"They Just Know": Tensions and Negotiations in the Politics of Evidence-Based Programs

Thomas Archibald

Agricultural & Extension Education, Virginia Tech

American Evaluation Association Conference, Washington, D.C.

October 18, 2013

VirginiaTech

Invent the Future

Introduction:
The "Evidence-Based" Movement

programs should be based on evidence.

VirginiaTech
Invent the Future

Introduction:
The "Evidence-Based" Movement

"In the context of research, treatment, and prevention, evidence usually refers to *qualitative and/or quantitative* results that have been *published in a peer-reviewed journal*. The term 'evidence-*informed*' is preferred to 'evidence-*based*' in recognition of the fact that *several elements may play a role in decision-making, only one of which may be scientific evidence*. Other elements may include cultural appropriateness, concerns about equity and human rights, feasibility, opportunity costs, etc." (UNAIDS, 2011, pp. 10-11)

VirginiaTech
Invent the Future

Introduction: The "Evidence-Based" Movement

the gold standard

THE CAMPBELL COLLABORATION

Coalition for Evidence-Based Policy
A NONPROFIT, NONPARTISAN ORGANIZATION

ies
WHAT WORKS
CLEARINGHOUSE

What Counts as Credible Evidence in APPLIED RESEARCH and EVALUATION PRACTICE?

Stewart I. Donaldson
Christina A. Christie
Melvin M. Mark
Editors

VirginiaTech
Invent the Future

4

Introduction: The "Evidence-Based" Movement

"The gold standard debate is one of the most important controversies in contemporary evaluation and applied social sciences. It's at the heart of how we go about trying to understand the world around us. It is integrally related to what we think science is and how it relates to practice. There is a lot at stake." (W. Trochim, unpublished speech transcript, September 10, 2007)

"This issue is not a mere academic dispute, and should be treated as one involving the welfare of very many people, not just the egos of a few." (Scriven, 2008, p. 24)

VirginiaTech
Invent the Future

Purposes & Research Questions

- **Purposes**
  - Better understand what actually happens when people try to "bridge the research-practice gap" through efforts to make non-formal education more "evidence-based"
  - Study the politics of evidence in practice
  - Explore more efficacious and equitable ways of connecting research and practice

- **Research Questions**
  1. How is evidence-based program and evidence-based practice work actually practiced?
  2. What perspectives and assumptions about what non-formal education is are manifested through that work?
  3. What conflicts emerge through that work related to those perspectives and assumptions?

Sample: Three Cases

- **Case One: The ACT for Youth Center of Excellence**
  - Overview: Supporting Positive Youth Development
  - Current Focus: Intermediary Support of EBP Implementation
- **Case Two: 4-H Youth Development of Cornell Cooperative Extension**
  - Overview: One Hundred Years of Youth Development
  - Current Focus: Pruning, and Connecting to Research
- **Case Three: HIV/AIDS Prevention Education in Kenya**
  - Overview: A Partnership for HIV Education
  - Current Focus: A Targeted Evaluation to Build the Evidence Base
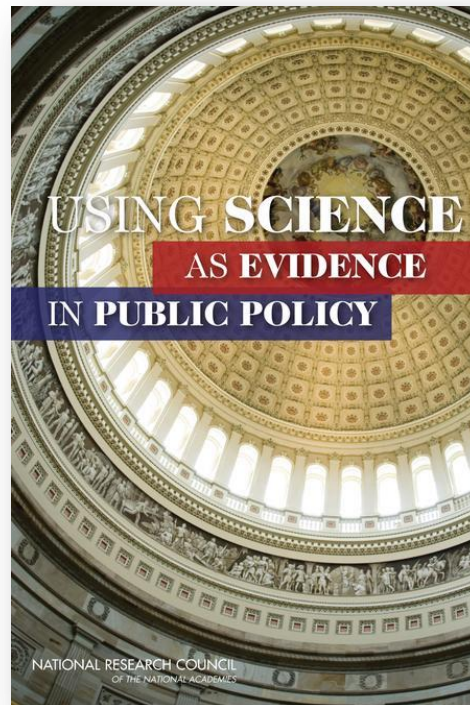
VirginiaTech
Invent the Future

