Linking Social-Emotional Learning to Instructional Practices in an Urban Context

A Mixed-Methods Study

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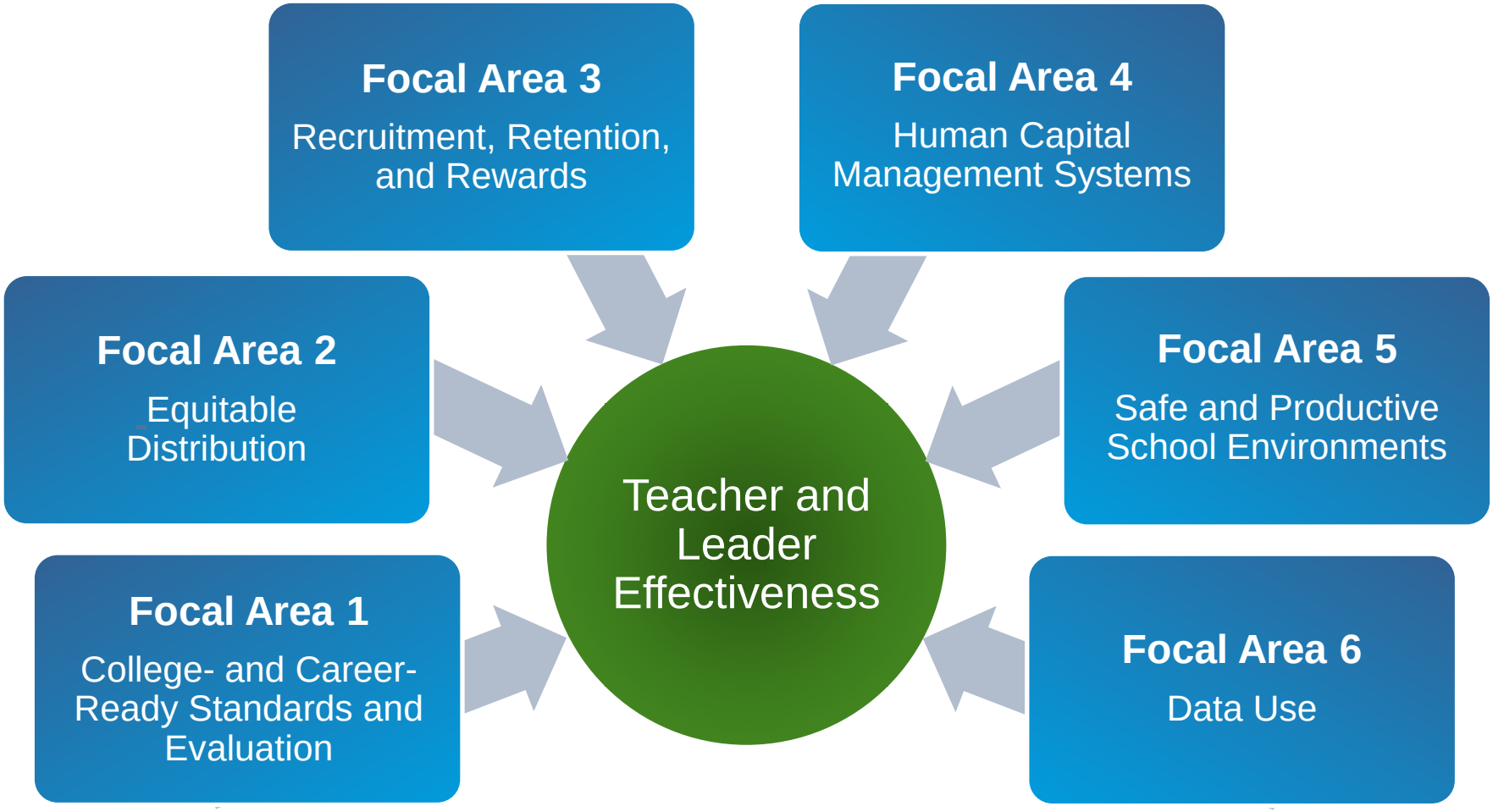
Focal Areas


