



# Randomized Trial Testing The Integration of the Good Behavior Game and MyTeachingPartner™: The Moderating Role Of Distress Among New Teachers On Student Outcomes

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# Background

- Growing body of research documents effects of classroom management programs on range of student outcomes (Bradshaw et al., 2009; Greenberg et al., 2003; Petras et al., 2011)
- New/early teachers often have no direct training on classroom management, and express concerns about handling student disruptive behavior (Browsers & Tomic, 2000; Greenberg, Brown, & Abenavoli, 2016)
- Early career teachers may be more amenable to training, innovations, and feedback
- Major areas of need for PD of new teachers: classroom behavior management, classroom organization, positive and engaged relationship around learning among teachers and students (Ialongo et al., 1999; Oliver & Reschley, 2007; Pianta et al., 2007)



# Three Major Aims

- Combine 2 empirically supported approaches (GBG and MTP) for improving classroom management and teacher-student relationships
  - Both have previously been shown to impact student behavior and achievement
- Focus on new/early teachers to promote effective practices from the start
- Test for moderation of program effects by teacher (distress) and class characteristics (student disruption)



# Supporting Classroom Management and Instruction

Integrating Two Evidence-Based Interventions



***Good Behavior  
Game (GBG)***

Classroom Management  
System

***My Teaching  
Partner (MTP)***

Enhancing Teacher-  
Student Interactions



# Good Behavior Game (GBG)

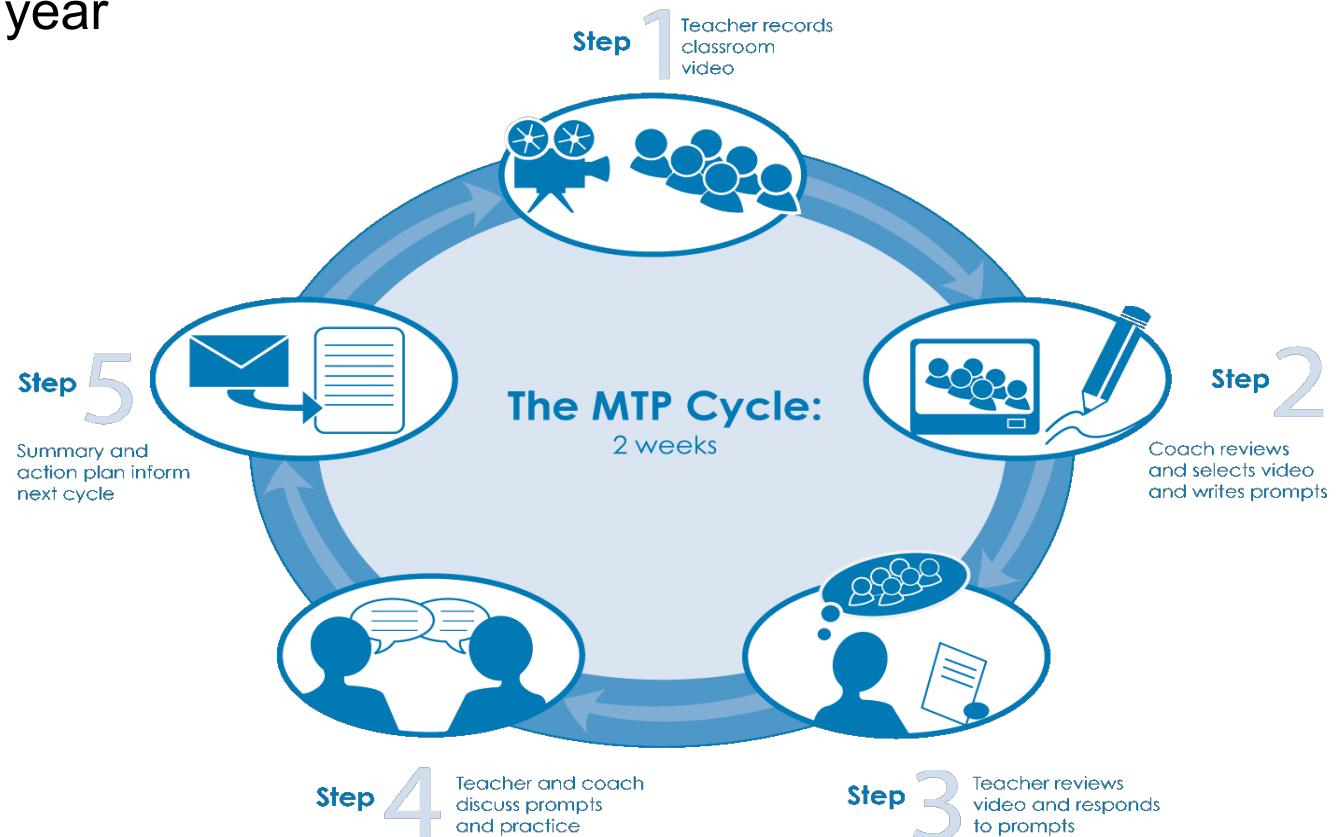
- Group-based classroom behavior reinforcement approach
- Teams of students “compete” for rewards for staying on task, minimizing disruptive behaviors during class instruction
- Facilitates academic instruction opportunities/time through increased student inhibition and reduced distracting behaviors

