

A2: The Role of Implementation Science in Starting and Sustaining Effective Practices in Schools

Angus Kittelman, University of Missouri
Stephanie St. Joseph, May Institute



19TH ANNUAL NEW ENGLAND POSITIVE BEHAVIOR SUPPORT FORUM /PBIS: Research to Practice/

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Angus Kittelman, PhD
University of Missouri

- Areas of Expertise
- PBIS/MTSS
 - Implementation Science
 - Emotional and behavioral disorders



Stephanie St. Joseph, PhD
The May Institute

- Areas of Expertise
- PBIS/MTSS
 - Mental health
 - Students with intensive support needs

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Overview

- Overview of PBIS and Implementation Science
- Active Implementation Frameworks
 - Selecting Effective Practices
 - Teaming
 - Stages of Implementation
 - Implementation Strategies
 - Continuous Improvement
- Case study

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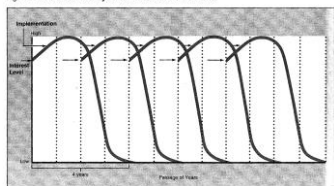
Roles

- What is your level?
 - School, District, Region, State, Federal
- What is your role?
 - Teacher, EA, or related services
 - School administrator
 - District trainer or coach
 - District administrator
 - State or regional trainer or coach
 - Other

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Why Care About Implementation?

Figure 1. Birth and Death Cycles of Educational Innovations

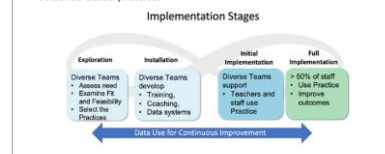


(Latham, 1988)

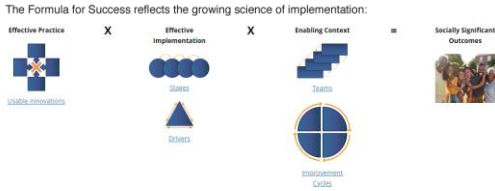
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Implementation is Not Linear

Figure 1 Four implementation stages needed for sustainability of evidence-based practices



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Implementation Science Series for Teaching Exceptional Children



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Activity: Think, Pair, Share



- What decisions guide selection of practices (e.g., behavior, academic, mental health) in your organization?

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“An important factor regarding the adoption rate of an innovation is its compatibility with the values, beliefs, and past experiences of individuals in the social system.”

Everett M. Rogers, Diffusion of Innovations

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Selecting Effective Practices

When selecting effective practices consider:

- Empirical evidence
- Expertise
- Core values
- Contextual fit



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Empirical Evidence

- National Technical Assistance Centers
- Counsel for Exceptional Children
- What Works Clearinghouse
- Peer-reviewed journals



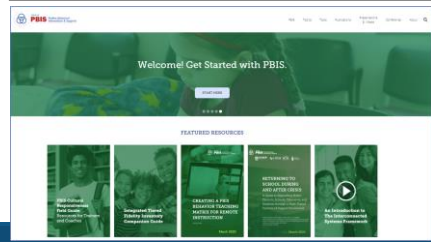
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Table 1 Available Resources From Reputable Groups

Group	URL Link	Description
What Works Clearinghouse (WWC) by the Institute of Education Sciences (IES)	http://ies.ed.gov/ncee/wwc	Repository providing empirical evidence on a wide range of educational programs, products, practices, and policies
National Technical Assistance Center on Transition (NTACT)	http://transitionta.org	National technical assistance center providing information, training, and resources on transition from special education services for students with disabilities
Center on Positive Behavioral Interventions and Supports (PBIS)	http://pbis.org	National technical assistance center providing information and resources on multitiered approach to social, emotional, and behavior support for all students
National Center on Intensive Intervention (NCII)	https://intensiveintervention.org	National technical assistance center providing information, training, and resources on intensive intervention for reading, mathematics, and behavior

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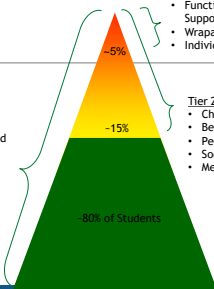
Center on Positive Behavioral Interventions and Supports