Focal Area 3
Recruitment, Retention, and Rewards
Focal Area 4
Human Capital Management Systems
Focal Area 2
Equitable Distribution
Teacher and Leader Effectiveness
Focal Area 5
Safe and Productive School Environments
Focal Area 1
College- and Career-Ready Standards and Evaluation
Focal Area 6
Data Use

Overview

- The issue
  - Social-emotional learning (SEL)
  - Classroom interactions
  - Social cognition
- Research questions
- Method
  - Study design
  - Participants in a multilevel structure
  - Measures in a multilevel structure
- Evidence
- Implications

The Issue

- The current educational climate, particularly in urban schools, is focused on high-stakes tests.
- There are intended and unintended consequences of learning in a high-stakes testing environment.
- How do we get teachers to buy back into developing both social-emotional competencies (SEC) and academic competencies?
- It is critical to specify the instructional processes that impact students' social and emotional needs.

Social-Emotional Learning

- SEL is the educational process that focuses on SEC development.
- SECs are the skills, behaviors, and attitudes that individuals need to effectively manage their affective, cognitive, and social behaviors.
- There are five SECs: self-awareness, self-management, social awareness, relationship skills, and responsible decision making.
- Multiple positive benefits
  - Asking for help when needed, subject mastery, commitment to school, and problem solving
  - Decrease in problem behaviors

Instructional Practices and SEL

- SEL promotes three approaches to understanding the relationship between classroom processes and SEC development:
  - Direct instruction or interventions that focus on particular SECs
  - Integration of SEL within academic curriculum
  - Application of SEC through general pedagogical practices

Research and SEL

- Most research focuses on the direct effects of interventions.
- The research that focuses on general pedagogical practices focuses on specific practices, not a framework of instruction.
- Research is needed to examine the general classroom processes that relate to SEL.

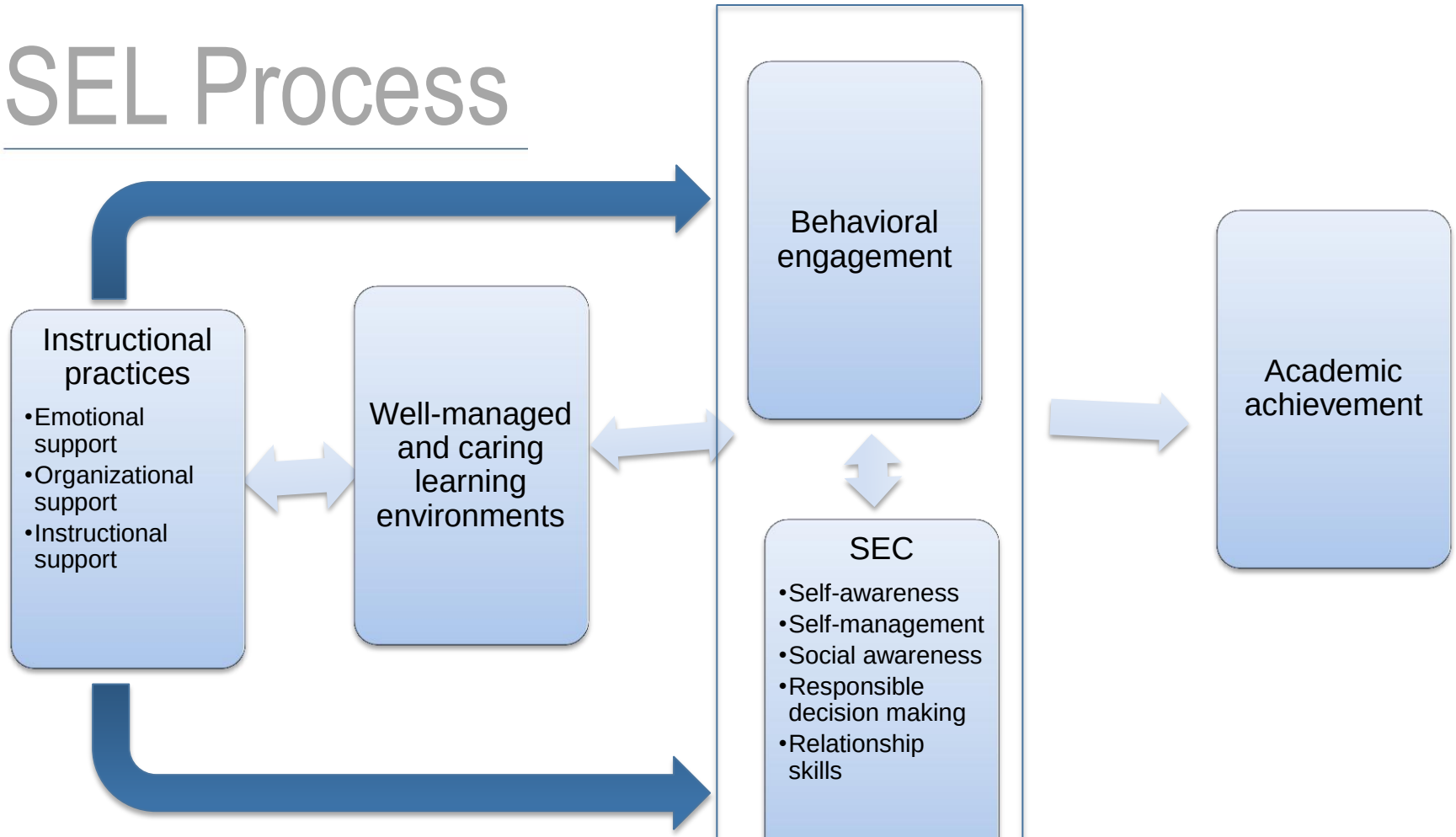
Classroom Interactions: Classroom Assessment Scoring System (CLASS)

