



Evaluating Implementation to Support Students & Schools

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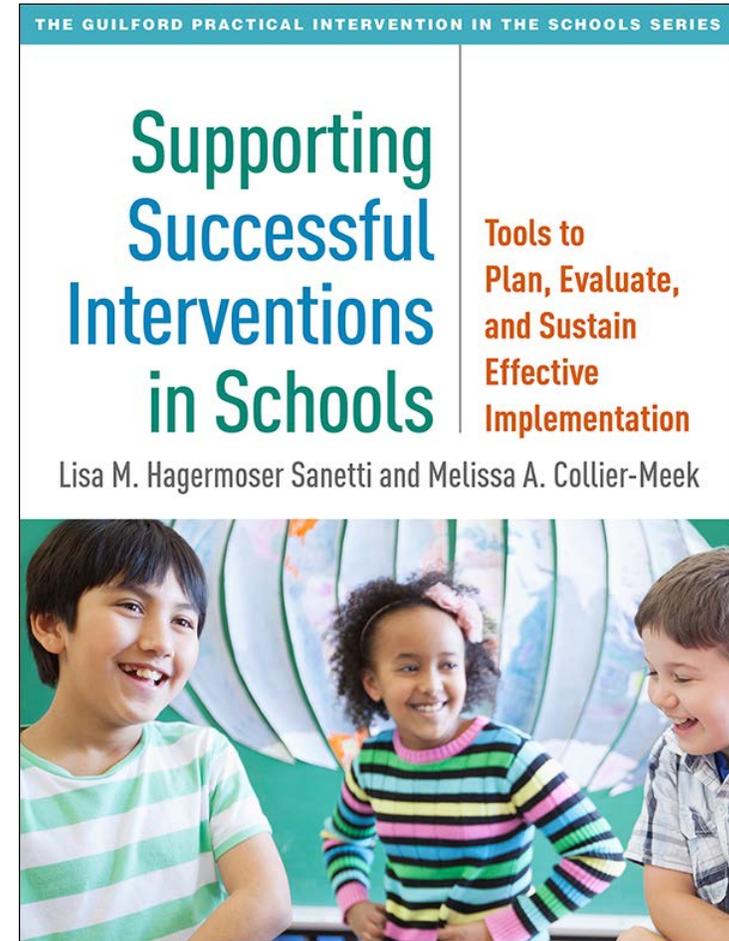
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University of Massachusetts-Boston

**PENT
FORUM
2020**

Conflict of Interest Statement

- Drs. Sanetti & Collier-Meek published a Guilford text on supporting implementation of school-based interventions, which they receive royalties from.



Learning Objectives:

- *Attendees will learn how to develop intervention fidelity tools for any intervention and make a plan to monitor implementation*
- *Attendees will practice how to graph and analyze intervention fidelity data alongside student outcomes to determine next steps*
- *Attendees will apply their intervention fidelity knowledge and practice to develop concrete action items to support a case in their setting*

Agenda

- What is intervention fidelity and why should we care?
- Assess intervention fidelity
 - Creating intervention fidelity tools
 - Making a plan for collecting intervention fidelity data
- Evaluate intervention fidelity data
- Analyzing intervention fidelity and student outcome data

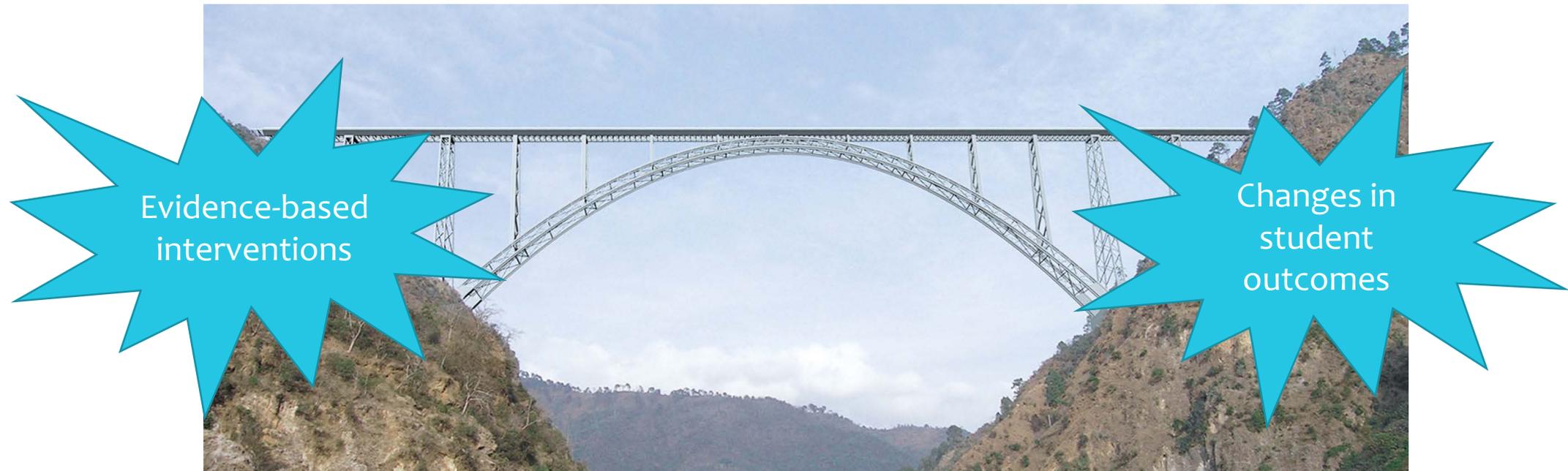




Intervention Fidelity

What is it? Why should I care?

What do we mean when we say intervention fidelity?



What do we mean when we say intervention fidelity?

Adherence

- To what extent does the implementer deliver the intervention?

Quality

- To what extent is the implementer enthusiastic, timely, and responsive when delivering the intervention?

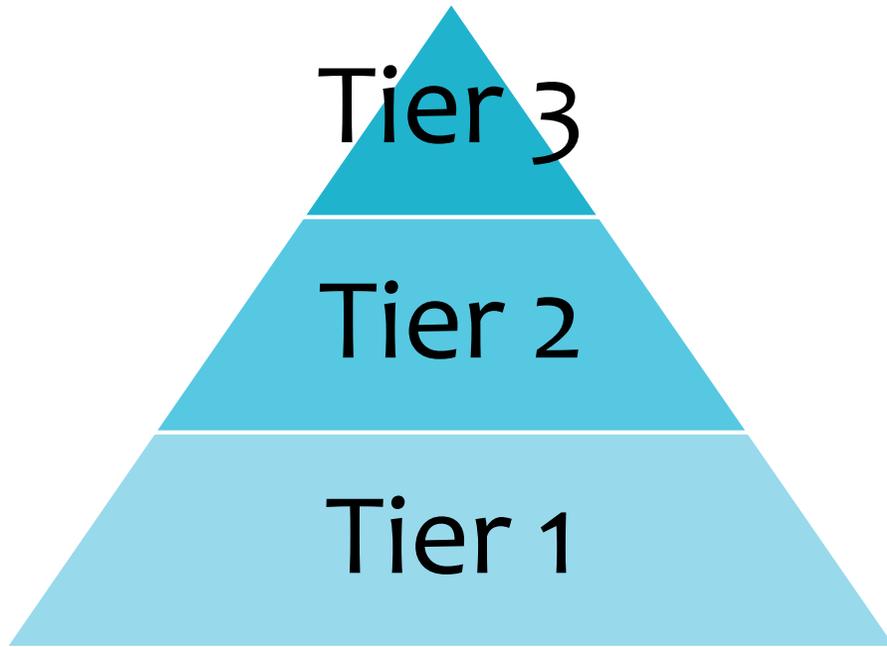
Exposure

- How much time does the implementer spend delivering the intervention?

Why is intervention fidelity important?

- Bridge between evidence-based interventions and student outcomes
- Key to quick and positive improvements in student outcomes
- Ensures we're not wasting our time on ineffective practices, extra meetings
- Documents that we did what we said (especially important for SPED)

Why is intervention fidelity *especially important* for multi-tiered systems of support (MTSS - PBIS, RTI)?



- What happens if a group of students isn't doing well despite having MTSS at our school?
- We provide more intensive intervention support!
- But, what if the issue was actually implementation?!

Background

- 7th Grade MTSS Team
 - You!
 - Math Teacher: Mr. Feeny
 - English Teacher: Mr. Turner
 - Social Studies Teacher: Ms. Tompkins
 - Check-In/Check-Out Coordinator: Mr. Williams
- Students
 - Corey
 - Topanga

Identify a Learner Concern

- 7th Grade MTSS Team meets to discuss Office Discipline Referrals and grades
- *Behavior concerns: “Disruptive behavior”*
 - Calling out answers, talking about non-academic subjects with peers, walking around the room, using materials not needed for assignments
 - Cory, Topanga

Collect Baseline Data

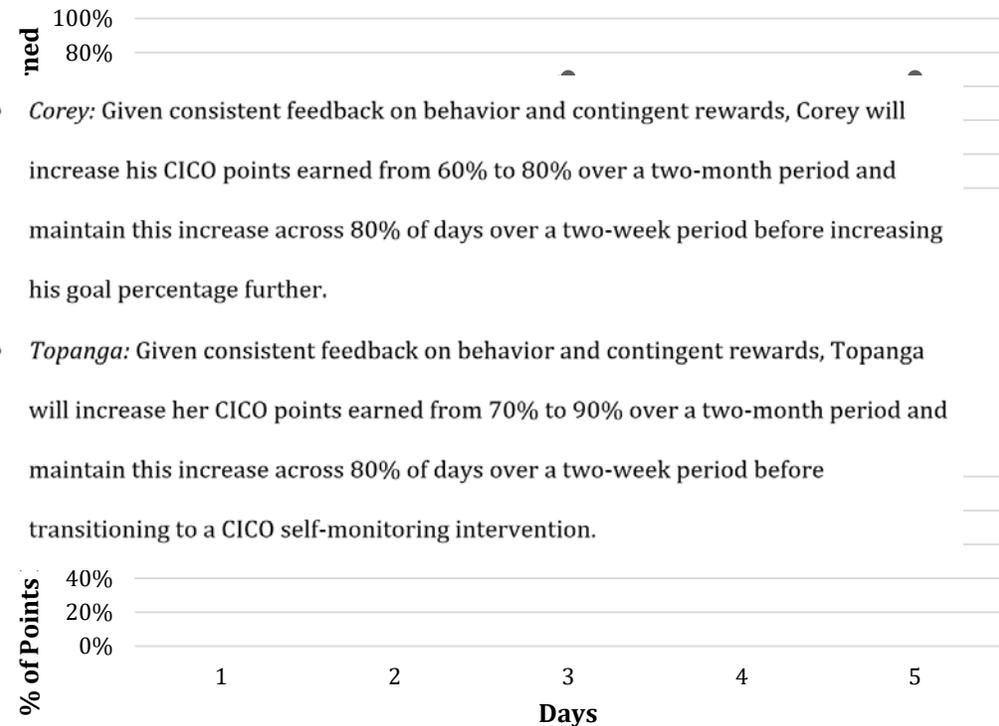
- Teacher ratings (0-2) on following school-wide expectations

	Teacher Initials	Respectful <ul style="list-style-type: none"> Work quietly Raise hand and wait to be called on Use respectful language Focus on self 	Responsible <ul style="list-style-type: none"> Be on time with materials Ask for help when you need it Complete work and use time management 	Safe <ul style="list-style-type: none"> Stay in your seat Keep hands and feet to yourself Maintain personal space Use classroom materials appropriately
Period 1		0 1 2	0 1 2	0 1 2
Period 2		0 1 2	0 1 2	0 1 2
Period 3		0 1 2	0 1 2	0 1 2
Period 4		0 1 2	0 1 2	0 1 2
Period 5		0 1 2	0 1 2	0 1 2
Period 6		0 1 2	0 1 2	0 1 2
Period 7		0 1 2	0 1 2	0 1 2
Total Points		_____ / 14	_____ / 14	_____ / 14
		Overall Points: _____ / 42	Today's %: _____	Goal %: _____

Confirm Concern and Set Goal

- Data collected for one week and summarized
- Review data
 - Behavior:
 - Corey: 60% of points
 - Topanga: 70% of points
- Write SMART goals
 - Specific, Measurable, Attainable, Realistic, Time-based

Corey - CICO Points Earned



- *Corey:* Given consistent feedback on behavior and contingent rewards, Corey will increase his CICO points earned from 60% to 80% over a two-month period and maintain this increase across 80% of days over a two-week period before increasing his goal percentage further.
- *Topanga:* Given consistent feedback on behavior and contingent rewards, Topanga will increase her CICO points earned from 70% to 90% over a two-month period and maintain this increase across 80% of days over a two-week period before transitioning to a CICO self-monitoring intervention.

