Differential Effects of *INSIGHTS* on Children with High Maintenance Temperaments

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Today's presentation

- What is *INSIGHTS?*
- How was the last efficacy study conducted?
- Were there differential effects for children with high maintenance temperaments?
- What's next?

INSIGHTS into Children's Temperament

- Temperament-based intervention
- Universal preventive intervention with some targeted elements
- Three programs 10 weeks long
  - Teachers
  - Parents
  - Children/Classroom
- Facilitators
  - Manuals
  - Videotapes

Meet the *INSIGHTS* Kids



Coretta the Cautious,
Gregory the Grumpy,
Freddy the Friendly,
and Hilary the Hard Worker



Carl the Cautious,
Gretchen the Grumpy,
Felicity the Friendly,
and Henry the Hard Worker

INSIGHTS

- Parent & Teacher Programs
  - 2 hours per week
  - Enhancing GOF
  - Role-playing
  - Homework
- Child Program
  - 30 min. classroom session/week
  - Empathy skills
  - Solving daily dilemmas



Enhancing Goodness of Fit

- Younger children
  - Responsibility of caregiver
- As children get older
  - GOF can be enhanced by supporting children in temperamentally-challenging situations



Temperamentally Challenging Situations

- Scaffold
  - Recognize when the situation is challenging
  - Assess level of distress
  - Remove or stretch



- Stretch
  - Make a plan
  - Prepare your child
  - Continue to monitor
  - Provide recognition

Three Randomized Clinical Trials

- Funded by the National Institutes of Health
  - Sandee McClowry, Cathie Tamis-LeMonda, & David Snow
    - 1R01NR04781 6/98-5/04 Behavior problems
    - 2R01NR04781 6/03-6/08 Social competences
- **Funded by the Institute of Education Sciences**
  - **Sandee McClowry, Erin O' Connor, & Elise Cappella**
  - **R305A080512 7/08-6/12 Academic learning**
-

Our Third Clinical Trial

Impact on the academic learning context

The *INSIGHTS* Team

- Project managers
  - Marri Davis
  - Jordan Morris
- Field coordinators
  - Iymaani Aytes
  - Annie Benedict
  - Alpana Choudhury
- Assistant field coordinators
  - Mike Brown
  - LaToya Murray-Berry
  - Kathy Wu
- Facilitators
  - Ashleigh Collins
  - Mark Greenwald
  - Claire Hatamiya
  - Gise Oliviera
  - Eileen Rodriguez
  - Ashley Turbeville
- Read Aloud coaches
  - Vanessa Baldini
  - Wendy Barrales
  - Lacy Benton
  - Jennifer Keon
  - Jillian Malkiewich
  - Andrew Mink
  - Rzlil Ben-Shoan
  - Leanne Tsurda
  - Ryan Weldon
- Data collectors
  - Dian Chen
  - Shelby Cooley
  - Terry Eva
  - Adrienne Farr
  - Molly Greenberg
  - Emily Ho
  - Sibyl Holland
  - Laura Hopf
  - Yana Kuchirko
  - Nino Makharadze
  - Sara Martinez
  - Rachel Meshevey
  - Kaitlyn Mishlen
  - Neha Pandit
  - Emma Santucci
  - Roni Weissman
- Data entry
  - Patricia Acosta
  - Hind Albana
  - Sophie Barnes
  - Christine Campo
  - Christine Carson
  - Dustin Daniels
  - Emily Gallagher
  - Sacha Isaacson
  - Melanie Kressel
  - Grace Kye
  - Brit Kuehn
  - Corey Halliwell
  - Alissa Novick
  - Jodi Rabinowitz
  - Elizabeth White
  - Jaclyn Wilson
- Research assistants
  - Nicole Colwell
  - Rhonda Donoho
  - Geraldine Mapel
  - Jackson Taylor
- Trainers
  - Trika Smith-Burke
  - Caroline Wagner
  - Rose Vukovic, PhD
  - Jane Korczynski

INSIGHTS Logic Model

Intervention

INSIGHTS

Recognizing temperament
Building positive interactions
Fostering social competencies

Teachers
- Enhancing responsivity
- Managing classrooms

Children in Classrooms
- Promoting empathy
- Increasing self-regulation

Parents
- Enhancing responsivity
- Increasing parenting skills

Outcomes: Context

Classroom

↑ Effective teaching practices (support, org.)
↑ Classwide engagement
↓ Classwide off-task behaviors