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PBIS Practices

- Tier 1 Practices:**
- Teaching school-wide expectations
 - Acknowledging Expected Behavior
 - Responding to Behavior Errors



- Tier 3 Practices:**
- Function-Based Behavior Support Plans
 - Wraparound Supports
 - Individual Counseling

- Tier 2 Practices:**
- Check-in/Check-out (CICO)
 - Behavior Contracting
 - Peer Tutoring
 - Social Skills Groups
 - Mentoring

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Core Values

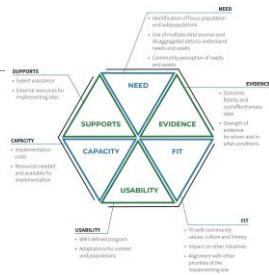
- Practices align with values of district/school
- Build consensus and support for implementation
- Fosters engagement from community



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Contextual Fit

- Contextual fit asks:
 - Admin support for practice
 - Intervention skillsets
 - Logistical resources
 - Personal values

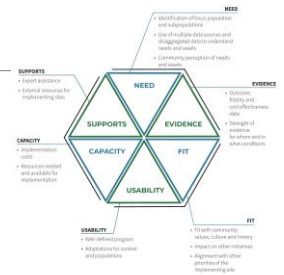


NIRN NATIONAL IMPLEMENTATION RESEARCH NETWORK

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Discuss

- Use the Hexagon Tool
- What considerations stand out with a practice your organization is implementing?



NIRN NATIONAL IMPLEMENTATION RESEARCH NETWORK

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Effective Teaming for Implementation

Primary Roles

- Supporting educator implementation of practices
- Directing support for students



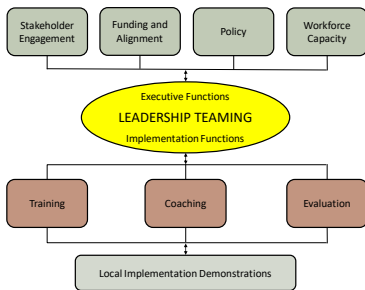
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Role of Teams

- Team composition depends on implementer actions
- Common membership:
 - Educators
 - Behavior and academic specialists
 - Administrators
 - Family and community members

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Supporting Implementation



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PBIS Meetings and Frequencies

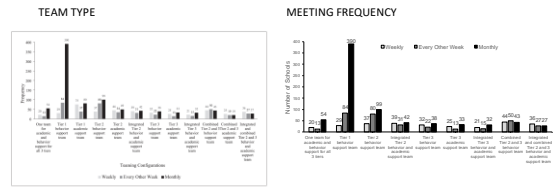


Figure 2. Meeting Frequency Across Different Training Configurations.

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Tier 2 & 3 Interventions Within PBIS

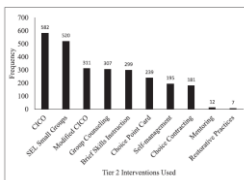


Figure 3. Tier 2 Interventions Commonly Reported. Note: CICO = Check-In Check-Out; SEL = Social Emotional Learning.

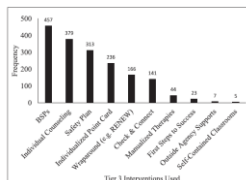


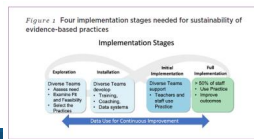
Figure 4. Tier 3 Interventions Commonly Reported. Note: BIP = Behavior Support Plan.

