tool for building and testing theories for improvement. *Quality Progress*, 36-43**.**
Hayes, C., Batalden P., & Goldmann D., A "work smarter, not harder" approach to improving health care quality*. BMJ Quality and Safety*, *24* (2): 100-102. doi: 10.1136/bmjqs-2014-003673.

Recommended reading:

Bryk, et. al., (2015). *Learning to improve* (2014). Chapters 4-7. Cambridge, MA: Harvard Education Press.

Berwick, D. M. (2003). Improvement, trust, and the healthcare workforce. *Quality Safe Health Care*, *12*, (Suppl. 1), i2 –i6.

Berwick, D. M. (2002). *Escape fire: Lessons for the future of healthcare.* New York: Commonwealth Fund. (See also a video of the related presentation: https://www.youtube.com/watch?v=00aa6xcOXf4)

For related tools and tips on improvement:

Langley GL, Moen R, Nolan KM, Nolan TW, Norman CL, Provost LP. *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance* (2nd edition). San Francisco: Jossey-Bass Publishers; 2009. (See also related resources at: http://www.ihi.org/education/IHIOpenSchool/resources/Pages/BobLloydWhiteboard.aspx)

Six Sigma, Determine the root cause: 5 Why's and/or BufferOpen, The 5 why's process we use to understand the root of any problem

Six Sigma, The cause and effect (aka fishbone) diagram

Goldman, D., How do you use a driver diagram? Washington, D.C.: Institute for Healthcare Improvement Open School

NHS (UK) Institute for Innovation and Improvement, Driver diagrams: What is it and how can it help me?

U.S. Department of Health and Human Services Centers for Medicare & Medicaid Services Center for Medicare and Medicaid Innovation Learning and Diffusion Group, Defining and Using Aims and Drivers for Improvement: A How-to Guide

To get an overview of one approach to the "science" of improvement read the introduction to *Learning to improve*. Then read the first three chapters of the book to learn how that approach has been and can be applied in health and education. Pay particular attention to the discussion of the tools and examples in Chapter 3 and think about how those might be applied to identify and address problems in your own lives and work. For further examples and discussion of work in improvement (particularly in health care), explore the descriptions, articles and videos of the Institute for Healthcare Improvement, particularly their Open School and the other tools.