(Bradshaw et al., 2009; Jalongo et al., 1999; in press; Kellam et al., 1998; Petras et al., 2011)



# MyTeachingPartner (MTP) Coaching Model

- One-on-one, video-based coaching mediated through the web
- Focuses on facilitating teacher-student interactions that are emotionally supportive, well-organized, and cognitively enriching
- 8-10 cycles per year



(Pianta et al., 2007)



# Study Design: Teacher-level Randomized Trial

- Enrolled 3 cohorts of teachers for 2 years each
  - Annually enrolled an average of 75-80 K-3 new/early career teachers
- Eligible teachers (1<sup>st</sup> - 3<sup>rd</sup> year teachers)
  - Hired to start full-time classroom instruction for grades K-3 in the fall
  - Completed at least bachelors in education; eligible for certification
  - All served urban, relatively impoverished communities
- Participate for 2 years
  - 1<sup>st</sup> year: coaching
  - 2<sup>nd</sup> year: sustainability
- Student data at class level
  - 8-10 students randomly selected from each class for assessment



# Measures for Present Study

- **School Characteristics:** Total student enrollment, racial/ethnic breakdown, percent free/reduced lunch
- **Teacher Characteristics:**
  - Demographics, Professional Experience & Level of Education
  - Distress About Teaching
- **Classroom Behavior (Observations):**
  - Level of Student Disruptive Behavior
  - Level of Off-Task Behavior
  - Student Compliance with Teacher Directions
- **Academic Achievement:** Woodcock Johnson Reading and Math





# Training Year Timeline

## GBG + MTP Teachers

1. Fall Assessments (Aug. – Oct.)
  - Classroom Observations
  - Teacher Ratings
  - Student Assessments
2. Random Assignment to Condition (Oct.)
3. GBG+MTP Teacher Training (Oct.)
4. Intervention Implementation (Oct-June)
5. GBG Booster Training Sessions (Dec/Jan)
6. Spring Assessments (May)
  - Classroom Observations
  - Teacher Ratings
  - Student Assessments

## Control Teachers

1. Fall Assessments (Aug. – Oct.)
  - Classroom Observations
  - Teacher Ratings
  - Student Assessments
2. Random Assignment to Condition (Oct.)
3. Spring Assessments (May)
  - Classroom observations
  - Teacher Ratings
  - Student Assessments

