



University of Pittsburgh

Assessing Readiness to Implement Social-Emotional Learning Interventions

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Implementation

- High quality implementation increases the effectiveness of school-wide social-emotional learning (SEL) interventions (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).
- Unfortunately, intervention implementation varies widely (Weise, 1992; Weisz, Sandler, Durlak, & Anton, 2005).
- This high degree of variability is concerning because higher levels of implementation often relate to better outcomes for children (Hansen, 2001).



What is fidelity of implementation?

- The extent to which teachers implement new intervention practices in the manner in which they were designed.
- Also known as “treatment integrity”, “adherence”, “implementation quality”, etc. (Dane & Schneider, 1998; Durlak, 1998; Greenberg, Domitrovich, Graczyk, & Zine, 2005).





“The best strategy may well be to provide coaching and support where it is most needed to ensure that all teachers implement the program effectively.”

Goodwin, B. (2011). Implementation counts.
Educational Leadership, 69(2), 82-83.



How can we figure out who is going to implement our interventions successfully, **BEFORE** we spend our resources training them?

- A more efficient use of training resources.
- A more individualized approach to training that may increase efficacy.



Studying Predictors of Implementation with the *Responsive Classroom*® Approach

Study 1: Ask the teachers!

-Using focus groups to ask teachers what they perceived to influence their implementation.

Study 2: Triangulation with quantitative data.

-Following up the most salient focus group theme with quantitative data.

Study 3: What about teacher characteristics?

-Using baseline quantitative data to examine the role of teacher characteristics.

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Responsive Classroom®





Responsive Classroom®

- School-based SEL intervention for K-6th
- 10 main teaching practices to promote social and academic development.
- Practices include:
 - Morning Meeting
 - Conscious Teacher Language
 - Respectful Logical Consequences
 - Academic Choice



Responsive Classroom Efficacy Study (RCES)

- **PI: Dr. Sara E. Rimm-Kaufman, Center for Advanced Study of Teaching & Learning (CASTL), University of Virginia**
- **Three-year cluster RCT (random assignment at the school level)**
- **24 schools in the mid-Atlantic**
- **2000 children and their teachers from grades 2-5**

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Study 1: Ask the teachers!

1. Schools/Administration

- **“Gatekeepers of Change”** (Berends, Bodily, & Kirby, 2002; Desimone, Payne, Fedoravicius, Henrich, & Finn-Stevenson, 2004).
- **Principal support has related to implementation, but what does support mean exactly?** (Marshall & Caldwell, 2007; Ransford, Greenberg, Domitrovich, Small, & Jacobson, 2009; Kam, Greenberg, & Walls, 2003).

2. Intervention Coaches

- **Coaching produces change in teacher practices** (Joyce & Showers, 2002; Grierson & Gallagher, 2009, Wallace, Blasé, Fixsen, & Naoom, 2008).
- **Implementation varies systematically by differences in coaching** (Downer, LoCasale-Crouch, Hamre, & Pianta, 2009).





Study 1: Ask the teachers!

3. Other Teachers

- Interacting with supportive colleagues supports implementation (Fine, 2010; Franke, Carpenter, Levi, & Fennema, 2001).

