

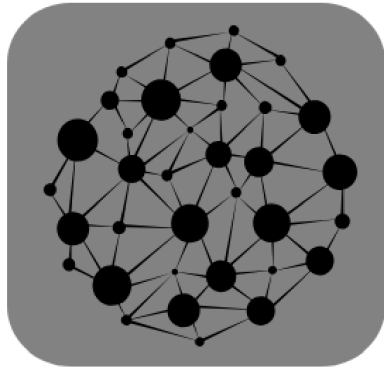
The Evidence Base & Your Theory of Change

Melissa Binder

mbinder@unm.edu / evallab.unm.edu

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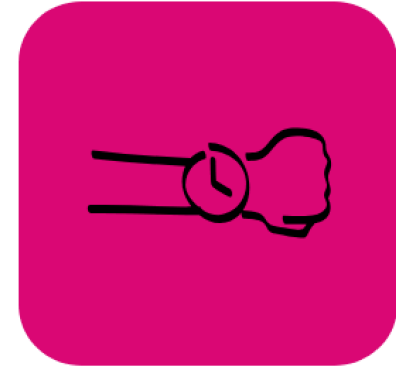




Theory of
Change



Participatory
Evaluation



Mission Time

The Evidence Base: Learning Objectives

- Understand the ***technical definition*** of “evidence-based”
- Appreciate the ***value*** and ***limitations*** of Randomized Controlled Trials
- Distinguish between ***“evidence-based”*** and ***“evidence-informed”***
- ***Communicate to others*** the value of “evidence-informed” programs
- Reflect on what ***evidence*** supports your ***logic model***
- Articulate your ***theory of change***

Why do you think your program activities will lead to the outcomes you want?

What evidence do you have to support your logic model?

Dictionary

Search for a word



ev·i·dence

/ˈevədəns/

noun

noun: **evidence**

1. the available body of facts or information indicating whether a belief or proposition is true or valid.
"the study finds little evidence of overt discrimination"
synonyms: [proof](#), [confirmation](#), [verification](#), substantiation, [corroboration](#), [affirmation](#), [authentication](#), [attestation](#), [documentation](#); [More](#)

Common sense is not evidence

- Your common sense can be wrong
- If your logic model is based on what you think should work, evaluation will help you find out if it actually does work

Is program experience evidence?

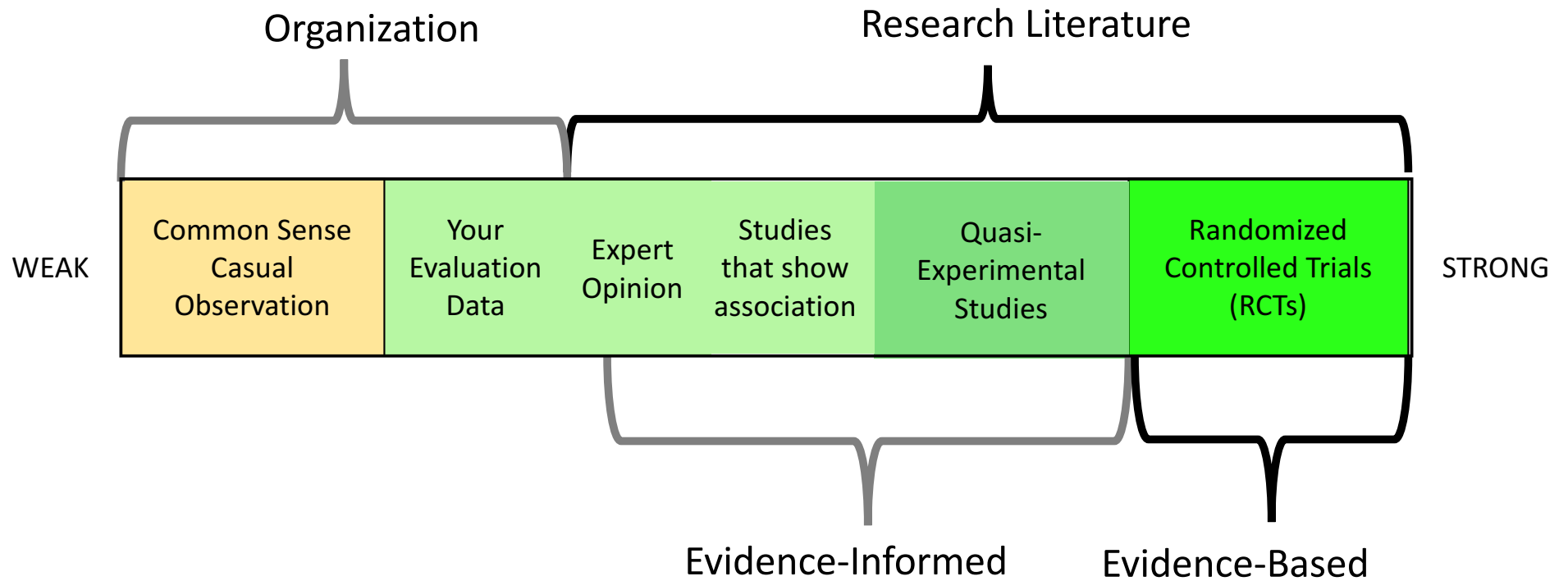
- Casual observation can be wrong, because people tend to remember what stands out, which can be the exception
- You can collect data to assess whether your program results in desired outcomes