Home

↑ Parent efficacy
↑ Parent involvement
↑ Parent-child relationship

Outcomes: Child

Behavioral

↓ Behavior problems
↑ Behavioral engagement
↓ Off-task behaviors
↑ Sustained attention

Academic

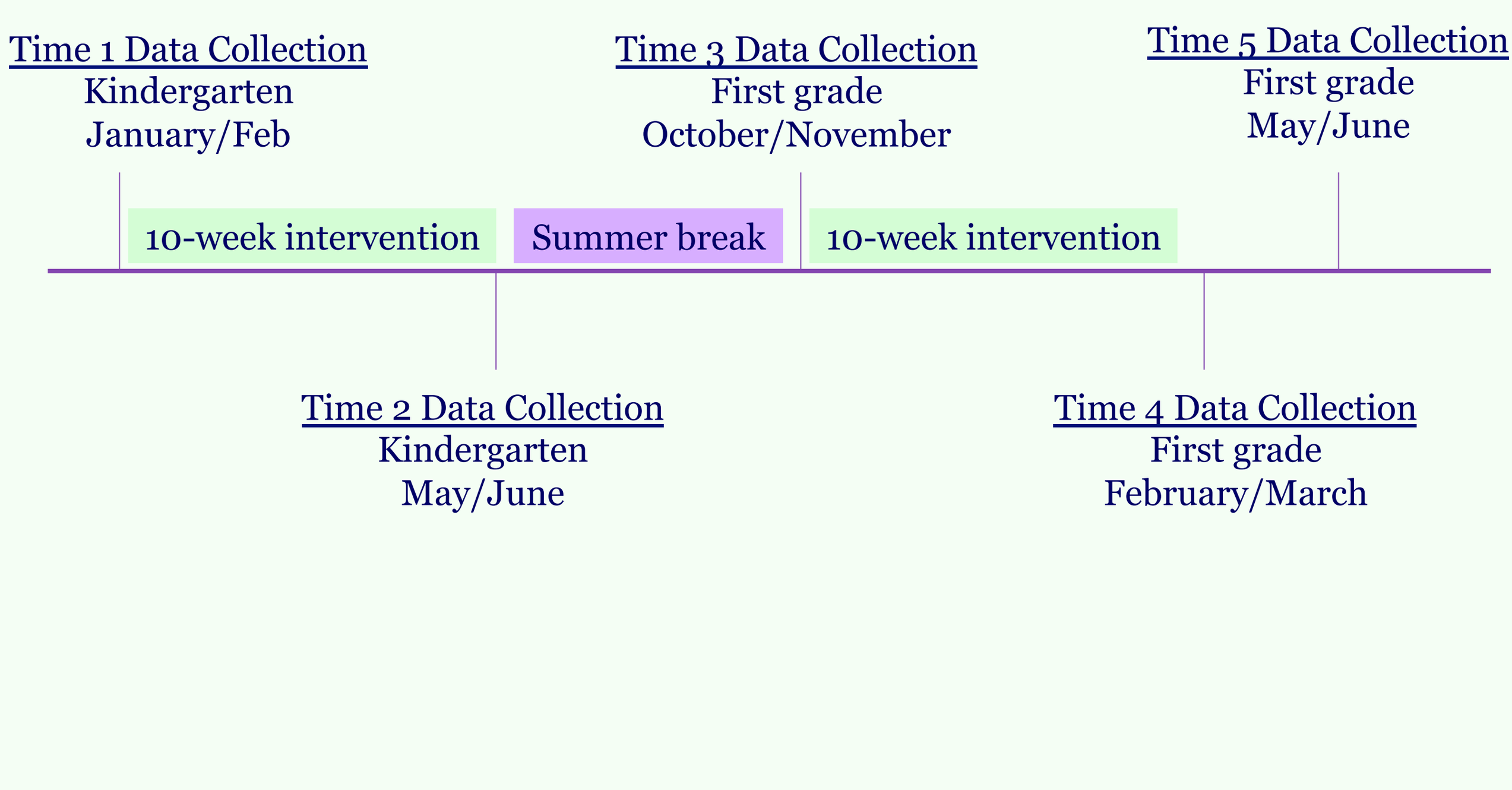
↑ Critical thinking skills
↑ Reading achievement
↑ Math achievement

Moderators: Child temperament & gender
Teacher background, efficacy, relationships, instruction;
School composition, structure, organizational health.

