Empowering Teachers with Low-Intensity Strategies to Support Instruction: A Model for Professional Development and Training

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CI3T

*Comprehensive, Integrated
Three-Tiered Model of Prevention*

Goals

- Provide researchers, coaches, and administrators with a professional development model through our **Empowering Teachers Project** that can be used to support teachers and staff

- Provide teachers and staff with a resource for developing their skills of **direct observation** and **low-intensity strategy implementation.**

- See **increases in student engagement** as a result of participating in instructional choice

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Agenda

- Introduction to the **Empowering Teachers Project**

- A Look at **Momentary Time Sampling**
  - Training Procedural Fidelity
- A Look at **Instructional Choice**
  - Training Procedural Fidelity

- **Results from Years 2 & 3**

Empowering Teachers

- A long-term collaboration between Lane, Oakes, & Ennis which began in 2013

- Began as an unfunded project

- Obtained funding to continue efforts and fine tune our professional development model through the IES Special Education Research Training Grant (2015-2019)
  Empowering Teachers II

Empowering Teachers II

- Three elementary schools in one school district (suburban, large)
- Students with externalizing, internalizing, and co-morbid behavior patterns AND at-risk for low academic achievement

2016-2017	9 to 12 Teachers and students in 3rd Grade
2017-2018	9 to 12 Teachers and students in 2nd & 3rd Grade
2018-2019	Up to 120 students in 1st through 3rd Grade

6 Schools in 2018-2019

Screening Measures

- Academic
  - STAR Assessments Math & Reading
  - **Students below benchmark**
                         AND

- Behavioral
  - Student Risk Screening Scale – Internalizing/Externalizing (SRSS-IE; Lane & Menzies, 2009)
  - **Students displaying moderate and/or high risk behaviors**

2016-2017 Also used the SSBD

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Research Questions

1) What are the necessary elements, support materials, and intervention steps of an effective training model to empower teachers to implement IC with limited university support with students with and at-risk ED?

2) Are limited university support models of teacher implemented IC feasible in classroom settings?

3) To what extent can teachers implement IC with limited university support with procedural and treatment fidelity?

4) To what extent can IC implemented by teachers with limited university support increase the academic engagement and of students with and at-risk for ED and low academic achievement?

5) To what extent do students with internalizing, externalizing, and comorbid behavior patterns respond differently to IC implemented by teachers with limited university support?

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RQ1

Direct Observation of Behavior:
Momentary Time Sampling

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Agenda

- Overview of Direct Observation
  - Momentary Time Sampling
- Behavioral Definitions
  - Active Academic Engagement (AAE)
  - Passive Academic Engagement (PAE)
  - Off-Task (OFF)
- Completing Recording Forms
- Inter-observer Agreement

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What is direct observation?

- Direct observation involves collecting data while the behavior is actually occurring

- Benefits of direct observation include:
  - It is a objective form of measurement
  - More reliable than some indirect forms of measurement
  - Allows for both formative and summative evaluation
  - Makes it possible to determine the effects of interventions or strategies on students' behavior

Alberto & Troutman, 2015; Maag, 2007

When will data be collected?

- Direct observation data will be collected:
  - During the same time/activity each day
  - Baseline
  - Intervention
  - Follow up

Active Academic Engagement (AAE)

- AAE is recorded when a student is actively engaged in academic responding:
  - Writing
  - Reading aloud
  - Raising a hand to answer a teacher's question
  - Talking to a teacher and/or peer about the assigned material
  - Typing or writing an answer
  - Looking up a word in a dictionary/book

Behavioral Observation of Students in Schools (Shapiro, 2004)

Nonexamples of AAE

- Engaging in off-task behavior (doodling, sleeping, fidgeting without working)
- Talking about nonacademic materials
- Walking to another area of the room
- Calling out
- Aimlessly flipping the pages of a book
- Listening to a lecture
- Looking at an academic worksheet
- Reading assigned material silently

Behavioral Observation of Students in Schools (Shapiro, 2004)

Momentary Time Sampling Recording Form

Empowering Teachers with Low-Intensity Strategies:
A Focus on Instructional Choice to Support Instruction
2-min Momentary Time Sampling

Date: _____ Observer: _____ Activity _____ Student: _____
(computer, small group, individual & contain area)

ACADEMIC ENGAGEMENT: Circle the behavior that the student was displaying at the exact moment the timer pulsed.

AAE = actively engaged in academic responding:
- Writing
- Reading aloud
- Raising a hand to answer a teacher's question
- Talking to a teacher and/or peer about the assigned material
- Typing or writing an answer
- Looking up a word in a dictionary/book
PAE = passively attending to the assigned work:
- Listening to a lecture
- Looking at an academic worksheet
- Reading assigned material silently
- Looking at the blackboard during teacher instruction
- Listening to a peer respond to a question

OFF = engaging in activities not related to the task at hand (i.e., not following teacher directions):
- Doodling, sleeping, fidgeting without working
- Aimlessly looking around the classroom
- Reading, drawing or writing on unassigned material
- Talking about nonacademic tasks or without permission
- Walking to another area of the room
- Calling out
- Aimlessly flipping the pages of a book
- Physically touching another student without permission
- Bending/reaching (e.g., picking up a pencil on the floor)
- Turning away from the classroom instruction
- Making any sounds, such as whistling, or humming

	Monday			Tuesday			Wednesday			Thursday			Friday		
9:02	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:04	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:06	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:08	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:10	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:12	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:14	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:16	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:18	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:20	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:22	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:24	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:26	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:28	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:30	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:32	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:34	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:36	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:38	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
9:40	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF	AAE	PAE	OFF
TOTAL															
=20	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%

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How do I complete the data recording form?

Step 1 — Before observation begins, record students' the names, date, and observer.

Step 2 — • Review the behavioral definitions prior to each observation.

Step 3 — • Note the hour and minutes that you begin observing and record it on the Start Time.

Step 4 — • When you (and the reliability observer) are ready to begin, start your interval timer.

