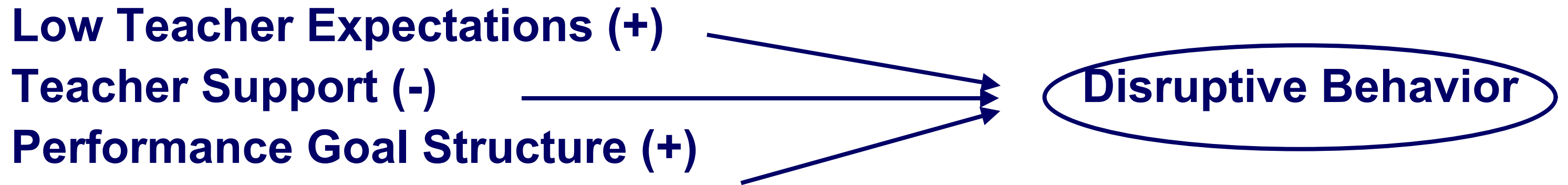


***“I Sometimes Annoy My Teacher During Math”
Relations Between Student Perceptions of the Teacher and
Disruptive Behavior in the Classroom***

*Roxana Marachi, Jeanne Friedel, & Carol Midgley
Combined Program in Education and Psychology
University of Michigan*

Background

- Teachers face many challenges in creating effective learning environments for their students. Students' *disruptive behavior* can interrupt the flow of the lesson, frustrate the teacher, and hinder the learning process for all students in the class.
- Some suggest that the tendency to engage in disruptive behavior is a characteristic students bring to the classroom, and there is little teachers can do.
- In recent years, however, the role of teacher expectations, caring, and support have been pointed to as key aspects of the learning environment that could set the tone for student behavior (Baker, 1998, 1999; Noddings, 1988, 1992).
- The performance goal structure of the classroom has also been found to relate to students' level of disruption. Research suggests that students in classrooms where there is a greater emphasis on relative ability and competition report more disruptive behavior (Kaplan, Gheen, & Midgley, 2000).

