Education Transformation: Using Implementation Science to Support Systems Level Change

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Who We Are..

The National Implementation Research Network (NIRN) uses the science and practice of implementation to help solve real-world problems. We are a multidisciplinary team with the mission to contribute to the best practices and science of implementation, organization change, and system reinvention to improve outcomes across the spectrum of human services.

NIRN is located within the Frank Porter Graham (FPG) Child Development Institute at the University of North Carolina at Chapel Hill.
Innovation and Implementation

WHAT

Innovation
(Initiative)

HOW

Implementation
Too Often…

Need Something New

New Inovation

Use Inovation

6 Months - Limited Outcomes
Strategies, when used alone...

- Sharing information
- Training
- Policy Change
- Providing Funding/Incentives
- Organization Change

*These strategies are necessary, but not sufficient when used alone.*
Wexelblatt’s Algorithm (Cheap, Fast, Good)

When implementing an innovation, you may only pick two...

- It won’t be Cheap!
- It won’t be Fast!
- It won’t be Good!

Fixsen et al., 2019
Good work, but I think we need just a little more detail right here!
Implementation Plan = Road Map
Types of Implementation Data

**Fidelity/Integrity**
- Extent to which a program or practice has been implemented as intended
- Observation, Self-Report, Product Reviews, Interviews

**Outcomes**
- Impact of a practice or program
- Achievement, behavior or skill use, teacher retention, knowledge, beliefs or perceptions

**Programmatic**
- Administration of a program or practice
- Enrollment, reach, scale, cost, staffing, training effectiveness, capacity
## Levels of Data

<table>
<thead>
<tr>
<th>Level</th>
<th>Purpose</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satellite Data</td>
<td>Illuminate group trends</td>
<td>Standardized test scores, attendance, graduation rates, teacher retention, parent participation</td>
</tr>
<tr>
<td>Map Data</td>
<td>Identify learning trends or instructional skill gaps</td>
<td>Progress monitoring, classroom assessments, surveys</td>
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<tr>
<td>Street Data</td>
<td>Gain insight of student, staff, parent experiences and mindsets &amp; monitor internalization of skills</td>
<td>Empathy interviews, student work, observations</td>
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Safir & Dugan, 2021
Use Street Data for Equitable Implementation

Integration of the community’s
- Culture
- History
- Values
- Assets
- Needs

DuMont, Metz, & Woo, 2019  Safir & Dugan, 2021
Active Implementation
Active Implementation Formula

Effective Practice \times Effective Implementation \times Enabling Context = Socially Significant Outcomes

Fixsen & Blase, 2020
Active Implementation Formula

- What is being implemented?
- What is the evidence for its effectiveness? For whom?
- How well operationalized is the practice?
- How can it be adapted to the context?
Active Implementation Formula

- How does implementation progress over time?
- How do we build an infrastructure to support sustained implementation and achieve fidelity?
- How do we use data to communicate about and improve our work?
- How do we transition supports-build internal capacity?
Active Implementation Formula

- How are implementation teams engaging critical perspectives in the process?
- How is data used for improvement and learning?
Active Implementation Frameworks

Effective Practice \( \times \) Effective Implementation \( \times \) Enabling Context \( = \) Socially Significant Outcomes

- **Effective Practice**
  - Usable Innovations
- **Effective Implementation**
  - Stages
  - Drivers
- **Enabling Context**
  - Teams
  - Improvement Cycles

Effective practices are evidence-based practices that have been made usable. Effective implementation refers to the supports necessary for effective instruction. Enabling contexts include the use of implementation teams to ensure effective practices can be used well, and the use of improvement cycles to evaluate and improve implementation of those practices. These factors all lead to sustained implementation and successful student outcomes.

Fixsen & Blase, 2020
Discussion

- Reflect on current or past work related to improving socially significant outcomes.
  - Was a key factor missing? Which one?
  - What was a key factor to success?
- Discuss with an elbow partner
Implementation Support Practitioner Competencies
Implementation Support Practitioners

- Improvement Advisors
- Facilitators
- Mentors
- Technical Assistance Providers
- Consultants
- Implementation Specialist
- Coaches
What Competencies do Implementation Support Practitioners Need?

34 respondents
- 15 intermediary organizations
- Included Europe, United States, Canada, and Australia

420 Qualitative Comments
- 10,411 total word count
- 275 comments in the form of a question (36), suggested revisions (217), and affirmations (44)

Metz et al., 2020
Implementation Support Practitioners Competencies

- 6 guiding principles
- 3 competency domains
- 15 core competencies

Metz et al., 2020
Core Competencies

- **Co-Creation & Engagement**
  - Co-learning
  - Brokering
  - Address Power Differentials
  - Co-design
  - Tailoring Support

- **Ongoing Improvement**
  - Assess Needs & Assets
  - Understand Context
  - Apply & Integrate Implementation Frameworks & Strategies
  - Facilitation
  - Communication
  - Conduct Improvement Cycles

- **Sustaining Change**
  - Grow & Sustain Relationships
  - Develop Teams
  - Build Capacity
  - Cultivate Leaders & Champions

Metz et al., 2020
Transformational Change

Six Conditions of Systems Change

Structural Change (explicit)

Relational Change (semi-explicit)

Transformative Change (implicit)

Kania et al., 2018
Systems change is about shifting the conditions that are holding the problem in place.