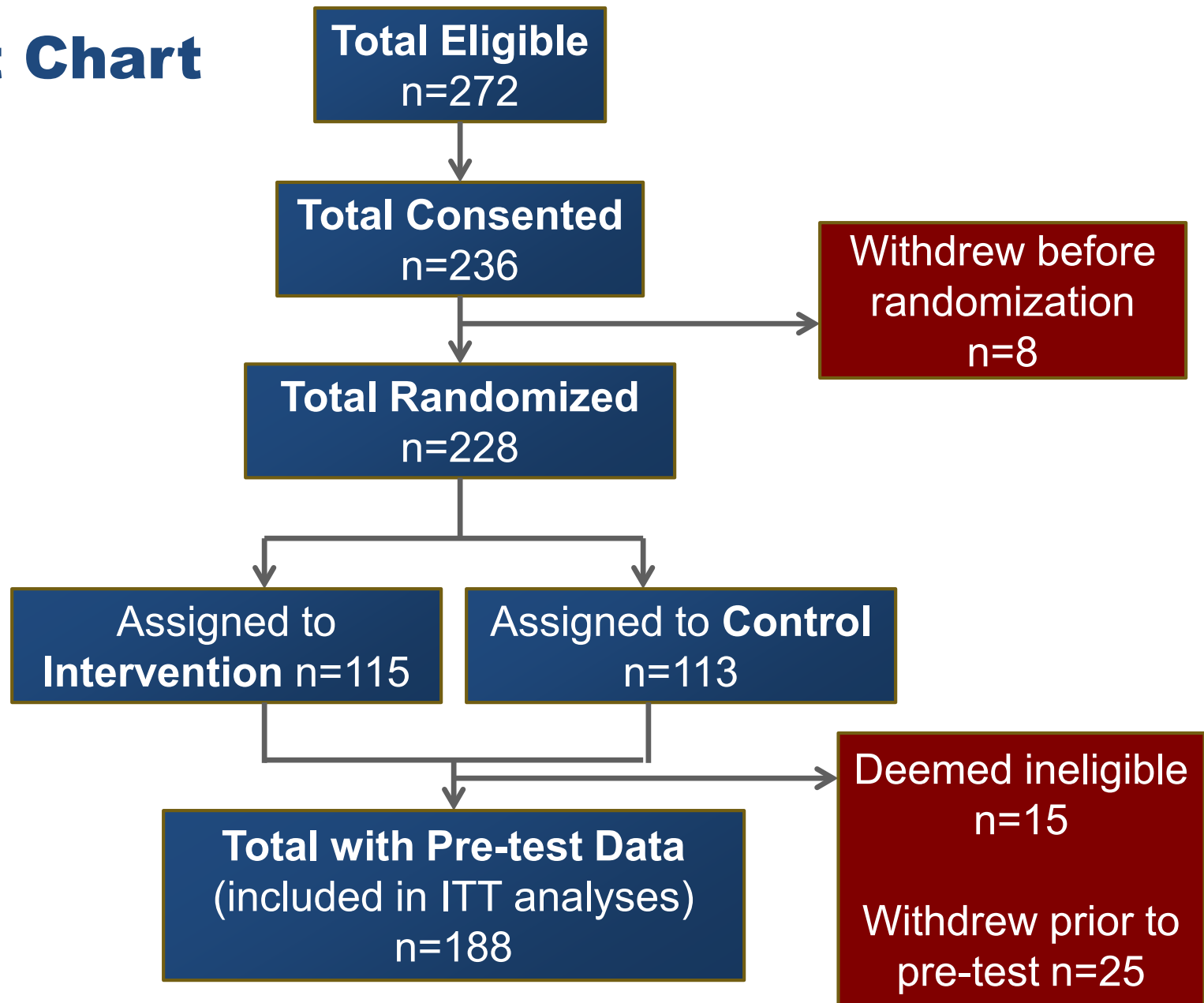


# Sample

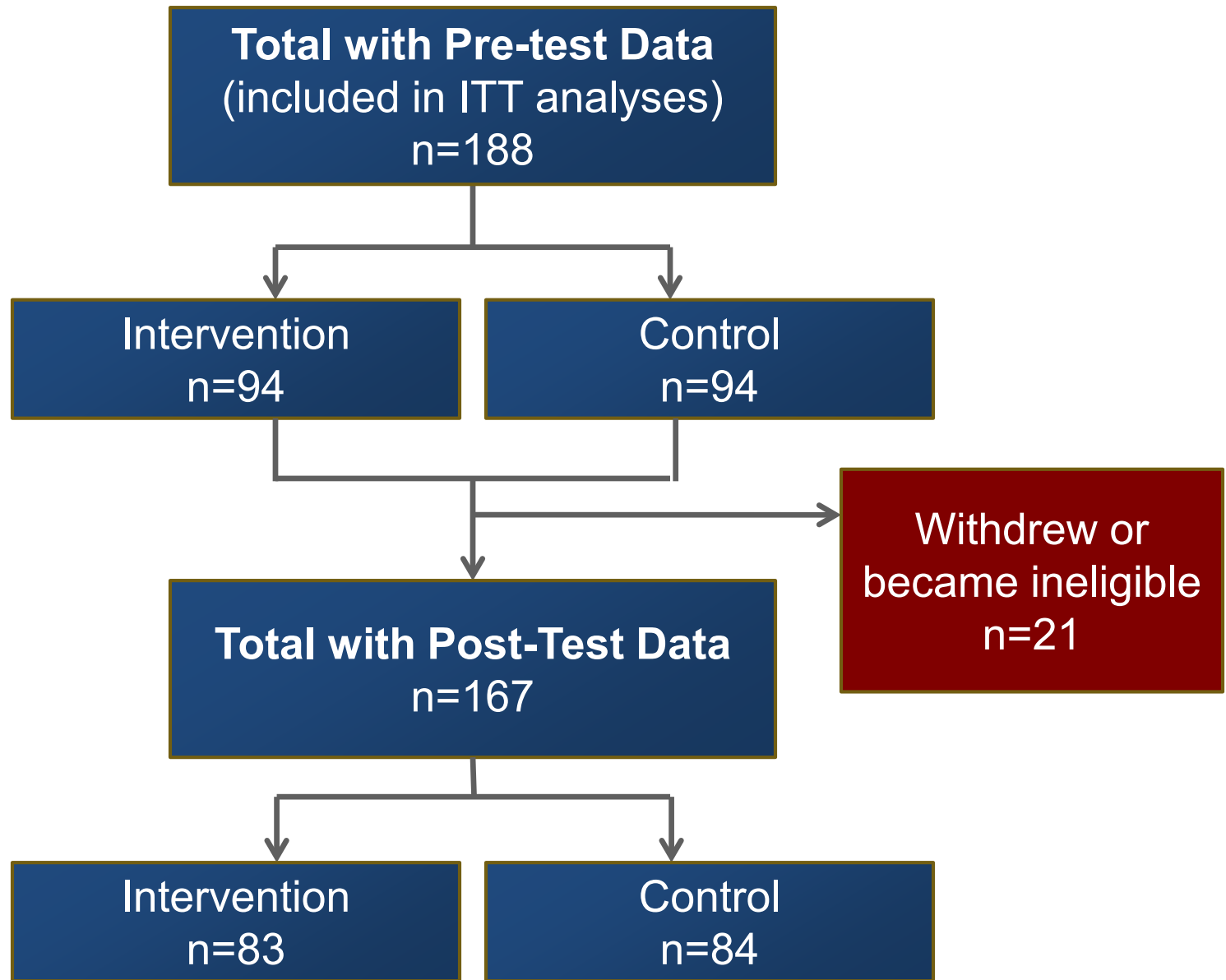
- 236 teachers consented to participate across the 3 cohorts and 3 large, urban districts
- Teacher Demographics
  - 93% Female
  - 74% White/Non Hispanic; 20% African American; 6% Other/Mixed Race
  - 22% Kindergarten; 29% 1<sup>st</sup> Grade; 25% 2<sup>nd</sup> Grade; 24% 3<sup>rd</sup> Grade
  - 56% 1<sup>st</sup> Year; 25% 2<sup>nd</sup> Year; 19% 3<sup>rd</sup> Year
- Student Demographics
  - 62% African American, 17% Hispanic or Latino, 11% White, 3% Asian American, <1% Native American, 7% other/mixed race
  - 52% of the student sample received a free or reduced price lunch