Step 4: Identify an Intervention

INTERVENTION CENTRAL
Your source for RTI resources

Home Academic Interventions Behavior Interventions Videos Products Workshops CBM/Downloads Blog Contact

How To: Manage Problem Behaviors: Check-In/Check-Out

Behavior

Students can be motivated to improve classroom behaviors if they have both a clear roadmap of the teacher's behavioral expectations and incentives to work toward those behavioral goals. This modified version of Check-In/Check-Out (CICO) is a simple behavioral intervention package designed for use during a single 30- to 90-minute classroom period (Dart, Cook, Collins, Gresham & Chenier, 2012). The teacher checks in with the student to set behavioral goals at the start of the period, then checks out with the student at the close of the period to rate that student's conduct and award points or other incentives earned for attaining behavioral goal(s).

Preparation. In preparation for using CICO, the teacher:

- selects 3 to 4 behaviors to be targeted during the intervention. Whenever possible, these should be stated positively as DO behaviors (e.g., "Promptly and quietly follow teacher requests") rather than DON'T behaviors (e.g., "Don't dawdle or talk back when given a teacher request").
- creates a Behavior Report Card (BRC) that incorporates the 3-4 target behaviors. A Behavior Report Card is a rating scale that the teacher uses to rate the student's behavior at the end of the class session or other evaluation period. A generic BRC suitable for use in check-in/check-out can be viewed [here](http://www.interventioncentral.org/teacher-resources/behavior-rating-scales-report-card-maker). Teachers can also create customized BRCs for free at: <http://www.interventioncentral.org/teacher-resources/behavior-rating-scales-report-card-maker>
- decides on a daily reward/incentive that the student will earn if successful in displaying positive behaviors (e.g., 5 minutes of free time; 3 'positive behavior points' to be redeemed in future for rewards from a prize box; parent phone call praising student). NOTE: Teachers can find a listing of potential reward ideas at: <http://www.interventioncentral.org/teacher-resources/student-rewards-finder>
- sets a minimum rating on the BRC items that the student must attain to earn the selected reward/incentive.
- meets with the student to explain the intervention, review behavioral expectations, demonstrate how the Behavior Report Card is to be filled out, and explain how the student can earn a daily reward/incentive.

(CICO)

**SCHOOL-WIDE TIER II INTERVENTIONS:
CHECK-IN CHECK-OUT
GETTING STARTED WORKBOOK**

- Susannah Everett
- George Sugai
- Lindsay Fallon
- Brandi Simonsen
- Breda O'Keefe

Version: February 15, 2011

OSEP Center on Positive Behavioral Interventions and Supports

Center for Behavioral Education and Research

University of Connecticut



Feedback, and data collectio

- Daily check-out
- Contingent Reward

PBIS World.com

Home Tier 1 Tier 2 Tier 3 Data Tracking Forum Info

LiveSchool Your PBIS team should see this!

Check In Check Out (CICO)

Why should I do it:

- Improves student accountability
- Increases structure
- Improves student behavior and academics when other interventions have failed
- Provides feedback and adult support on a daily basis
- Improves and establishes daily home/school communication and collaboration
- Improves student organization, motivation, incentive, and reward
- Helps students to self monitor and correct
- Internalizes success and accomplishment of goals
- Students get involved and excited about the program, enjoying the structure, support, and incentives of the intervention
- Leads to maintenance free responsible behaviors, habits, and effort

When should I do it:

- When a student has failed to respond to other interventions and general class

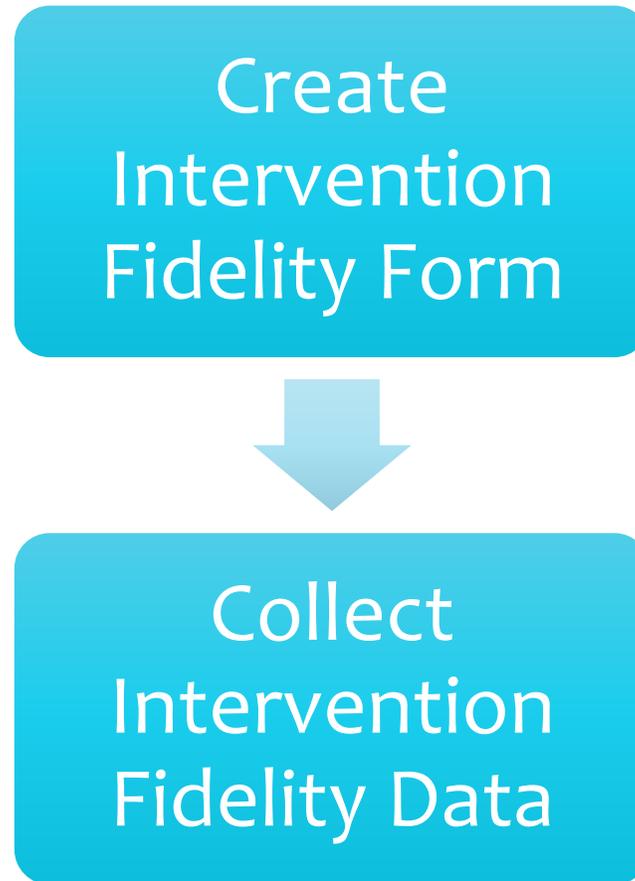
@SusannahEverett @BredaOKeefe



Assess Intervention Fidelity

Create a Form & Collect Data

Assess Intervention Fidelity



Intervention Fidelity Forms

	Monday	Tuesday
Review Expected Behavior (i.e., marks on behavior expectations)	Y /N /NA	Y /N /NA
Announce Criteria for Winning (e.g., below criteria, beat <u>other</u> team)	Y /N /NA	Y /N /NA
Review Reward	Y /N /NA	Y /N /NA
Record Start of Game	Y /N /NA	Y /N /NA
Tally Misbehavior	Y /N /NA	Y /N /NA
Record End of Game	Y /N /NA	Y /N /NA
Announce Whether Team “Won”	Y /N /NA	Y /N /NA
Record Class’s Score on “Points Sheet”	Y /N /NA	Y /N /NA
SUM of “Y”		
TOTAL APPLICABLE		
% IMPLEMENTATION		

Intervention Step	Adherence*				Quality*			
	Implemented as Planned	Implemented w/ Deviation	Not Implemented	Not observed	Excellent	Good	Fair	F
Announce start of game	3	2	1	NA	4	3	2	
Review expected behavior	3	2	1	NA	4	3	2	
Review game rules	3	2	1	NA	4	3	2	
Announce criteria for winning	3	2	1	NA	4	3	2	
Review reward	3	2	1	NA	4	3	2	
Record start of game	3	2	1	NA	4	3	2	
Provide prompts for expected behavior	3	2	1	NA	4	3	2	
Provide praise for expected behavior	3	2	1	NA	4	3	2	
Tally misbehavior/positive behavior	3	2	1	NA	4	3	2	

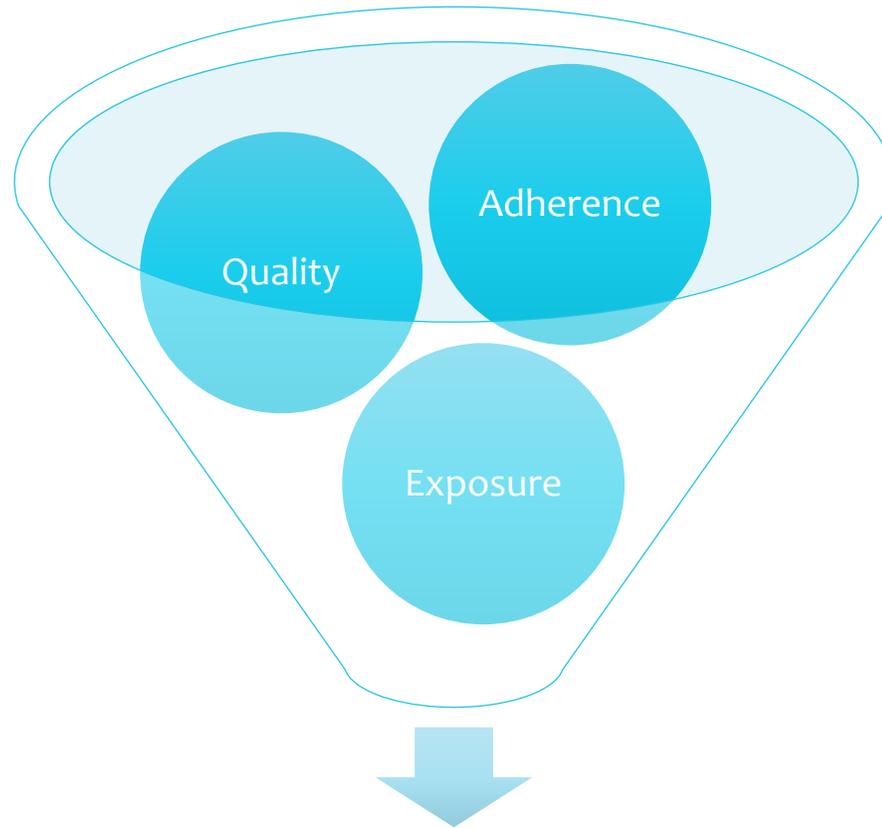
Create Intervention Fidelity Forms

- If there's a validated intervention fidelity form available, use it!
- If not, you'll need to make one...