Methodology & Methods

- **Methodological guidance**
  - Institutional Ethnography (Smith, 1987, 2005, 2006)
  - Science & Technology Studies (e.g., Mol & Berg, 1998; Timmermans & Berg, 2003)

- **Data collection**
  - Semi-structured interviews
  - Observation (including participant observation)
  - Document analysis

- **Analysis**
  - ATLAS.ti
  - Blend of *a priori* and "emergent" codes

VirginiaTech
Invent the Future

Theoretical Framework: Science, Expertise, and Democracy

- "To label some aspects of society's responses to uncertainty *'political'* and some others *'scientific'* makes little sense when *the very contours of what is certain or uncertain in policy domains get established through intense and intimate science-society negotiations*" (Jasanoff, 2003, p. 394)

Theoretical Framework: Science, Expertise, and Democracy

- "To label some aspects of society's responses to uncertainty *'political'* and some others *'scientific'* makes little sense when *the very contours of what is certain or uncertain in policy domains get established through intense and intimate science-society negotiations*" (Jasanoff, 2003, p. 394)

- "Knowledge, … especially scientific knowledge as deployed in public arenas, is inalienably cultural in that it embodies, reflects and projects commitments of a human kind, *which also shape human relations and identities, imagined communities and ontologies.* These explicit representational forms also, in a performative manner, *tacitly project into the public domain normative models of the human* that become part of the cultural repertoire and thus have influence over real emergent human behavior, human relations and human imagination" (Leach, Scoones, and Wynne, 2005, p. 13)

- It is "*the tacit provisional performance of human ontologies in the making*", what Law and Lien (2013) call the "*choreographies of practice*"

VirginiaTech
Invent the Future

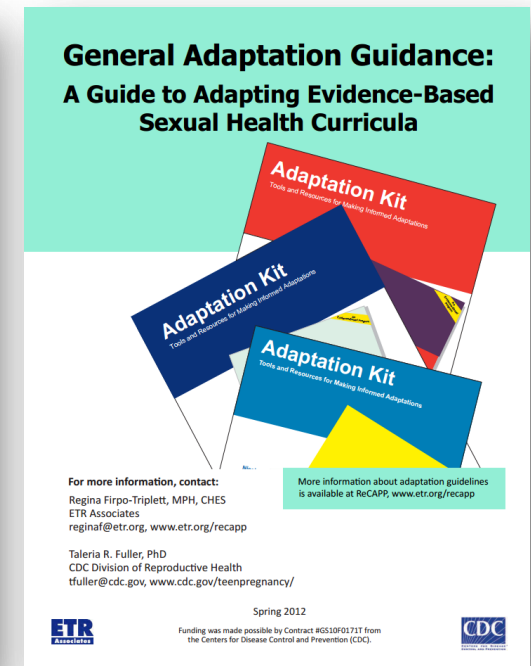# Theoretical Framework: Science, Expertise, and Democracy

- Shapin and Schaffer (1985):
    - examine the "***historical circumstances*** in which experiment as a systematic means of generating natural knowledge arose, in which experimental practices became institutionalized, and ***in which experimentally produced matters of fact were made into the foundations of what counted as proper scientific knowledge***" (p. 3)
    - treat ***truth***, ***adequacy***, and ***objectivity*** as "accomplishments, as historical products, as actors' judgments and categories" that are "***topics for our inquiry, not resources unreflectively to be used in that inquiry***" (p. 14)
- "***Science is not a substitute for virtue*** … Technical scientific knowledge does not make men [sic] sensible in their aims … [and] science has not given an more self-control, more kindliness or more power of discounting their passions" (Russell, quoted in Ezrahi, 1990, p. 4)
- "A view of knowledge that acknowledges that ***the sphere of knowledge is wider than the sphere of "science"*** seems to me to be a cultural necessity if we are to arrive at a sane and human view of ourselves or of science" (Putnam, quoted in Bernstein, 1983, p. 1)