4. Students

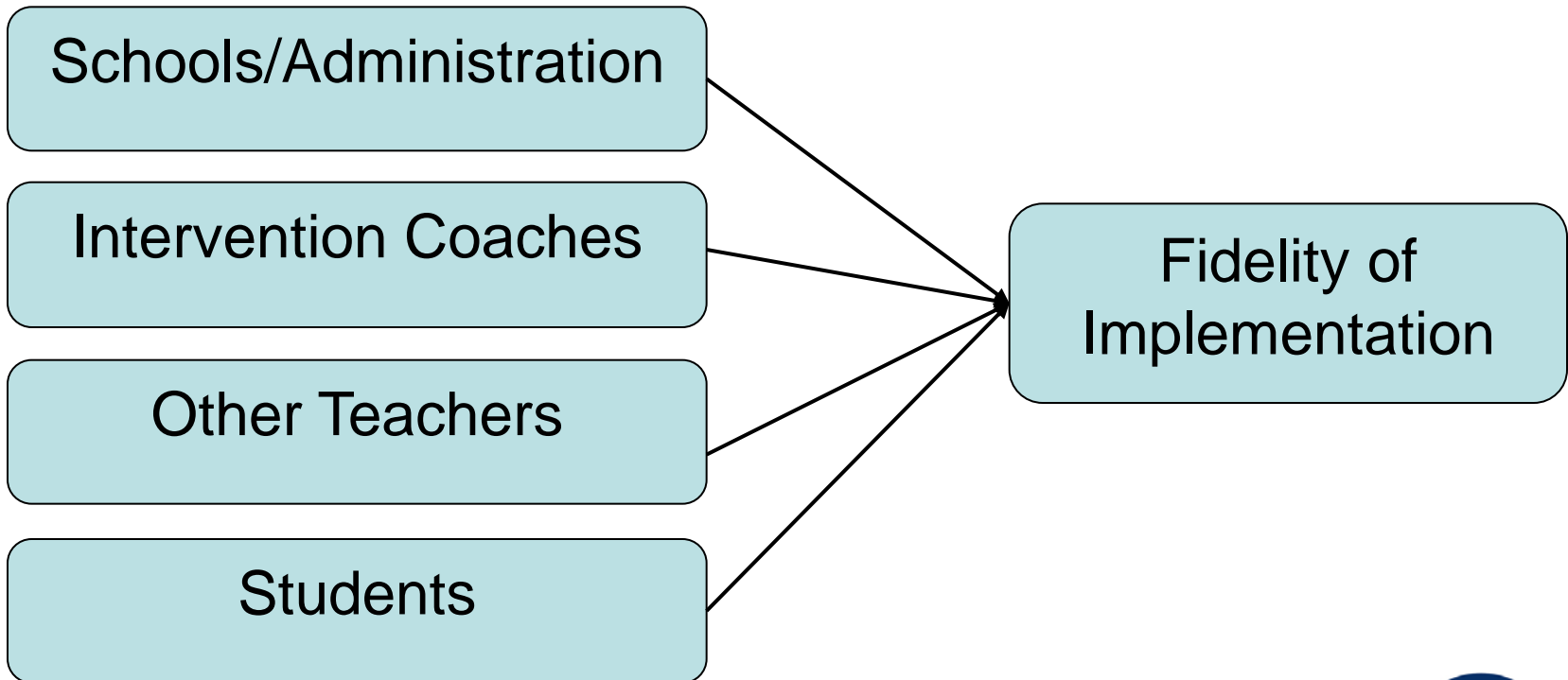
- Smaller class sizes, higher rates of students living in poverty, and more ethnic minority students relate to high levels of implementation (Berends, et al., 2002; Zvoch, 2009).
- Higher student interest in the intervention topic relates to higher rates of teacher implementation (Ringwalt, et al., 2003).





Initial Conceptual Model

Setting Level Influences





Study 1: Ask the teachers!

Research Questions

1. What are the setting level factors that support and create barriers to implementation?
2. What specific mechanisms do teachers perceive to account for the relations between setting level factors and teachers' implementation?



Study 1: Ask the teachers!

Participants and Procedure

- Eight Focus Groups, Summer after First Year of Implementation
 - 33 3rd grade teachers out of 63 randomly assigned to the intervention group volunteered to participate in focus groups.
 - Not significantly different from sample, based on the following:
 - Gender: 31 female, 2 male
 - Education Level: 17 with at least a Master's Degree
 - Age: 34.27 (10.80) years
 - Teacher-Rated Use of *RC* Practices at Baseline
- Structured Protocol, yet room for following leads. Final Questionnaire.



Study 1: Ask the teachers!

Analytic Strategy

- Transcripts were independently read, re-read, and coded for supports and barriers for the four setting level influences and *other*. *Students* folded into *other*.
- Dropped the need for supports and barriers.
- Independently organized quotes into 12 codes based on content (Miles & Huberman, 1994). Dropped 4 lesser codes, and clustered the 8 into 3.
- Questionnaire responses were tabulated.



Study 1: Ask the teachers!

RQ 1: Findings

	Greatest Support	Greatest Barrier
Schools/Administration	11%	70%
Intervention Coaches	70%	0%
Other Teachers	15%	15%
Students	4%	15%



Study 1: Ask the teachers!

RQ 2: Findings

- **Principal buy-in**
 - Motivation, Consistency, Accommodation
- **Individualized Coaching**
 - Real-world Applications, On-demand Resources
- **Psychologically Safe Context**
 - Validation, Pace, Social Support





Study 1: Ask the teachers!