- Pull your intervention plan and determine discrete steps
- Develop operational definitions for each step
 - Observable
 - Measurable
 - Complete
- Consider adherence, quality, and exposure



Treatment Fidelity



- Direct observation – most direct, but not always feasible
- Permanent product review – feasible, but not relevant for all steps
- Self-report – versatile, but not always accurate

More intensive student interventions require more direct treatment fidelity assessment



- **Dichotomous checklist** – indicate whether or not step occurred
- **Likert scale** – range of ratings from full to no implementation
- **Frequency count** – tally each time step occurs
- **Duration** – indicate how long a step occurred for
- **Time sampling** – Tally within an intervention if the step occurred
- **Multiple choice** – brief descriptions for different levels of implementation
- **Fill in the blank** – narrative description of implementation



- List the intervention steps
- Include rating option for each dimension of treatment fidelity
- Include space for summarizing treatment fidelity data

Treatment Fidelity Forms

CICO Observation Form

Teacher observed: _____

Rating

Not observed

Date: _____

Intervention Step

- Student checked in with a designated staff member before school started.
- Check-in staff positively acknowledged student at class in, gave student daily progress report, and ensured student had materials for class
- Teacher prompted behavior expectations at beginning of class
- Teacher prompted behavior expectations throughout class
- Teacher provided behavior-specific praise v engaged in expected behavior.
- Teacher calmly provided error correction
- Teacher provided student with feedback at end of class.
- Student checked out during last 10 r
- Student was provided a reward if _____



DAILY PROGRESS REPORT

DATE: 02/15/18

KEY: 2- Great Job!
1- Some Improvement Needed
0- Will try harder

	Teacher Initials	Respectful			Responsible			Safe		
		0	1	2	0	1	2	0	1	2
Period 1	CF	0	1	2	0	1	2	0	1	2
Period 2	CF	0	1	2	0	1	2	0	1	2
Period 3	CF	0	1	2	0	1	2	0	1	2
Period 4	CF	0	1	2	0	1	2	0	1	2
Period 5	AJW	0	1	2	0	1	2	0	1	2
Period 6	CF	0	1	2	0	1	2	0	1	2
Period 7	JM	0	1	2	0	1	2	0	1	2
Total Points		7 / 14			7 / 14			7 / 14		
		Overall Points: 21 / 42			Today's %: 50			Goal %: _____		

Comments: _____

Parent/Guardian Signature _____

CICO Self-report

* Required

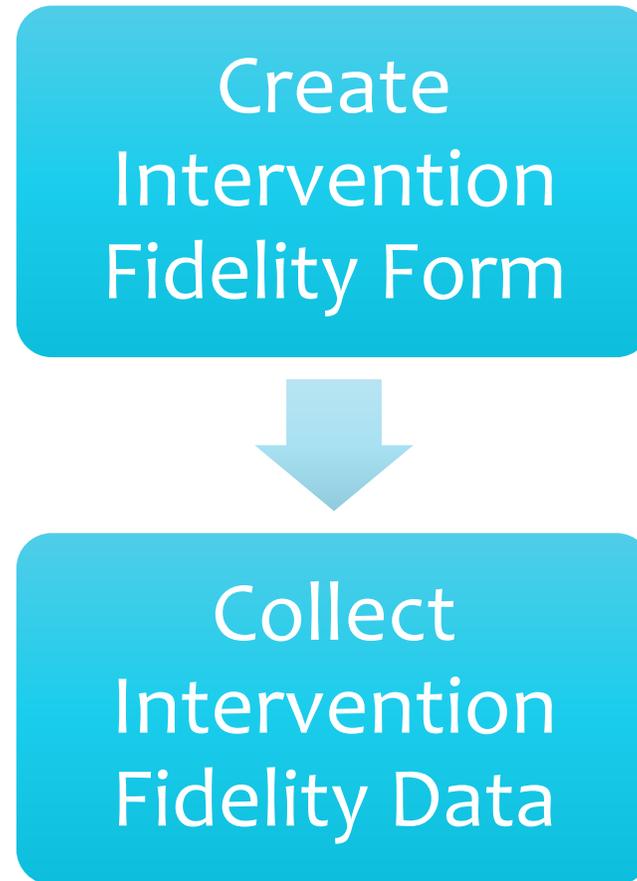
Name

- Mr. Feeny
- Mr. Turner
- Ms. Tompkins
- Mr. Williams

CICO Steps *

	Yes	No	Not needed
empted expected viol at the beginning of class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
empted expected during class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
the student v-specific the ed in rior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
error	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Assess Intervention Fidelity

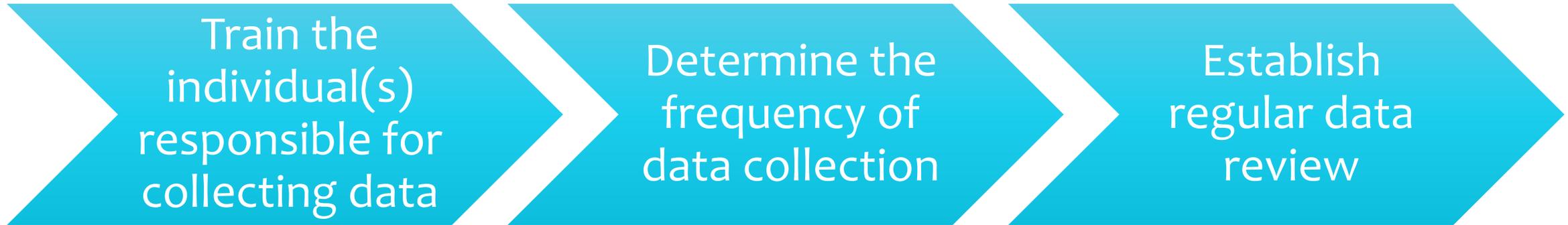


Train the individual(s) responsible for collecting data

Determine the frequency of data collection

Establish regular data review

- Train the individual to complete the assessment accurately
- Review the form and practice together



- Consider the intensity of the intervention and related decisions
- Commit to ongoing data collection as treatment fidelity data change over time
- Be responsive to the data – collect data more frequently when intervention fidelity data has been low

Train the individual(s) responsible for collecting data

Determine the frequency of data collection

Establish regular data review



- Figure out when learner outcome and treatment fidelity data will be reviewed
- Make sure relevant stakeholders can participate in data review

Intervention Fidelity Plan

- Multiple methods of intervention fidelity data collection:
 - Direct observation during one class for each implementer every two weeks (adherence)
 - Teachers completed daily self-report ratings (adherence)
 - Permanent product ratings of completed CICO forms



Evaluate Intervention Fidelity

Summarize, Graph, & Interpret

Evaluate Intervention Fidelity

- AKA – what do I do with these intervention fidelity data?





- *Session intervention fidelity* – What is the percentage of intervention steps implemented as planned during this session?
- *Intervention step fidelity* – What is the extent to which a particular intervention step was been implemented over time?

Summarize
Intervention
Fidelity

Graph Data

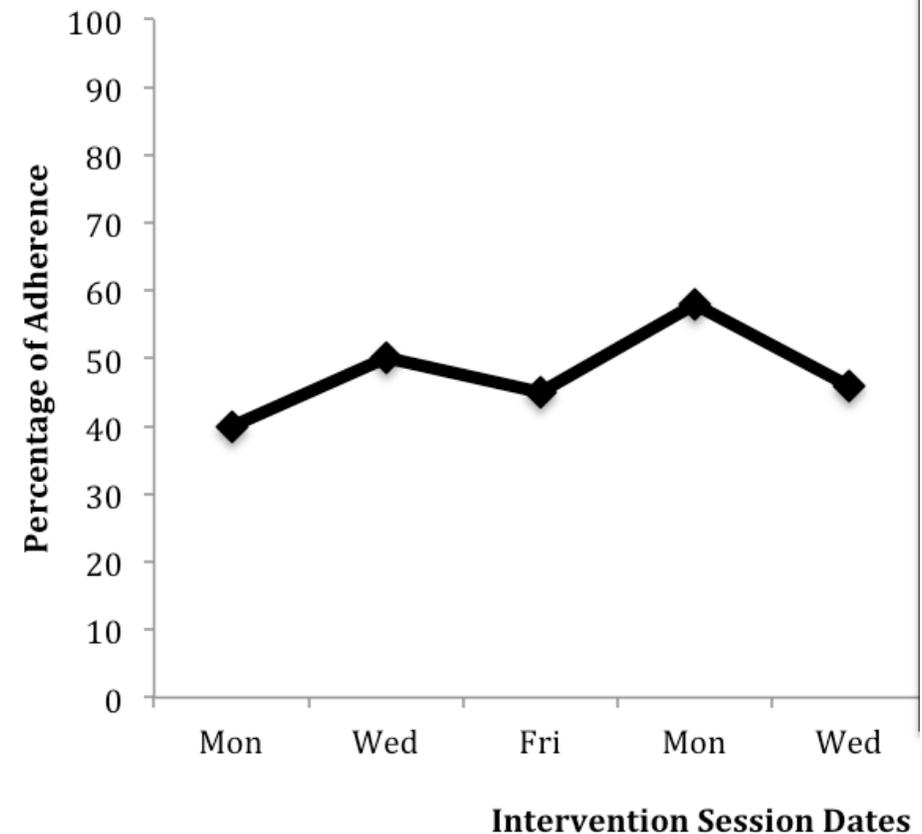
Interpret
Graphs

Develop a
Summary
Statement



- *Session intervention fidelity*

What is the percentage of intervention steps implemented as planned during this session?



Summarize
Intervention
Fidelity

Graph Data

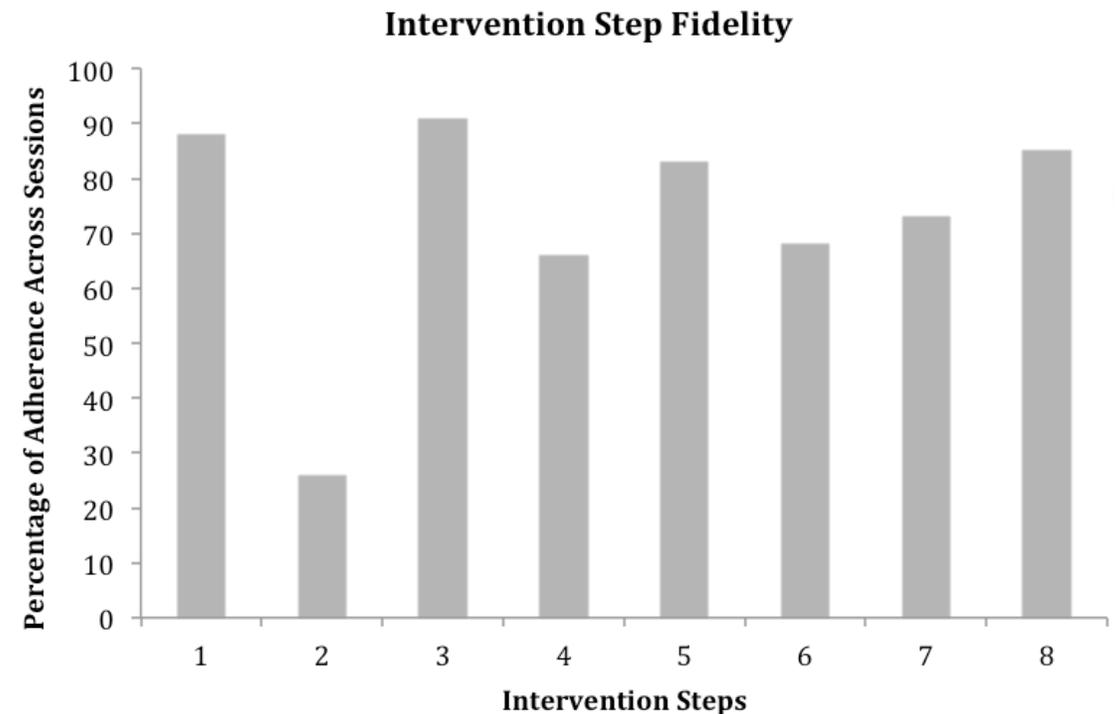
Interpret
Graphs

Develop a
Summary
Statement



- *Intervention step fidelity*

What is the extent to which a particular intervention step was been implemented over time?