Research Study Design

- Cluster randomized trial
  - 22 urban under-resourced elementary schools
  - Three consecutive cohorts enrolled, 2008 - 2010
  - Schools were randomly assigned to:
    - *INSIGHTS* treatment
    - Attention-control condition

Data Collection Procedures



An Attention Control Group: The Supplemental Reading Program

- Developed by reading faculty
- Children meet after school with a reading coach for 10 sessions
- 2 parent workshops and materials
- 2 teacher workshops and materials

Study Participants
N = 435 student/parent dyads, 122 teachers, 22 schools

Demographic characteristic	Treatment	Control
Child characteristics		
Black	76%	73%
Hispanic	20%	17%
Biracial	11%	10%
Female	48%	47%
High maintenance temperament	**16%**	**16%**
Parent characteristics		
Less than HS diploma	36%	36%
HS diploma/GED	29%	27%
Some college	24%	25%
College diploma	23%	24%
Married	34%	35%
Works full-time	15%	13%
Works part-time	35%	34%
Mother is primary reporter	83%	85%
Sample size	**225**	**207**

Dosage and Fidelity of Implementation

Attendance	Teachers	Parents	Children
10 sessions	9.44 (SD=.91)	5.93 (SD=4.15)	8.3 (SD=2.25)

Fidelity	Teachers	Parents	
Fidelity (%)	94.32	92.37	

Effect sizes of *INSIGHTS* in Improving Student Outcomes

Type of Effects	Outcomes	Effect Sizes
Main effects on children	Reading achievement	.55
	Math achievement	.31
	Sustain attention	.39
	Behavior problems	.54
Moderated effects on shy children	Math skills	.36
	Critical thinking skills	.40
Effects of on classrooms	Classroom emotional support	.30
	Classroom emotional support (1st grade)	.68
	Classroom organization (1st grade)	.93
	Classroom engagement (Kindergarten)	.52
	Classroom off-task behaviors (1st grade)	.58

High Maintenance Temperament

Gregory & Gretchen the Grumpy



Negative Reactivity	Task Persistence	Withdrawal	Motor Activity
High	High	High	High
✸			✸
	✸		
Low	Low	Low	Low



High Maintenance Temperament

Children with high maintenance are:

- At-risk for disruptive behaviors
- Low levels of behavioral engagement
- Are challenging for their teachers
- At-risk for lower-quality relationships with teachers



Research Questions for This Differential Analysis

- For children with high maintenance temperaments, did *INSIGHTS*:
  - Reduce disruptive behavior problems?
  - Improve behavioral engagement?
  - Reduce off-task behaviors?
- For children with high maintenance temperaments, were the effects of *INSIGHTS* mediated through improvements in teacher-child relationship quality?

The Current Analysis

Intervention

INSIGHTS

Recognizing temperament
Building positive interactions
Fostering social competencies

Teachers

- Enhancing responsivity
- Managing classrooms

Children in Classrooms

- Promoting empathy
- Increasing self-regulation

Parents

- Enhancing responsivity
- Increasing parenting skills

Outcomes: Child

Behavioral

↓ Behavior problems
↑ Behavioral engagement
↓ Off-task behaviors

High maintenance temperament

Measures for Current Analysis

Name of Measure	Construct	Method
School-Age Temperament Inventory	Temperament dimensions	Parent report
Sutter Eyberg Student Behavior Inventory	Disruptive behaviors	Teacher report
Behavioral Observation of Students in Schools	Behavioral engagement & off-task behaviors	Direct obs.
Student Teacher Relationships Scale	Closeness/Conflict	Teacher report
Covariates	Gender, race, age, outcomes at T1	Parent/teacher report. observed

