



Improving Education Practices: Moving the Indicators

Washington State Education 2009

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UNC

FPG CHILD DEVELOPMENT INSTITUTE

Topics



- 
Evidence-based innovations
- 
Getting past fragments
- 
**Implementation-organization
change-system transformation**
 - 
**Inextricable parts of a whole approach
to improving education**
 - 
**Teachers, schools, districts, systems,
parents, communities, society**

NCLB Act & IDEA 2004

- Implementation of scientifically based research
- Ensure that school personnel have the skills and knowledge necessary to improve the academic achievement and functional performance of children, including the use of scientifically based instructional practices, to the maximum extent possible

Choosing Interventions

Scientifically based research

-  **Scaling up requires an investment in system and practice change**
-  **What is worth all this trouble?**

Innovation Sampler

- Improve student academic achievement significantly (e.g. **Success for All: Slavin & Madden, 2002; Direct Instruction: Becker & Engelmann, 1995**)
- Reduce office discipline referrals by over 50% (e.g. **School-Wide Positive Behavior Support: Sugai & Horner, 2002; Success for All: Slavin & Madden, 2002**)

Innovation Sampler

- Reduce referrals to special education by over 50% (e.g. Project ACHIEVE: Knoff, 2005)
- Reduce high school drop out rates by 50% (e.g. STEP program: Felner et al., 2001)
- Reduce the incidence of childhood depression by over 50% (e.g. Kam, Greenberg & Kusche 2004)

Choose Interventions

Scientists have produced programs and practices that can help students, communities, and education systems

- **What Works Clearinghouse (<http://ies.ed.gov/ncee/wwc/>)**
- **NREPP (<http://www.nrepp.samhsa.gov/>)**
- **Colorado Blueprints (<http://www.colorado.edu/cspv/index.html>)**
- **Education research journals/ American Education Research Association (<http://www.aera.net/>)/ J. of Evidence-Based Practices in Schools**

Choose Interventions

- 🚩 **Effect size 0.50 or greater****
- 🚩 **Must be “worth the effort” to scale up**
- 🚩 **Eventually want to see big changes in student outcomes across the State**

**** Experimental Avg. – Control Avg.
Standard Deviation**

**** $8.0 - 6.0 / 4.0 = 0.50$**

TABLE TALK

- **What is the biggest problem we have in the State re: poor student outcomes?**
- **What evidence-based program is available to help solve this problem?**

Problem

 **We have been here before**

 **Education has a rich history of innovations and reforms**

Follow Through Programs

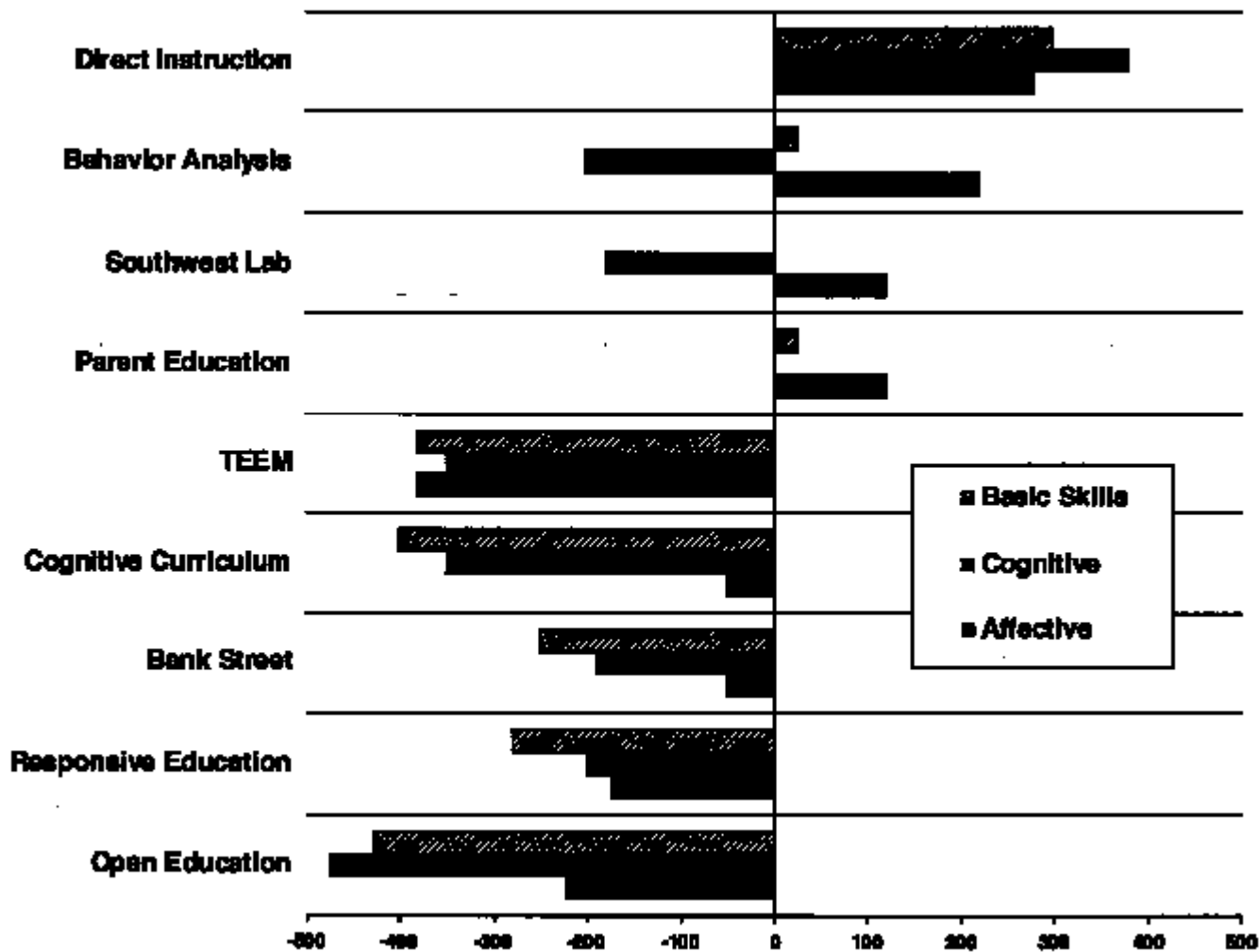


Figure 1: This figure shows the average effects of nine Follow Through models on measures of basic skills (word knowledge, spelling, language, and math computation), cognitive-conceptual skills (reading comprehension, math concepts, and math problem solving) and self-concept. This figure is adapted from Engelmann, S. and Carnine, D. (1982), Theory of Instruction: Principles and applications. New York: Irvington Press.

