The role of Implementation in Program Evaluation in PreK-12 Schools

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Learning Objectives

Why implementation matters

Be aware of where implementation studies fit within the suite of possible evaluation studies

Quick overview of the method evaluators use when examining implementation fidelity

Call attention to methodological challenges in implementation fidelity evaluations
Why Implementation Matters

<table>
<thead>
<tr>
<th></th>
<th>Change comes from action, not outcomes.</th>
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<tbody>
<tr>
<td>2</td>
<td>Implementation is about describing what we are doing (actions) to promote change.</td>
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<tr>
<td>3</td>
<td>What works, for whom, and under what conditions requires examining implementation and outcomes.</td>
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<tr>
<td>4</td>
<td>It’s hard to sustain and scale something up if you do not fully understand how it works.</td>
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<tr>
<td>5</td>
<td>Funders are increasingly interested in implementation (e.g., Goal 3 IES studies require an implementation study).</td>
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</tbody>
</table>
Evaluation Studies: Where does implementation fit?
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Program Needs/Assets Theory

Needs Assets
Evaluation Studies: Where does implementation fit?

- Program Needs/Assets Theory
- Inputs
- Activities
- Outputs

Program Process Theory
Evaluation Studies: Where does implementation fit?

Program Needs/Assets Theory

Needs Assets → Inputs Activities Outputs → Program Process Theory → Initial Outcomes Intermediate Outcomes Long-Term Outcomes

Program Outcome Theory
Evaluation Studies: Where does implementation fit?

A process evaluation seeks to evaluate the program process theory.
Evaluation Studies: Where does implementation fit?

Implementation is a focus, but not the only focus, of a process evaluation.
Evaluation Studies: Where does implementation fit?

Program Needs/Assets Theory

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Program Process Theory

- Inputs
- Activities
- Outputs

Program Outcome Theory

- Initial Outcomes
- Intermediate Outcomes
- Long-Term Outcomes

Example process evaluation questions:
- How well designed is the program?
- **How well implemented is the program?**
- How appropriate are the processes compared with quality standards? With cultural norms?
- How good are program outputs?
- What has been done in an innovative way?
Implementation Fidelity Defined

A systematic inquiry to determine the "extent to which an innovation is enacted according to its intended model."

Century & Cassata, 2016, p. 171
Implementation Fidelity Evaluation Methods

Based on Mowbray et al. (2003); O’Donnell (2008); Schwandt (2015)
Implementation Fidelity Evaluation Methods

1. Engage stakeholders.

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Based on Mowbray et al. (2003); O’Donnell (2008); Schwandt (2015)
Decisions to be Made

1. Identify and operationally define the program’s core components?
2. Fidelity criteria, including operational definitions?
3. Fidelity benchmarks?
4. Research methods to measure each core component?
5. Appropriate time frame for data collection?
6. Reliability and validity of measures?
7. How the data will be summarized and/or reduced for analysis?
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Based on Century & Cassata (2016)
Dane & Schneider (1998) Criteria Model

“The most widely cited criteria for fidelity measurement are attributed to Dane and Schneider (1998)” (Century & Cassata, 2016, p. 191).

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<tr>
<th>Criteria</th>
<th>Description</th>
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<tr>
<td>Adherence</td>
<td>Measure of extent to which program is being delivered as designed.</td>
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<tr>
<td>Exposure</td>
<td>Index measure of exposure (e.g., # of sessions implemented, length of each session, frequency).</td>
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<tr>
<td>Delivery Quality</td>
<td>Measure of aspects of delivery that are not directly related to the prescribed implementation (e.g., implementer enthusiasm).</td>
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<tr>
<td>Participant Response</td>
<td>Measure of participant response to program sessions.</td>
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<tr>
<td>Program Differentiation</td>
<td>Measure of to ensure that the critical features that distinguish the program from the comparison are present.</td>
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Are citations synonymous with use?

- n=111 studies

Based on Montrosse-Moorhead, Juskiewicz, Li, Rhoads, & Gambino (2016)
Are citations synonymous with use?

- n=111 studies

Among studies that measured fidelity, % using each D&S criterion

- Program Differentiation: 0.9%
- Participant Response: 14.4%
- Delivery Quality: 18.0%
- Exposure: 24.3%
- Adherence: 59.5%

Based on Montrosse-Moorhead, Juskiewicz, Li, Rhoads, & Gambino (2016)
Are citations synonymous with use?

- n=111 studies

Questions:
(1) Is fidelity measurement skewed toward the easy to measure?
(2) And, what do we miss in doing so?

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<th>Participant Response</th>
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Based on Montrosse-Moorhead, Juskiewicz, Li, Rhoads, & Gambino (2016)
Core Components
Criteria Model

Program Needs/Assets Theory

Needs | Assets

Program Process Theory

Inputs | Activities | Outputs

Program Outcome Theory

Initial Outcomes
Intermediate Outcomes
Long-Term Outcomes

We need to identify and measure the key drivers of change as articulated in the program process theory and by stakeholders.

Criteria are linked to key drivers of change.

Major proponents include Rossi (Chen, & Rossi, 1980; Rossi, Freeman, & Wright, 1979; Rossi, Lipsey, & Freeman, 2004) and Cordray (Cordray, 1986, 1989; Cordray, & Pion, 2006; Hulleman, & Cordray, 2009; Lipey, & Cordray, 2000; Nelson, Cordray, Hulleman, Darrow, & Sommer, 2012).
Core Components

Example

Program Process Theory for Measures of Academic Progress (MAP)

Activities

- Teacher PD (C only)
- Teacher Feedback (C only)
- Differentiated Instruction (C & T)

Outputs

- Improved Student Achievement

C=Control; T=Treatment

Based on Cordray (2008)
Example of Fidelity Criteria Using Core Components Model

Program Process Theory for Measures of Academic Progress (MAP)

Activities

Outputs

Teacher PD (C only)

Teacher Feedback (C only)

Differentiated Instruction (C & T)

Improved Student Achievement

Criteria

Attendance

Knowledge Acquisition

C=Control; T=Treatment

Based on Cordray (2008)
Example of Fidelity Criteria Using Core Components Model

Program Process Theory for Measures of Academic Progress (MAP)

Program Outcome Theory

Activities

Teacher Feedback (C only)

Teacher PD (C only)

Outputs

Differentiated Instruction (C & T)

Criteria

Testing completed (n=3)
Access and use of assessment data for instruction planning

Improved Student Achievement

C=Control; T=Treatment

Based on Cordray (2008)
Example of Fidelity Criteria
Using Core Components Model

Program Process Theory for Measures of Academic Progress (MAP)

Activities

Teacher PD (C only)
Teacher Feedback (C only)
Differentiated Instruction (C & T)

Outputs

Improved Student Achievement

Criteria
Teacher Pedagogy
(look for’s: grouping of students, continuous assessment)

C=Control; T=Treatment

Based on Cordray (2008)
Learning Objectives

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Thank You

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