# Consort Chart



# Consort Chart



# Analytic Plan

## Outcome Variables (Post-Test, controlling for Pre-Test)

- Class (Student) Behavior
  - Student Socially Disruptive Behaviors
  - Student Off-Task Rate
  - Student Compliance
- Class (Student) Achievement
  - Reading Composite
  - Math Composite

## Moderators (Pre-Test)

- Class (Student) Socially Disruptive Behavior Level
- Teacher Self-Report of Work Distress

## Control Variables

- School district
- School total enrollment, percent eligible for free/reduced lunch, percent White and percent African American
- Teacher gender, race (white/non-white), year of teaching, level of education, grade level taught
- # days between pre and post assessments



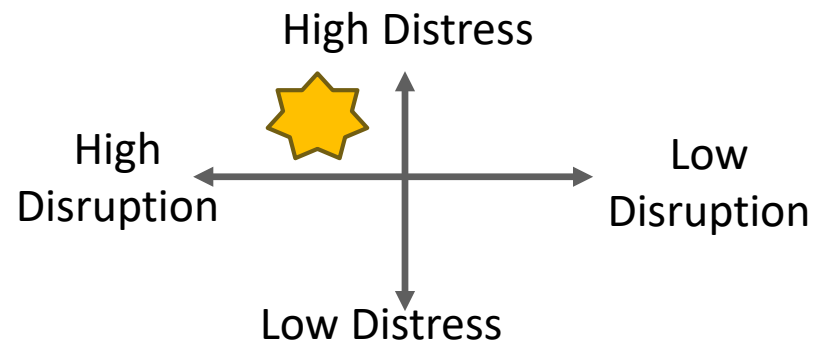
# Results

	Student Behavior			Academic Achievement	
	Student Socially Disruptive Behavior (SSDB)	Student Off-Task Behavior	Student Compliance	Reading	Math
Main effect of CONDITION	n.s.	n.s.	n.s.	n.s.	n.s.
Moderation by teacher distress				n.s.	
Moderation by SSDB				n.s.	
3 way interaction	**	**	**	*	**
**significant					
*marginally significant					
did not test these 2-way interactions on their own since 3-way interaction was significant					