Problem

"All organizations [and systems] are designed, intentionally or unwittingly, to achieve precisely the results they get."

**R. Spencer Darling
Business Expert**

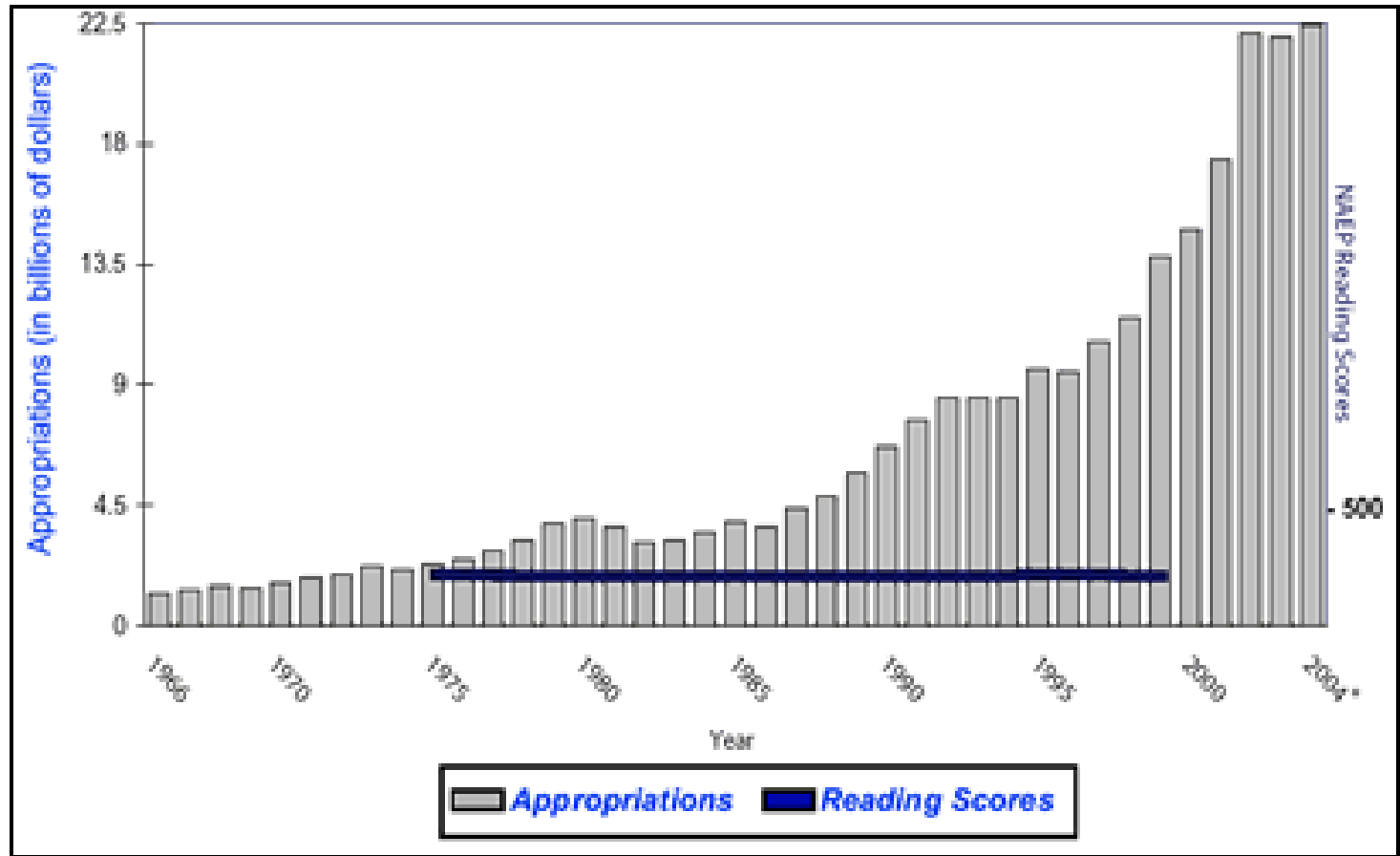
"The tyranny of the status quo."

**Fritz Oser
Educator**

System Change

- **Innovative practices do not fare well in existing organizational structures and systems**
- **Organizational and system changes are essential to successful use of innovations**
 - **Expect it**
 - **Plan for it**

Federal SPENDING on K-12 Education under the Elementary and Secondary Education Act and NAEP READING Scores (Age 9)



Fragments

 **“Education has a thousand pilots and no central heating system”**

Tom Luce, National Math and Science Initiative

Fragments

- **EBPs currently are boutique operations**
 - **Now have convincing demonstrations that EBPs can work in the real world**
 - **Pretty neat but not used on a sustainable scale sufficient to solve social problems**







Fragments

- 🚩 **Demonstrations are a place to start for innovations (“it’s possible”)**
- 🚩 **Unfortunately they rarely lead to widespread or sustainable use**
 - 🚩 **Focused only on interventions**
 - 🚩 **Do not include making system changes (e.g., policy, funding, regulatory)**
 - 🚩 **Do not include establishing implementation capacity to allow innovations and demonstrations to be deployed effectively**

“De-Frag” Method

 **Transformation Zones: From fragments to functions**

Transformation Zone

- 
A TZ can be thought of as a “vertical slice” of the education system (from the classroom to the Capitol)
- 
The “slice” is small enough to be manageable
- 
The “slice” is large enough to include all aspects of the system
- 
Manage the change process (small bites)
- 
Manage the risks (most innovations don’t work at first)
- 
Limit the damage (quick recovery, repair)

Transformation Zone

 **Focus on innovations and implementation infrastructure development**

Transformation Zone

 **NOT demonstration projects**

 **NOT pilot projects**

A Transformation Zone is the first example of the new ways of work in the new education system (get it right, get on with it)