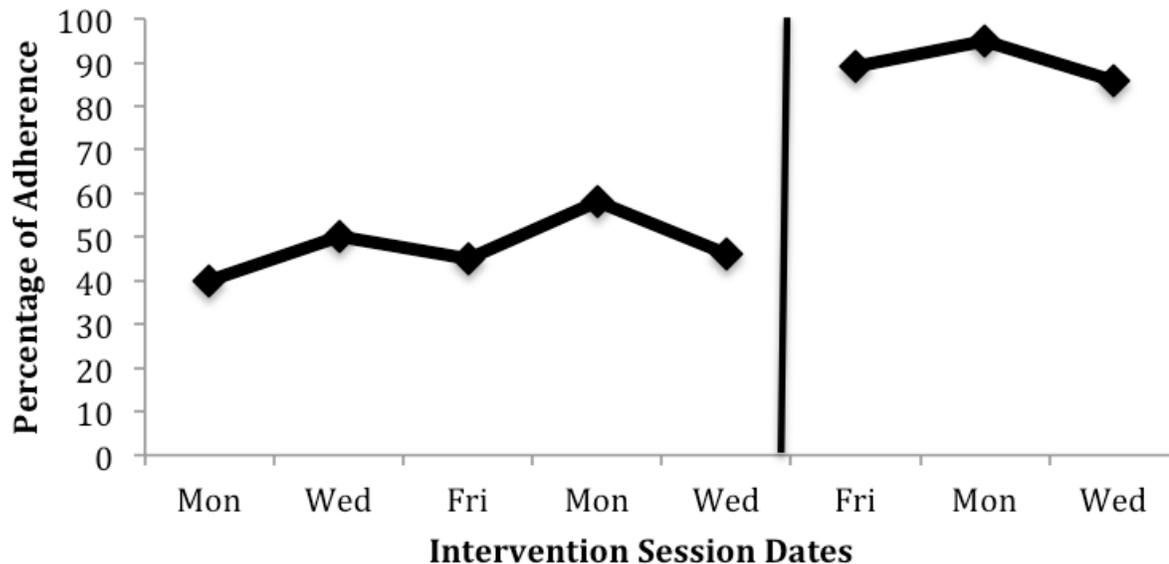
Summarize
Intervention
Fidelity

Graph Data

Interpret
Graphs

Develop a
Summary
Statement

Percentage of Adherence Before and After
Implementation Support



- *Level – How much intervention is being provided?*

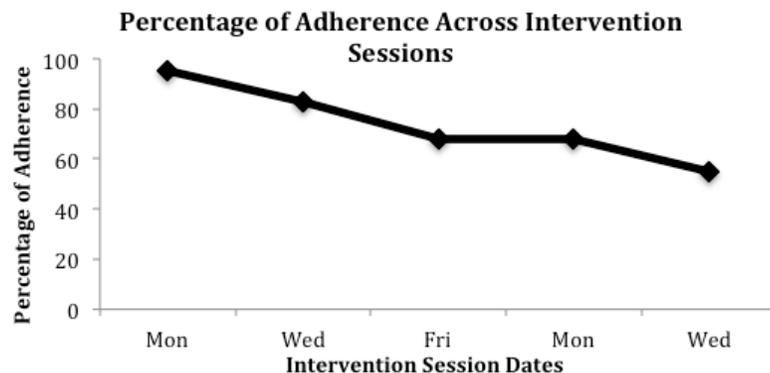
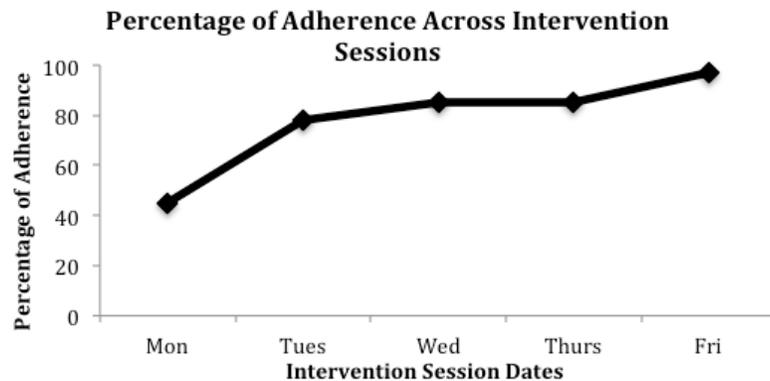
Average value of the measured outcome (e.g., mean of intervention fidelity) within a phase

Summarize
Intervention
Fidelity

Graph Data

Interpret
Graphs

Develop a
Summary
Statement



- *Trend-Is the implementation increasing or decreasing over time?*

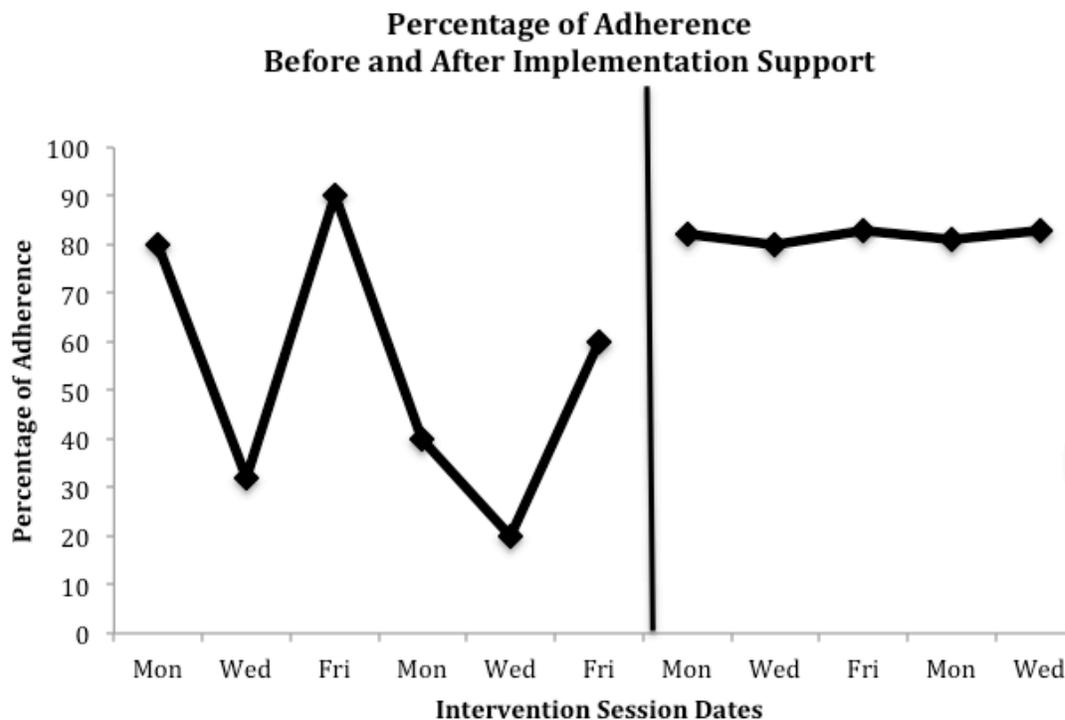
Pattern of change in the data over the course of time

Summarize
Intervention
Fidelity

Graph Data

Interpret
Graphs

Develop a
Summary
Statement



- *Variability-Does implementation vary day-to-day?*

the amount of “bounce” of data (i.e., the spread of data above and below the average)

Summarize
Intervention
Fidelity

Graph Data

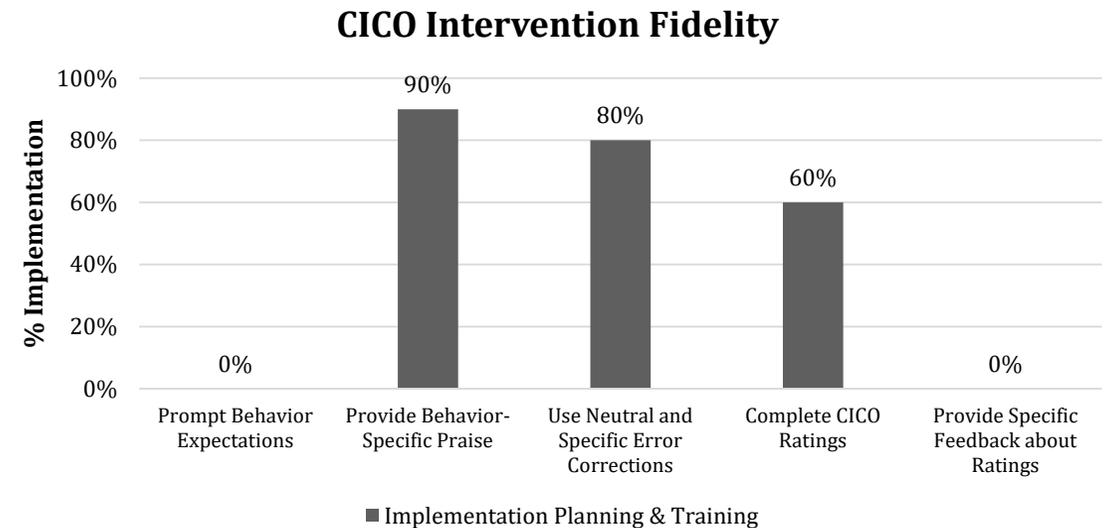
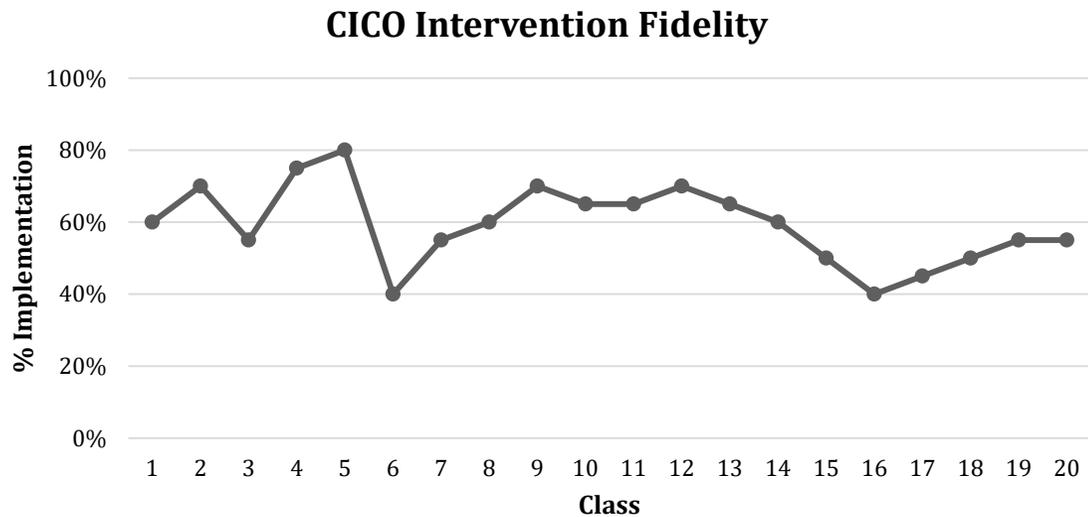
Interpret
Graphs

Develop a
Summary
Statement

- Develop a summary statement that accounts for the trend, level, and variability of intervention fidelity across time and highlights specific intervention step fidelity.
 - *Are critical intervention steps being implemented regularly?*
 - *Is the extent of intervention fidelity sufficient for the learner to make adequate progress?*
- Make determination – is intervention fidelity sufficient?

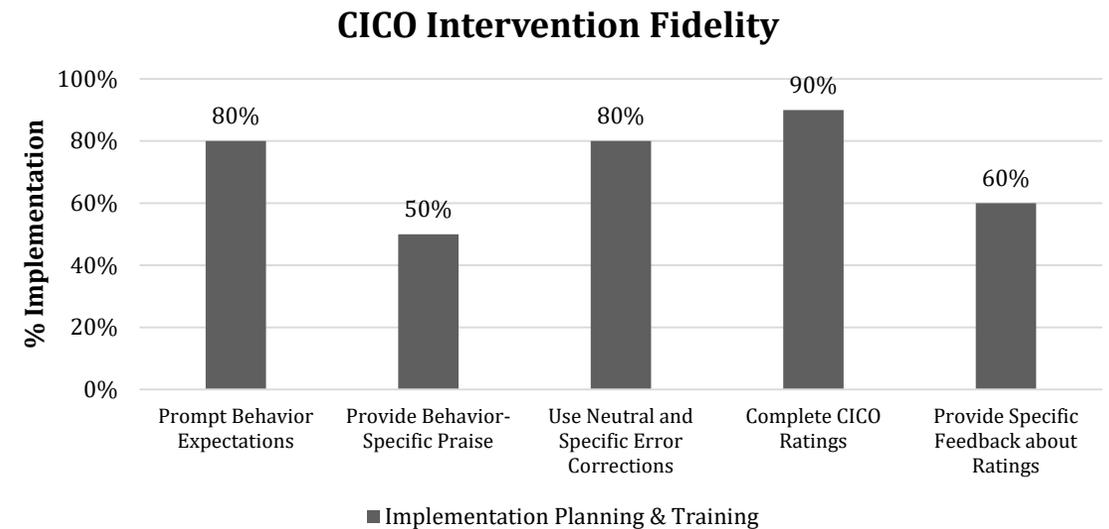
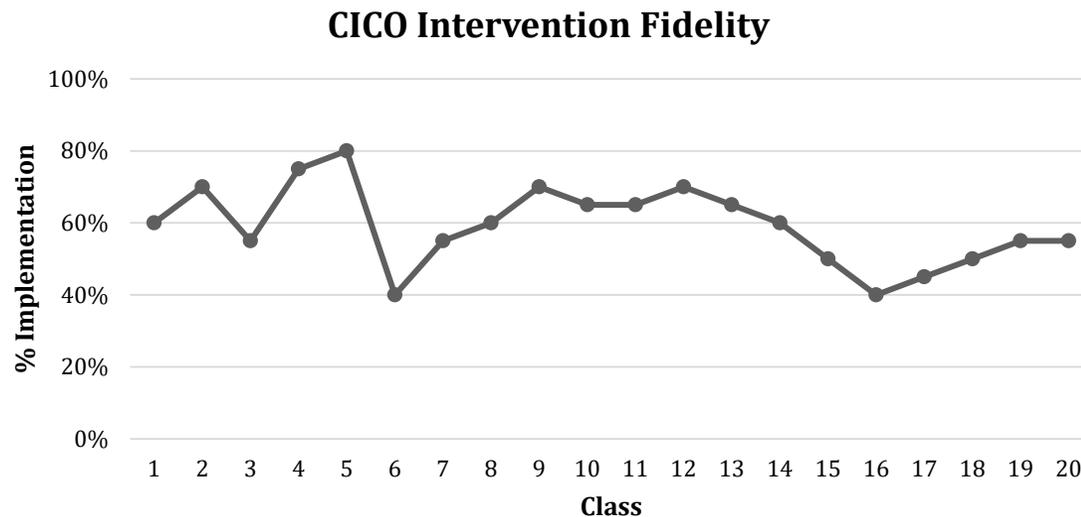
Evaluate the Intervention Fidelity