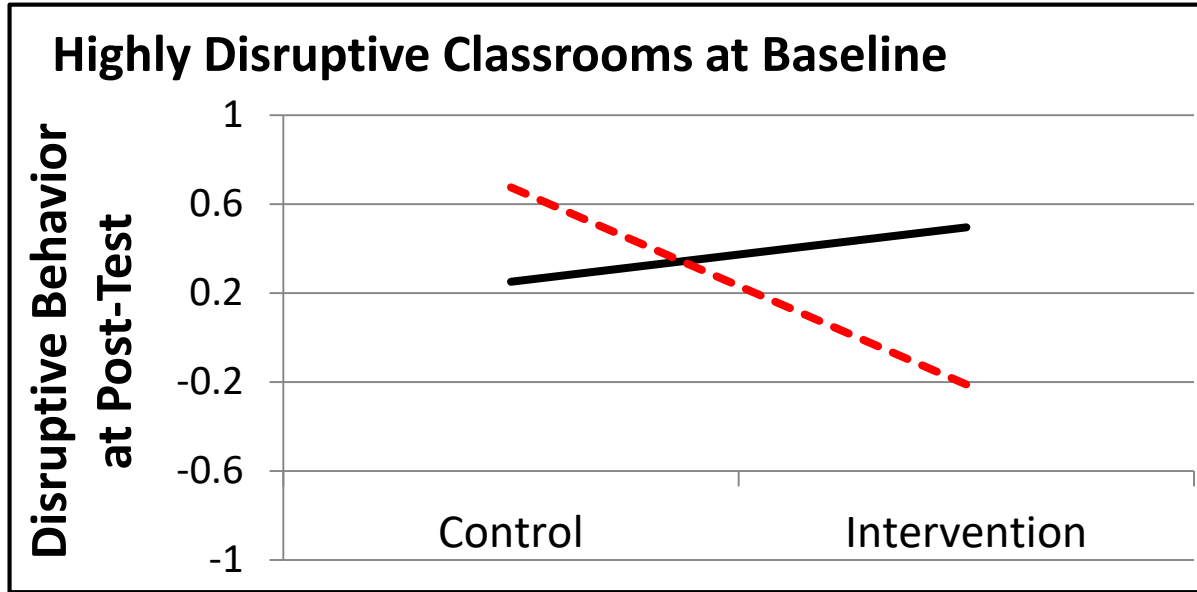


# Probing 3-way interactions

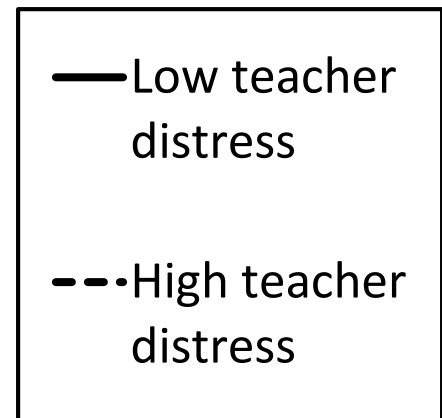
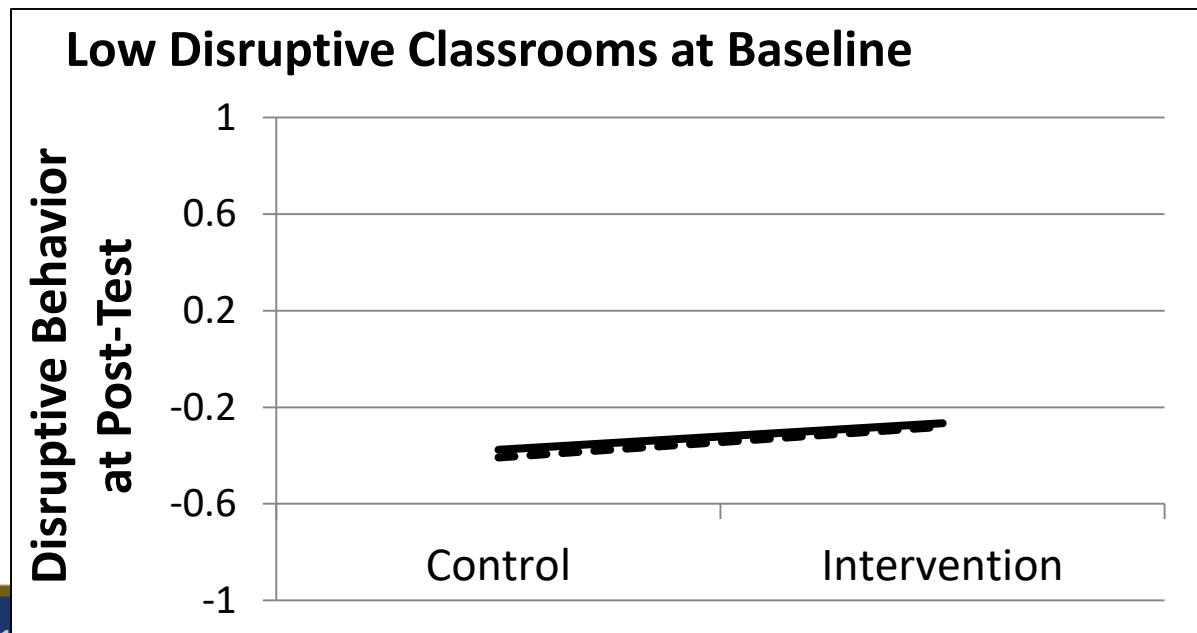
- Computed simple slopes reflecting relations between intervention condition and outcome at specific conditional values of our two moderators (baseline classroom disruptive behavior, baseline teacher distress)
- Conditional values of moderators:
  - Median of top 1/3<sup>rd</sup> on each respective moderator = “high”
  - Median of bottom 2/3<sup>rds</sup> on each respective moderator = “low”
- Resulting simple slopes reflect difference between intervention and control among each of the different “subgroups” of teachers:
  - High distress, highly disruption
  - High distress, low disruption
  - Low distress, high disruption
  - Low distress, low disruption



# Outcome: Student Socially Disruptive Behavior at Post-Test



\*Significant difference between intervention and control group only among teachers with high baseline levels of teacher distress and student disruptive behavior