Transformation Zone

- **Successful scaling-up of evidence-based practices and effective innovations:**
 - **Keep the entire system in mind**
 - **Keep the best, change the rest at each level from classroom to Capitol**
 - **Connect communication and data systems across these levels (“reflective” feedback systems)**

Functional Education

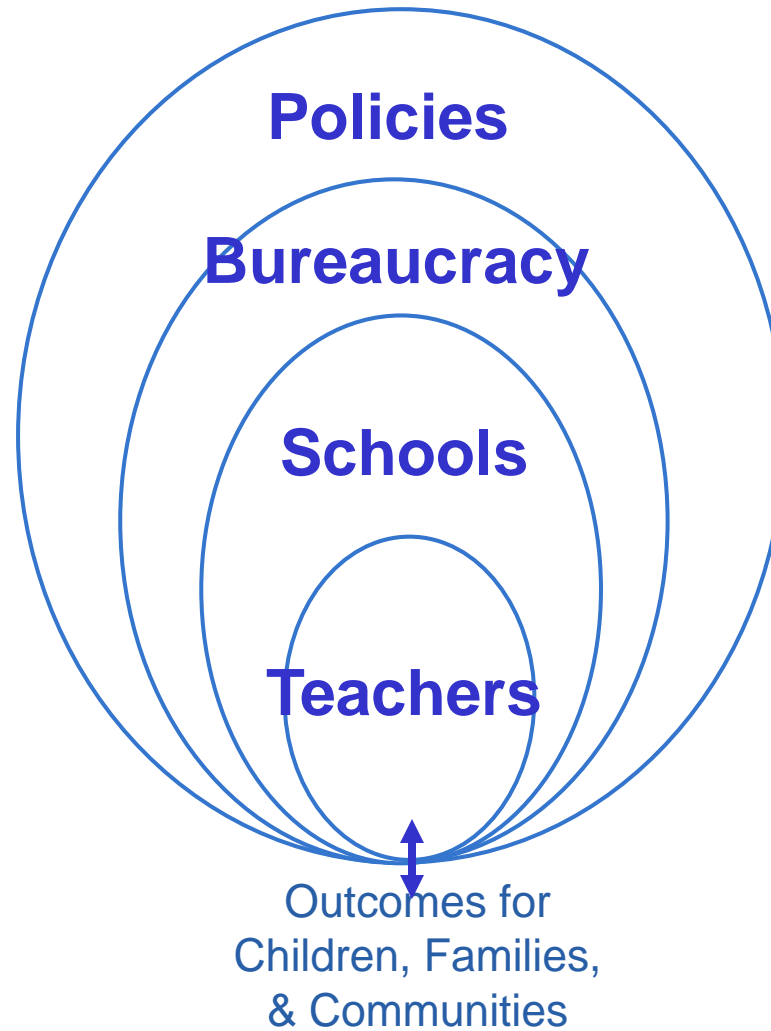
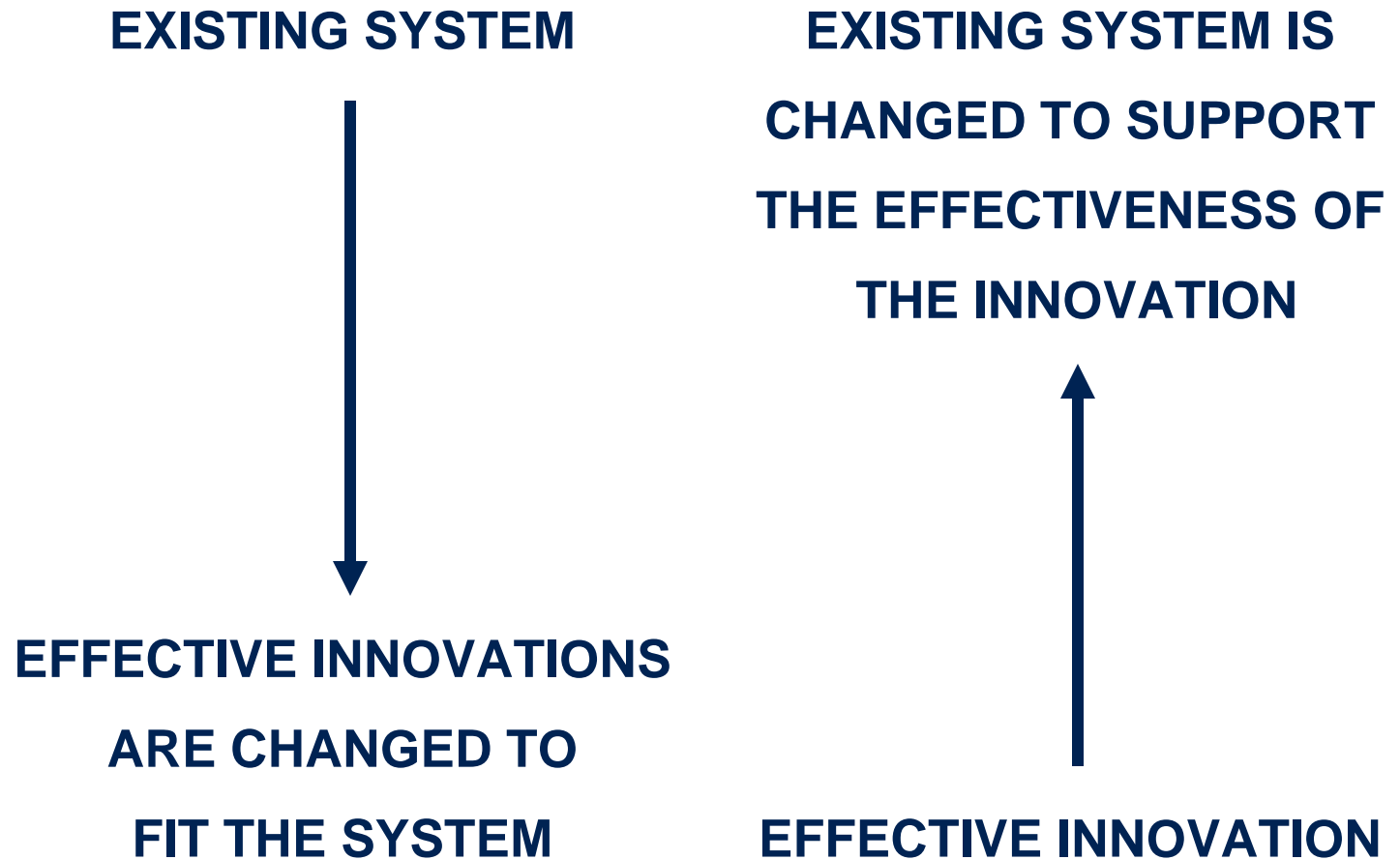


