

# Utilizing Implementation Science to Scale-Up Innovations

**Mishele Stein Carroll | MTSS Systems Integration Coordinator  
Office of Learning Supports | Teaching and Learning Unit  
Nov 9<sup>th</sup> | Colorado Society of School Psychologists**

# Office of Learning Supports (OLS)

## Vision

**Every Colorado school and district will successfully implement and sustain a multi-tiered system of supports to improve academic and social emotional outcomes for every student.**

## Mission

**The mission of the Office of Learning Supports is to shape, develop, and increase the collective capacity of schools and districts to implement and sustain a multi-tiered system of supports, through a problem-solving culture that integrates data, practices, and systems which improve educational outcomes for every student.**

# Outcomes

## Learners will:

- Review essential features of a Multi-Tiered System of Supports (MTSS) Innovation
- Identify the key concepts and obstacles to implementation science
- Understand why implementation science is important to the field of school psychology
- Receive resources for getting started with scaling-up innovations using implementation science

# Themes Affecting Education:

Multi-tiered Systems, Evidence-based Practices,  
Organizational Systems

Equity

Quality

Efficiency

# MTSS

Shared Leadership; Data-Based Problem Solving and Decision Making;  
Layered Continuum of Support; Evidence-Based Instruction, Intervention,  
and Assessment Practices; Universal Screening and Progress Monitoring;  
Family, School, and Community Partnering

## Behavior Supports

SWPBS/PBIS

## Academic Supports

Instruction &  
Curriculum

## Additional Learning Supports

Family, School, and Community Partnerships

School-wide Discipline  
& Climate, Classroom  
Management,  
Function-Based  
Support, etc.

Literacy, Numeracy,  
Social Studies,  
Physical Sciences,  
History, Physical  
Education, Art, etc.

School-Based Mental  
Health,  
Health & Wellness

Every student, every staff member, every family, every school setting



Academic  
Continuum

Behavior  
Continuum

MTSS  
Integrated  
Continuum

# “Multi-Tiered System of Supports...”

Whole-school, data-driven,  
prevention-based framework for  
improving learning outcomes for  
EVERY student through a layered  
continuum of evidence-based  
practices & systems

# Focus on the System

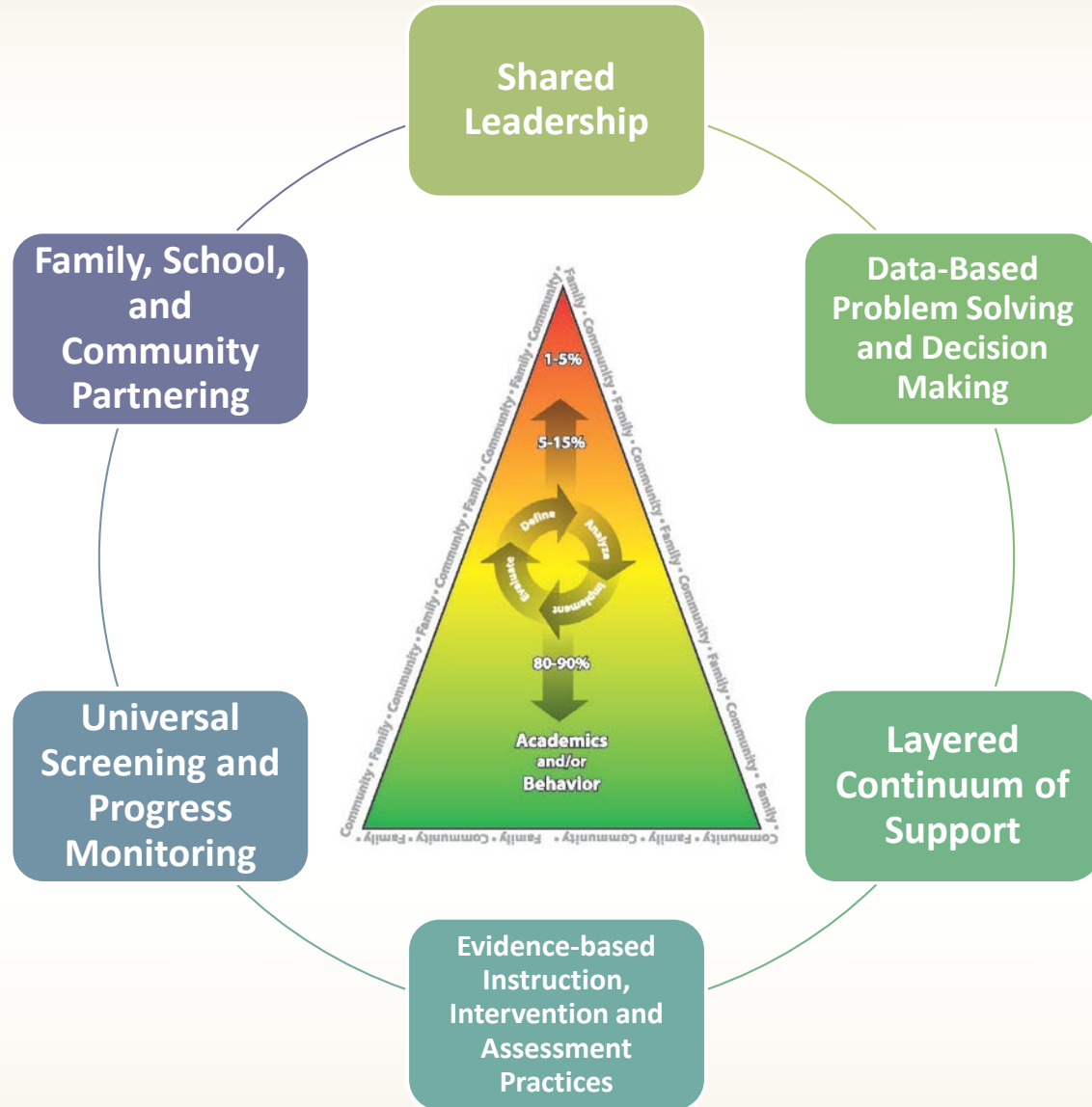
To get to “all”,  
we must pay attention  
to “every”.