- **Mr. Turner (English):** Inconsistently completed CICO form (60% of time), high rates of praise, did not prompt behavior or provide specific feedback



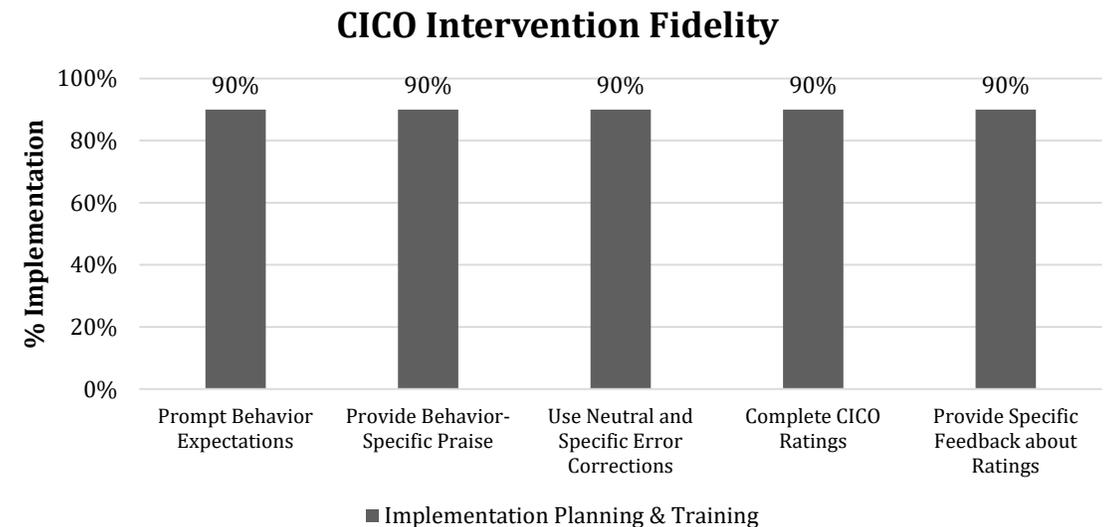
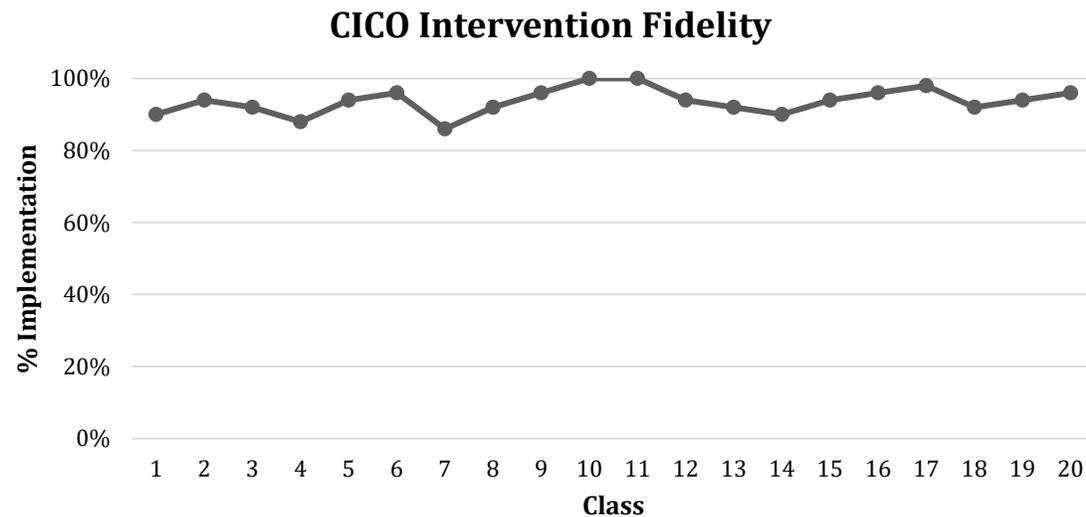
Evaluate the Intervention Fidelity

- **Mr. Feeny (Math):** Variable/inconsistent implementation across steps of CICO



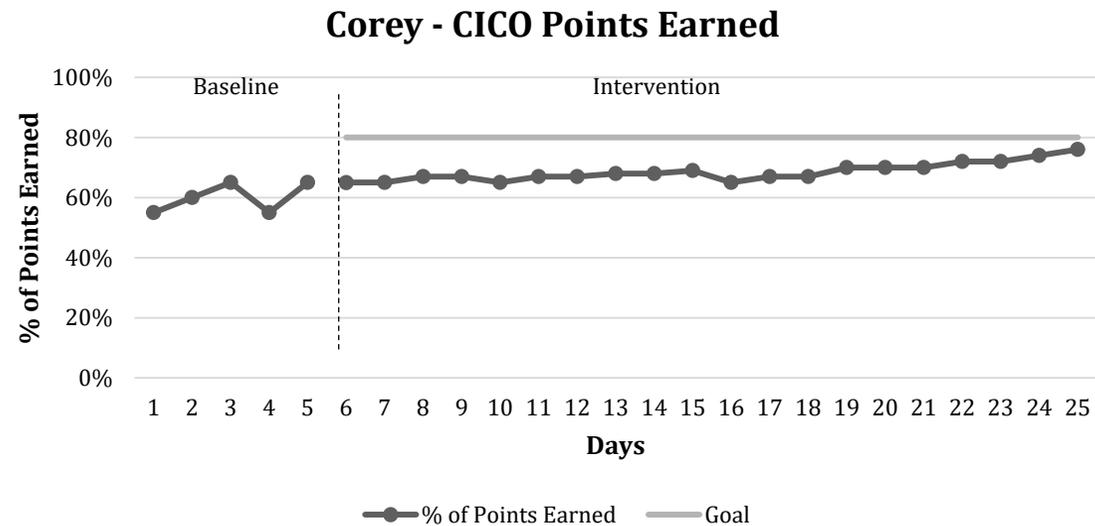
Evaluate the Intervention Fidelity

- **Ms. Tompkins (Social Studies): 90%+ adherence across CICO steps**



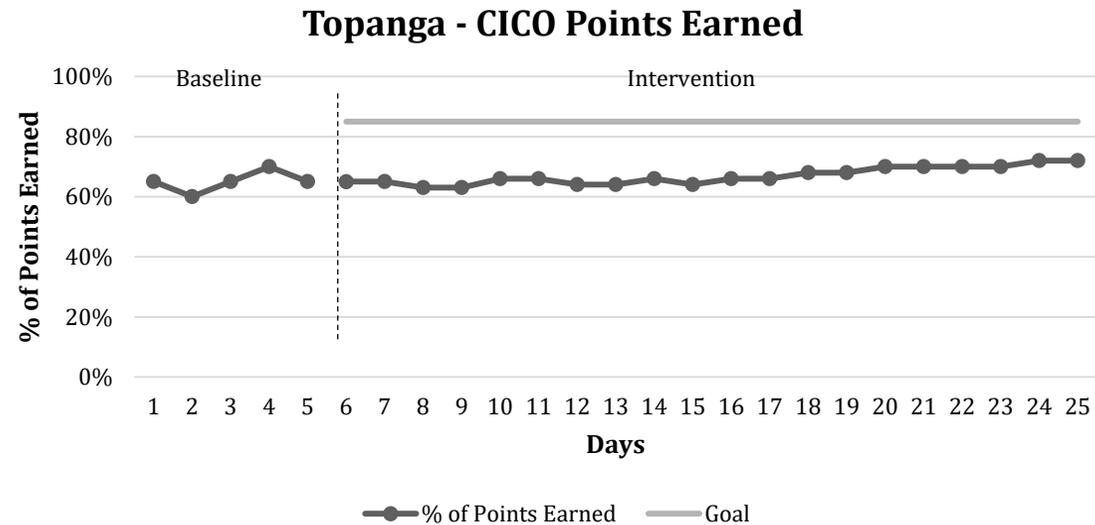
Evaluate Student Outcomes

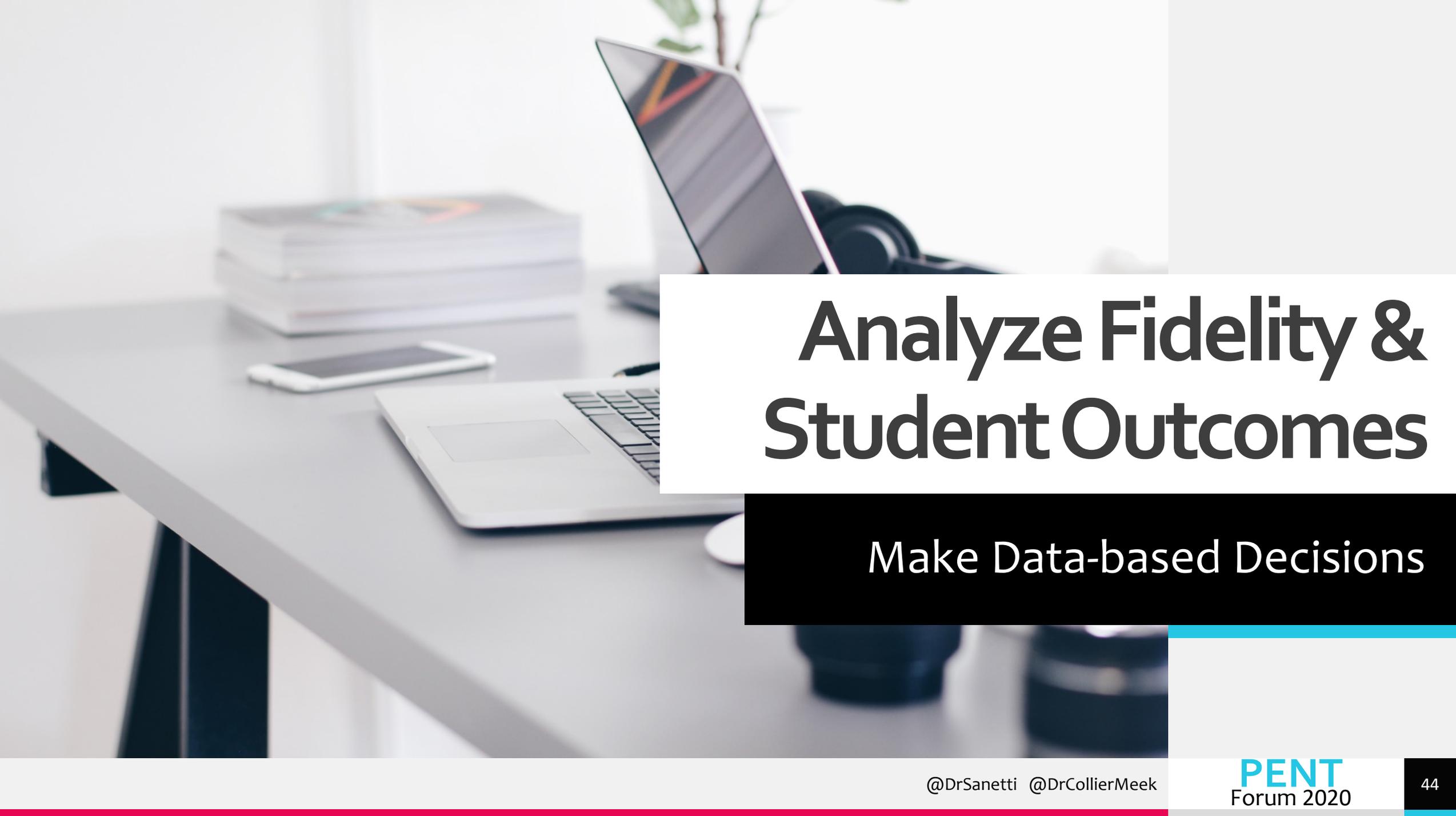
- **Corey:** Making sufficient progress towards goal