TABLE TALK

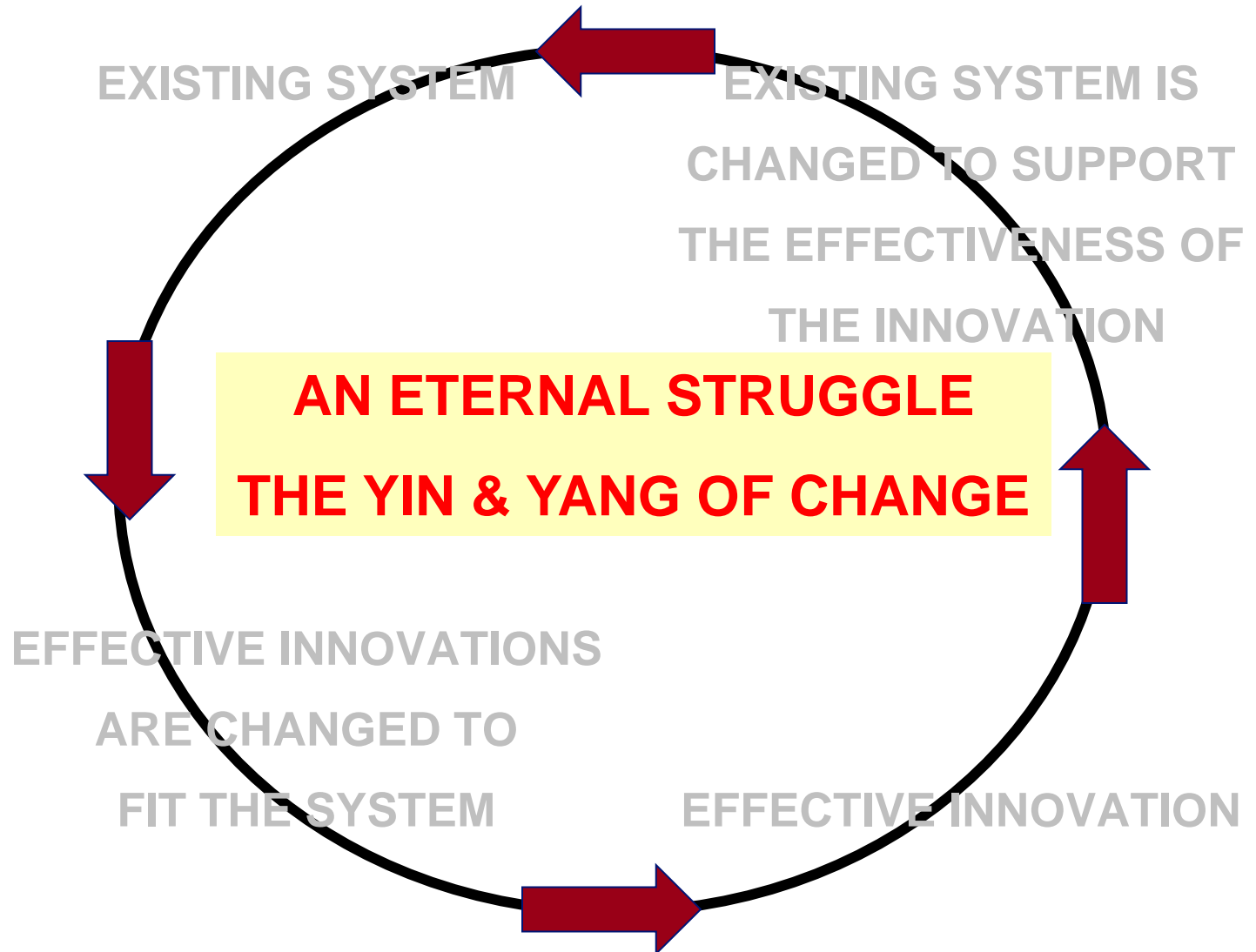
 **What area of the State would be best to select as a Transformation Zone?**

 **Why?**

Moving the Indicators



Moving the Indicators



Implementation Science

-  **Some fundamental features of implementation, organization change, and system transformation**