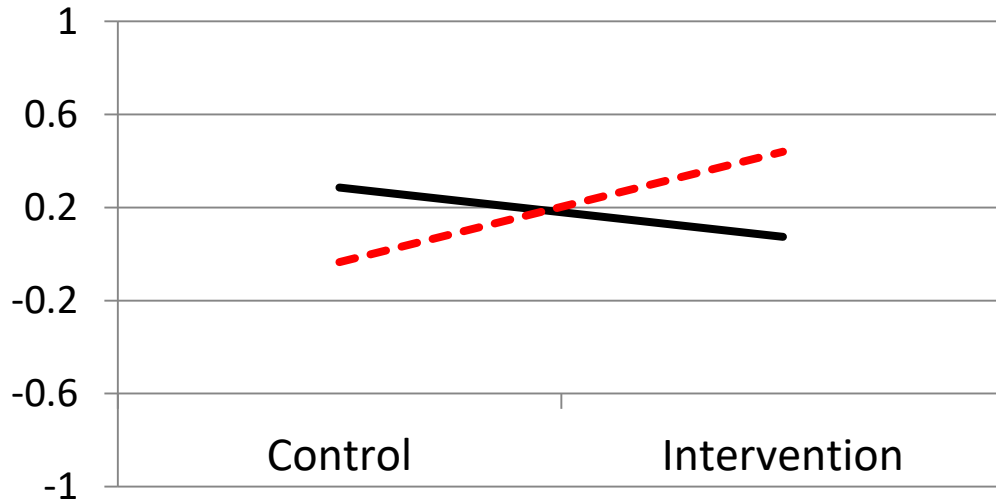




# Outcome: Student Compliance at Post-Test

## Highly Disruptive Classrooms at Baseline

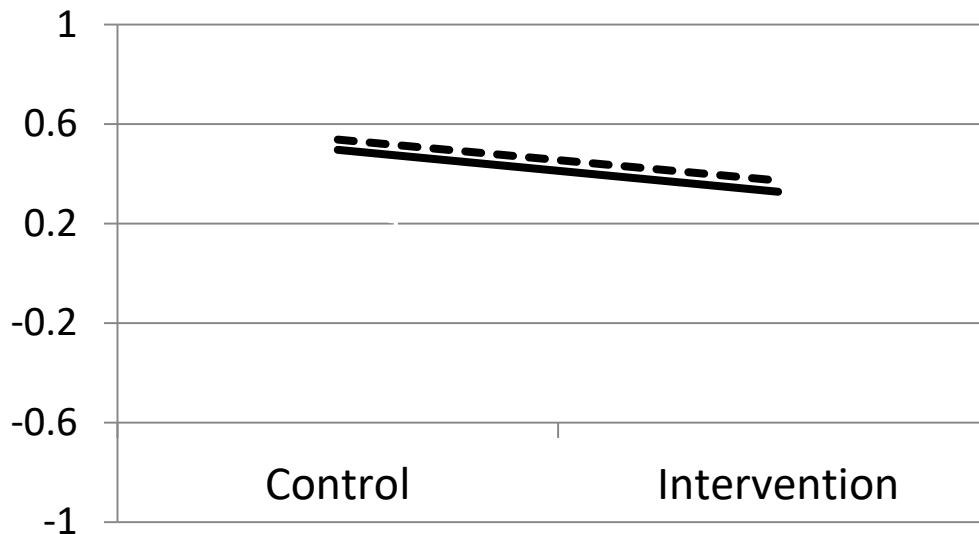
Student Compliance  
at Post-Test



\*Significant difference between intervention and control group only among teachers with high baseline levels of teacher distress and student disruptive behavior

## Low Disruptive Classrooms at Baseline

Student Compliance  
at Post-Test

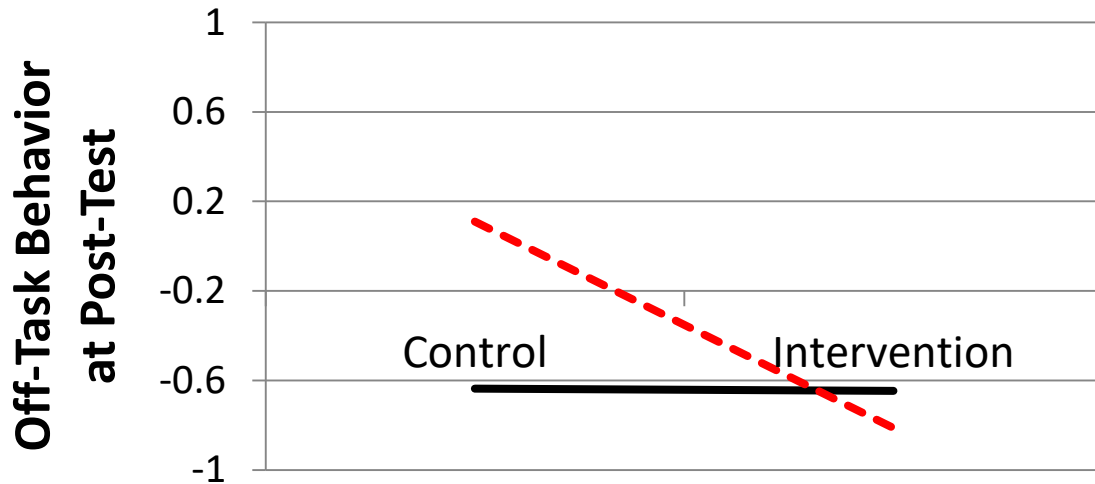


— Low teacher distress  
- - - High teacher distress



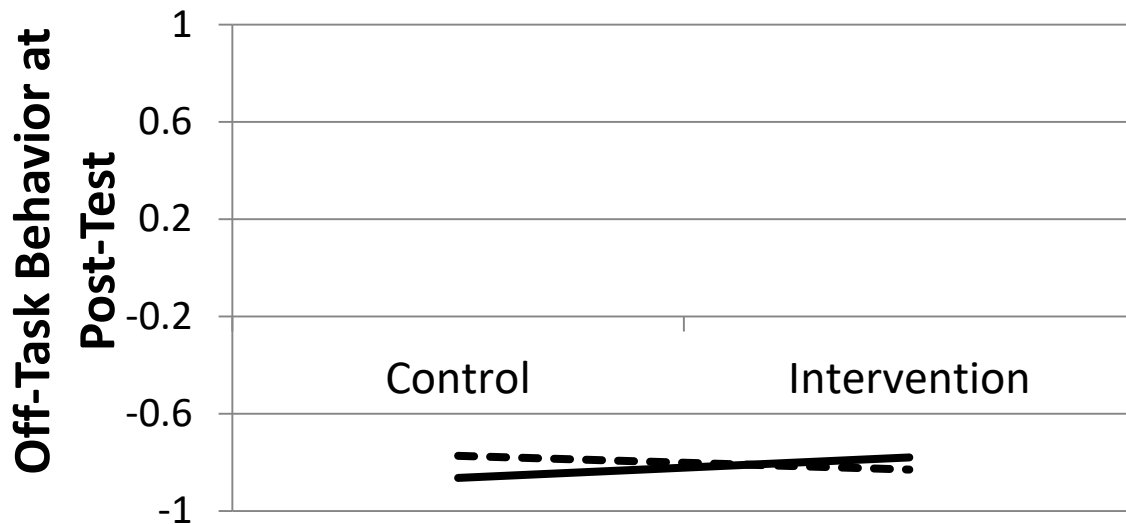
# Outcome: Student Off-Task Behavior at Post-Test