Step 5 — • Each time the interval timer beeps, circle the behavior observed.

Step 6 — • Note the hour and minutes that you finish observing and record it on the Stop Time.

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How do I complete the data recording form?

Step 7   Compute AAE, PAE, and OFF.

•*Add up the number of behaviors circled for each column for each student (sum of each behavior).*
•*Divide this number by the total number of intervals observed.*
•*Multiply by 100 and record each students' AAE, PAE, and OFF.*

Step 8   Calculate Interobserver Agreement (IOA)

•Check each interval. Count up the number of intervals in which both the primary and reliability observers have the same determination (e.g., both AAE, both OFF).

•Divide this number by the total number of intervals observed (agreements + disagreements).

•Multiply by 100 and record.

How do I collect IOA data?

- Independently
- Clear view of the student
- Timers synchronized
- Minimum of 25% of sessions

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CFU

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Direct Observation – Check for Understanding

Name: _____   Date: _____

Score: _____ / ____ = _____ %

1) When can we change behavioral definitions?
   a. It can only be changed twice during each study.
   b. It must be kept consistent across all phases of the intervention (baseline, intervention, follow-up).
   c. It can be changed each day if the research assistant or teacher think it is necessary.
   d. It can be changed at the end of a phase (i.e., between baseline and intervention).

2) When will direct observation data be collected?
   a. All day during the course of the intervention.
   b. At various times throughout the day.
   c. During the same time/ activity each day.
   d. Whenever the observer can complete an observation.

3) Which of the following is an example of **AAE**? When a student…
   a. Is listening to their teacher.

Observation Practice

- Video
  - Practice until you have three consecutive observations of 90% or higher IOA
- In Vivo
  - We will conduct IOA observations in the classroom until you have three consecutive observations of 90% or higher IOA

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Implementation

- Set reminders for data collection
- Retrain if IOA dips below 80%
- Make sure the timer (e.g., MotivAider) is up high enough so they feel/hear the vibration/sound
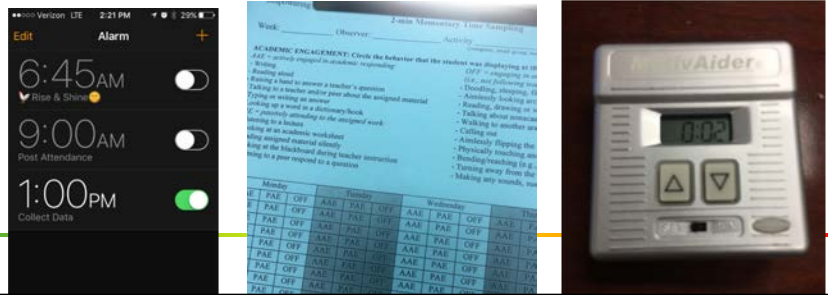
RQ1

Low-Intensity Strategies:
A Look at Instructional Choice

Agenda

- Comprehensive, Integrated, Three-Tiered (Ci3T) Models of Prevention
- A Look at **Instructional Choice**
  - What is instructional choice?
  - Why is instructional choice effective?
  - What does the supporting research for instructional choice say?
  - What are the benefits and challenges?
  - How do I implement instructional choice in my classroom?
    Implementation Checklist
  - How well is it working? ☐ Examining the Effects

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Comprehensive, Integrated, Three-Tiered Model of Prevention (Lane, Kalberg, & Menzies, 2009)

Goal: Reduce Harm
Specialized Individual Systems for Students with High-Risk

≈5%
Tertiary Prevention (Tier 3)

Goal: Reverse Harm
Specialized Group Systems for Students At-Risk

≈15%
Secondary Prevention (Tier 2)

Goal: Prevent Harm
School/Classroom-Wide Systems for All Students, Staff, & Settings

PBIS Framework

≈80%
Primary Prevention (Tier 1)

Validated Curricula

| Academic | Behavioral | Social |

Schoolwide Positive Behavior Support

Comprehensive, Integrative, Three-tiered (Ci3T) Models of Support

Low-Intensity Strategies

Basic Classroom Management
Effective Instruction
Low-Intensity Strategies

Behavior Contracts
Self-Monitoring
- -
Functional Assessment-Based Interventions

Higher-Intensity Strategies

Assess, Design, Implement, and Evaluate

Assessment

Low-Intensity Strategies for Academics and Behavior

Opportunities to Respond

Behavior Specific Praise

Active Supervision

Instructional Feedback

High *p* Requests

Precorrection

Incorporating Choice

Self-monitoring

Behavior Contracts

What is instructional choice?

- Instructional Choice
  - "…opportunities to make choices means that the student is provided with two or more options, is allowed to independently select an option, and is provided with the selected option" (Jolivette, Stichter, & McCormick, 2002, p. 28).
  - Types of instructional choices (Rispoli et al., 2013)
  - Across-activity choices
  - Within-activity choices

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Examples of instructional choice

Across-activities Choices

- Paper, presentation, or YouTube video to show me what you know?
- Which activity would you like to do first?
- Pick a learning center.
- Make your schedule for the day.
- Think-Tac-Toe Boards

Within-activity Choices

- Crayons or sparkly markers?
- At your desk or in the library?
- In the reading corner or at your desk?
- Work independently or with a partner?
- Which book would you like to read?
- Finish in class or at home?
- Typed or handwritten?
- Even or odds?

Why is instructional choice effective?