Implementation Science

**“In theory there is no difference
between theory and practice;
in practice, there is.”**

***Jan L. A. van de Snepscheut
Computer Scientist***

The Innovation

Academic Systems

Behavioral Systems

Intensive, Individual Interventions

- Individual Students
- Assessment-based
- High Intensity
- Of longer duration

1-5%

Intensive, Individual Interventions

- Individual Students
- Assessment-based
- Intense, durable procedures

1-5%

Targeted Group Interventions

- Some students (at-risk)
- High efficiency
- Rapid response

5-10%

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Universal Interventions

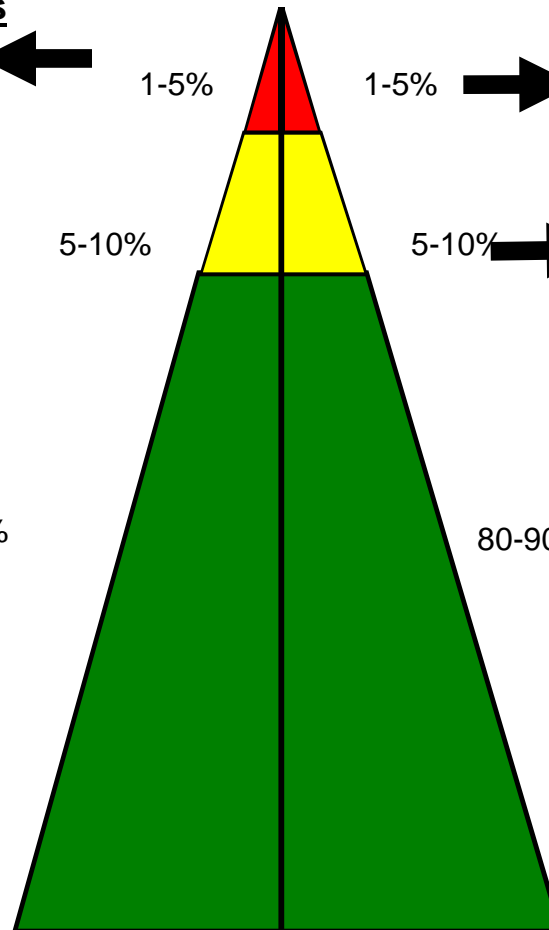
- All students
- Preventive, proactive

80-90%

Universal Interventions

- All settings, all students
- Preventive, proactive

80-90%



Implementation View

Academic Systems

Behavioral Systems

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Universal Interventions

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- Preventive, proactive

Attention,
Effort,
Precision

Implementation Science

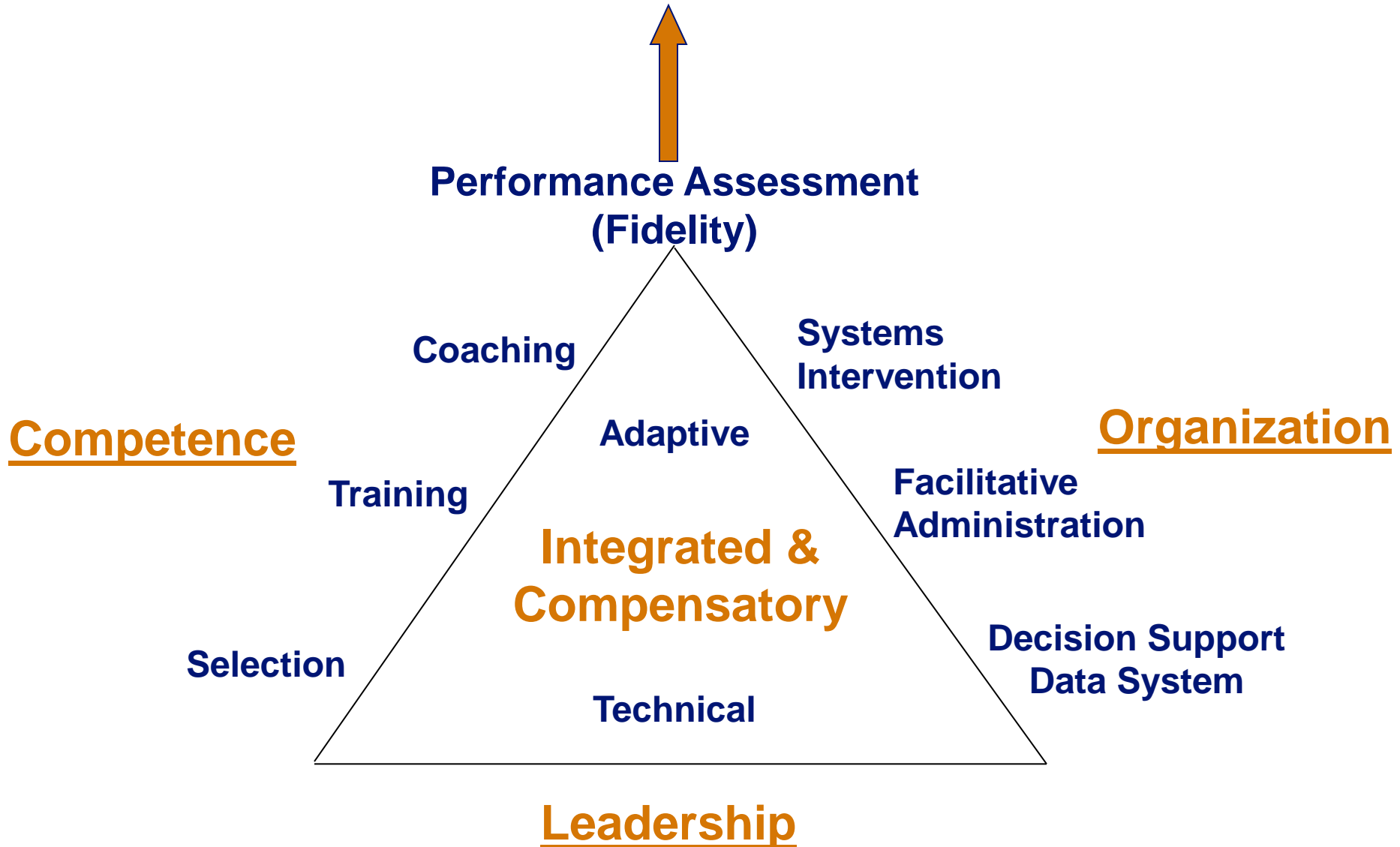
 **Students cannot benefit from interventions they do not experience**

Implementation Science

		IMPLEMENTATION	
		Effective	NOT Effective
INTERVENTION	Effective	Student Benefits	Poor Outcomes
	NOT Effective	Highly variable, often ineffective, sometimes harmful to students, families, and adults	

(Institute of Medicine, 2000; 2001; New Freedom Commission on Mental Health, 2003; National Commission on Excellence in Education, 1983; Department of Health and Human Services, 1999)

Student Benefits



Student Benefits

Stages of Implementation

• Exploration

• Installation

• Initial Implementation

• Full Implementation

• Innovation

• Sustainability

Performance Assessment
(Fidelity)

Coaching

Systems
Intervention

2 – 4 Years

Adaptive

Organization

Facilitative
Administration

Integrated &
Compensatory

Decision Support
Data System

Selection

Technical

Leadership

TABLE TALK

- **What is the biggest source of IMPLEMENTATION expertise we have in the State right now?**
- **How are IMPLEMENTATION people and activities currently funded?**

Moving the Indicators

EBPs currently are used where they are most wanted (boutique uses)

Social impact will come from going where they are most needed (ALL students and families who need help – common usage)