VirginiaTech
Invent the Future

Theoretical Framework: Epistemic Justice

- "*The constitutional right of different systems of knowledge to exist as part of dialogue and debate*" (Visvanathan, 2005, p. 92)

- It "has to do with *the coexistence of many knowledges* in the world and the relation between the *abstract hierarchies* which constitute them and the *unequal economic and political power relations which produce and reproduce increasingly more severe social injustice*" (Toulmin, 2007, p. xv)

- "One has to realize that *epistemology is not a remote, exotic term. It determines life chances*" (Visvanathan 2005, p. 84)

- "There is no *power relation* without the correlative constitution of a field of *knowledge*, nor any *knowledge* that does not presuppose and constitute at the same time *power relations*" (Foucault, 1977, p. 27)

VirginiaTech
Invent the Future

Making "Evidence-Based" Non-Formal Education

- The Details of Practice
  - ▪ Working with EBPs

  - ▪ Difficulties in connecting research and practice

Making "Evidence-Based" Non-Formal Education

- The Details of Practice
- Multiple Perspectives on Non-Formal Education

Divergent Perspectives and Assumptions about What Non-Formal Education is

	Mode 1	Mode 2
Non-formal education is…	An infrastructure for the dissemination of scientific information	A site of grassroots knowledge sharing
Program planning and evaluation decisions are…	Campus- or scientist-driven	Community-driven
The essential unit of educational interaction is…	A program (meaning a tightly bounded and scripted curriculum)	A set of practices and processes
Behavior change is assumed to be…	Simple, or complicated; linear	Complex; non-linear; dynamic
The focus is on…	Content delivery and specific outcomes	Process facilitation and general outcomes

- Are some content areas better suited for EBPs?
  - Fueling a perverse positive feedback loop…

Making "Evidence-Based" Non-Formal Education

- The Details of Practice

- Multiple Perspectives on Non-Formal Education

- Conflicts of Adaptation: The Developers "Know"

  - Are there some aspects of pedagogy—and of culture—that require localization and others that are universal?

  - "The science of adaptation"

    - 75 % is sufficient attendance to constitute good "dosage"

    - Providers cannot adapt while developers can

    - "Kenyanizing" carefully

VirginiaTech
Invent the Future

Implications & New Directions

Definitional operationalism is an "unmitigated disaster" imported from logical positivism, "which persists long after the substantial revision or rejection of positivism within the philosophy of science. *It persists most perniciously in social policy science, in the accountability movement, or in managerial control efforts employing single explicit quantitative criteria*" (Campbell, 1984, p. 18)

Virginia Tech
Invent the Future

Implications & New Directions

*We need "**large numbers of decentralized local innovators and independent adopters, independently making the many ad hoc decisions about implementation and measurement**. For a new program or policy, give up the demand for a nation-wide, once and for all, uniform evaluation, delegated to a single evaluation contractor. Substitute instead **support for a heterogeneity of programs**, each evaluating themselves until they feel they have a package worth others borrowing, and support those who borrow to cross-validate the efficacy: That is, adopt a 'cross-validational model of program dissemination and validation.'" (p. 19)*

VirginiaTech
Invent the Future

Implications & New Directions

- *Reconsider external validity (Cronbach, 1982) & other varieties of validity (Chen, 2010)*
- *Acknowledge and work with both the mystique and the instrumentality of randomization*
- *Open up dialogue about what education is, what research is, what science is, and what practice is*
- *Foster methodological and epistemological plurality*
- *Seek a more effective and ethical praxis of evaluation which embraces rather than effaces the intricacies and nuances that characterize social human action*
- *(Communicate this non-antagonistically)*

VirginiaTech
Invent the Future

thank you

Thomas Archibald

Agricultural & Extension Education (0343)
Litton-Reaves Hall, Rm. 276
175 West Campus Drive
Blacksburg, VA 24061
(540) 231-6192

tgarch@vt.edu

VirginiaTech
Invent the Future