Evaluate Student Outcomes

- **Topanga:** Making insufficient progress towards goal





Analyze Fidelity & Student Outcomes

Make Data-based Decisions

Bring Together Intervention Fidelity & Student Outcome Data

		Student Outcome Data	
		<i>On-Track to Meet Goal</i>	<i>Not On-Track to Meet Goal</i>
Intervention Fidelity Data	<i>Sufficient</i>	Data Profile A	Data Profile D
	<i>Insufficient</i>	Data Profile B	Data Profile C



Data Profile A: On Track to Meet Student Goal & Sufficient Intervention Fidelity

- Based on the data, the intervention is effective
- No changes are required!

Action Steps:

- ✓ Continue to deliver intervention at current levels of intervention fidelity
- ✓ Regularly evaluate learner outcome and intervention fidelity data



Data Profile B: On Track to Meet Student Goal & Insufficient Intervention Fidelity

- Is the intervention goal and expected rate of student progress appropriate?
- Is there a problem with the intervention fidelity assessment system?
- Is something outside of the intervention related to student improvements?

Action Steps:

- ✓ Review prior research, check assessment data system, and talk with stakeholders to identify issue
- ✓ Based on identified issue, make corrective changes



Data Profile C: Not On Track to Meet Student Goal & Insufficient Intervention Fidelity

- VERY common scenario
- Students need to actually receive intervention to make progress!
- Need to promote intervention fidelity!

Action Steps:

- ✓ Select appropriate implementation strategy– review implementation history, intervention fidelity data, and consider strategies
- ✓ Deliver implementation strategy
- ✓ Regularly evaluate student outcome and intervention fidelity data



Data Profile D: Not On Track to Meet Student Goal & Sufficient Intervention Fidelity

- Intervention is not effective to help this student achieve his or her goal
- Make sure you're confident in the intervention fidelity data

Action Steps:

- ✓ Double check intervention fidelity data
- ✓ Modify or change the intervention

Evaluate Intervention Fidelity & Student Outcomes

Teacher	Treatment Fidelity	Corey's Outcomes	Data Profile	Action Steps
Mr. Turner	Insufficient-low level	On-track to meet goal	B	Consider change
Mr. Feeney	Insufficient - variable		B	Consider change
Ms. Tompkins	Sufficient		A	None!

Teacher	Treatment Fidelity	Topanga's Outcomes	Data Profile	Action Steps
Mr. Turner	Insufficient-low level	Not on-track to meet goal	C	Implementation Support
Mr. Feeney	Insufficient - variable		C	Implementation Support
Ms. Tompkins	Sufficient		D	Modify Intervention

Select an Appropriate Implementation Strategy

- Consider implementation history
 - What support has the implementer received in the past?
- Review intervention fidelity data to evaluate whether the issue is a skill or performance deficit
- Consider relevant strategies and select one for implementer and context

Select an Appropriate Implementation Strategy

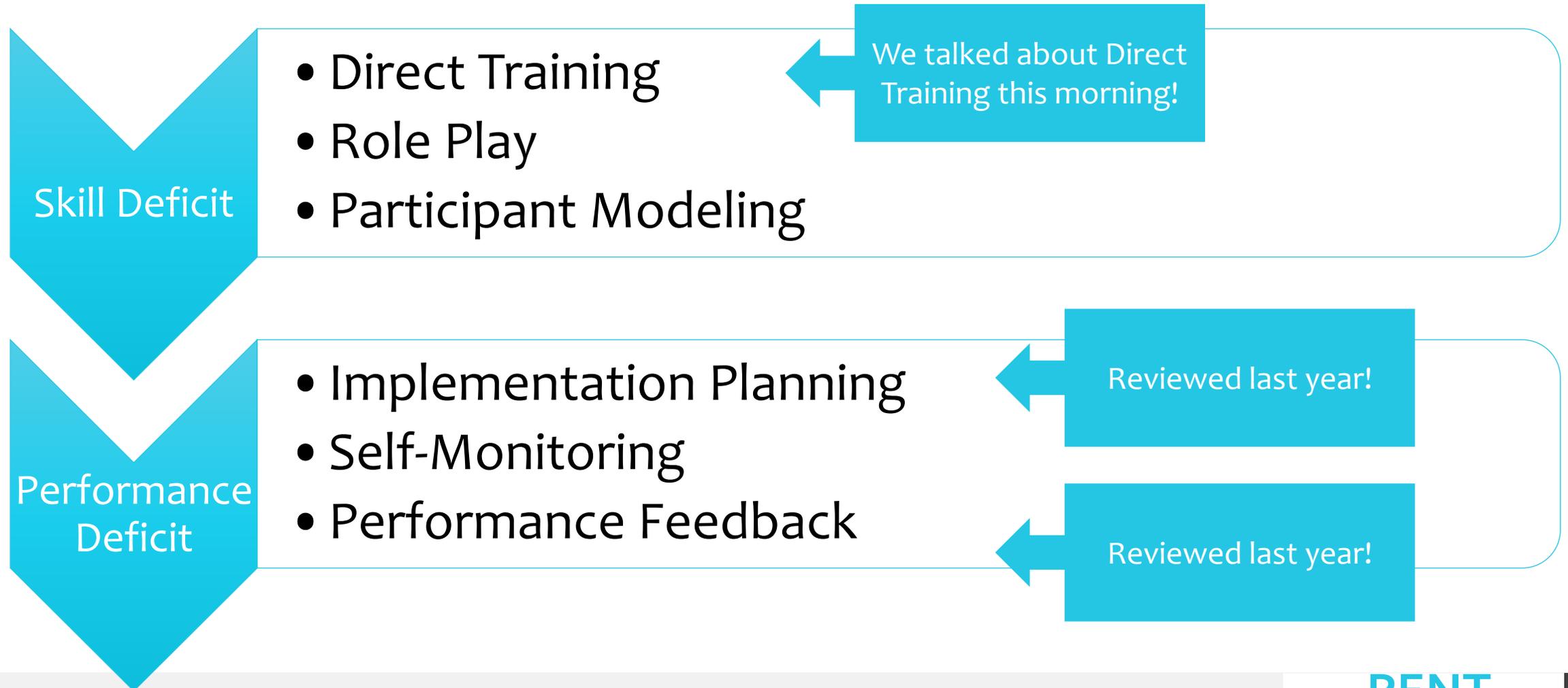
Skill Deficit

- Implementer can't deliver the intervention or specific steps correctly or fluently
- Steps always missed, low quality

Performance Deficit

- Implementer knows how to deliver the intervention, but not doing so consistently
- Intervention fidelity is inconsistent or initially high and then lower, poor exposure

Implementation Strategies

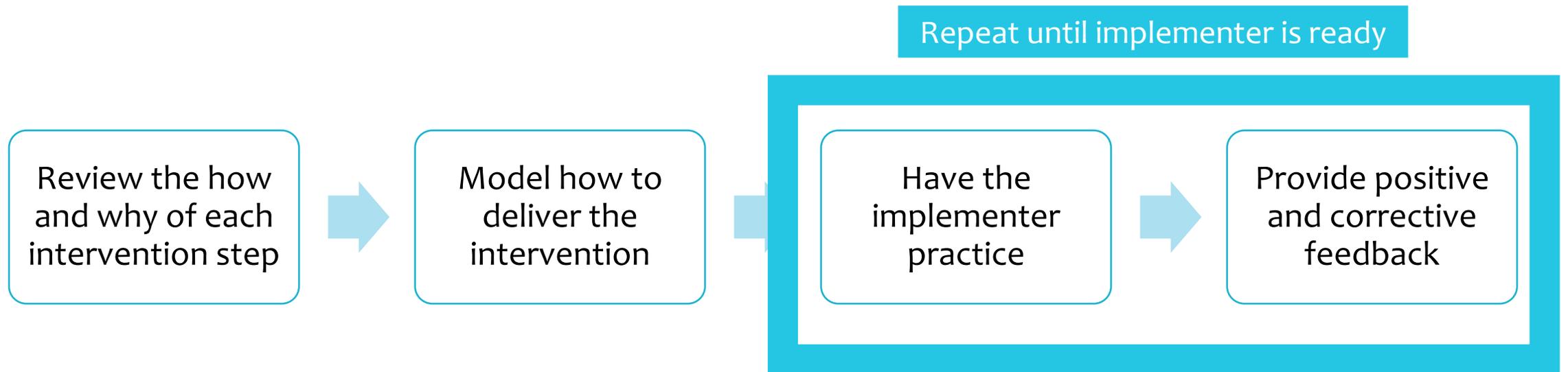


Use Evaluation Results to Inform Implementation Support

Implementer	Results of Evaluation	Type of Implementation Support
Mr. Turner	Did not deliver some intervention steps	Skill deficit
Mr. Feeny	Delivered some intervention steps inconsistently; Barriers to full dosage of math intervention	Performance deficit
 Ms. Thompkins	Delivered intervention with sufficient fidelity	None needed at this time

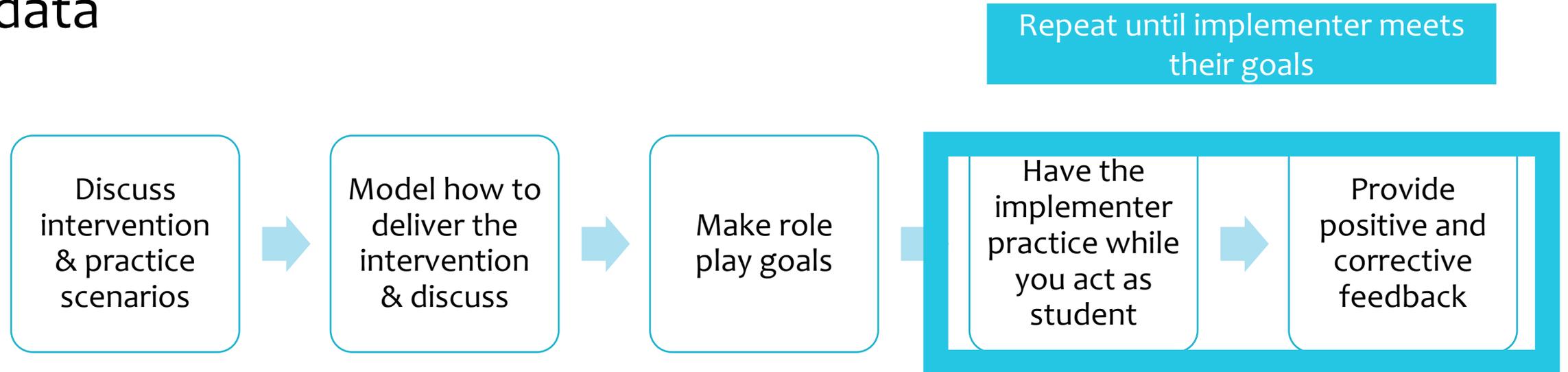
Direct Training

- Before we can expect someone to engage in a new behavior, we must teach them how to do it