Moving the Indicators

EXISTING SYSTEM



**EFFECTIVE INNOVATIONS
ARE CHANGED TO
FIT THE SYSTEM**

**EXISTING SYSTEM IS
CHANGED TO SUPPORT
THE EFFECTIVENESS OF
THE INNOVATION**



EFFECTIVE INNOVATION

Moving the Indicators

- To scale up interventions...
- We must build implementation capacity and...
- Establish new State and federal infrastructures to support implementation, organization change, and system transformation

SISEP Center

State Implementation and Scaling up of Evidence-based Practices (SISEP)

Dean Fixsen, Karen Blase, Rob Horner, George Sugai

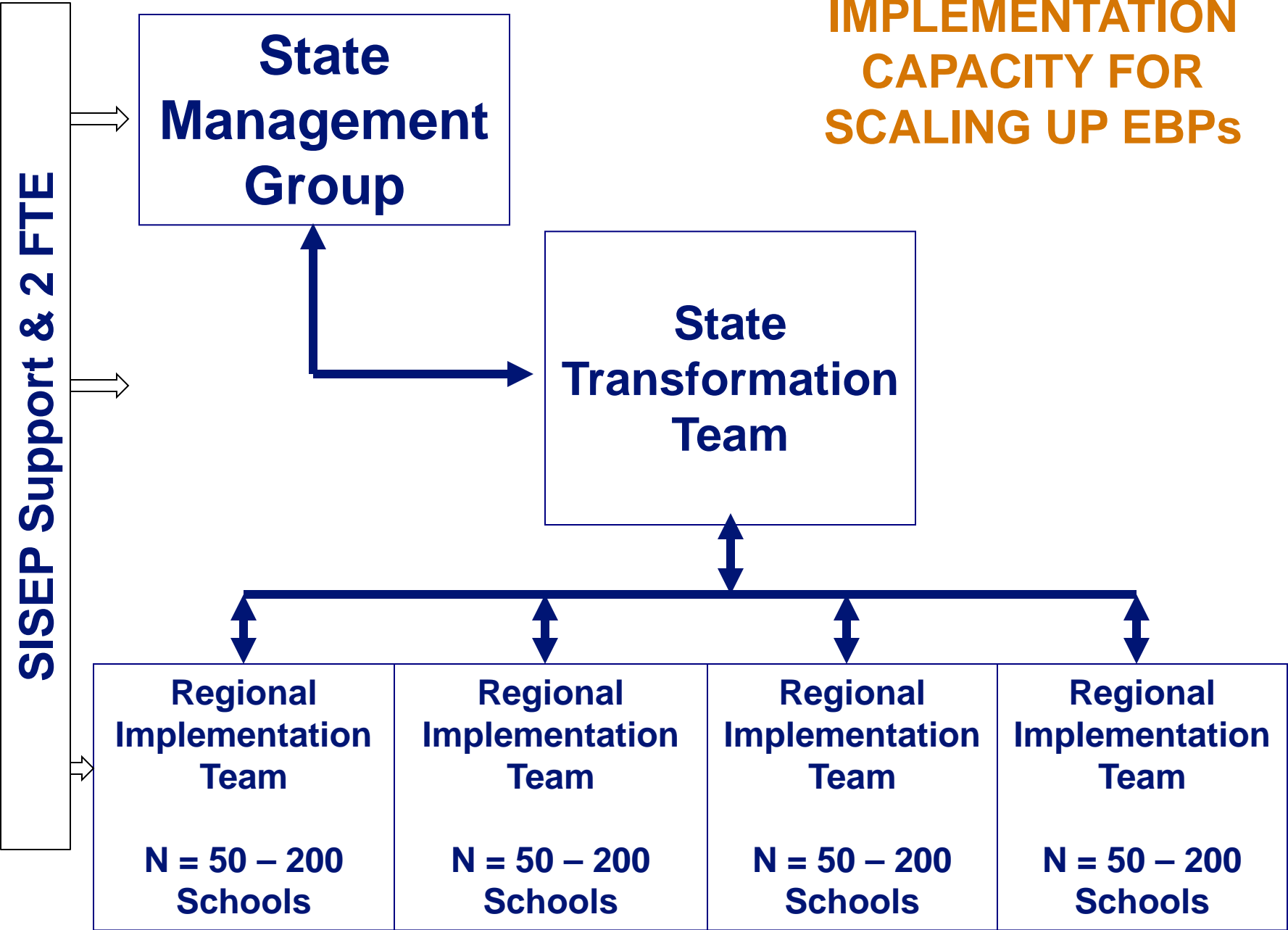
www.scalingup.org

“Resources”