This study:

- Provides specificity to definitions of influences on implementation
- Makes us wonder if principal buy-in, in particular, can be quantitatively assessed



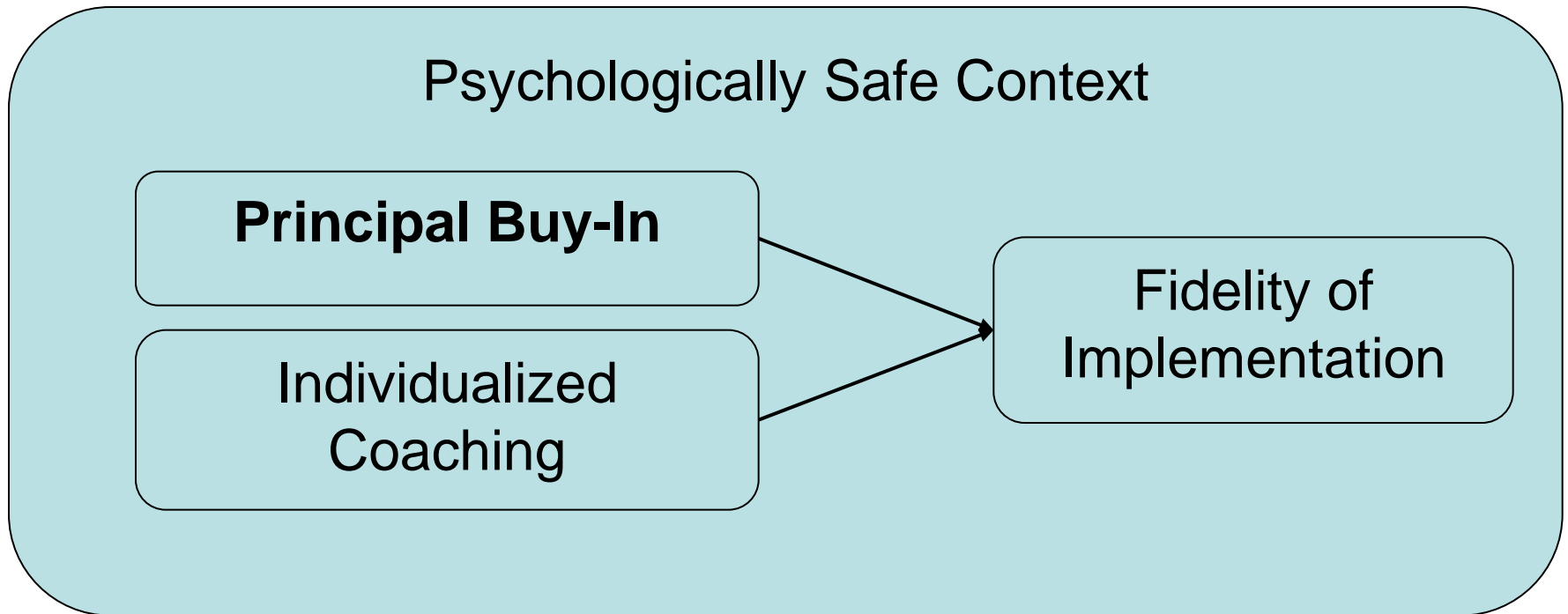
Study 2: Triangulation

- Principals all said they wanted to participate in RCES...
- But 70% were perceived as barriers to implementation.
- Who could help us quantitatively rate principal buy-in?
- Different raters have different internal reference groups, experiences with the construct, and demographic characteristics (Heine, Lehman, Peng, & Greenholtz, 2002; Mashburn, Hamre, Downer, & Pianta, 2006).





Revised Conceptual Model





Study 2: Triangulation Reporters

Principals tend to rate their schools more favorably than teachers (Bingham, Haubrich, & White, 1993; Desimone, 2006).

- Principals
- Teachers

Outside observers have been found to have greater predictive validity than self-reports (Borkenau & Liebler, 1993).

- Intervention Coaches for Teachers (CTs)
- Intervention Coach for Principals (CP)





Study 2: Triangulation

Research Questions

1. Are reports of principal buy-in significantly related to teachers' observed implementation?
2. To what extent do reports of principal buy-in converge across raters?





Study 2: Triangulation

Participants

Teachers

- A new cohort of teachers
- 4th grade intervention teachers in the end of their second year of implementation.
- All 48 participated
- 39 were female, 32 had at least a master's degree, $M=10$ years (2-34) teaching experience.

Principals

- All 13 principals participated and 12 were the same as in Study 1.
- 10 were female, $M=7$ years (2-20) as principals.