Role Play

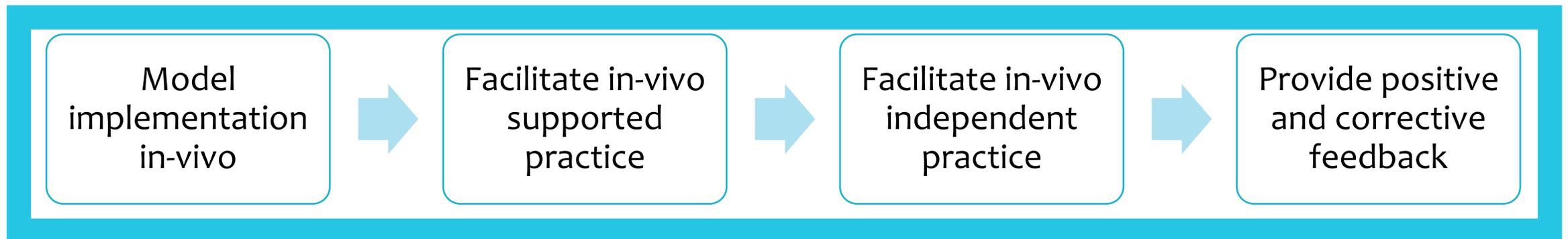
- Focus on the modeling and role play component of Direct Training
- Identify practice scenarios based on the intervention fidelity data



Participant Modeling

- Similar to Role Play, but occurs in the implementation setting
- Meet with implementer in advance to discuss intervention and in-vivo practice

Repeat until implementer can independently implement



Implementation Strategies

Skill Deficit

- Direct Training
- Role Play
- Participant Modeling

Performance Deficit

- Implementation Planning
- Self-Monitoring
- Performance Feedback

Implementation Planning

- Structured process to adapt intervention and prepare implementer
- Includes Action Planning and Coping Planning
- Has improved teacher and parent treatment fidelity of academic and behavior interventions (Fallon, Collier-Meek, Sanetti, Feinberg, & Kratochwill, 2016; Sanetti & Collier-Meek, 2015; Sanetti, Collier-Meek, Long, Byron, & Kratochwill, 2015; Sanetti, Collier-Meek, Long, Kim, & Kratochwill, 2014; Sanetti, Williamson, Long, & Kratochwill, 2017)

Implementation Planning – *Action Planning*

Intervention Step	To be implemented				Resources Needed?
	When?	How often?	For how long?	Where?	

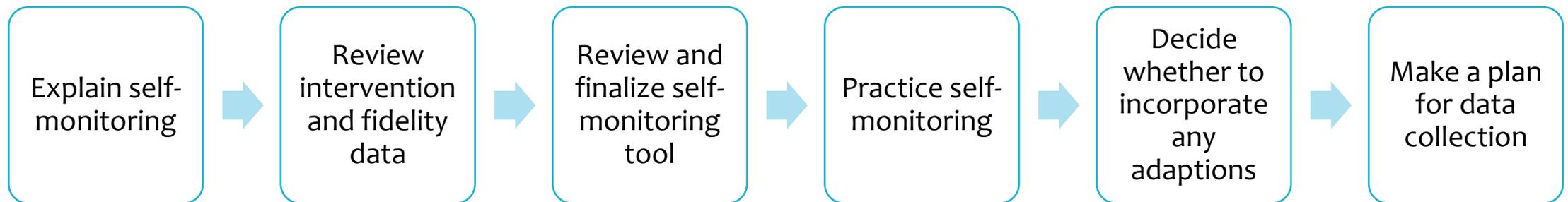
Implementation Planning – *Coping Planning*

II. Coping Plan

Potential Major Barrier to Intervention Implementation	Strategy to Implement the Intervention Nevertheless

Self-Monitoring

- Developing a self-monitoring plan for the implementer
- When we monitor our behavior, we attend to it more closely, and it will often change



Self-Monitoring Adaptions

Antecedent tactics

- Proactive efforts to encourage the implementer to self-monitor (e.g., prompts, posting)

Self-evaluation

- Compare data to self-monitoring and/or implementation goal

Reinforcement

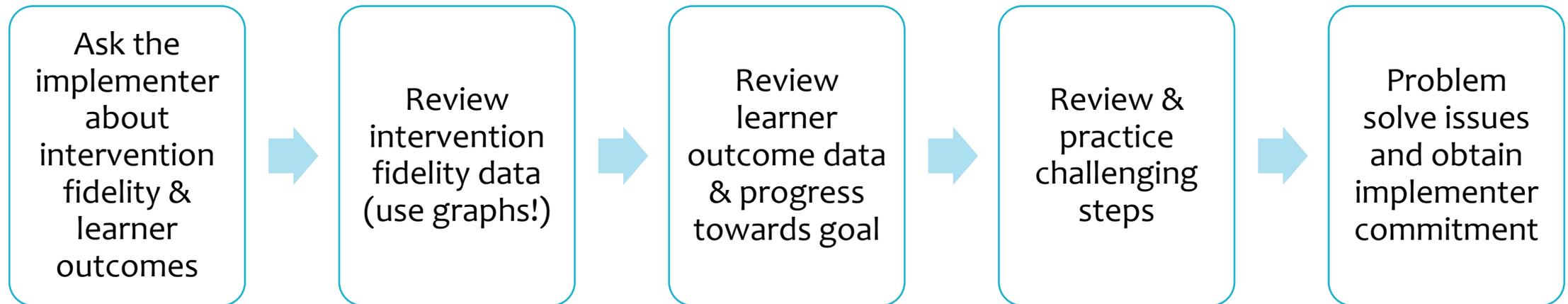
- Provide reinforcement (e.g., praise, small gift card) when implementer meets goals

Performance feedback

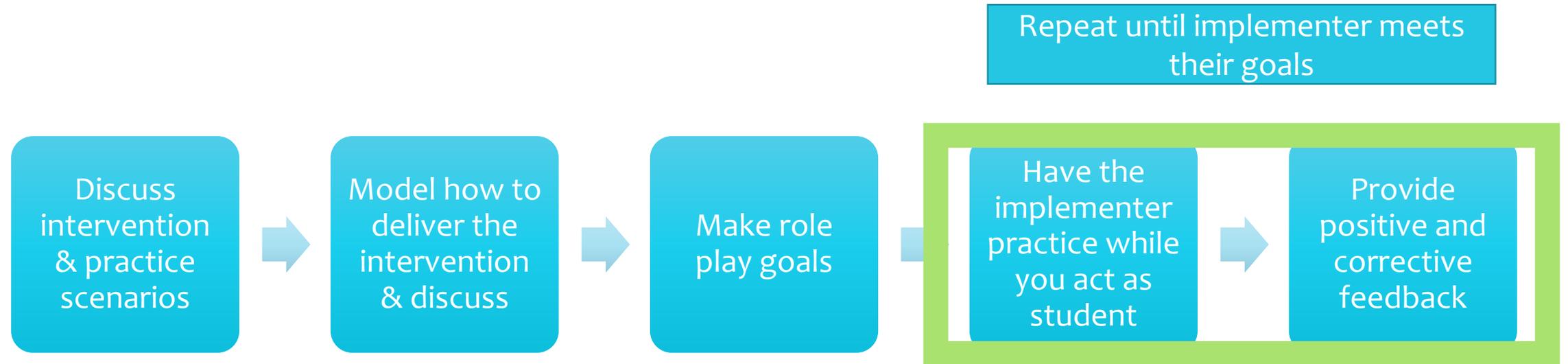
- Meet to review intervention fidelity, learner outcome, and self-monitoring data

Performance Feedback

- Brief meeting to share data with the implementer
- Hold meetings on an ongoing basis (e.g., weekly, daily, as needed)



Mr. Turner – Skill Deficit - Role Play

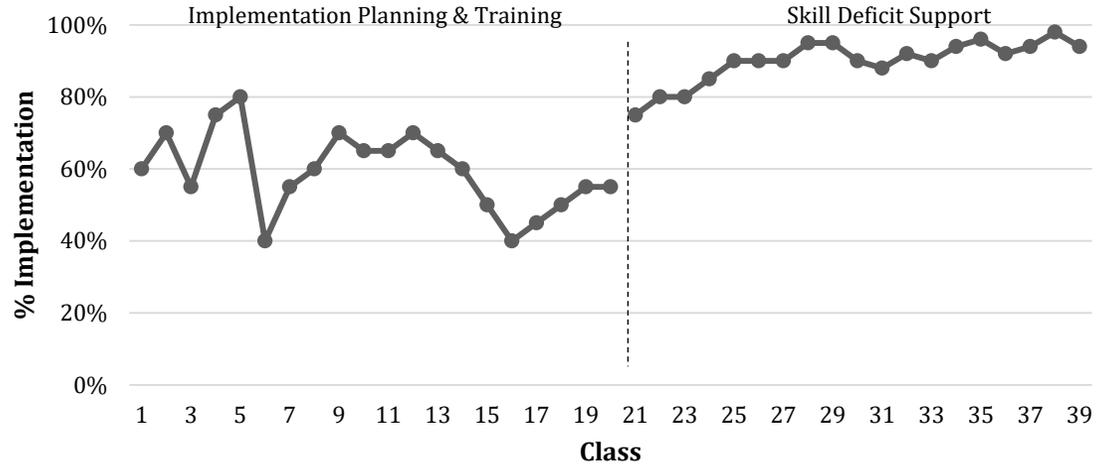


Mr. Turner – Skill Deficit - Role Play

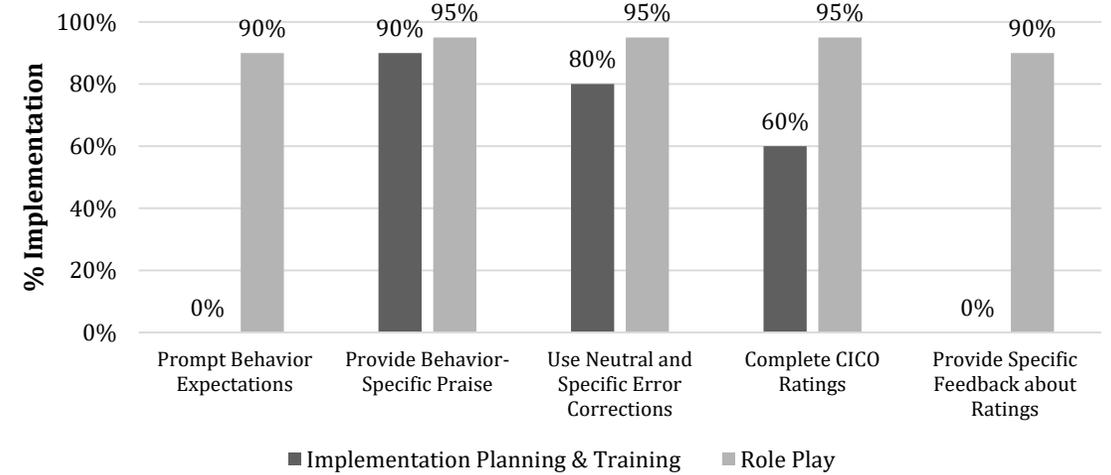
- Discuss intervention and practice scenarios
 - Review CICO
- Model how to deliver the intervention and steps
 - Prompt behavior expectations
 - Complete CICO ratings
 - Provide specific praise about ratings
- Make role play goals
 - Comfortable with prompting behavior expectations and providing specific praise
- Have the implementer practice while you act as the student
- Provide positive and corrective feedback