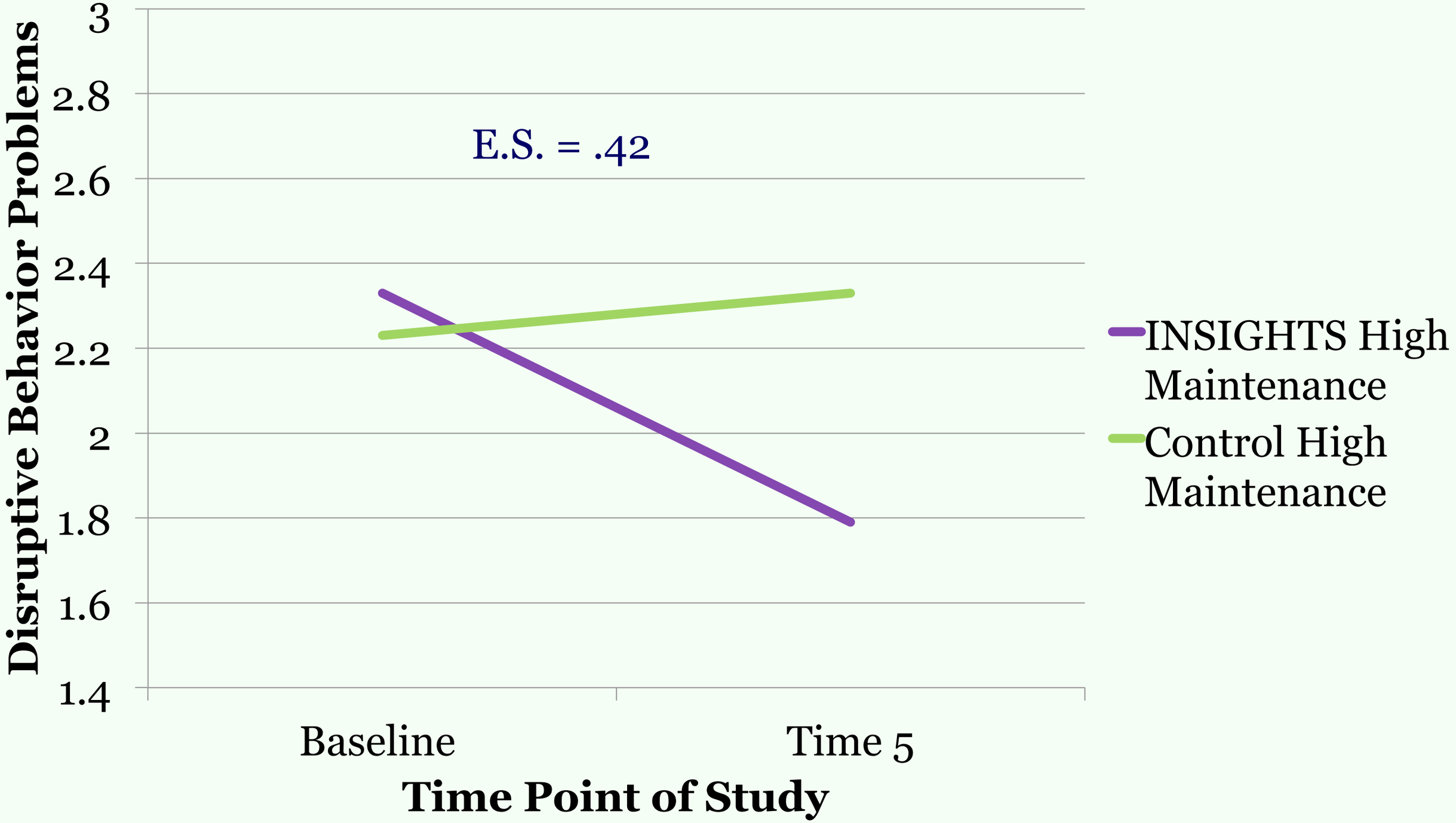
Descriptive Statistics for Children with High Maintenance Temperaments Across Time

	INSIGHTS		Control		T5 Sig.
Variable	T1	T5	T1	T5	
Disruptive behaviors	**2.33**	**1.89**	**2.23**	**2.82**	**
Behavioral engagement	**0.58**	**0.74**	**0.63**	**0.66**	*
Off-task behaviors	**0.18**	**0.12**	**0.15**	**0.15**	*
S-T relationship quality	**2.32**	**2.60**	**2.36**	**2.01**	**
Child age	**5.71**	-	**5.57**	-	
Child black	**0.74**	-	**0.69**	-	
Child Hispanic	**0.28**	-	**0.26**	-	
Child female	**0.29**	-	**0.31**	-	