- Easy
- Little time
- Offers students control
- Promotes decision making and other self-determined behaviors
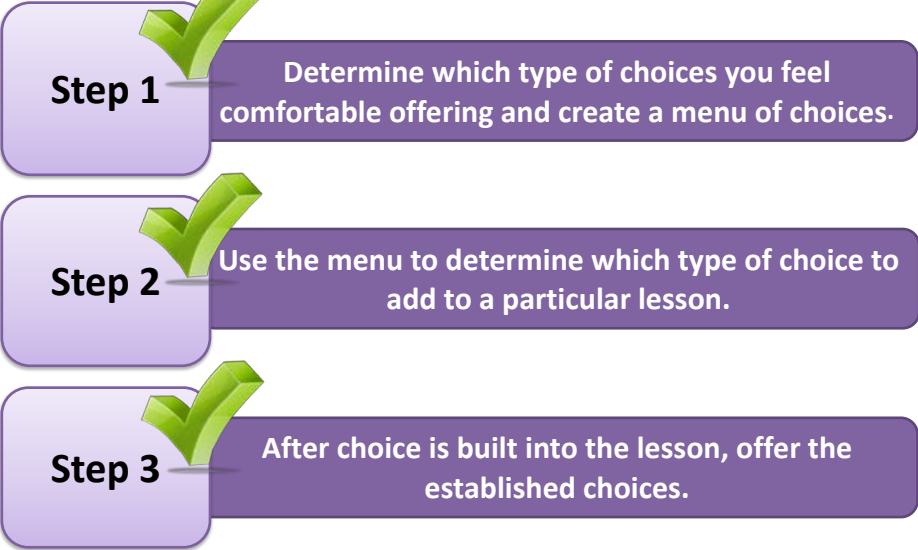
What does the supporting research for instructional choice say?

- Increasing engagement and decreasing disruption in elementary self-contained classrooms (Dunlap et al., 1994)
- Increasing time on-task, task completion, and accuracy in residential facilities (Ramsey, Jolivette, Patterson,& Kennedy, 2010)
- Increasing task engagement and improving academic performance in an inclusive setting (Skerbetz & Kostweicz, 2013)

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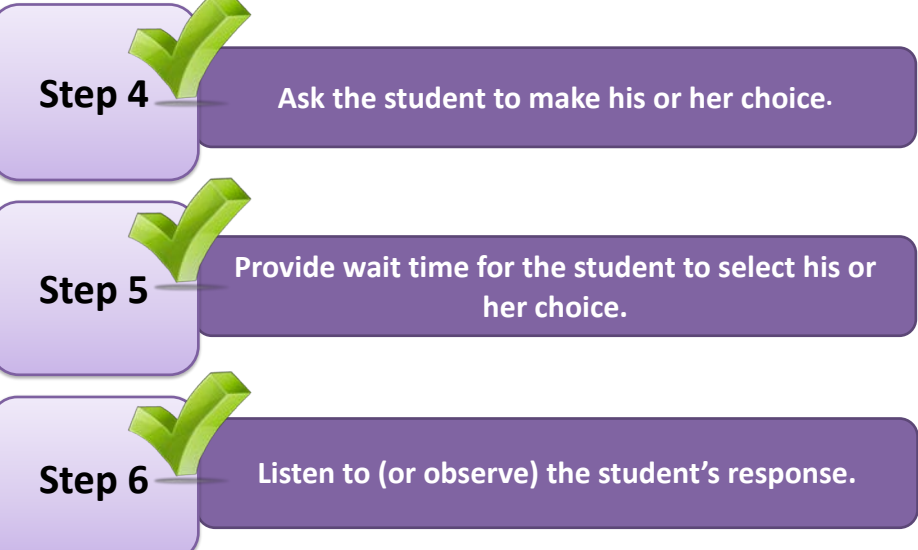
How do I implement instructional choice in my classroom?
Implementation Checklist

Step 1 — Determine which type of choices you feel comfortable offering and create a menu of choices.

Step 2 — Use the menu to determine which type of choice to add to a particular lesson.

Step 3 — After choice is built into the lesson, offer the established choices.

How do I implement instructional choice in my classroom?
Implementation Checklist

Step 4 — Ask the student to make his or her choice.

Step 5 — Provide wait time for the student to select his or her choice.

Step 6 — Listen to (or observe) the student's response.

How do I implement instructional choice in my classroom?
Implementation Checklist

Step 7 — Prompt the student to make a choice from one of the available options if the student has not made a choice within the time allotted.

Step 8 — Reinforce the student's choice, providing them with the option they selected

Step 9 — Offer students an opportunity to give feedback on the choice they selected.

Choice Menu

Between Activity Choices	Within Activity Choices
We have _____ activities to complete today. You can do these in any other that you want. Which one of these activities would you like	Where would you like to complete your reading log today? At your desk or on the carpet?

Choice Menu – Ms. C

Within Activity Choices
Where would you like to complete your math today? At your desk or on the carpet?
Would you like to color pencils or a mechanical pencil to complete your work today?
Are you going to complete the odd or even numbered problems on your worksheet today?
Which math center would you like to complete today?
What color marker would you like to use on your whiteboard today?
Which math tools would you like to use today?

After you read the chapter, do you want to make a bulleted list or a timeline of important events?	Which story are you going to read today? Choice A or choice B?
Today, you can choose which activities you	Would you like to read or listen to the next

Choice Menu

Daily Five Reading Activities

Read with a partner	Read with an audiobook
Write a letter	Write a story
Action Reading	AR Test

Getting Familiar with the Forms

All treatment integrity forms have the same key for completing each observable item

1. Use the key and circle a 0, 1, or 2 for each item

2. Each form has a space to total the number of points earned by the teacher

What does the student think about it?

See "Instructional Choice Social Validity Student"

Completed by the student participating in the intervention at two time points: Pre and Post Intervention.

What does the teacher think about it?

See "Social Validity Adapted-IRP15 Adult"

Completed by the teacher and/or parent participating in the intervention at two time points: Pre and post intervention.

Check for Understanding

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Instructional Choice – Check for Understanding

Name: _____		Date: _____

Score: _____ / ____ = _____ %

Directions: Choose the best answer.

1. What type of strategy is instructional choice?
   a. School-wide strategy.
   b. Low-intensity strategy.
   c. Higher-intensity strategy.

2. How many types of instructional choice are there?
   a. One: choose your task
   b. Two: across-task and within-task choice
   c. Three: across-task, within-task, and task-completion reinforcer choice

3. Offering a student the choice of where to work (at your desks, on the floor, in the library), with whom to work (independently or with a partner), and what materials to work with (marker, crayons, or colored pencils) are all examples of what type of choice?