➤ Concept paper

➤ Annotated bibliography

**IMPLEMENTATION
CAPACITY FOR
SCALING UP EBPs**



**State
Management
Group**

**State
Transformation
Team**

**Regional
Implementation
Team**

**N = 50 - 200
Schools**

**Regional
Implementation
Team**

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Schools**

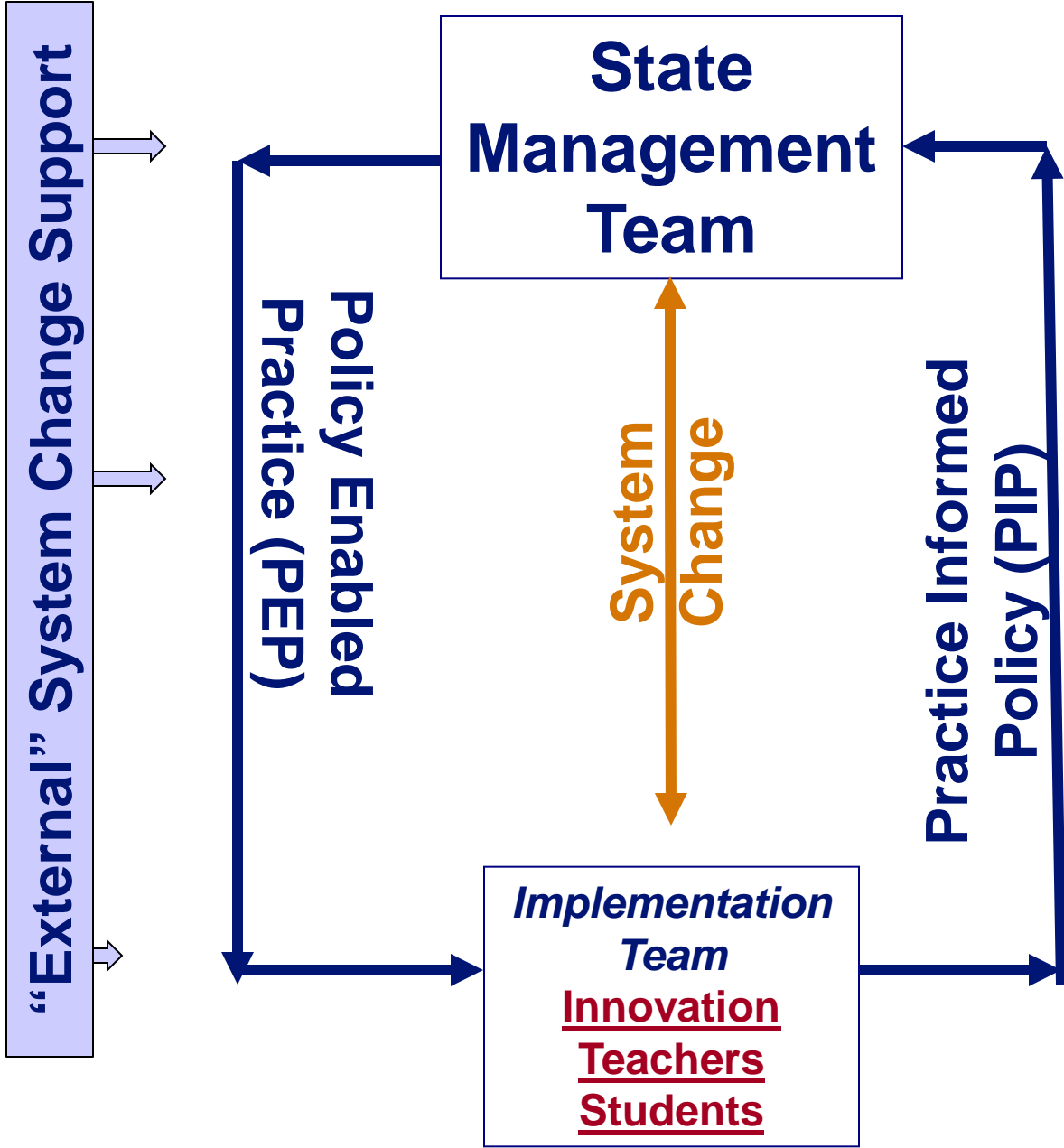
**Regional
Implementation
Team**

**N = 50 - 200
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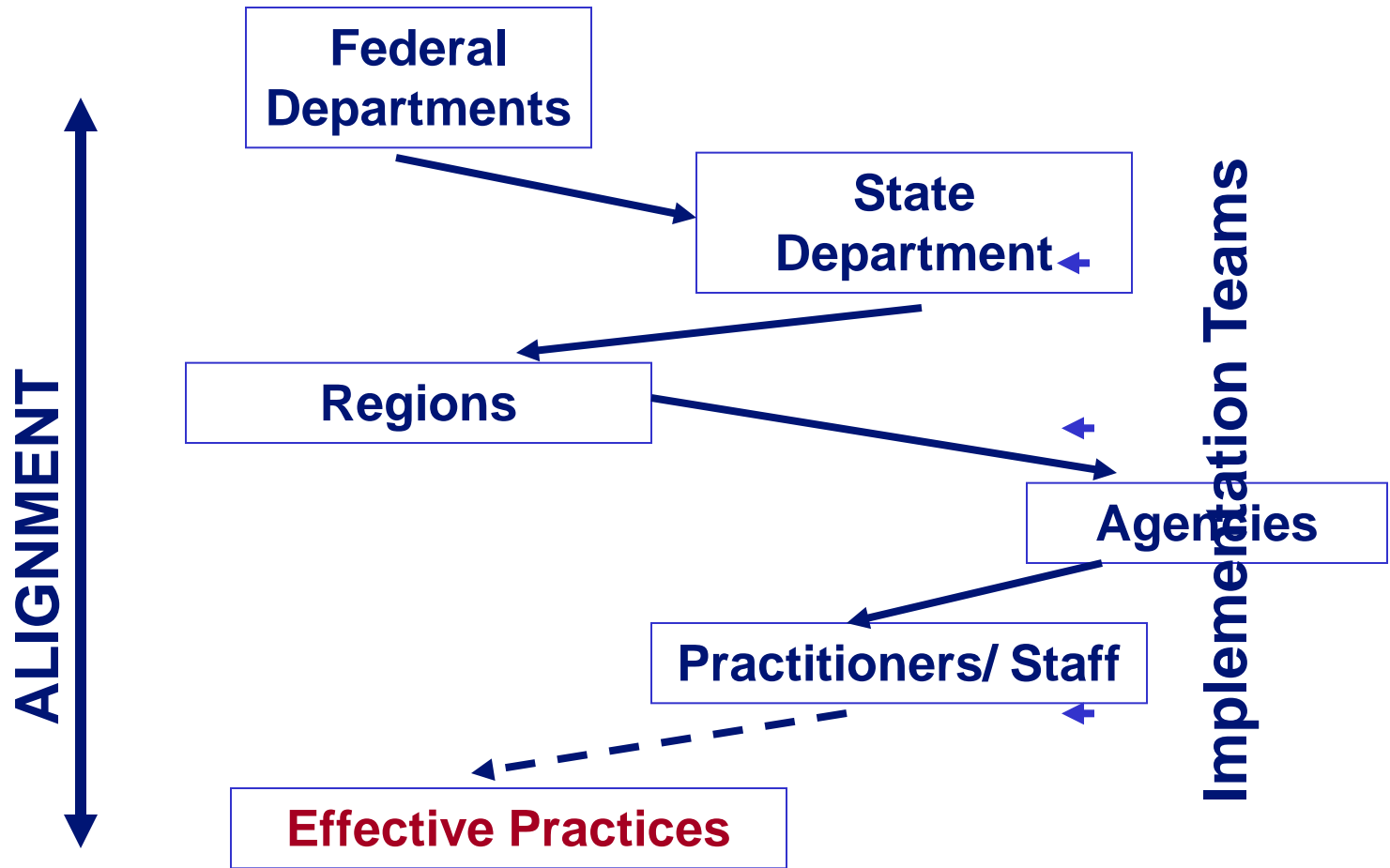
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SISEP Support & 2 FTE