We must pay attention  
to the “system” first, and then,  
we move to small groups  
and individuals.

Dave Tilly



# Colorado MTSS Essential Components



# Improve Student Outcomes

- **Improve student outcomes by making full and effective uses of a variety of evidence-based programs and other effective innovations in education**
- **Establish system capacity to reach all students**



# Results Matter

**“All organizations and systems are designed, intentionally or unwittingly, to achieve precisely the results they get”**

R. Spencer Darling

# What is Implementation Science?



# *Reflections on MTSS and Implementation Science*

## George Sugai

- Professor, Special Education, University of Connecticut
- Director, Center for Behavioral Education & Research
- Co-Director, Center on PBIS

## Karen Blase

- State Implementation & Scaling-up of Evidence-based Practices (SISEP)
- National Implementation Research Network (NIRN)
- Both located at the Frank Porter Graham Child Development Institute at the University of North Carolina

## Steve Goodman

- Director, Michigan Behavior and Learning Supports Initiative (MiBLSi)
- State of Michigan Department of Education

# Implementation Science

- **Letting it happen**
  - Individual accountability
- **Helping it happen**
  - Individual accountability
- **Making it happen**
  - Team accountability

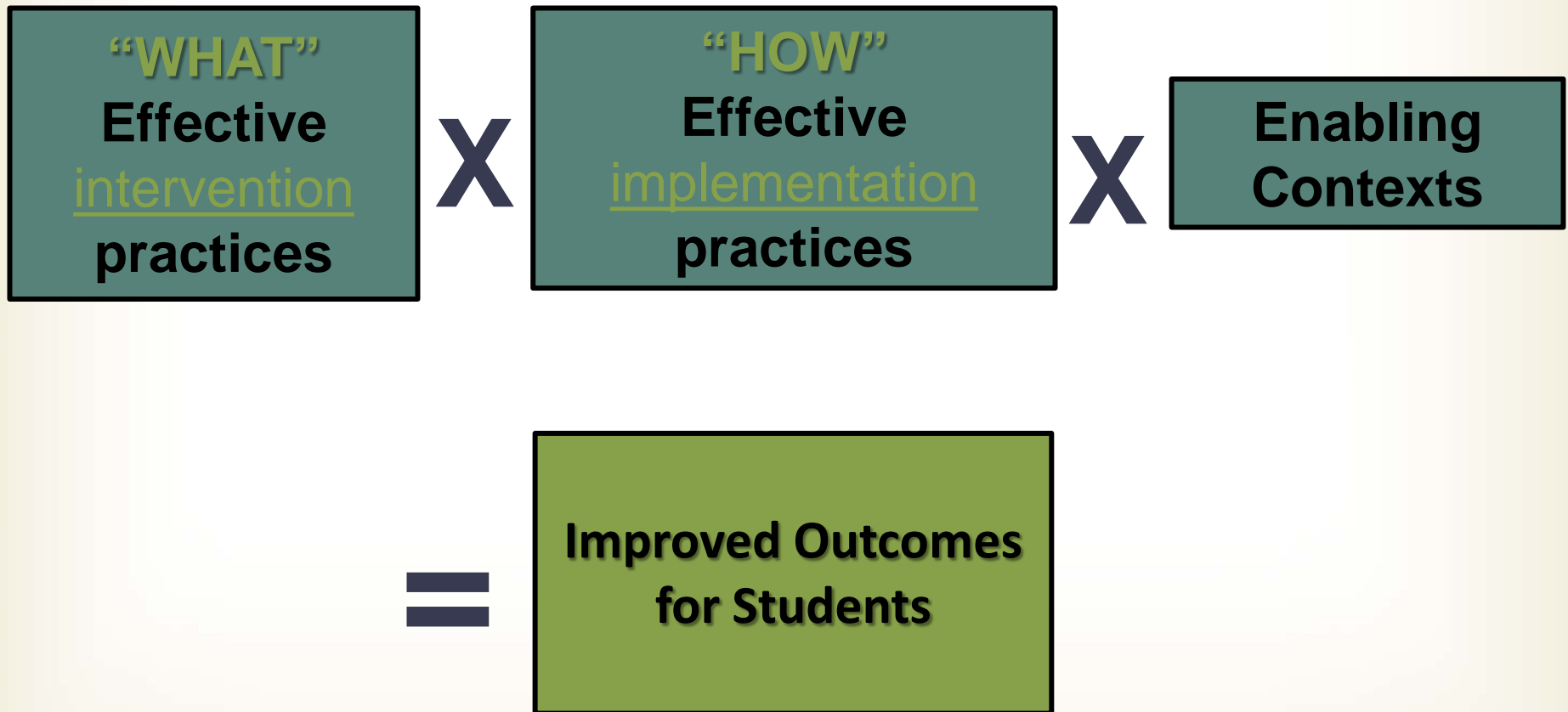


NIRN

COLORADO  
DEPARTMENT of EDUCATION

cde

# Formula for Success



Return on  
Investment is  
3-12 times  
greater

# Implementation Teams

## IMPLEMENTATION

INTERVENTION

	Implementation Team	NO Implementation Team
Effective	<b>80%, 3 Yrs</b>	<b>14%, 17 Yrs</b>
	Effective use of Implementation Science & Practice <b>Making it Happen!</b>	Letting it Happen Helping it Happen