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Stages of Implementation

Primary Roles

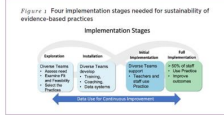
- 4 stages of implementation
- Roles of teams vary by implementation stage



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Exploration Stage

- Teams:
 - Assess needs
 - Hexagon tool
 - Selecting practice
 - Communicate intentions with stakeholders



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Installation Stage: Part 1

- Teams focused on:
- Initial training and coaching
 - Data systems and data-based decision making
 - Strong classroom systems
 - Policies
 - Funding



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Installation Stage: Part 2

- Acquiring / repurposing resources
- Resources commonly include:
 - Data
 - Personnel
 - Materials
 - Space

Allocating Resources for Tier 2 and 3 Implementation Within Positive Behavioral Interventions and Supports

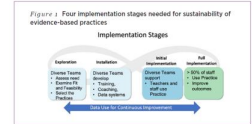
Presented by: University of Oregon
 Institute for Education Policy Studies
 Center for Positive Behavioral Interventions and Supports

Resource	Key Considerations and Support Strategies
Personnel	1. Identify current personnel and their roles. 2. Determine if current personnel have the skills and capacity to implement the practice. 3. Identify personnel who are interested in learning more about the practice. 4. Determine if current personnel have the time and capacity to implement the practice. 5. Identify personnel who are interested in learning more about the practice. 6. Determine if current personnel have the time and capacity to implement the practice.
Materials	1. Identify current materials and their roles. 2. Determine if current materials are appropriate for the practice. 3. Identify materials that are needed for the practice. 4. Determine if current materials are available. 5. Identify materials that are needed for the practice. 6. Determine if current materials are available.
Space	1. Identify current space and its use. 2. Determine if current space is appropriate for the practice. 3. Identify space that is needed for the practice. 4. Determine if current space is available. 5. Identify space that is needed for the practice. 6. Determine if current space is available.

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Initial Implementation Stage

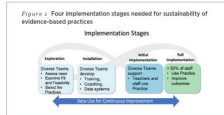
- Begins when practitioners attempt to use practice(s)
- Fragile stage trying new things and the difficulties with changing old ways
- Implementation Drivers support adoption and move to full implementation



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Full Implementation Stage

- Reached when at least 50% of the practitioners meet **fidelity**
- Improved outcomes demonstrated
- To ensure success:
 - Continue training and coaching
 - Use feedback loops
 - Use of data for improvement



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Effective Implementation: Strategies

Ensuring Effective Implementation of Evidence-Based Practices

Susan A. Davis, Michael E. Fixsen, and Robert M. Taylor

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Implementation Drivers (Strategies)

- Competency Drivers
 - Selection
 - Training
 - Coaching
- Leadership Drivers
- Organizational Drivers
 - Addressing barriers
 - Improve policies
 - Collect/use data for decision making



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Activity: Think, Pair, Share



- What are the attributes or traits of a good coach?
- Are there different kinds of coaching activities?
- What is the difference between training and coaching?



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Coaching as a Competency Driver

- Coaching is a key implementation driver
- Examined two coaching mechanisms on teacher use of classroom management practices
- Prompting and performance feedback



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Defining the Logic Model

Definition of coaching based on observable and measurable behaviors

- Coaching:** The supportive activities conducted after initial training that increase the speed and precision with which practices are implemented under typical conditions
- Training:** Process by which new skills and knowledge are taught to individuals

Traits of coaches?

- Knowledgeable
- Trustworthy
- Effective communicator
- Able to build rapport

Four functions of coaching?

- Prompting
- Performance feedback
- Fluency building
- Adaptation

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Participants	Grade Level	Number of Students	Years of Experience	Coached Skill	Uncoached Skill
Teacher 1	3	26	1	Precorrection	Academic OTRs
Teacher 2	4	28	1	Behavior Specific Praise	Precorrection
Teacher 3	1	27	1	Behavior Specific Praise	Academic OTRs
Teacher 4	1	28	1	Behavior Specific Praise	Academic OTRs
Teacher 5	2	22	1	Precorrection	Academic OTRs
Teacher 6	5	27	2	Behavior Specific Praise	Academic OTRs
Teacher 7	3	30	5	Behavior Specific Praise	Precorrection

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Example of Behavior Specific Praise

Behavior Specific Praise Statements	
Verbal praise delivered contingent upon student(s) demonstration of appropriate behavior. Praise statement includes statement of specific behavior student(s) demonstrated	
Examples	Non-examples
<ul style="list-style-type: none"> "Great job lining up quietly with your hands to your sides" "I like the way Group 2 is on task and working quietly" "Ella, excellent job following directions the first time" 	<ul style="list-style-type: none"> General verbal praise such as "good job" or "well done" Gestures such as high-fives or thumbs up (unless accompanied with specific verbal praise) Giving points/awards/tokens without specific verbal praise