Study 2: Triangulation

Participants

CTs

- 6 CTs, all employed by NEFC, same as in Study 1.
- 4 were female, 5 had at least a master's degree, $M=8$ years (6-12) coaching experience at NEFC.

CP

- One CP from NEFC worked with principals throughout RCES.
- Female, former principal of an *RC* school, extensive experience with implementing schools.



Study 2: Triangulation Measures

Observed Fidelity of Implementation

- Classroom Practices Observational Measure (C-POM; Abry, Brewer, Sawyer & Rimm-Kaufman, 2007)
- 16 items, live coded, 3 times per year during mathematics instruction.

Principal Buy-In Questionnaires

- Teachers: 6 items ($\alpha=.74$)
- Principals: 2 items ($\alpha=.70$)
- CTs: 8 items ($\alpha=.88$)
- CP: 11 items ($\alpha=.95$)





Study 2: Triangulation

RQ 1: Findings

Multilevel models of relations with implementation

	Standardized	Unstandardized	Standard Errors
MODEL 1 Teacher	.05	.02	.10
MODEL 2 Principal	.67	.19	.20
MODEL 3 CTs	1.00	.19**	.07
MODEL 4 CP	.98	.10*	.05

***=p<.001, **=p<.01, *=p<.05





Study 2: Triangulation

RQ 2: Findings

	M (SD)	CV	1	2	3	4	5
1. Teacher Rating	2.96 (.58)	19.59	---				
2. Principal Rating	3.73 (.38)	10.19	.10	---			
3. CT Rating	2.58 (.81)	31.40	.30*	.54***	---		
4. CP Rating	1.77 (1.08)	61.10	.20	.65***	.86***	---	
5. Observed Implementation	1.72 (.30)	17.44	.06	.23	.45**	.36*	---

***=p<.001, **=p<.01, *=p<.05





Study 2: Triangulation

- Do CT/CP ratings relate to implementation because they are from an outside perspective, or because they items reflected unique aspects of principal buy-in?
 - More concrete behaviors such as returning phone calls
- Across Study 1 and Study 2 we narrowed in on the importance of principals and coaches, but we can't help but wonder...



Study 3: What about teachers?

1. Initial teacher beliefs (**Efficacy**) and practices (**Alignment**) can influence teachers' pathway through implementation (Bruce & Ross, 2008; Evans, 1996; Greenberg, Domitrovich, Graczyk, & Zins, 2010).

- In previous studies of *RC* greater teacher self-efficacy and having teaching priorities similar to *RC* were related to greater implementation (Rimm-Kaufman & Sawyer, 2004).

2. Start at baseline!

- Coaches cannot rate principal buy-in at baseline with our items. This is when we need to determine how to individualize supports.





Study 3: What about teachers?

Research Questions

1. What is the relation between teachers' ***initial*** alignment with the intervention and initial perceptions of their efficacy with observed implementation of *RC* after training was complete, two years later?
2. What is the relation between ***initial*** alignment and efficacy with implementation via engagement in *RC* training?



Re-Revised Conceptual Model

Psychologically Safe Context

Coach-Rated
Principal Buy-In

Individualized
Coaching

Engagement

Teacher Alignment &
Self-Efficacy

Fidelity of
Implementation





Study 3: What about teachers?

Participants & Measures

- Same 4th grade teachers, principals, and CTs as Study 2.
- Same observed implementation measure (CPOM)
- CT rated Engagement in Training, 7 items, ($\alpha=.76$)
- **Alignment**
 - Teacher-rated 46 items, ($\alpha=.92$)
 - CLASS Emotional Support, ($\alpha=.88$; Pianta, LaParo, & Hamre, 2008)
- **Efficacy**
 - Teacher-rated Efficacy in Classroom Management, 4 items, ($\alpha=.89$)
 - Teacher-rated Efficacy to Create a Positive School Climate, 5 items, ($\alpha=.70$)