Fixsen, Blase, Timbers,  
& Wolf, 2001

Balas & Boren, 2000 Green  
& Seifert, 2005



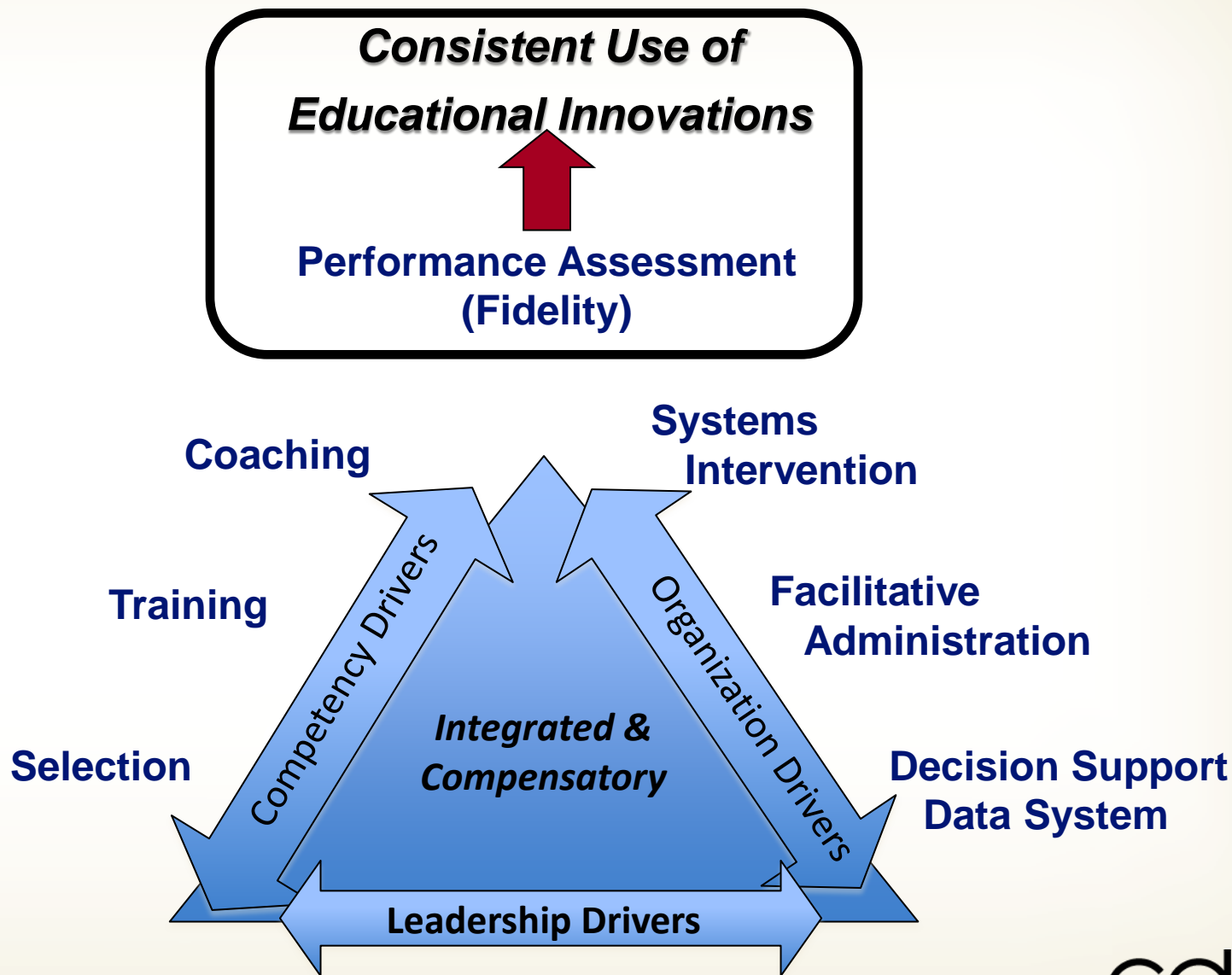
# Implementation Science

- An intervention is one thing
- Implementation is something else all together
- It's like serum and a syringe
  - Each is necessary
  - Neither one is useful without the other




NIRN



# Improved Educational Outcomes



# Stages of Implementation (S. Goodman of MiBLSi—Adapted from D. Fixsen)

Focus	Stage	Description
 Should we do it!	Exploration/Adoption	Decision regarding commitment to adopting the program/practices and supporting successful implementation.
	Installation	Set up infrastructure so that successful implementation can take place and be supported. Establish team and data systems, conduct audit, develop plan.
 Work to do it right!	Initial Implementation	Try out the practices, work out details, learn and improve before expanding to other contexts.
	Elaboration	Expand the program/practices to other locations, individuals, times. Adjust from learning in initial implementation.
 Work to do it better!	Continuous Improvement/Regeneration	Make it easier, more efficient. Embed within current practices.