Evaluate the Intervention

Mr. Turner - CICO Intervention Fidelity



Mr. Turner - CICO Intervention Fidelity

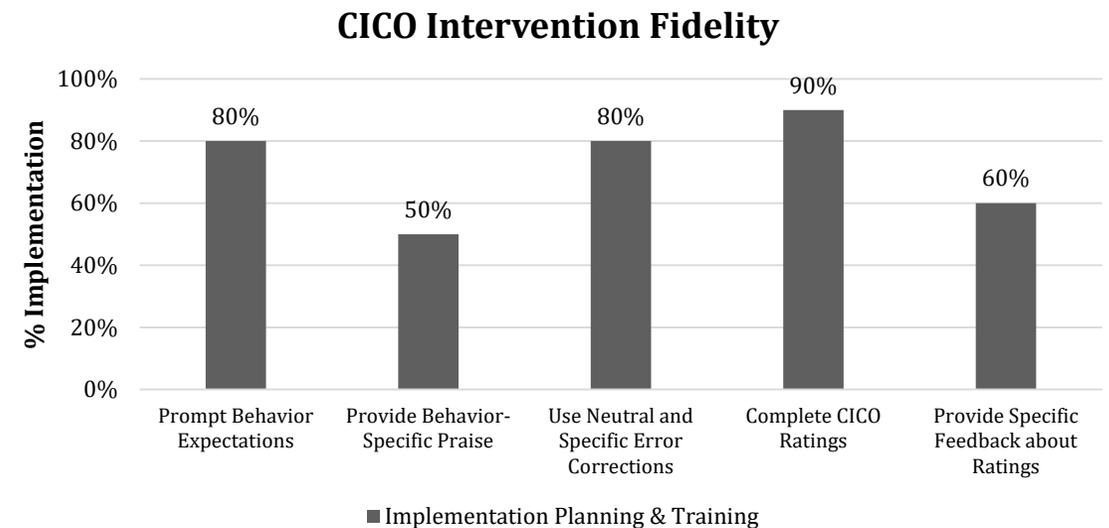
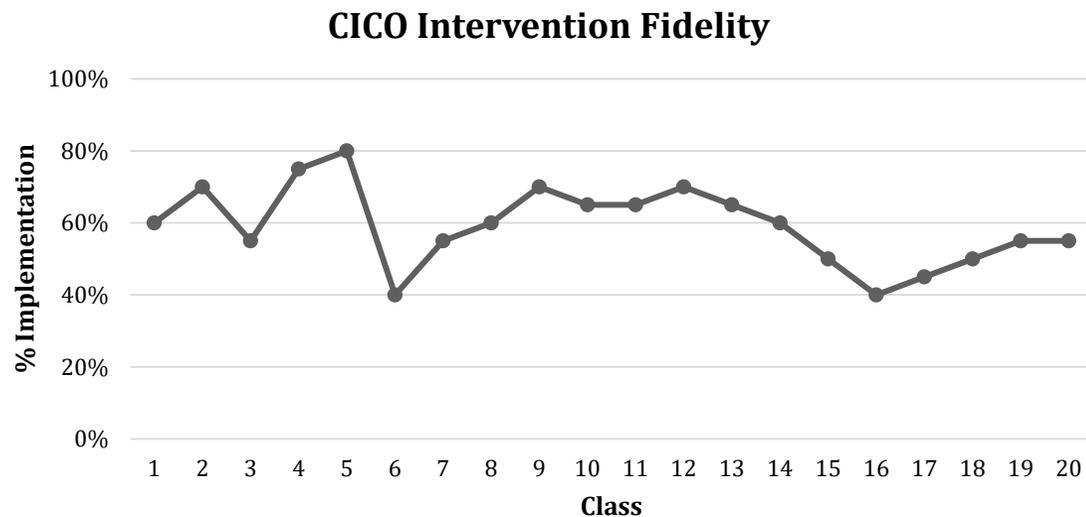


Mr. Feeny – Performance Deficit -Performance Feedback

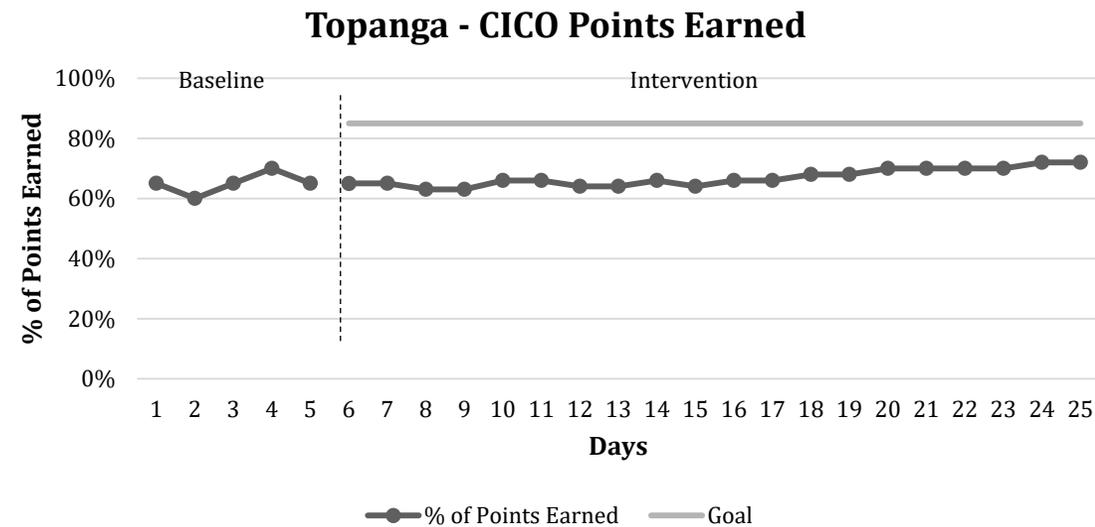


Mr. Feeny – Performance Deficit -Performance Feedback

- Ask the implementer about intervention fidelity and learner outcomes
- Review intervention fidelity data
 - Insufficient dosage of math intervention



- Review learner outcome data and progress towards goal
- Review and practice challenging steps
 - Provide behavior specific feedback
 - Provide specific feedback about ratings
- Problem solve issues and obtain implementer commitment
 - Insufficient math intervention dosage

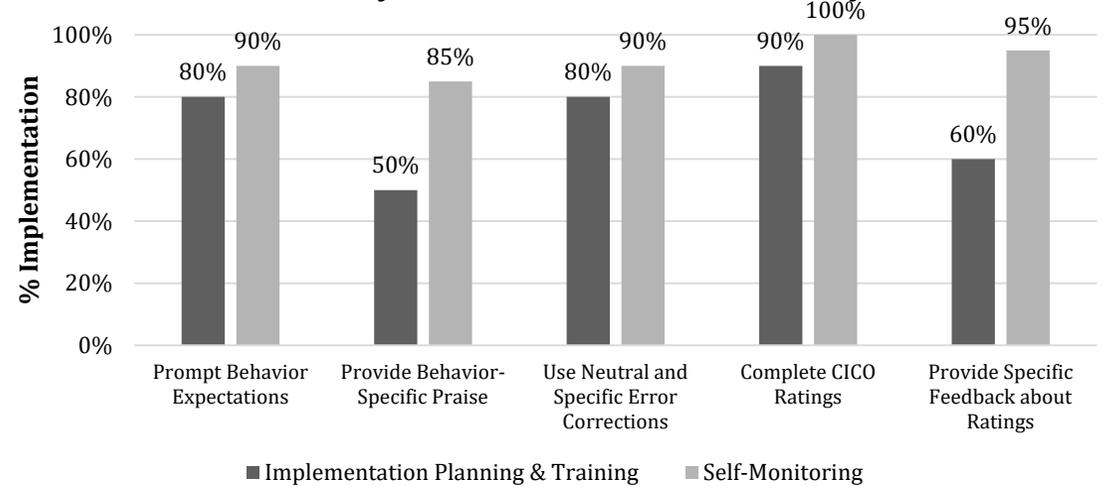


Evaluate Intervention Fidelity

Mr. Feeny - CICO Intervention Fidelity

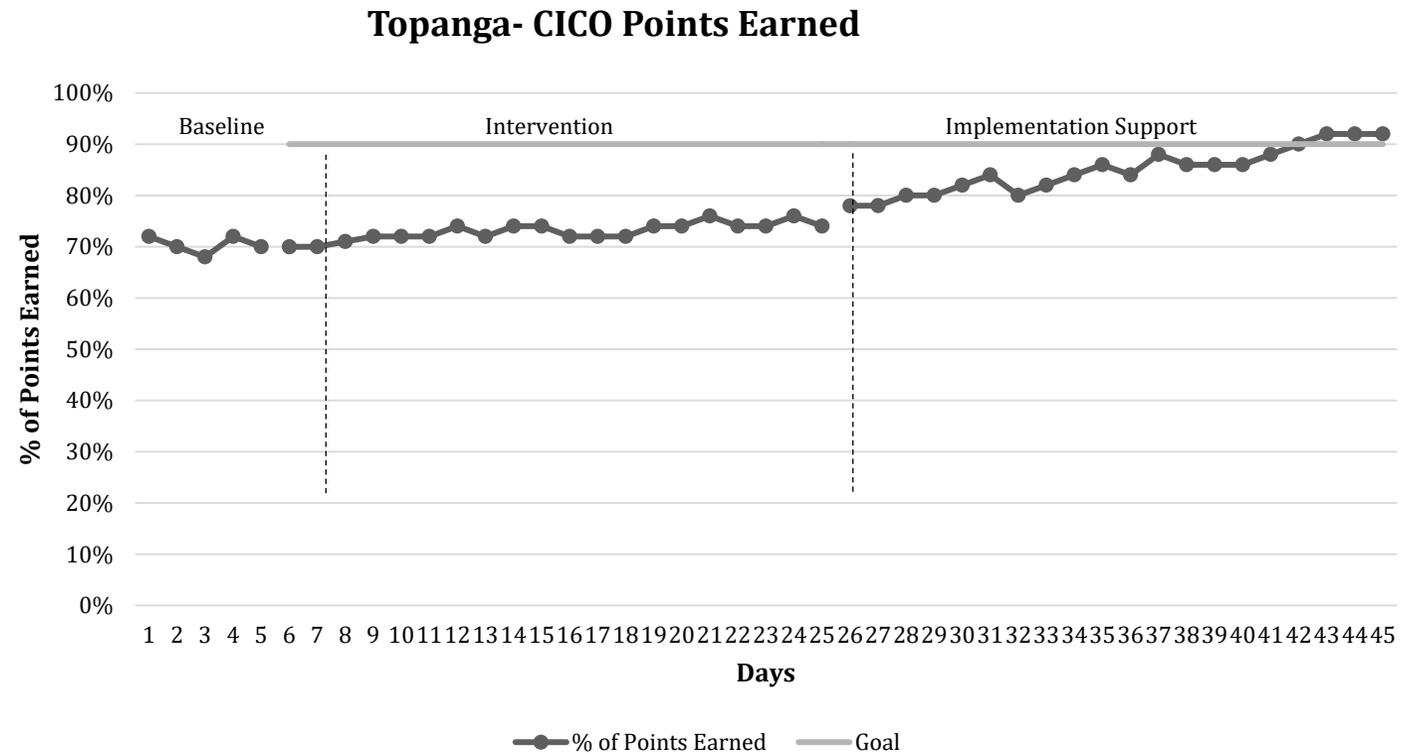


Mr. Feeny - CICO Intervention Fidelity



Evaluate the Student Outcomes

- **Topanga:** Making sufficient progress towards goal



Overview of Session

- What is intervention fidelity and why should we care?
- Assess intervention fidelity
 - Creating intervention fidelity tools
 - Making a plan for collecting intervention fidelity data
- Evaluate intervention fidelity data
- Analyzing intervention fidelity and student outcome data



Evaluating Implementation to Support Students & Schools

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