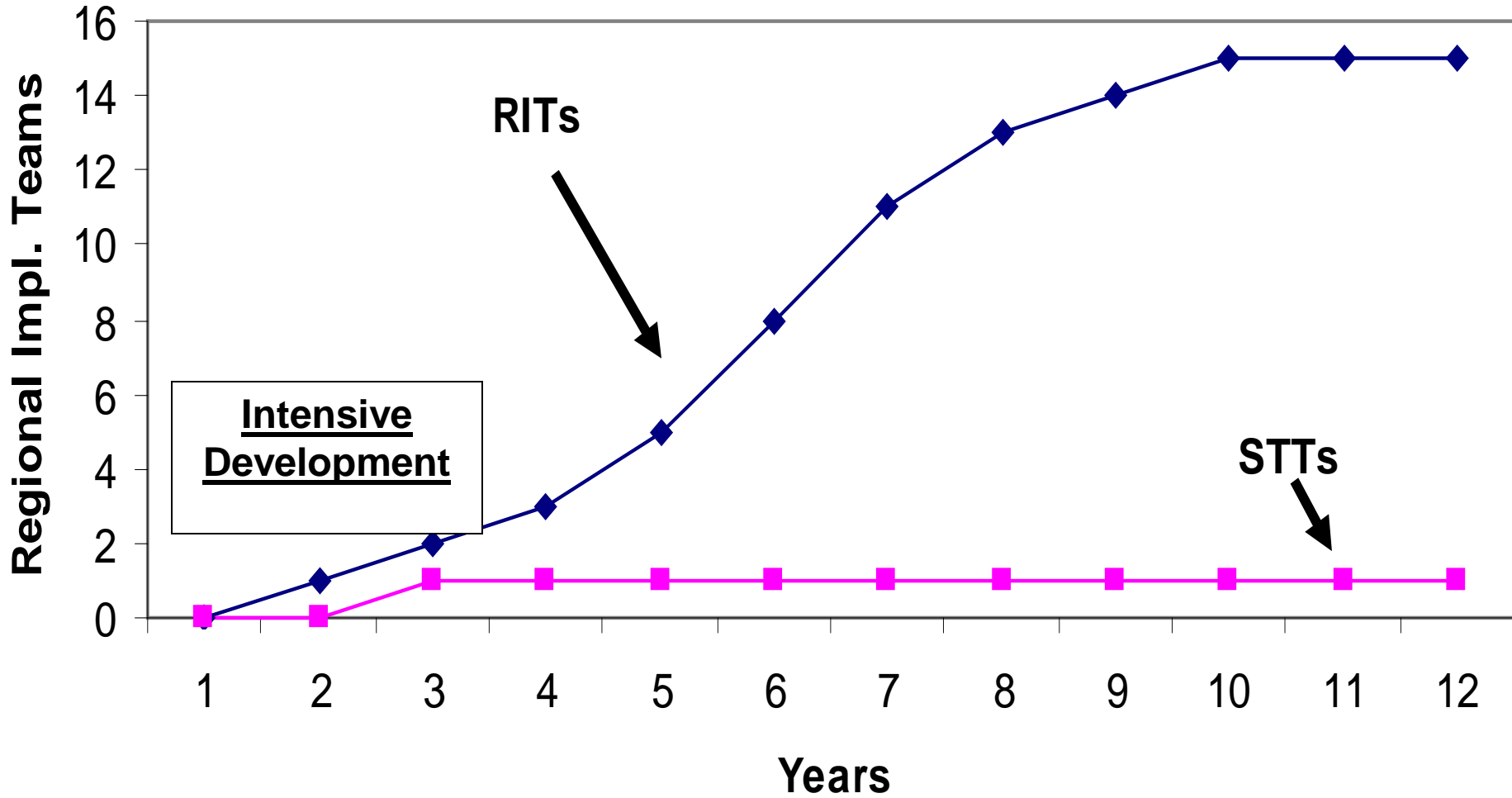


System Alignment





FORM SUPPORTS FUNCTION


State Capacity Development



System Change

-  **Organized transformation zones and implementation teams currently do not exist in States.**
-  **Thus, the capacity for making full and effective use of evidence-based programs and other innovations does not exist in State systems of education.**

System Change

 **The science of implementation, organization change, and system transformation is growing and applied “best practices” have been identified.**

System Change








- **Given the recent advances in knowledge...**
- **it is now possible for States to deliberately and systematically develop and make effective use of an implementation infrastructure...**
- **to accomplish educationally and socially significant outcomes for children statewide.**

System Change

- **Start with the end in mind**
- **What will it take to:**
 - **Make statewide use of education innovations...**
 - **That produce increasingly effective outcomes...**
 - **For the next 50 years?**

Thank You

We thank the following for their support

-  **Annie E. Casey Foundation (EBPs and cultural competence)**
-  **William T. Grant Foundation (implementation literature review)**
-  **Substance Abuse and Mental Health Services Administration (implementation strategies grants; NREPP reviews; SOC analyses of implementation; national implementation awards)**
-  **Centers for Disease Control & Prevention (implementation research contract)**
-  **National Institute of Mental Health (research and training grants)**
-  **Juvenile Justice and Delinquency Prevention (program development and evaluation grants)**
-  **Office of Special Education Programs (Capacity Development Center contract)**
-  **Agency for Children and Families (Child Welfare Leadership Development contract)**

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**www.scalingup.org
<http://nirn.fpg.unc.edu/>
<http://www.fpg.unc.edu/~nirn/resources/publications/Monograph/>**

For More Information

Implementation Research: A Synthesis of the Literature



Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M. & Wallace, F. (2005). *Implementation Research: A Synthesis of the Literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).

Download all or part of the monograph at:

<http://www.fpg.unc.edu/~nirn/resources/detail.cfm?resourceID=31>