- CLASS is one of the only conceptualizations of practices that integrates social, emotional, and academic components in the classroom.
- CLASS is intended to bridge theory, measurement, and large-scale effects.
- CLASS incorporates three theoretically driven domains:
  - Emotional support (positive climate, negative climate, teacher sensitivity, and regard for adolescent perspectives)
  - Organizational support (behavior management, productivity, and instructional learning formats)
  - Instructional support (content understanding, analysis and problem solving, quality of feedback, and instructional dialogue)

Classroom Interactions: Classroom Assessment Scoring System (CLASS)

- More research with CLASS is needed with students in middle childhood and adolescence.
- Are these dimensions important for adolescent success?
- How do they relate to student academic skills and SEC?

SEL Process



Adapted from CASEL (2003); Jones, Brown, & Aber (2008); and Rimm-Kauffman, Fan, Chiu, & You (2007).

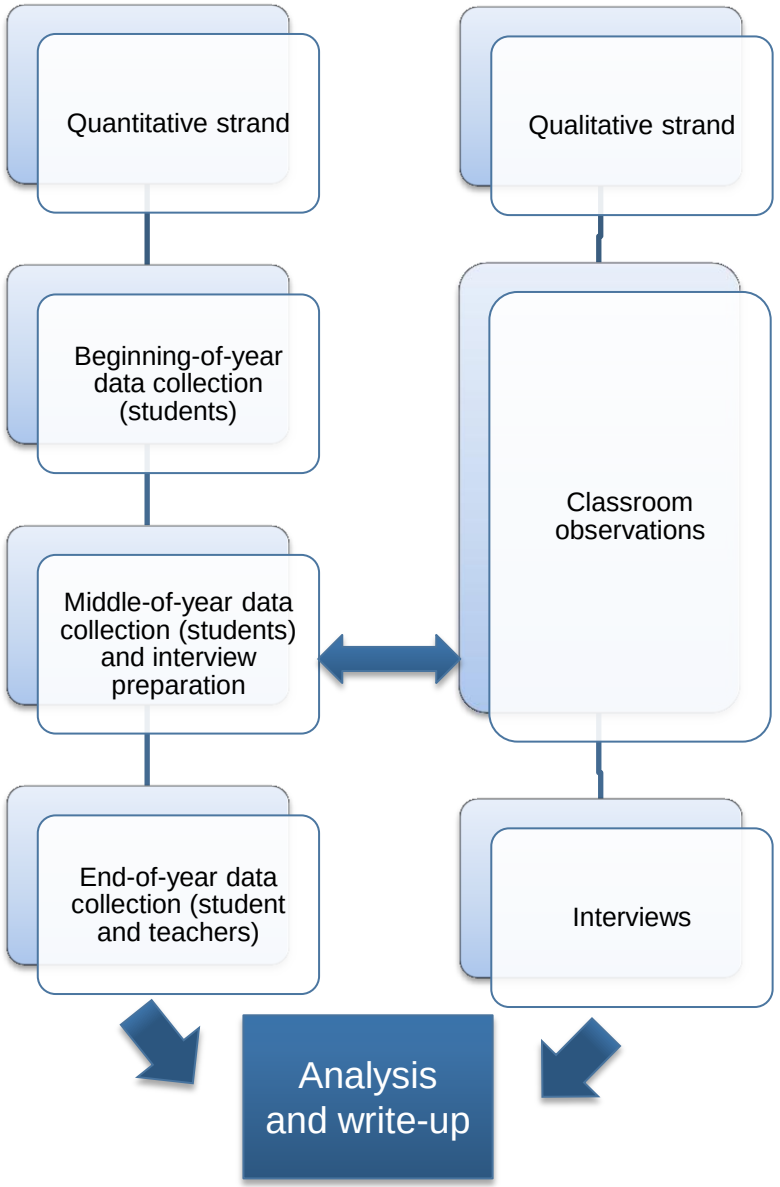
Research Questions

- **Study aim 1:** To examine the relationship between instructional practices and student social, emotional, and cognitive development.
  - RQ 1: What is the relationship between **student perceptions** of instructional practices and student perceptions of classroom climate, SEC, behavioral engagement, and academic achievement?
  - RQ 2: What is the relationship between an **outside observer's perceptions** of instructional practices and student perceptions of classroom climate, SEC, behavioral engagement, and academic achievement?
  - RQ 3: What is the relationship between student perceptions of classroom climate and an outside observer's perspective of instructional practices?

Study Design

- A mixed-methods study is needed because the research questions require multiple informants and multiple types of measurement.
- Mixed methods begin to move away from prototypical social science research, rejecting the notion that a singular “truth” can be discovered with the scientific method.
- A multiphase research design incorporates multiple strands based on the research aim.

Study Design