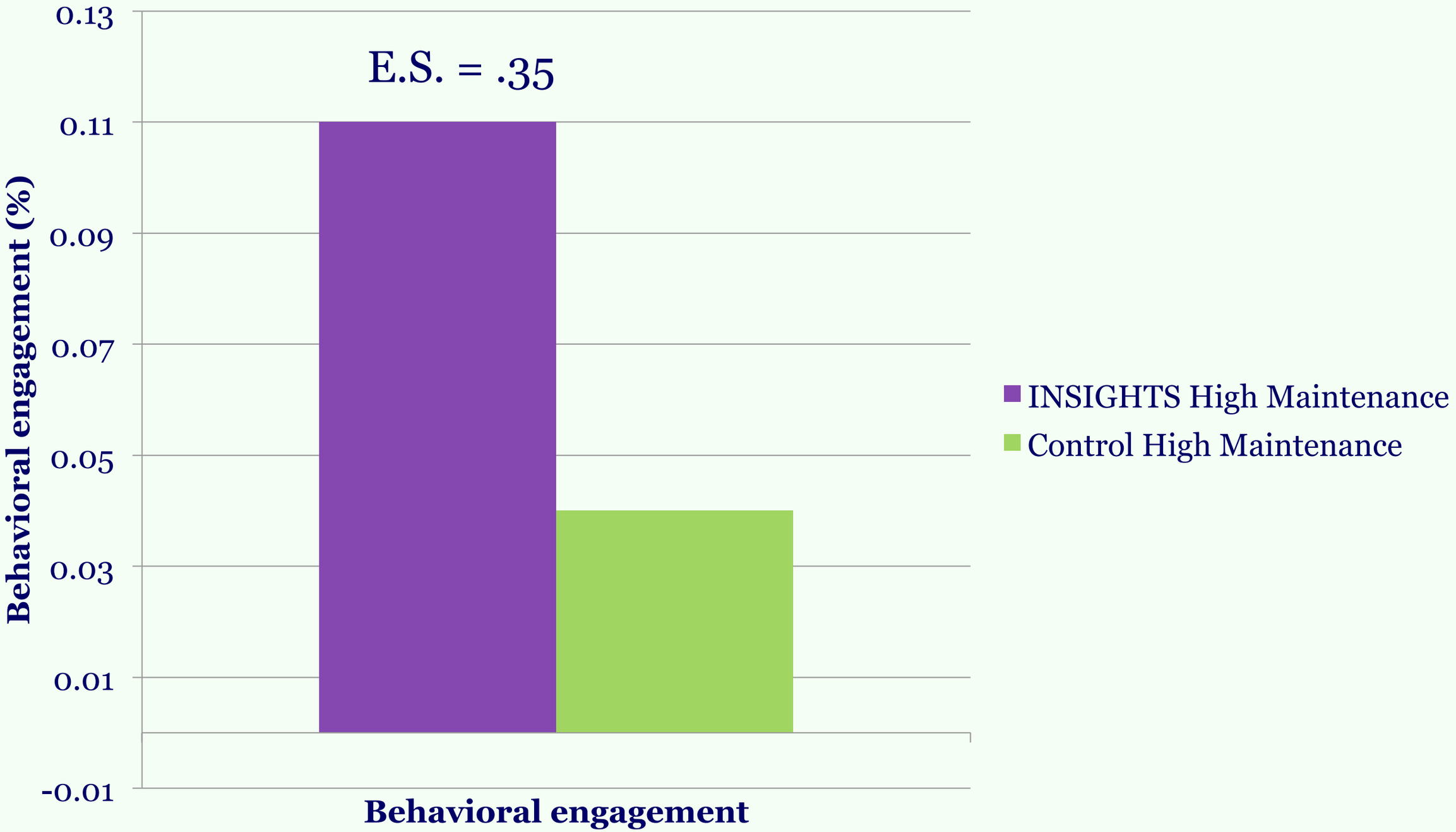
Moderated effects of *INSIGHTS* on behaviors and engagement of children with high maintenance temperaments