Low-Intensity Strategies:
A Look at Instructional Choice
Results from Year 2

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*Comprehensive, Integrated
Three-Tiered Model of Prevention*

Study 1

- Within-Activity Choice

Participants	Teachers
4 students at-risk for EBD and low academic achievement (2 Hispanic males mod externalizing, 1 Black female high comorbid, 1 White male high internalizing)	2 with BA, 2 with MEd; Average Experience 6.75 yrs

Ennis, R. P., Lane, K. L., & Oakes, W. P. (2018). Empowering teachers with low-intensity strategies to support instruction: Implementing within-activity choices in third-grade math with null effects. *Remedial and Special Education, 39,* 77-94.

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Major Takeaways

- High variability in responding due to diverse activities
- Limitations of active engagement during certain activities
- Potential for within-task choice to provide minimal motivation
- Lack of consideration of function

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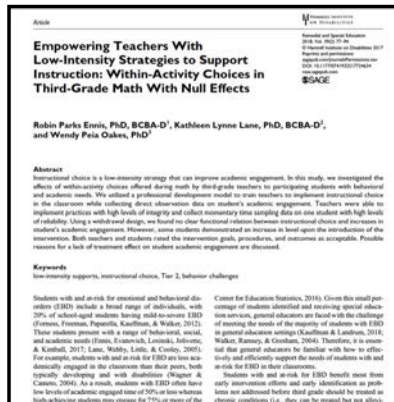
Study 2

- Across-Activity Choice*One case from Year 3

Participants*	Teachers*
3 students at-risk for EBD and low academic achievement (1 Hispanic female internalizing, 1 Black female co-morbid, 1 Black male externalizing)	1 with BA, 2 with MEd; Average Experience 11 yrs

Ennis, R. P., Lane, K. L., Oakes, W. P., & Cole, S. (in review). Empowering teachers with low-intensity strategies to support instruction: Implementing across-activity choices in 3rd grade reading.

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Major Takeaways

- Across activity choices may have allowed students with low academic achievement to select tasks they felt were more accessible
- Need to look at comparison peer data to determine if increases were comparable with peers

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Study 3

- Within-Activity Choice

Participants*	Teachers*
6 students at-risk for EBD and low academic achievement (1 Black female co-morbid bx patterns, 5 White males – 2 with externalizing bx patterns, 3 with co-morbid bx patterns)	2 with BA, 4 with MEd; Average Experience 14.5 yrs

Ennis, R. P., Lane, K. L., Cole, S. E., & Oakes, W. P. (2018). *Empowering teachers with low-intensity strategies: Supporting at-risk students with instructional choice during reading.* Manuscript in preparation.

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Goal

Teacher: Dumbledore

	Baseline	Intervention	Withdrawal	Intervention
Mean	59.67	83.82	54.20	78.20
Standard Deviation	8.26	5.08	20.50	7.61
Slope	1.60	0.06	-12.60	0.99
SE (Standard Error) YX	8.61	5.35	5.57	7.42

Teacher: Dumbledore

Baseline Data:

Mean	60.20
Standard Deviation	9.12
Slope	3.60
SE (Standard Error) YX	8.23

Goals for Intervention:
1) Our number one goal is to see an increase in level (i... engagement to be anywhere from 70 to 90% for hig... can see him rise to that level during intervention.

2) We would also like to see decreased variability (dec... see consistent responding on a daily basis (right now...

3) Another goal is to see an **increasing trend** (positive s... intervention.

Goals for Intervention:
1) Our number one goal is to see an increase in level (i.e., increased mean). We anticipate engagement to be anywhere from 70 to 90% for high achieving students, so we hope we can see him rise to that level during intervention.

We saw a significant increase in level during both intervention phases. He also reached the goal of falling in the 70-90% range.

2) We would also like to see decreased variability (decreases in SD and SEyx), so that we see consistent responding on a daily basis (right now the range is 45 to 67).

We saw decreased variability during both intervention phases.

3) Another goal is to see an **increasing trend** (positive slope) in his performance during intervention.

We saw an increasing slope during both phases of the intervention.

RQ 3

ACROSS: Fidelity/IOA

| Teacher | Phase | Treatment Fidelity | | | Inter-Observer Agreement |
		Self-Report %	Researcher Sessions % (n)	Researcher %	DV Agreement % (Range)
Mrs. C	A_1 Baseline	100	33.3(2)	100	94 (94)
	B_1 Intervention	100	33.3 (2)	99	95.50 (94-97)
	A_2 Withdrawal	100	40	100	95.50
	B_2 Intervention	99.4	40 (2)	100	95.50 (94-97)
Mrs. S	A_1 Baseline	98.66	33.3 (2)	100	92.5 (91-94)
	B_1 Intervention	96.81	25 (4)	93.5	95 (94-97)
	A_2 Withdrawal	100	25 (2)	100	92.5 (91-94)
	B_2 Intervention	99	33.3 (2)	98.5	94 (94)