Participants in a Multilevel Structure

- Twenty-one classrooms from two schools in Chicago
  - Fourth–eighth graders
    - Four classes per grade, except fifth grade
    - Focused on first-period classes on Mondays (13 English language arts, four mathematics, two science, and two social studies classes)
  - Teacher characteristics
    - 62 percent female
    - 43 percent white
    - Mean age: 35.56 years
    - Mean time at current school: 3.05 years (range 1–8 years)

Participants

- Students (*n* = 228)
  - 94.6 percent African American
  - 48.7 percent female
  - Age: mean = 11.03 years (range 9–14 years)
  - Fourth and fifth graders: *n* = 107; sixth–eighth graders: *n* = 121

Measures in a Multilevel Structure: Classroom Level

- CLASS-S observations
  - There were six to eight observational cycles for 19 teachers (live coding).
    - Scale was from 1 *(minimally characteristic)* to 7 *(highly characteristic).*
  - Scores were averaged across the school year for each dimension and domain.
    - All instructional practices
      - Emotional support
      - Organizational support
      - Instructional support

Measures in a Multilevel Structure: Student Level

Beginning of Year (BOY; August 2011)

- Classroom climate (five-point scale):
  - Classroom misbehavior
  - Student-teacher relationships
  - Peer academic and social support
- Behavioral engagement

Measures in a Multilevel Structure: Student Level

Middle of Year (February 2012)

- Student report of instructional practices (Downer & Stuhlman, 2010)
  - Scale: 1 = never; 2 = one to two times per quarter; 3 = one to two times per month; 4 = one to two times per week; and 5 = almost daily
    - All instructional practices (48 items, α = .94)
    - Emotional support (17 items, α = .89)
    - Organizational support (13 items, α = .78)
    - Instructional support (18 items, α = .88)

Measures in a Multilevel Structure: Student Level

End of Year (EOY; May 2012)

- Academic achievement (student reported)
  - Scale was from 1 *(mostly F's)* to 8 *(mostly A's).*
- Academic aspirations
  - Scale was from 1 *(some high school)* to 7 *(get a professional degree).*
- Classroom climate (same constructs as beginning of year)