## Highly Disruptive Classrooms at Baseline



\*Significant difference between intervention and control group only among teachers with high baseline levels of teacher distress and student disruptive behavior

## Low Disruptive Classrooms at Baseline

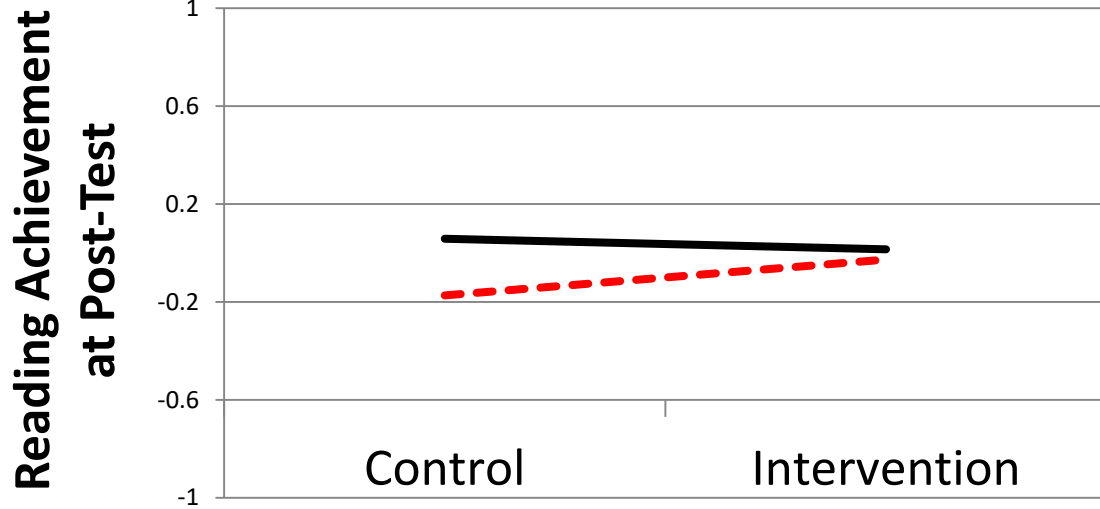


— Low teacher distress  
- - - High teacher distress



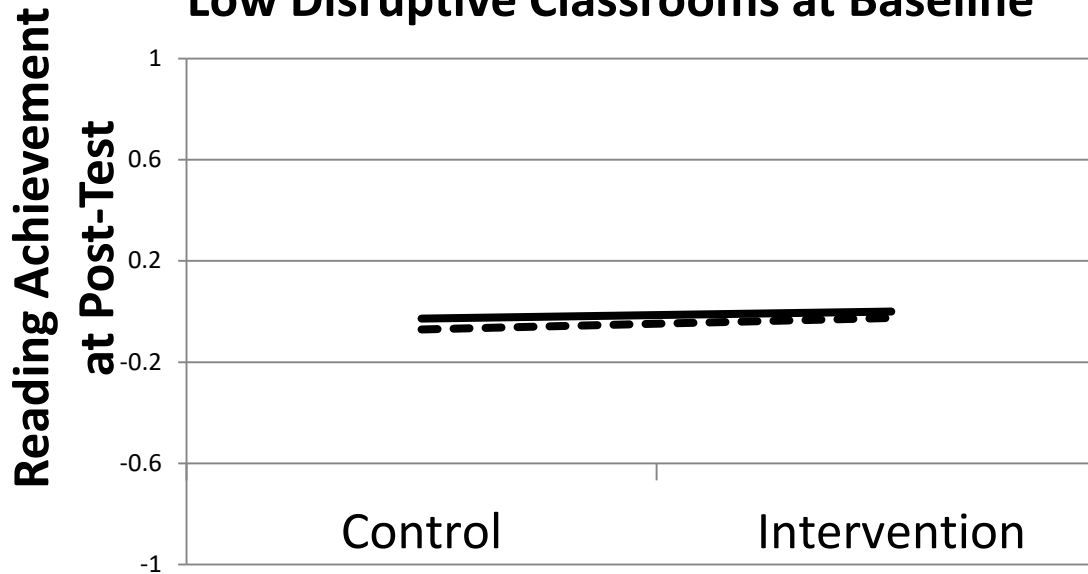
# Outcome: Reading Achievement at Post-Test

## Highly Disruptive Classrooms at Baseline



\*Significant difference between intervention and control group only among teachers with high baseline levels of teacher distress and student disruptive behavior