# Lessons Learned

- You don't get to skip any stages
- Do the right work for the stage
- Exploration and installation are neglected
- Always in “exploration” with somebody, somewhere
- Not linear – iterative and overlapping



NIRN, 2012

# Barriers to Effective Implementation

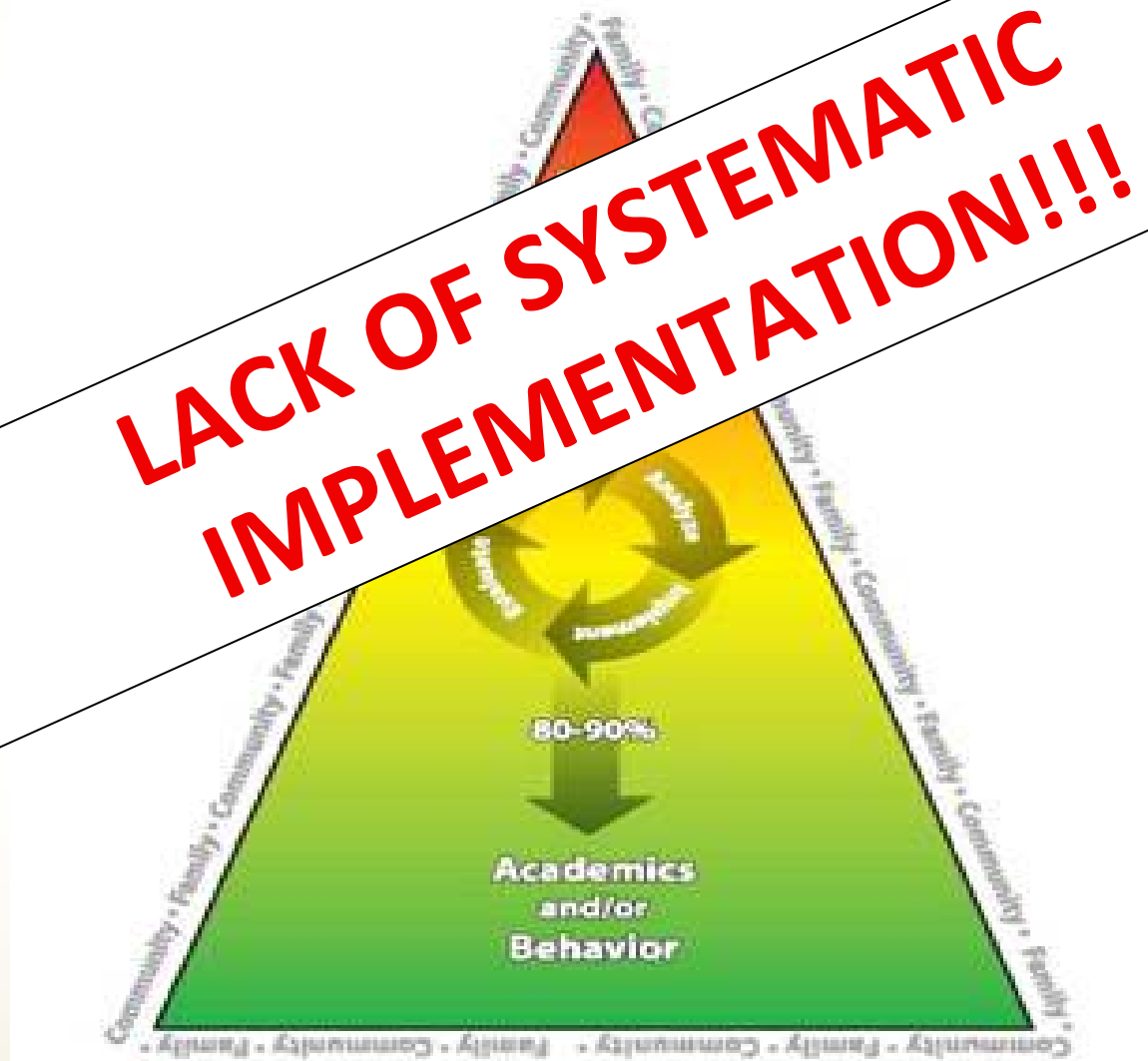
- Failure to achieve CONSENSUS
- School culture is ignored
- Purpose is unclear
- Lack of ongoing communication
- Unrealistic expectations of initial success
- Failure to measure and analyze progress
- Participants not involved in planning



AND the Number 1 barrier is...

# Colorado Multi-Tiered System of Supports

**LACK OF SYSTEMATIC IMPLEMENTATION!!!**



# Unintended Outcomes

- Being unaware of ineffective implementation and continuing despite lack of results
- Awareness of ineffective results and perception that the theory behind the program is flawed, not the implementation of the program

# Implementation Science and School Psychologists





# Implementation Science and the School Psychologist

**In school psychology, a primary goal is provision of services that will support the development of students; therefore, implementation of procedures and programs with evidence of the potential to accomplish this goal should be of primary importance.**

Forman, S.G., Coddling, R.S., Reddy, L.A., Sanetti, L.M.H., Shapiro, E.S., Gonzales, J.E., Rosenfield, S.A., Stoiber, K.C., 2013)

# School Psychology Quarterly, 2013

## ■ Implementation Science and School Psychology

- Forman, S.G., Coddling, R.S., Reddy, L.A., Sanetti, L.M.H., Shapiro, E.S., Gonzales, J.E., Rosenfield, S.A., Stoiber, K.C., 2013
  - Implementation science has special significance for school psychology because of the context for the delivery of school psychology services, including the importance of increasing the effective use of evidence-based interventions in schools (Kratochwilk, 2007), the diverse population with which school psychologists work (Ortiz, Flanagan, & Dynda, 2008); and the significance of organizational characteristics, cultures, and climate in school functioning and the ability of the school psychologist to function effectively (Forman & Selman, 2011).

# NASP Communique, May 2013

- **A Guide for Ensuring Quality Implementation of Evidence-Based Practices in Schools**
  - DuBois, Holloway, Valentine, & Cooper, 2002; Smith, Schneider, Smith, & Ananiadou, 2004; Wilson, Lipsey, & Derzon, 2003
    - Research on multiple types of school initiatives including anti-bullying, mentoring, and drug prevention programs indicates that schools that monitor implementation achieve their outcomes to a significantly greater degree than schools that do not.