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RQ 3

ACROSS: Fidelity/IOA

High fidelity across sessions

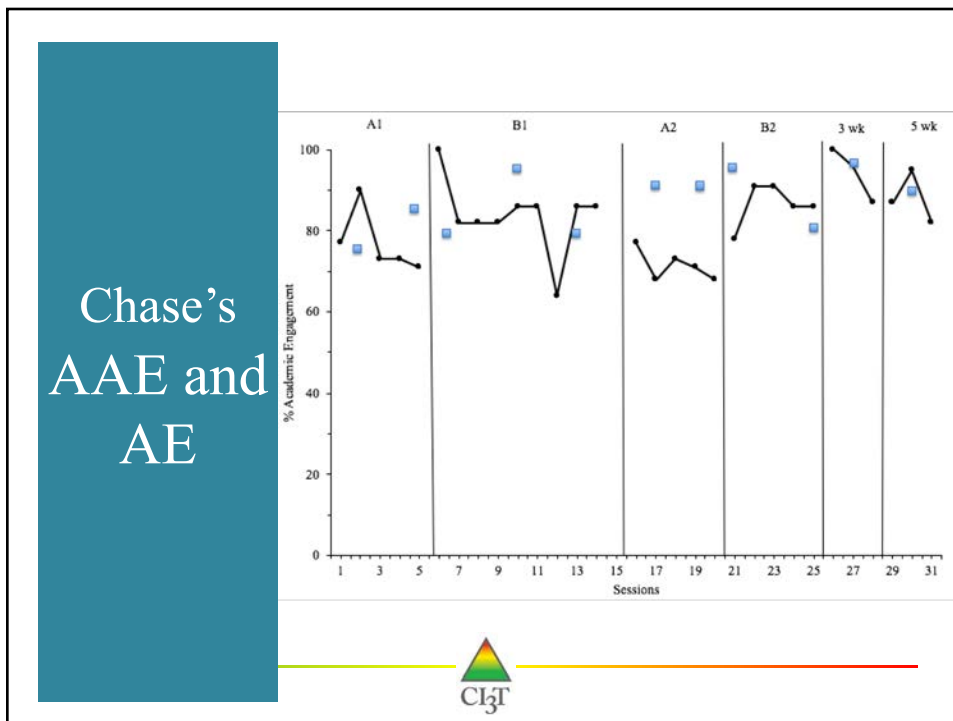| Teacher | Phase | Treatment Fidelity | | | Inter-Observer Agreement |
		Self-Report %	Researcher Sessions % (n)	Researcher %	DV Agreement % (Range)
Mrs. M	A_1 Baseline	100	33.3 (2)	100	92.5 (91-94)
	B_1 Intervention	99	25 (4)	93.5	95 (94-97)
	A_2 Withdrawal	100	25 (2)	100	92.5 (91-94)
	B_2 Intervention	100	33.3 (2)	98.5	94(94)
Mrs. R	A_1 Baseline	100	40 (2)	100	94 (4)
	B_1 Intervention	95	30 (3)	96.33	93 (91-94)
	A_2 Withdrawal	100	40 (2)	100	92.5 (91-94)
	B_2 Intervention	99	33.3 (2)		94 (94)

Strong IOA between teachers and researchers

RQ 3 ACROSS: Fidelity/IOA

Teacher	Phase	Treatment Fidelity			
		Self-Report %	Researcher Sessions % (n)	Res... %	DV Agreement % (Range)
Mrs. R	A_1 Baseline	100	50 (3)	97.6	94 (91-100)
	B_1 Intervention	100	27.27 (3)	100	97 (94-100)
	A_2 Withdrawal	100	60 (3)	98.5	88 (82-94)
	B_2 Intervention	100	27.27 (3)	97.3	98 (94-100)
Mrs. Z	A_1 Baseline	100	33.3 (2)	100	92 (91-93)
	B_1 Intervention	100	33.3 (3)	100	91.6 (91-93)
	A_2 Withdrawal	100	33.3 (2)	97	91 (91)
	B_2 Intervention	100	33.3 (2)		92.5 (91-94)

High fidelity across sessions

Strong IOA between teachers and researchers

Chase's AAE and AE

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Skye's AAE and AE

Marshall's AAE and AE
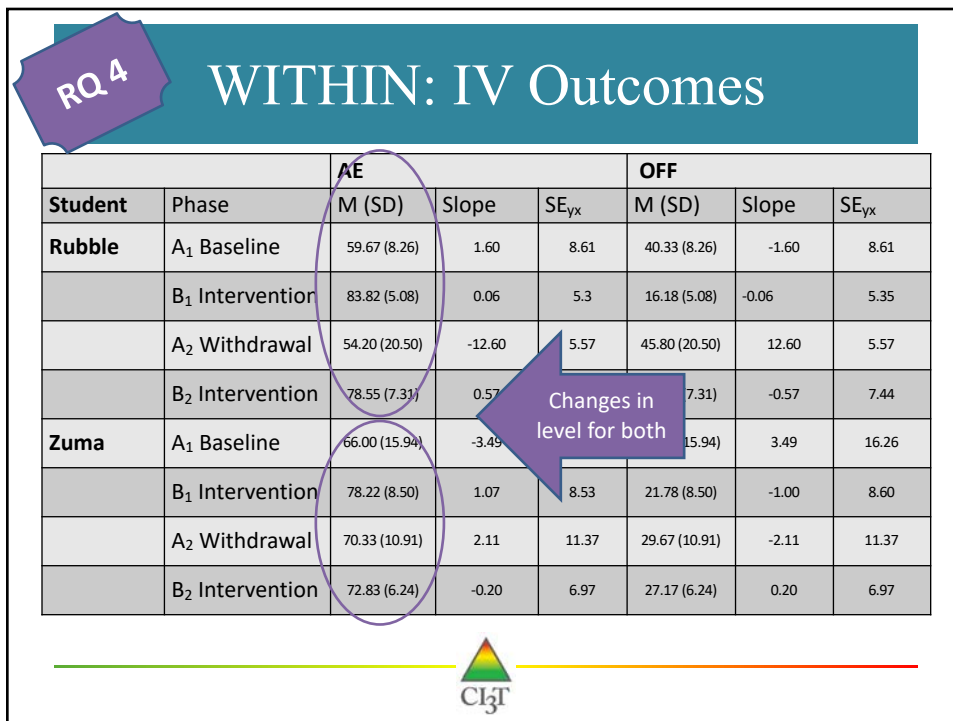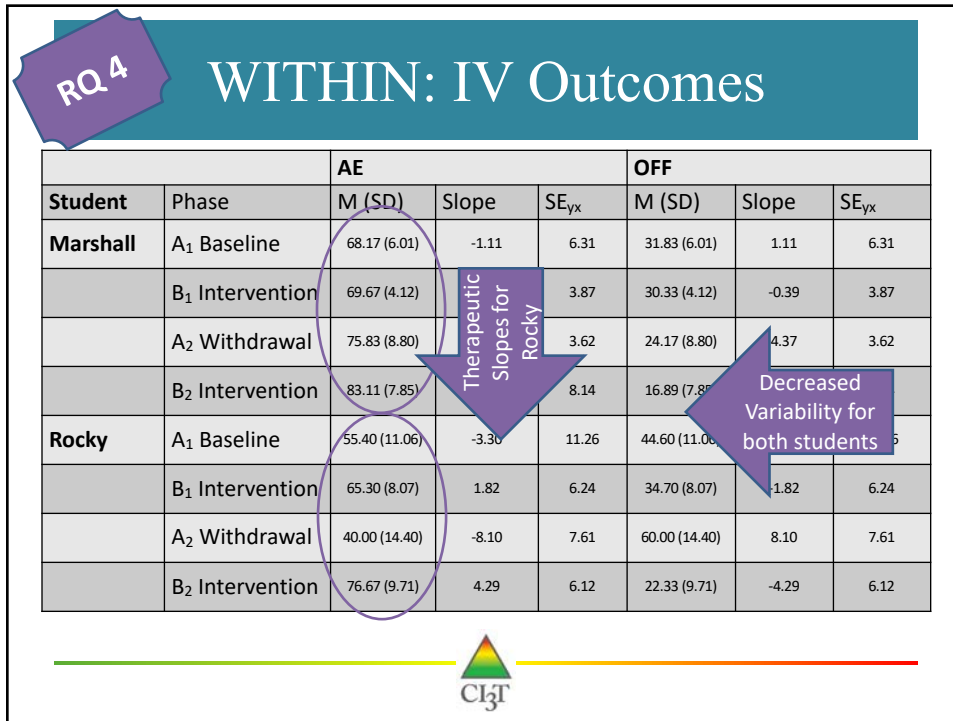
Rocky's AAE and AE