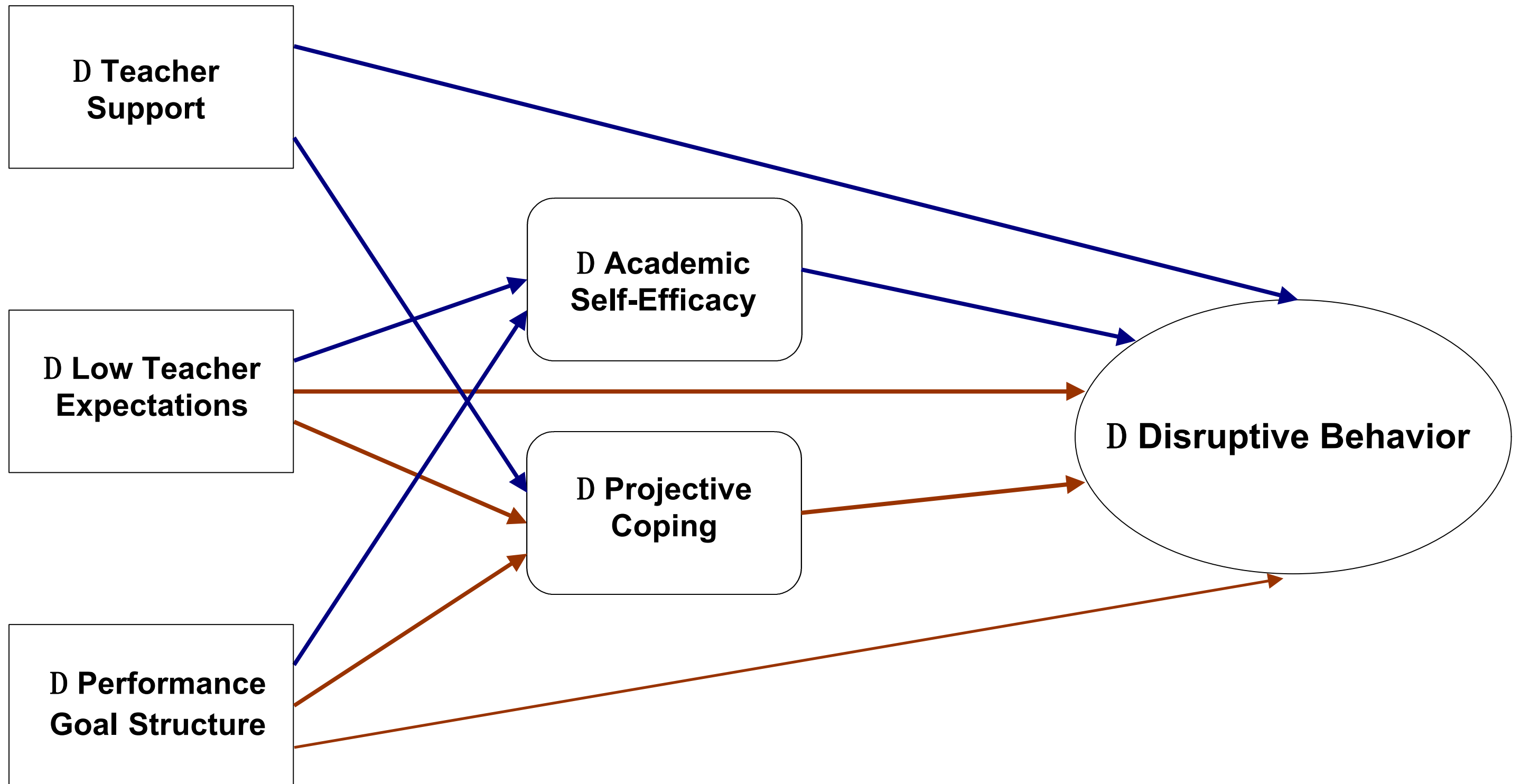


- How might students' academic beliefs relate to their perceptions of the learning environment, as well as their likelihood to engage in disruptive behavior?
- To answer this question, we examine students' *academic self-efficacy* and their use of *projective coping strategies* (blaming the teacher when faced with academic difficulty). We propose that these variables mediate the relation between perceptions of the learning environment and disruptive behavior.
- Given the longitudinal nature of our dataset, we look at how *changes* in the classroom environment as well as changes in students' academic beliefs relate to an increase or decrease in students' disruptive behavior.

Hypotheses

- During the school year, when students report a decline in teacher support, an increase in low teacher expectations, and an increase in the emphasis on performance goals in the classroom, they will be more likely to report an increase in disruptive behavior.
- These relations will be mediated by changes in students' academic self-efficacy and their use of projective coping strategies.

Theoretical Model



Note: This model accounts for Ethnicity and Gender.

Method

- Survey items were adapted from the Patterns of Adaptive Learning Survey (PALS; Midgley et al., 2000).
- Factor analysis confirmed the independence of measures at both waves of data collection.
- We determined a measure of “change” by subtracting the Wave 1 (Fall) scores from the Wave 2 (Spring) scores. Thus, a positive value indicates an increase in the behavior or stronger magnitude of the belief over the course of the school year.

Participants

- 1085 sixth-grade students
- 26 elementary schools
- 89% participation rate
- 30% Black, 70% White
- 52% Female

Measures

Disruptive Behavior - (5 items; $\alpha_{W1}=.84$, $\alpha_{W2}=.90$)

“I sometimes disturb the lesson that is going on in math.”

Academic Self-Efficacy - (5 items; $\alpha_{W1}=.81$, $\alpha_{W2}=.85$)

“I can do even the hardest work in math if I try.”

Projective Coping - (3 items; $\alpha_{W1}=.70$, $\alpha_{W2}=.77$)

“If something bad happened to me during math (like doing poorly on a test),
I would say it is was the teacher’s fault.”

Perceived Teacher Support - (4 items; $\alpha_{W1}=.77$, $\alpha_{W2}=.81$)

“Can you count on your teacher for help when you need it?”

Perceived Low Teacher Expectations - (3 items; $\alpha_{W1}=.65$, $\alpha_{W2}=.77$)

“My teacher doesn’t think I have ability in math.”

Perceived Performance - Focused Goal Structure (5 items; $\alpha_{W1}=.72$, $\alpha_{W2}=.82$)

“My teacher lets us know if we do worse in math than most of the other students
in class.”

Descriptives

	Wave 1 M (SD)	Wave 2 M (SD)	Δ :W2-W1 M (SD)
Disruptive Behavior	1.94 (.92)	2.18 (1.09)	.24*** (.88)
Student's Perceived Teacher Support	3.82 (.90)	3.68 (1.00)	-.14*** (.93)
Low Teacher Expectations	1.52 (.77)	1.53 (.85)	.01*** (.91)
Perceived Performance Goal Structure	2.87 (1.00)	2.94 (1.13)	.07* (1.11)
Perceived Academic Efficacy in Math	4.11 (.85)	4.08 (.89)	-.03 (.84)
Projective Coping in Math	1.53 (.76)	1.66 (.89)	.13*** (.86)