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Performance Feedback

Coach-delivered performance feedback **only**

- 15-min observation; 10-min coaching session per week
- Every session included delivery of (a) reinforcing feedback and (b) corrective feedback
 - No prompting was delivered
 - No feedback on any skill **other than the targeted skill** was provided

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Performance Feedback Part 1

1. Coach begins by reviewing targeted behavior management skill.
2. Coach provides reinforcing feedback with 1-2 specific examples of how the teacher used the skill successfully in the lesson.
3. Coach provides corrective feedback with a replacement skill or 1-2 suggestions/tips for improvement.
4. Coach prompts teacher to identify methods for increasing the use of targeted behavior management skill into lessons.
- 5a. Coach provides praise following the teacher identifying another strategy to implement the behavior of focus.

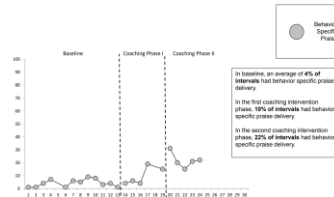
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Performance Feedback Part 2

- 5b. If teacher defines an incorrect or low impact strategy, the coach will prompt with a question or suggestion for another strategy.
6. Coach uses data when delivering performance feedback.
7. Coach does not provide feedback on any other behavior management skills.
8. Coach ensures coaching session is no longer than 10 minutes.
9. Coach thanks the teacher, adds additional praise, and reminds teacher of next scheduled observation.

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Delivering Performance Feedback Part 3



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Prompting

Coach-delivered prompting **only**

- One 15-min observation; one email prompt per week
- Prompt delivered to increase rate of use of targeted skill
 - No performance feedback was delivered
 - No prompting on any skill **other than the targeted skill** was provided

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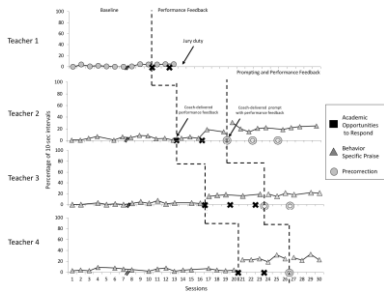
Delivering Prompting

Hi _____,

Thanks so much for letting me observe your reading block this morning. We are working on increasing your delivery of behavior specific praise throughout the lesson. Praise can be delivered in many ways and to many different types of student groups (i.e., individual students, small table groups, whole class). For example, when you transition your students from their desks to the carpet, you could say "I see Maddie walking quietly and sitting in her assigned carpet spot – well done!" or "I noticed that Table Group 2 followed directions immediately – good work!"

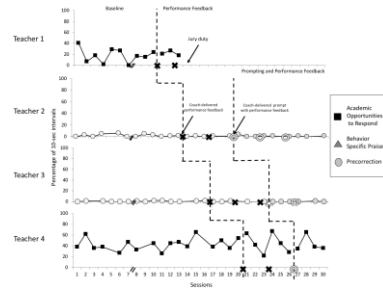
I really enjoy being in your classroom and am looking forward to our next observation on Tuesday, February 7 at 9:30.

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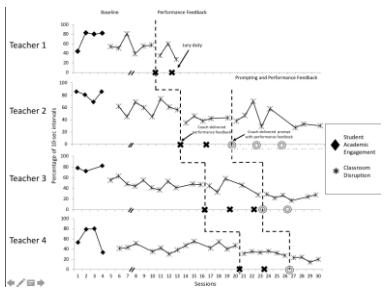
Performance Feedback + Prompting

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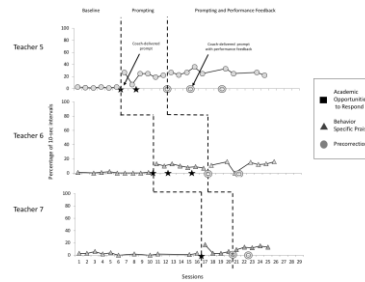
Performance Feedback + Prompting