Rubble's AAE and AE

Zuma's AAE and AE
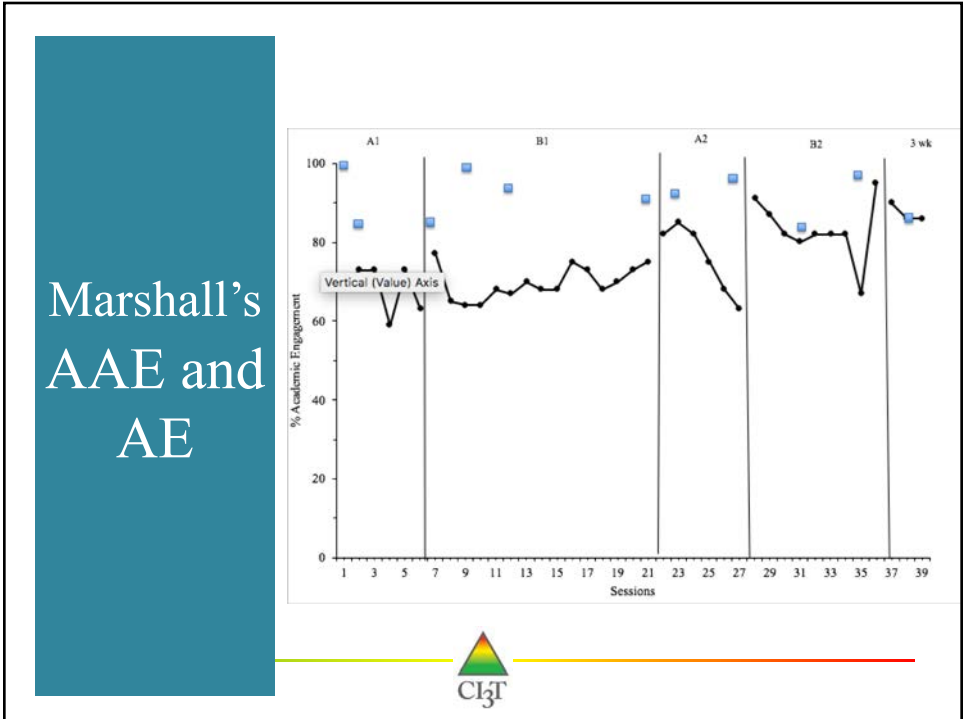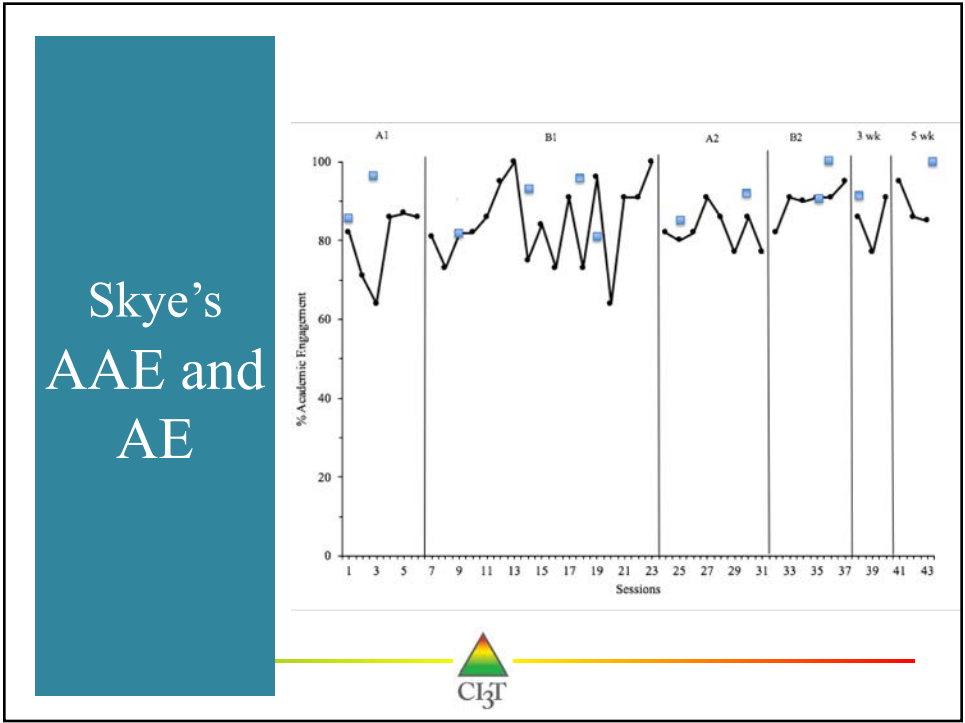