## Low Disruptive Classrooms at Baseline

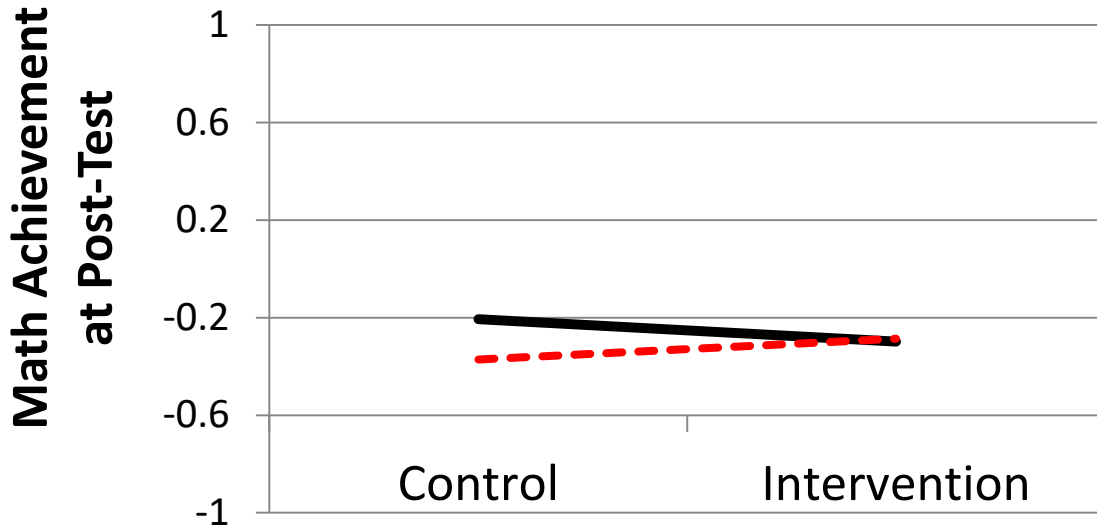


- Low teacher distress
- - - High teacher distress



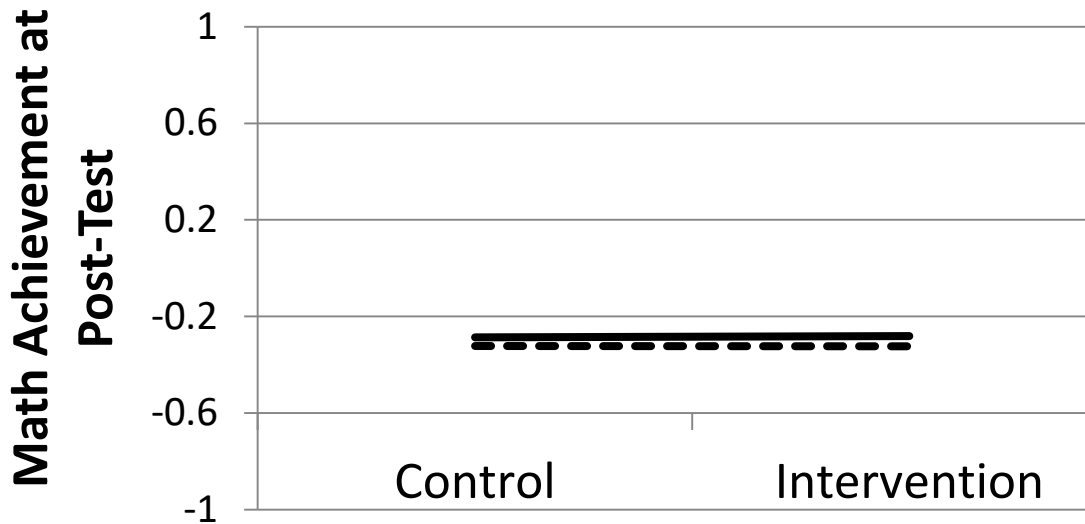
# Outcome: Math Achievement at Post-Test

## Highly Disruptive Classrooms at Baseline



\*Teachers who were highly distressed with highly disruptive classrooms at baseline showed the most positive relation between intervention condition and post-test math achievement, though *none of these relations are significant*

## Low Disruptive Classrooms at Baseline



— Low teacher distress  
- - - High teacher distress



# Summary of Findings

- Substantial and consistent three-way interaction between condition, ***baseline teacher distress*** and ***baseline classroom student disruptive behavior*** when predicting post-test scores (controlling for pre-test scores):
  - socially disruptive behavior ( $B = -.57, p < .001$ )
  - student off-task behavior ( $B = -.38, p = .03$ )
  - student compliance ( $B = .34, p = .02$ )
  - math achievement ( $B = .09, p = .05$ )
  - reading achievement ( $B = .09, p = .05$ )



# Conclusions & Implications

- Combined program shows benefits were most concentrated among highly distressed teachers in highly disruptive classrooms at the outset
- Benefits most evident for classroom behavior, with some indications of academic benefits as well
- Relatively few teacher training programs focused specifically on classroom management
- May be beneficial to target early-career teachers, particularly those in highest risk contexts (i.e., early distress & disordered classrooms)



# Limitations & Future Directions

- Which particular component(s) of the GBG+MTP intervention were beneficial and why?
- Whether initial impacts on novice teachers and their students may extend into future years of teaching, with future cohorts of students?