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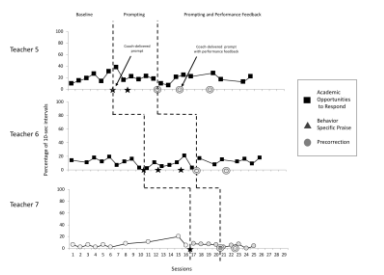
Performance Feedback + Prompting

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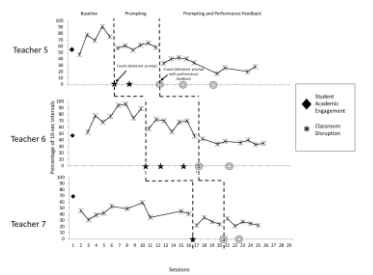
Prompting + Performance Feedback

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Prompting + Performance Feedback

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Prompting + Performance Feedback

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Improvement Cycles



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Improvement Cycles in Implementation

- Gives teams a structure to plan, test, evaluate, and adapt ongoing implementation of practices
- Quantitative and qualitative data for decision making
- Action plans used to measure implementation and adaptations



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PDSA Cycles

- **Plan phase:** teams identify a problem of focus, select a strategy to improve implementation, and develop an action plan for implementation
- **Do phase:** teams implement the action plan
- **Study phase:** teams evaluate whether the implementation strategy resulted in desired effects
- **Act phase:** Teams decide whether to continue with ongoing implementation, adjust, or abandon implementation for a new strategy

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A Case Study

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Selecting a Practice

The need: The school district's SWIS indicated that the highest behavior was "Out of Bounds/Cutting Class"

- Examining fit/feasibility:** Connected to MTSS goals
- **MTSS/SEL:** Increase on-task behavior in the classroom
 - **MTSS/Academic:** Increase academic engagement

Evidence-based Intervention: Classroom Observation System (Putnam & Handler, 2000) which focused on high-leverage teaching practices to increase engagement

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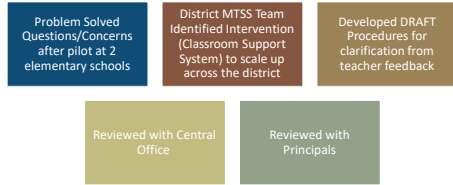
MTSS administrator and educational consultant met to problem solve and decided to pilot the process in one of the elementary schools, with the aid of the MTSS team (admin, school psych, special ed teacher, BCBA, school counselor)

Goal: Increase student engagement in the classroom as measured by 25% reduction in ODRs for cutting class for each school by June 20XX

Teaming & Goal Setting

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Stages of Implementation



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District Training Plan

- Completed**
- District MH Staff and Coaches Overview
 - Elementary MH Staff and Coaches In Depth
 - Elementary All Staff
 - Secondary level MH Staff and Coaches In Depth
- Next Steps**
- Middle school ALL Staff 1/18/XX
 - High School ALL Staff 2/8/XX
 - Alternative school ALL Staff 1/10/XX
- All staff will receive training
 - Volunteer be requested at each school to undergo observation
 - Immediate feedback given, and repeated until 80% on-task behavior is reached
 - Followed by fading of observations and coaching
 - Once comfortable, the process would roll-out to all staff in the school

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Implementation Strategies: Tying Interventions for Staff

Tier 1

- Faculty-wide classroom support PD

Tier 2

- Individual classroom support training PD
- Two or three observations with feedback

Tier 3

- More intensive direct individual classroom support Training PD
- More than three observations with feedback
- Role-playing the evidence-based practices

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Improving Implementation

Data review for each school as well as district-level

Conducted additional training for new staff

Changed name to “Classroom Support System” to drive home the point that it was not being done for evaluative purposes

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Conclusions

- Implementation is a science
- Implementation is not linear
- Teams need to build readiness to move from each implementation stage
- Coaching is a powerful implementation strategy

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References

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- Horner, R. H., Kittelman, A. (2021). Advancing the large-scale implementation of applied behavior analysis. *Behavior and Social Issues, 30*, 94–105. <https://doi.org/10.1007/s42822-021-00049-z>
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