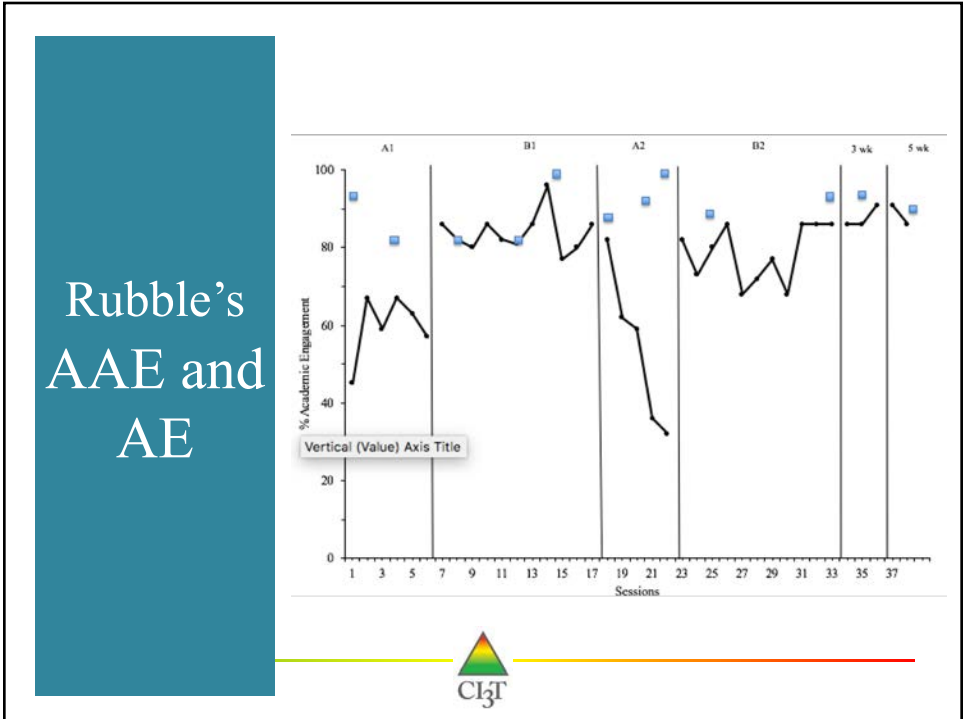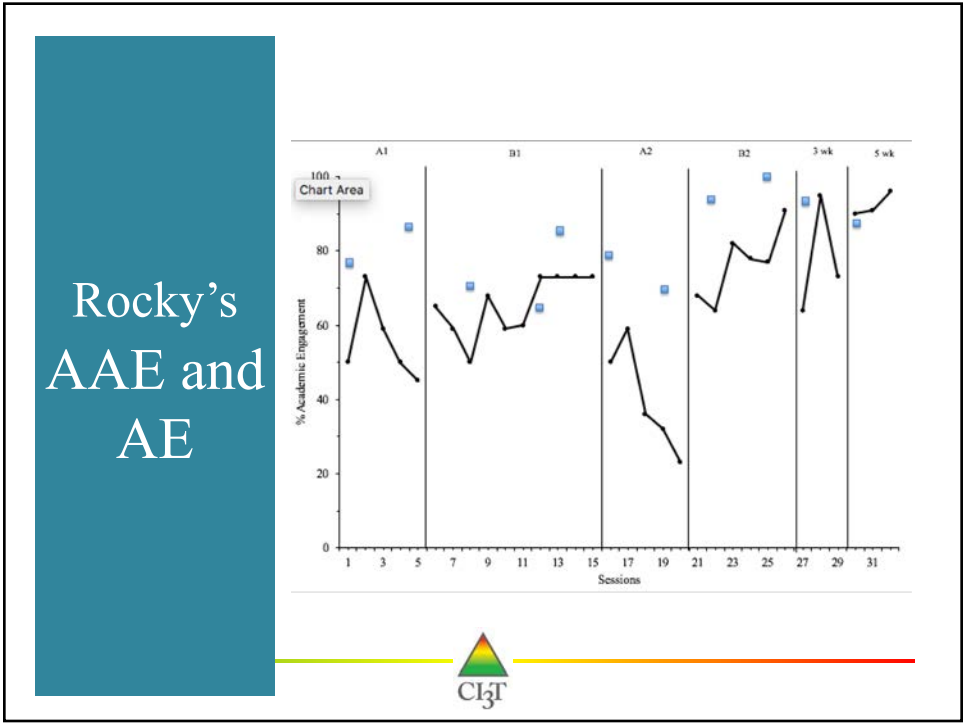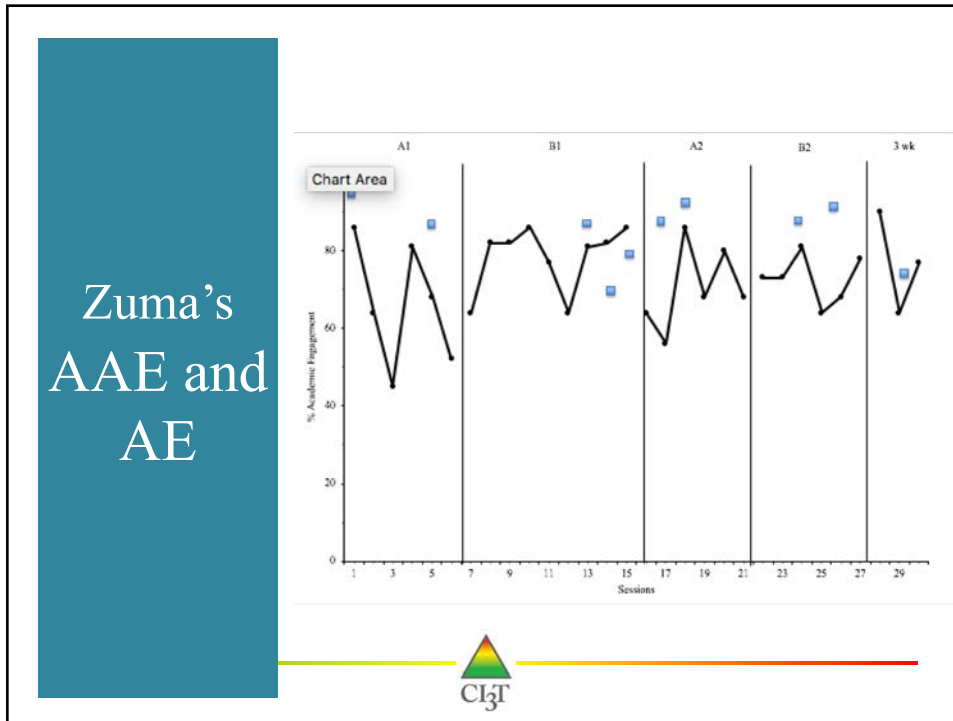
RQ 4   WITHIN: IV Outcomes