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

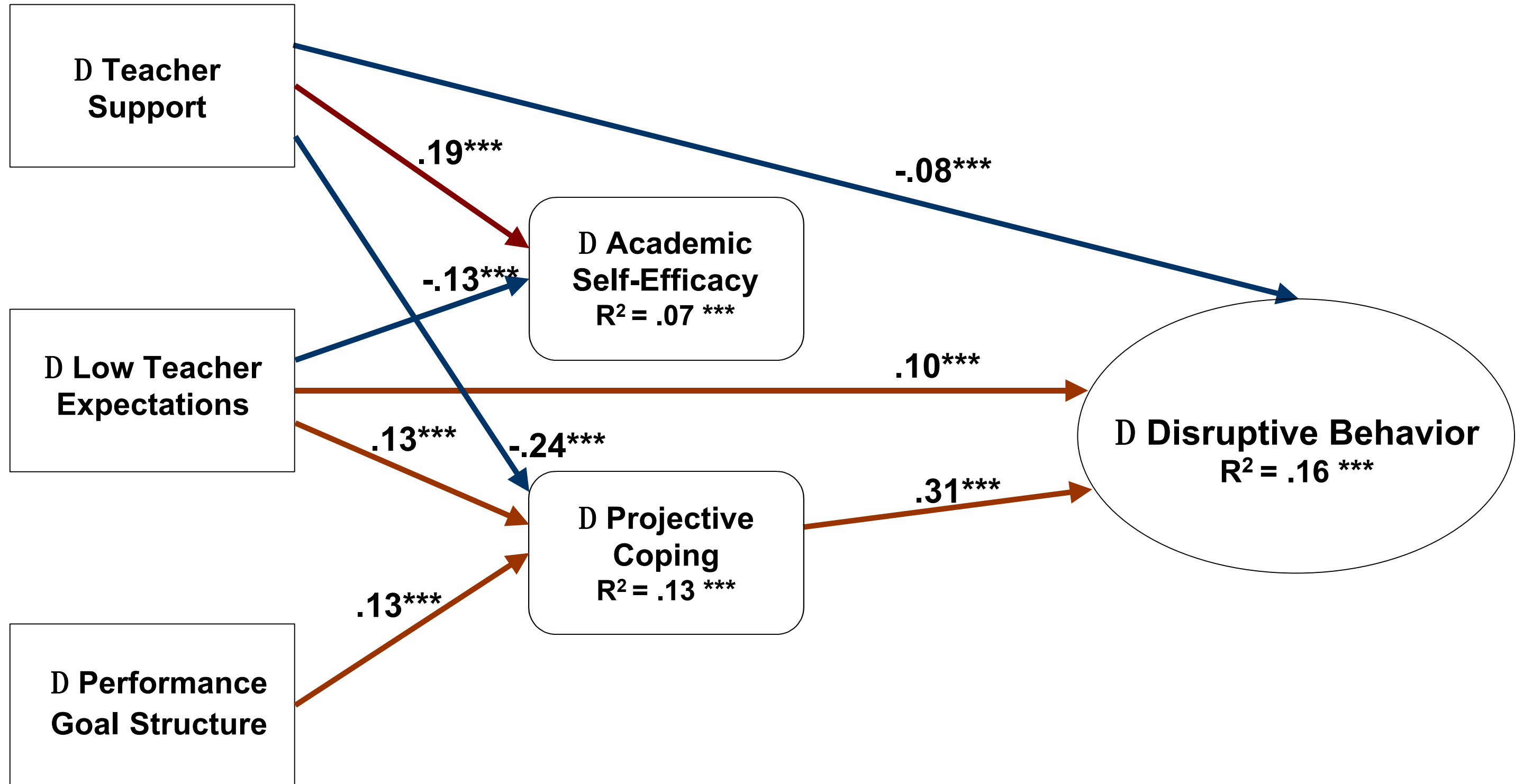
Analytic Method

- We used a series of regression analyses in a path analytic model to determine relations between changes in students' perceived beliefs about their teachers (and about themselves) and changes in reported disruptive behavior over the course of the year.
- Controlling for gender and ethnicity, we were interested in how the change in students' perceptions of the performance goal environment, low teacher expectations, and teacher support related to changes in students' reports of disruptive behavior across the school year.
- We included change in academic efficacy and change in projective coping as mediating variables.

Results

- When students perceived a decrease in teacher support and teacher expectations, they were more likely to report an increase in disruptive behavior. These relationships were partially mediated by students' reports of projective coping.
- Students' perceptions of an increase in performance goals related to higher levels of disruptive behavior. This relation was mediated by their use of projective coping.
- An increase in teacher support and decrease in low teacher expectations related to positive changes in students' reported academic efficacy. Changes in students' sense of academic efficacy did not emerge as a mediator between these variables and change in disruptive behavior.

Path Model



Note: ** $p \leq .01$, *** $p \leq .001$ (Numbers corresponding to paths represent Beta coefficients)
 Ethnicity and Gender were also included in this model. However, neither variable emerged with any significant relations to *changes* in any of the perceptions, beliefs, or behaviors.

Discussion

- These findings highlight the importance of maintaining a classroom environment in which students experience both high academic expectations and a supportive student-teacher relationship.
- The achievement goals that teachers emphasize in the classroom are also important to consider. Placing emphasis on students' relative ability may hinder the learning process rather than help it, both through its' relation to students' use of maladaptive coping mechanisms and its indirect relation to students' disruptive behavior in the classroom.
- This study considered only student reports of their classroom and behaviors. Future research might include teacher reports of their expectations and support for individual students, as well as reports of the goal-related strategies they use in the classroom to motivate their students. Classroom observations may also shed light on the processes by which teachers communicate their support, expectations, and goals to their students and how these change throughout the school year.