Kania et al., 2018
District Examples
District Stories - Social Emotional Learning Program

District #1

- Urban - High Socio-economic rate
- 314 schools; 199,089 students

District #2

- Rural - High-poverty rate
- 3 schools; 1208 students
A TALE OF TWO DISTRICTS

DISTRICT 1

2021 BOARD DISCUSSION
The Superintendent of District 1 began discussing with the Board of Education the need for a social-emotional learning program.

2022 TRAINING PLANS
The implementation team created training and coaching plans and discussed the need for data collection.

2023 PDSA CYCLES
The implementation team collects data, makes small change improvements, and examines their success.

DISTRICT 2

2021 INNOVATION
A social-emotional learning program was selected through a process and an implementation team was created.

2022 INITIAL IMP
Selected staff members receive training and coaching on the SEL program and data is collected for the implementation team to use.

2023 SCALING
The selected SEL program is fully implemented in all buildings and continues to be a durable change.
How it actually works for District 1

Readiness

Counseling Department selects SEL program and receives board approval

Exploration

Principals were not aware of the training plans and have indicated they will not do release time

A number of caregivers contact the Associate Superintendent of DEI with concerns of the program and discovers a lack of cultural responsiveness

Installation

The Counseling Department plans for SEL training for all teachers at the middle school level trained

The counselors work with the principals to embed mini-lessons into staff meetings each month

Initial Imp

After each mini-lesson, the teachers internalize the content and embed it into their classroom practice

Full Imp

The Counseling Department begins to collect fidelity data by observing the practices in the classroom

The Counseling Department works with the Associate Superintendent to make modifications to the resources and language

Sustain

The Counseling Department begins to make adaptations based on the fidelity data collection & the need to address culturally responsiveness

The Counseling Department decides to develop a team with cross-department representation, caregivers, and student voice.
How it actually works for District 2

**Readiness**
- An Assistant Principal attends a conference and learns about a new SEL Program
- A parent complains about the program and concerns around “SEL” to a board member
- The board member has no knowledge of the program and also has concerns that “SEL” is being taught in the schools
- SEL Initiatives and Data are shared with the board

**Exploration**
- He shares the information with his building principal and they decide to purchase the program

**Installation**
- A district team is created to begin the selection process of an SEL program that meets their needs and includes, caregivers, students, board members and community members

**Initial Imp**
- The SEL Trainers come to the school and facilitate a one day training in before school starts
- After a program is selected for the elementary and middle/high school, training plans are developed with the company to ensure alignment with the community values and teacher needs
- The admin team discovers that they never received training effectiveness data or that the program does not have a fidelity measurement

**Full Imp**
- All teachers in the building begin to use the SEL Program in their classrooms
- After the initial training, teachers begin to receive monthly coaching or consulting hours virtually with the trainers from the company

**Sustain**
- SEL Initiatives and Data are shared with the board

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Implementation Results

District #1
- Urban - High Socio-economic rate
- 314 schools; 199,089 students

District #2
- Rural - High-poverty rate
- 3 schools; 1208 students

Fidelity/Student Improvement

<table>
<thead>
<tr>
<th>Year</th>
<th>Fidelity</th>
<th>Improved SEL Scores</th>
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<tbody>
<tr>
<td>Year 1</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>Year 2</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Year 3</td>
<td>75</td>
<td>0</td>
</tr>
<tr>
<td>Year 4</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
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Normalizing Barriers
We need to remember...

IMPLEMENTATION IS WHAT WE DO EVERYDAY!
Partnering with NIRN

Our team aims to support and investigate implementation efforts to solve real-world problems and improve outcomes in K-12 Education, Early Childhood, Child Welfare, and Public Health services.

**Implementation Practice**
- Implementation Partner Engagement
- Implementation Strategies Design
- Development of Implementation Teams
- Capacity Assessment and Building
- Technical Assistance & Coaching
- Training and Professional Learning

**Implementation Research & Evaluation**
- Literature Reviews and Environmental Scans
- Research Designs, Planning, and Methodologies
- Assessments, Survey Development, and Test Construction
- Qualitative and Quantitative Methods
- IRB Preparation and Grant Writing
- Writing for Scientific and Non-Scientific Audiences
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Additional Resources

NIRN Capabilities Statement
NIRN Research and Evaluation Agenda
Active Implementation Hub
YouTube Channel
Podcast

Professional Learning Opportunities

SSEP Communities of Practice
SSEP Micro-Credentialing
Citations


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Advancing knowledge to transform children’s lives