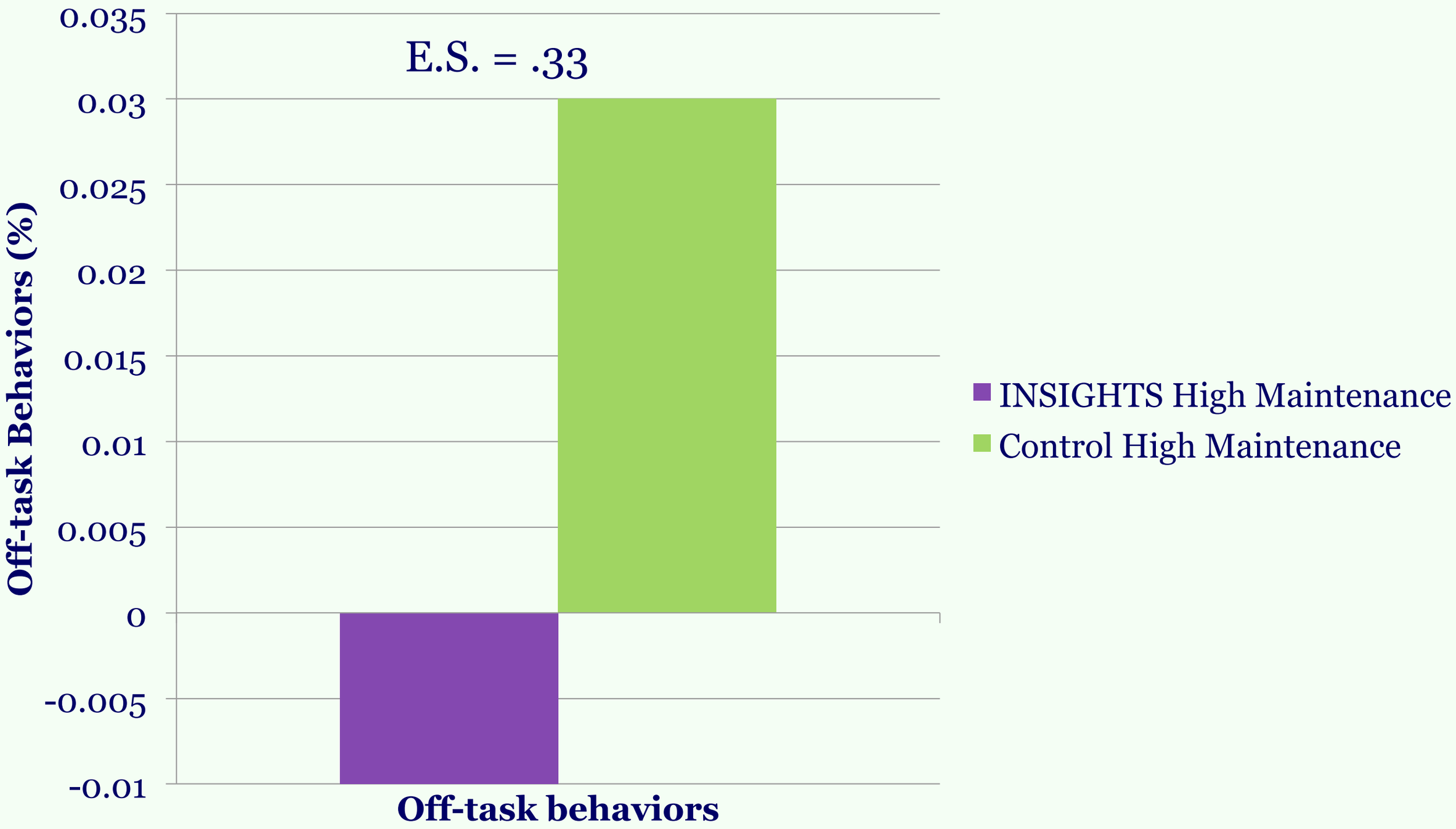
Did *INSIGHTS* reduce disruptive behaviors for children with high maintenance temperaments?



Did *INSIGHTS* increase behavioral engagement for children with high maintenance temperaments?



Did *INSIGHTS* reduce off-task behaviors for children with high maintenance temperaments?



Effects of *INSIGHTS* mediated through improvements in student-teacher relationship quality?

Intervention

Outcomes: Child

E.S. = .65

INSIGHTS

Mediator
↑ Student-teacher relationship quality

Behavioral
↓ Behavior problems
↑ Behavioral engagement
↓ Off-task behaviors

High maintenance temperament

Effect Sizes for Differential Effects on Children with High Maintenance Temperaments

Study Outcome	Effect Size
Reduction in disruptive behavior	.42
Enhanced behavioral engagement	.35
Less off-task behavior	.33
Improved student/teacher relationship	.65

Why did *INSIGHTS* work for children with high maintenance temperaments?





What's next???

- Long-term efficacy
- Replication in Nebraska
- Beginning in Appalachia
- Moving INSIGHTS into other communities
  - Training March 12-14, 2015

More information

- http://steinhardt.nyu.edu/insights/
- www.insightsintervention.com
- sandee.mcclowry@nyu.edu

WE GOTTA GO!
BYE!