Evidence based on academic research

. . . is the most convincing kind of evidence

- Systematic
- Produced by scientific method
- Peer reviewed

Source and Strength of Evidence



Best evidence comes from RCTs

- Study subjects are randomly assigned to participate in a program
 - A flip of a coin (or randomized number generator) determines whether subject gets treatment or not
 - The program effect will be the difference in outcome between the Program (or Treatment) group and the Control group
- True experiment
- Shows causal relationship: program caused changes

Why *not* having random assignment is problematic

- volunteers are likely to be atypical
- Ex: voluntary busing –

This Week's ESSA News: Utah Students Who Opt Out Will Be Counted as Failing, and Florida State Plan Only One

News

For 50 Years, This Voluntary Busing Program Has Desegregated Schools 1 Family — and 1 District — at a Time

July 31, 2017

by KATHERINE STEWART
contributor@the74million.org

TALKING POINTS

- For 50 years, METCO

Photo: Getty Images

Just after 5:00 every weekday morning, while most of his schoolmates are sleeping, Collin Dillon joins his mother, Monique, at the kitchen table for a hot breakfast. An honor student with a gentle yet sunny disposition, Collin loves manga and drawing, and he hopes to work as a filmmaker someday. His parents are immensely proud of his achievements and ambitions.

The Dillons live in a three-story, early 20th century home in the historic, largely working-class, predominantly black neighborhood of Dorchester in south Boston. His father owns an auto repair shop, and his mother is a grant specialist; both grew up in the neighborhood. The nearest public school is just a few blocks away. But every morning, the Dillons put Collin on a bus that takes him 90 minutes or more out of the city to a public elementary school in the coastal community of Marblehead.

Collin participates in Metropolitan Council for Educational Opportunity — METCO — the nation's longest continuously running voluntary school desegregation program. METCO, which just celebrated its 50th year, is implemented in 37 school districts around Boston and Springfield, Massachusetts, and is one of only a handful of such programs

has quietly heard urban Massachusetts kids to suburban schools happy to have them

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SUBMIT

MOST READ

- Chevous: For Kids in Traditional Schools, Testing Can Be a Challenge For Some Kids, Parents & Teachers in Online Schools, It's a Nightmare
- Janus v. AFSMCE: 5 Things to Know About the Latest Union Dues Case Headed to the High Court
- 6 Reasons Why Singapore

see <https://www.the74million.org/article/for-50-years-this-voluntary-busing-program-has-desegregated-schools-1-family-and-1-district-at-a-time/>

Programs that produce
positive outcomes in RCTs
meet the technical definition
for “evidence-based”

The Evidence Base: Learning Objectives

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= *program results in positive outcomes in an RCT study*
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But very few programs are evaluated with RCTs

- Ethical problems
- Cost

Some programs that claim to be evidence-based

aren't

Washington State Institute for Public Policy

Program inventories for:

- children's mental health
- child welfare
- juvenile justice
- adult criminal justice
- adult behavioral health
- K–12 learning assistance

Inventory flow-chart

See WSIPP-Inventory Flow Chart on Summer Institute Materials page

How to find WSIPP inventories

<http://www.wsipp.wa.gov>

➔ Benefit-Cost ➔ Results

More details for children's services: search Publications for

Updated Inventory of Evidence-Based, Research-Based, and Promising Practices:

For Prevention and Intervention Services for Children and Juveniles in the Child Welfare, Juvenile Justice, and Mental Health Systems

Review Benefit-Cost tables and inventories

Discussion

- Any surprises?
- Were there more or fewer Evidence-Based Programs than you expected?

RCT's are not perfect

- Will program have same results with different populations?
 - That's the problem of external validity
- Can program be reproduced with fidelity?
 - Maybe it's too expensive to do all of the elements
- What parts of the program made it work?
 - That's the "black box" problem.
 - What if it was the relationship between the facilitator and the participants, and not the program per se?

Realistic expectations of what a program can do

They *do* help some people do better. Good programs will move 17% - 34% of people above the average of where they would have been without the program.*

See Olds DL, Kitzman H., Cole R., Robinson J., Sidora K., Luckey DW, Henderson CR Jr, Hanks C., Bondy J., and Holmberg J. 2004. "Effects of Nurse Home-Visiting on Maternal Life Course and Child Development: Age 6 Follow-Up Results of a Randomized Trial." *Pediatrics* 114 (6): 1550-9.

*Corresponds to effect sizes between .5 and 1.

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The Research Literature: Types of studies

	Does study establish causality?	Program based on this study is:
1-RCT	YES	Evidence-based

The Academic Literature: Types of studies

	Does study establish causality?	Program based on this study is:
1-RCT	YES	Evidence-based
2-Quasi-experimental / natural experiment	Maybe	Evidence-informed
Difference in differences (DID)	“	“
Regression Discontinuity Design (RDD)	“	“
Instrumental Variables (IV)	“	“
3-Association / Observational	No: but establishes association	“
4-Review of the state of the art	No: but establishes plausibility	“

Quasi experimental / Natural experiments

No random assignment, but arbitrary change in policy or eligibility creates something like a treatment and control

- Lotteries for accessing services (home visiting in Santa Fe)
- Vietnam draft number for going to college
- Age cut-offs for pre-K

See Kilburn, M. Rebecca and J.S. Cannon. 2017. "Home Visiting and the Use of Infant Health Care: A Randomized Clinical Trial." *Pediatrics* 139(1).

Observational

ACES study: adults who experienced more adverse childhood events have worse emotional and physical health.

See Felitti et al. 1998.

Felitti VJ, Anda RF, Nordenberg D., Williamson DF, Spitz AM, Edwards V., Koss MP, and Marks JS. 1998. "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. The Adverse Childhood Experiences (ACE) Study." American Journal of Preventive Medicine 14 (4): 245-58.

State of the Art

- An expert in the field provides an overview of current understanding of the issue
- Example: Harvard Center for the Developing Child report makes the case that childhood trauma affects executive function in adults . . . suggesting that programs need to help these adults manage complex tasks.

See Center on the Developing Child at Harvard University. 2016. *Applying the Science of Child Development in Child Welfare Systems*. www.developingchild.harvard.edu

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Discussion: What is the value of evidence-informed programming?

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What evidence supports your logic model?

- Who are the experts in your field?
 - Those are the people who establish the State of the Art
- Are there key studies that people talk about?
 - Good idea to read them if you haven't already
 - Good to know level of evidence
 - Good to know if effects are modest
- Is your evidence based on experience?
 - Are you responding to clients' expressed needs?
 - Have you tried different approaches and found one that is good? If so, think about how you know it is good.

Access key studies for free with access to the UNM library – username and password good for 1 year at library.unm.edu

Report back

Formal literature reviews

See packet

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Theory of Change

= the evidence that your program activities result in your desired outcomes

Different type of evidence: evidence-based, evidence-informed, program evidence

Articulating your theory of change

I think my program will work because. . .

WORKBOOK: LEARNING COMMUNITY #2

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