# Redesigning Future Education

## Effective practices

- Implementation of school-wide reading program that utilizes effective reading instruction
- Implementation of PBIS with fidelity

= **QUALITY**

## Equitable practices

- Every student receives instruction and support strategies based on area of need for growth

= **EQUITY**

## Efficient practices

- Utilizing professional development and coaching
- Utilizing implementation science

= **EFFICIENCY**

# Challenges

- **Students cannot benefit from interventions they do not experience**
- **Teachers and staff have to actually use effective innovations skillfully if students are to benefit**
- **Verbal advocacy ≠ Actual use**

NIRN

# “You can’t workshop the world!”

(Fullan, 2010)

Training Components	Knowledge	Skill Demonstration	Use in the Classroom
Theory and Discussion	10%	5%	0%
Demonstration in Training	30%	20%	0%
Practice & Feedback in Training	60%	60%	5%
Coaching in Classroom	95%	95%	95%

Joyce & Showers (2002)

# How Do We Make It Happen?



# What did you hear?

## **Vision**

- Common mission, goals, language
- Hospitable environment

## **Skills**

- Effective professional development
- Coaching and feedback

## **Incentives**

- Positive outcomes

## **Resources**

- Time and support

## **Action Plan**

- Monitor progress and implementation fidelity



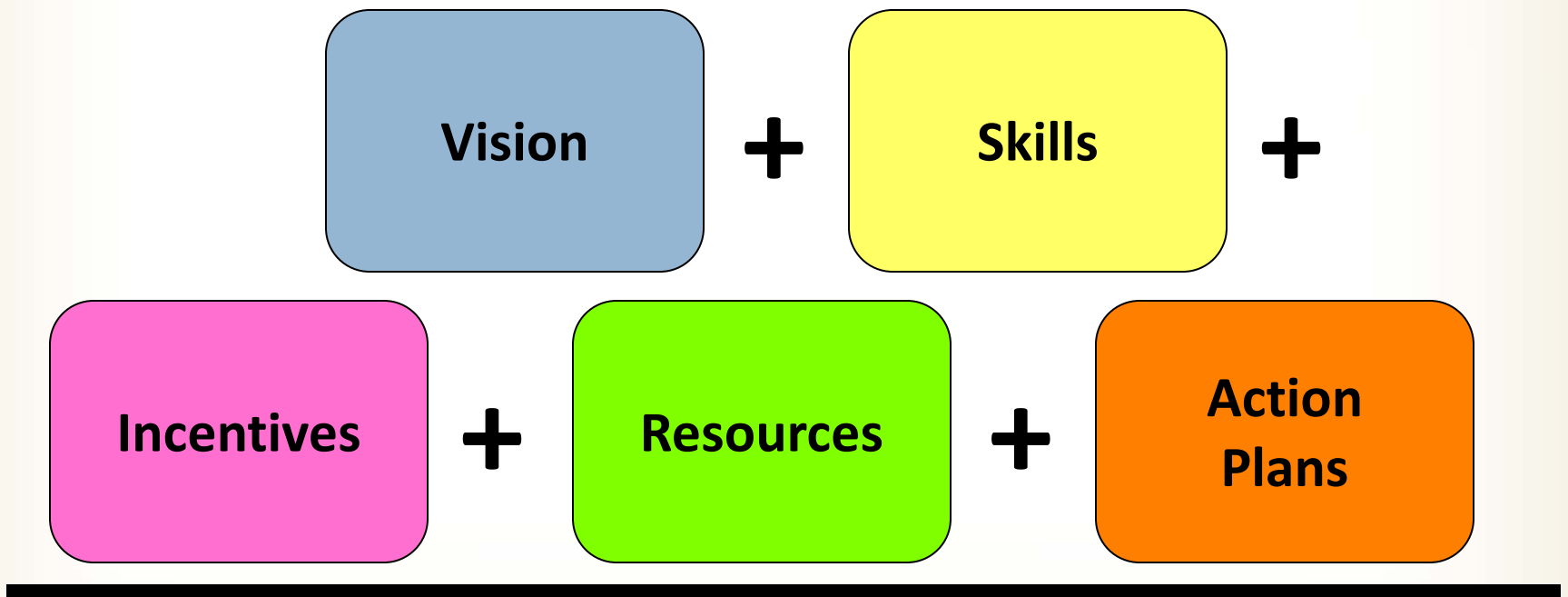
# Exploration State Goals

- Create readiness for change
- Examine degree to which effective innovations meet the academic and behavioral needs of students
- Determine whether implementation is feasible
- Identify priorities (no more than 3 or 4)