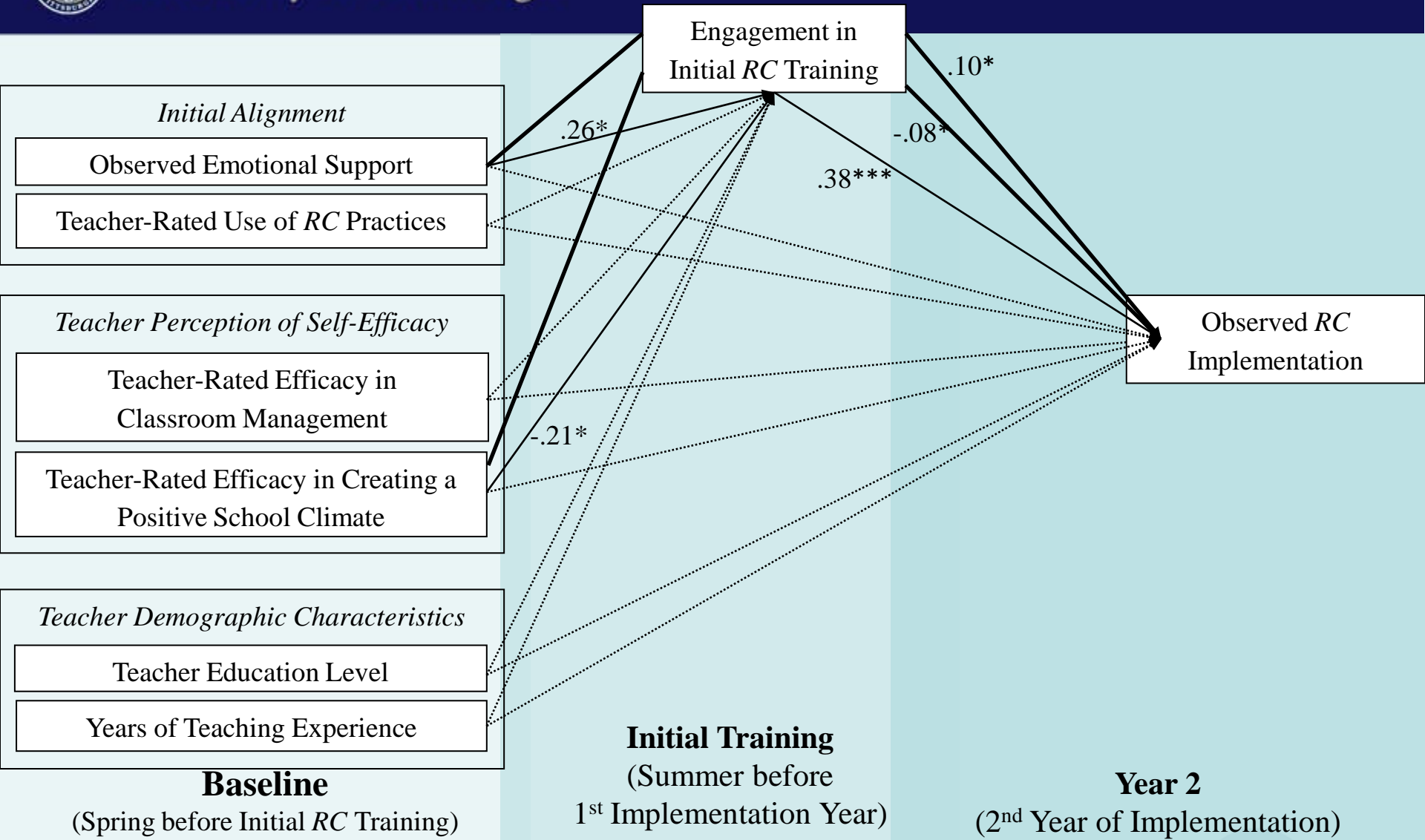


Figure 1. Multilevel structural equation model of baseline predictors of implementation. Standardized coefficients are reported when two-tailed p-values are significant (*p<.05, **p<.01). The dotted lines are not significant. The thick line indicates an indirect effect. (N = 133).



Study 3: What about teachers?

Lingering Questions

- Mechanisms underlying Observed Emotional Support relation.
 - Alignment with aims of *RC* or with training style?
- Efficacy to Create a Positive School Climate: Overconfidence?
 1. How much can you do to make the school a safe place?
 2. How much can you do to make students enjoy coming to school?
 3. How much can you do to get students to trust teachers?
 4. How much can you do to help other teachers with their teaching skills?
 5. How much can you do to enhance collaboration between teachers and the administration?
- Why via engagement and not direct?





Lingering Questions Regarding Generalization

- Can SEL interventions be categorized into “levels of change” that would interact with how predictors relate to implementation?
- How can we create an implementation readiness screening tool to help individualize our supports for SEL implementation?
- Next steps: Examining Psychologically Safe Context at baseline.



Thank you.

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