		AE			OFF		
Student	Phase	M (SD)	Slope		(SD)	Slope	SE$_{yx}$
Chase	A$_1$ Baseline	76.80 (7.69)	-2.		23.20 (7.69)	2.90	7.13
	B$_1$ Intervention	83.78 (9.24)	-1.27	9.16	16.22 (9.24)	1.27	9.16
	A$_2$ Withdrawal	71.40 (3.78)	-1.50	3.40	28.60 (3.78)	1.50	3.40
	B$_2$ Intervention	86.40 (5.32)	1.10	5.81	13.60 (5.32)	-1.10	5.81
Skye	A$_1$ Baseline	79.33 (9.58)	2.57	9.27	20.67 (9.58)	-2.57	9.27
	B$_1$ Intervention	84.53 (10.56)	0.48	10.61	15.47 (10.56)	-0.48	10.61
	A$_2$ Withdrawal	82.62 (4.84)	-0.30	5.17	17.38 (4.84)	0.30	5.17
	B$_2$ Intervention	90.00 (4.29)			10.00 (4.29)	-1.89	2.73

Changes in level for both

Data did not reverse

RQ 4

WITHIN: IV Outcomes

Student	Phase	AE M (SD)	AE Slope	AE SE_{yx}	OFF M (SD)	OFF Slope	OFF SE_{yx}
Marshall	A_1 Baseline	68.17 (6.01)	-1.11	6.31	31.83 (6.01)	1.11	6.31
	B_1 Intervention	69.67 (4.12)		3.87	30.33 (4.12)	-0.39	3.87
	A_2 Withdrawal	75.83 (8.80)		3.62	24.17 (8.80)	4.37	3.62
	B_2 Intervention	83.11 (7.85)		8.14	16.89 (7.85)		
Rocky	A_1 Baseline	55.40 (11.06)	-3.30	11.26	44.60 (11.06)		
	B_1 Intervention	65.30 (8.07)	1.82	6.24	34.70 (8.07)	-1.82	6.24
	A_2 Withdrawal	40.00 (14.40)	-8.10	7.61	60.00 (14.40)	8.10	7.61
	B_2 Intervention	76.67 (9.71)	4.29	6.12	22.33 (9.71)	-4.29	6.12

Therapeutic Slopes for Rocky

Decreased Variability for both students

CI3T

RQ 4

WITHIN: IV Outcomes

Student	Phase	AE M (SD)	AE Slope	AE SE_{yx}	OFF M (SD)	OFF Slope	OFF SE_{yx}
Rubble	A_1 Baseline	59.67 (8.26)	1.60	8.61	40.33 (8.26)	-1.60	8.61
	B_1 Intervention	83.82 (5.08)	0.06	5.3	16.18 (5.08)	-0.06	5.35
	A_2 Withdrawal	54.20 (20.50)	-12.60	5.57	45.80 (20.50)	12.60	5.57
	B_2 Intervention	78.55 (7.31)	0.57		(7.31)	-0.57	7.44
Zuma	A_1 Baseline	66.00 (15.94)	-3.49		(15.94)	3.49	16.26
	B_1 Intervention	78.22 (8.50)	1.07	8.53	21.78 (8.50)	-1.00	8.60
	A_2 Withdrawal	70.33 (10.91)	2.11	11.37	29.67 (10.91)	-2.11	11.37
	B_2 Intervention	72.83 (6.24)	-0.20	6.97	27.17 (6.24)	0.20	6.97

Changes in level for both

CI3T

Study 3

- High fidelity across all teachers (96%+)
- High IOA between researchers and teachers (range, 88 - 100%)
- Acceptable SV ratings for teachers (range, 75-88 of 90) and students (range, 29-41 of 42)
- Functional relation for *five* students

CI3T

Major Takeaways

- Narrowed the focus to reading in hopes that teachers would pick both choice types. However, all teachers selected within activity choice.
- We added a goal sheet to the training process to help teachers better understand the intent of the intervention and different ways to measure growth (i.e., not just an increase in level but also decreased variability and increased slope).
- We collected data on comparison peers to measure social validity of outcomes.

CI3T

Study 4

- RCT Trial with up to 40 teachers
- Up to 3 students in each class (internalizing, externalizing, and co-morbid)
- Comparing Ci3T Tier 1 to Ci3T Tier 1 + Tier 2 Instructional Choice

Related Resource

Lane, K. L., Menzies, H. M., Ennis, R. P., & Oakes, W. P. (2015). *Supporting behavior for school success: A step-by-step guide to key strategies*. New York, NY: Guilford Press.

Ci3T.org/pl

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