**PAY NOW OR PAY LATER!**

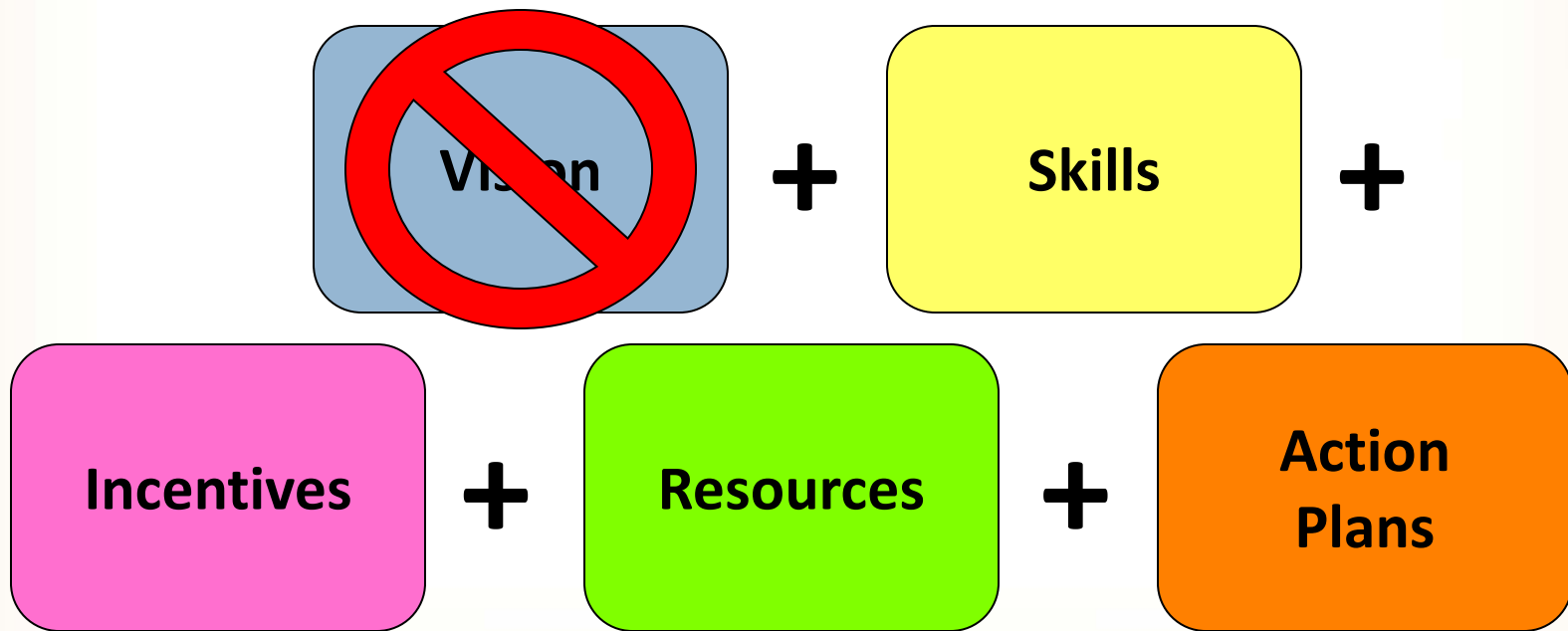
NIRN

# Managing Complex Change



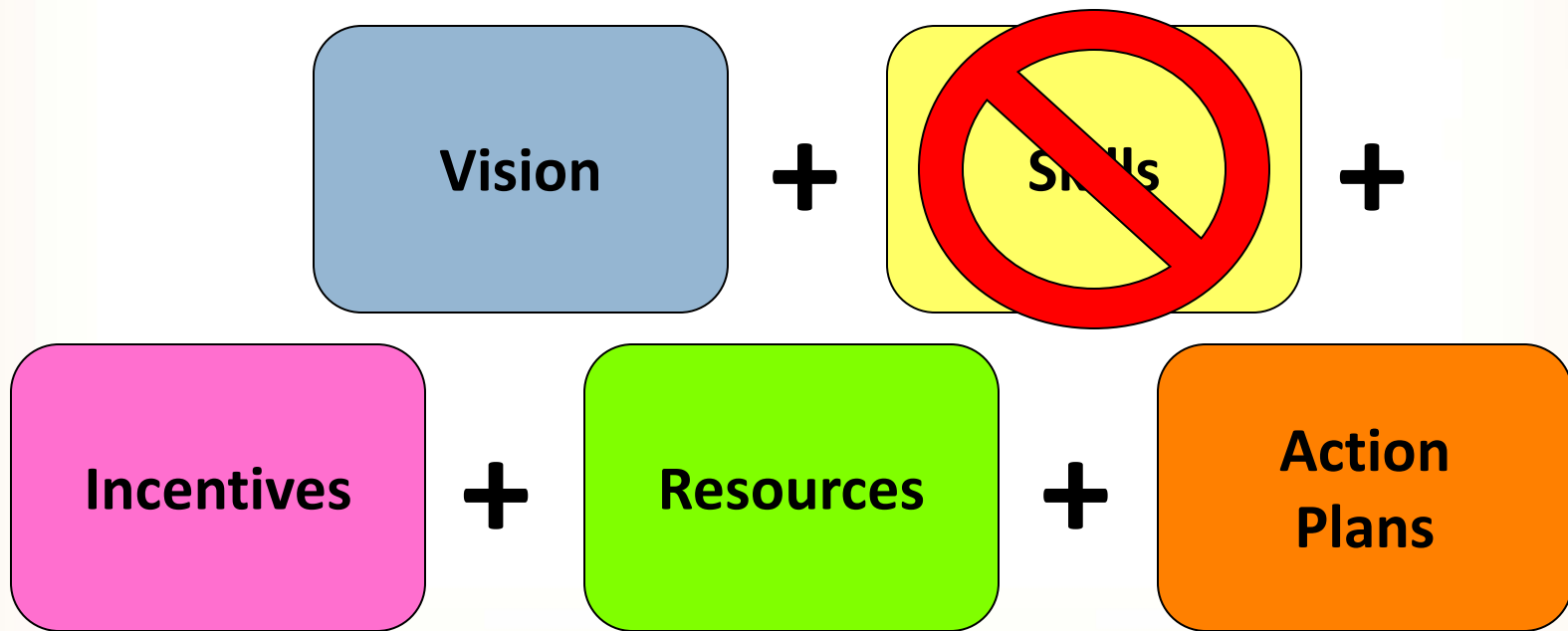
# CHANGE

# Managing Complex Change



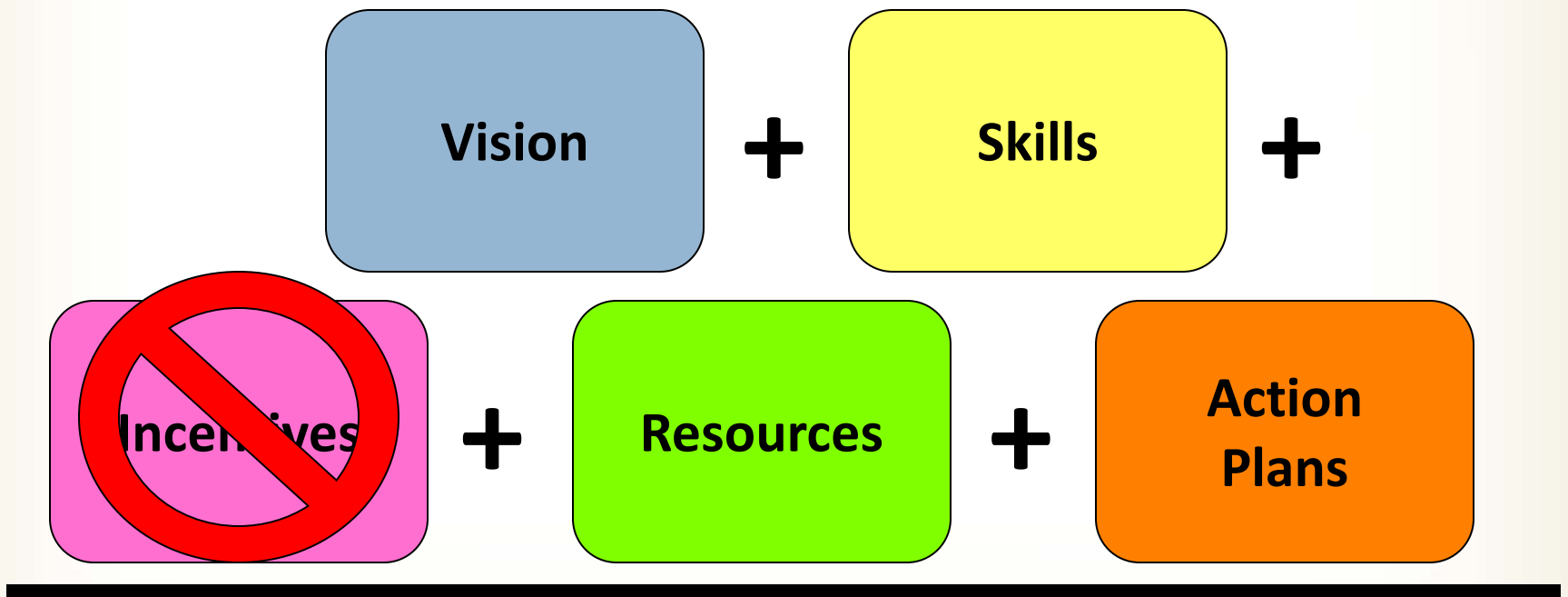
## CONFUSION

# Managing Complex Change



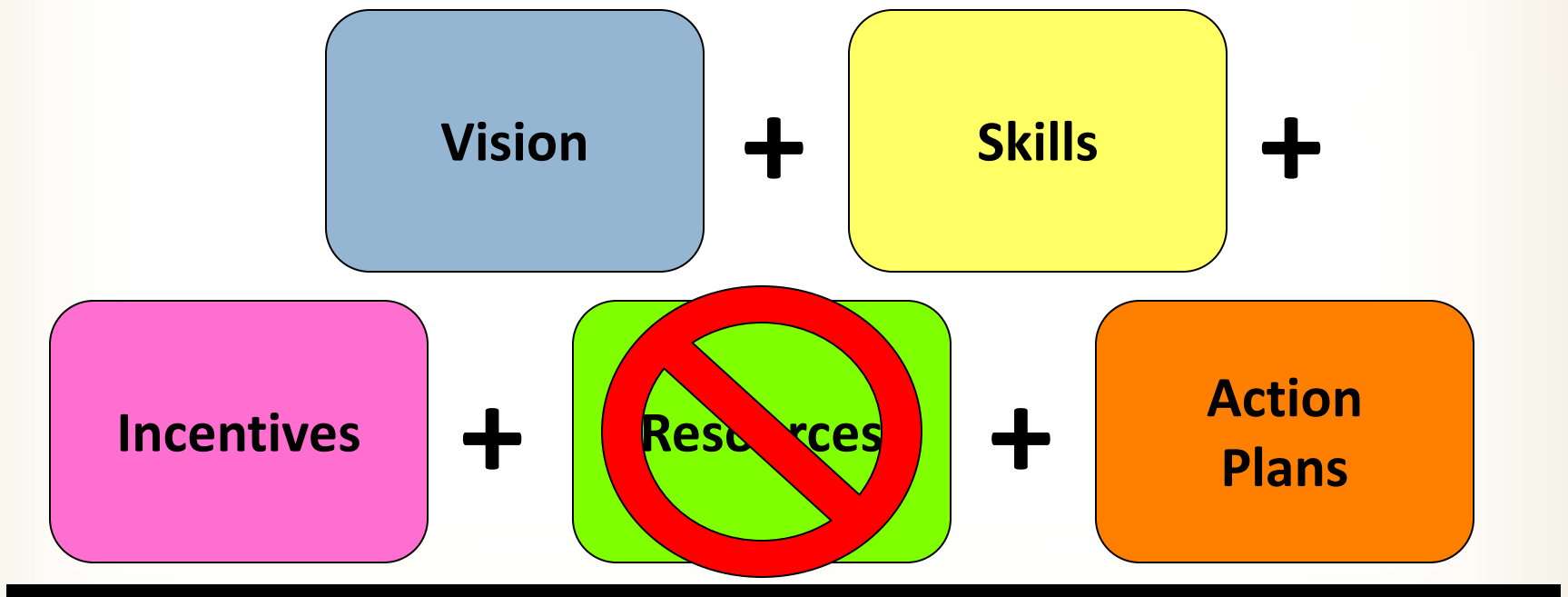
**ANXIETY**

# Managing Complex Change



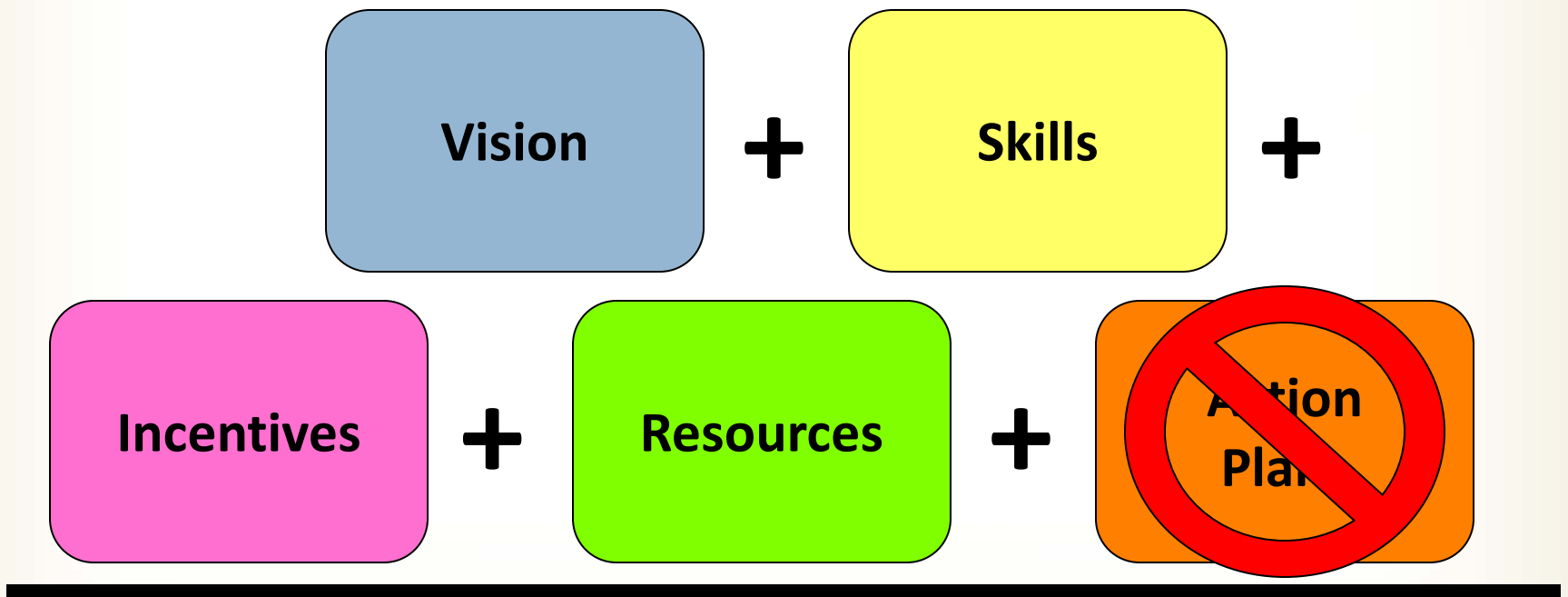
**SLOW CHANGE**

# Managing Complex Change



**FRUSTRATION**

# Managing Complex Change



## FALSE STARTS

# Implementation Analysis

- **For each innovation component ask:**
  - Where are we now?
    - What does your outcome data tell you about student achievement and the system of supports
  - Where do we want to be?
  - Where are our gaps?
    - Consensus/Buy-in
    - Infrastructure
    - Resources
    - Skills/Practices
  - What are our strengths?



# For example...

- **Strong system-wide PBIS implementation as evidenced by:**
  - 95% or higher on past two years of SET assessment
  - Discipline referrals (ODRs) had decreased significantly over the past two years
  - PBIS implementation team meets regularly, is multi-disciplinary, and represents a strong skill set
- **Rtl implementation false starts as evidenced by:**
  - Trying to shift from being seen as entry way into special education
  - Beginning to see decreases in number of students needing support
  - Rtl team meets sporadically and is mostly comprised of special educators and support services staff

# Resources for School Psychologists

- **Office of Learning Supports**

- MTSS Guiding Questions Documents

- **Websites**

- National Association of School Psychologists [www.nasponline.org](http://www.nasponline.org)
- Positive Behavioral Interventions and Supports [www.pbis.org](http://www.pbis.org)
- National Implementation Research Network <http://nirn.fpg.unc.edu/>

- **Books**

- *Switch*
- *Making it Stick*
- *Tipping Point*

- **Publication Brief**

- Interconnected Systems Framework for School Mental Health

# Contact Information

**Mishele Carroll**

**MTSS Systems Integration  
Coordinator**

**[Carroll\\_M@cde.state.co.us](mailto:Carroll_M@cde.state.co.us)**

**303-866-6251**

**Erin Sullivan**

**PBIS Statewide Coordinator**

**[Sullivan\\_E@cde.state.co.us](mailto:Sullivan_E@cde.state.co.us)**

**303-866-6768**