Measures in a Multilevel Structure: Student Level

End of Year (student and teacher report of SECs)

- Self-awareness + social skills improvement system (SSIS)
  - Scale was from 1 *(never)* to 4 *(almost always).*

Self-awareness	
Social awareness	•Empathy and assertion
Self-management	•Self-control
Relationship skills	•Communication, cooperation, and engagement
Responsible decision making	•Responsibility

RQ 1: Relationship Between Student Perceptions of Practices and Student Outcomes (Climate, SECs, Engagement, and Achievement)

- Student perceptions of instructional domains predict student outcomes in different ways.
  - Emotional support predicts achievement and student-teacher relationships.
  - Organizational support predicts behavioral engagement and student-teacher relationships.

	Achieve	Engage	Relation—EOY	Mis-behave—EOY	Peer Support—EOY
Student-level predictor					
Emotional support	0.20†	0.11	0.45***	-0.07	0.10
Organizational support	-0.08	0.29**	0.18*	-0.09	0.00
Instructional support	'0.07	-0.01	-0.06	0.02	0.10
Proportion of individual-level variance explained	9.20%	19.80%	22.50%	12.10%	20.90%

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

RQ 1: Relationship Between Student Perceptions of Practices and Student Outcomes (Climate, SECs, Engagement, and Achievement)

- Student perceptions of instructional domains predict student outcomes in different ways.
  - Emotional support predicts the average of social skills, as reported by teachers and students.
  - Organizational support predicts the average of social skills, as reported by teachers.
  - Instructional support predicts self-awareness, as reported by students.

	Self-aware—Student	Self-aware—Teacher	SSIS, All—Student	SSIS, All—Teacher
Student-level predictor				
Emotional support	-0.08	0.09	0.24*	0.27*
Organizational support	0.18	0.14	0.07	0.23*
Instructional support	0.24**	0.08	0.17	-0.05
Proportion of individual-level variance explained	14.00%	22.80%	19.30%	29.20%

$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

RQ 2: Relationship Between Observer Perceptions of Practices and Student Outcomes (Climate, SECs, Engagement, and Achievement)

- Classroom observations predict student outcomes.
  - Negatively predict academic achievement
  - Positively predict aspirations and student-teacher relationships
  - Negatively predict classroom misbehavior

	Achieve	Aspiration	Student-Teacher Relationships—EOY	Misbehave—EOY
Classroom-level predictor				
Instructional practices—All	-0.14*	0.17*	0.17*	-0.17†
Proportion of between-classroom variance explained in outcome	46.60%	47.80%	23.70%	9.90%

Note. Model uses only 19 classrooms, compared with 21 classrooms in another analysis.

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

RQ 3: Relationship Between Student Perceptions of Practices and Observer Perceptions of Practices

- Between-classroom variation is 23.5 percent to 32.9 percent in student perceptions of instructional domains.
- The between-classroom variation in each instructional domain appears to be led by one instructional dimension.

	Reliability	ICC	Between-Group Variation Chi Squared
Instructional practices—all	0.83	32.90	119.34***
Emotional support	0.82	31.70	111.00***
Positive climate	0.84	34.30	132.23***
Negative climate (rev)	0.57	11.70	46.67***
Teacher sensitivity	0.75	23.30	80.16***
Regard adolescent perspective	0.74	22.90	83.09***
Organizational support	0.77	25.60	90.95**
Behavior management	0.43	6.90	36.52**
Productivity	0.83	33.80	116.56***
Instructional learning format	0.74	22.20	83.50***
Instructional support	0.75	23.50	86.78***
Content knowledge	0.84	34.90	130.66***
Analysis and problem solving	0.58	12.20	51.53***
Quality feedback	0.65	15.60	60.50***
Instructional dialogue	0.60	12.70	51.01***

[a] All cases included.

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

RQ 3: Relationship Between Student Perceptions of Practices and Observer Perceptions of Practices

- Classroom observations explain some of the between-classroom variance in student perceptions of instructional domains.
- The emotional support dimension predicts student perceptions of each instructional domain.

	Student Perceptions as Outcome Variables			
	All Instructional Practices	Emotional Support	Organization Support	Instructional Support
Classroom-level predictor				
Emotional support (Obs)	.56*	.55*	.37†	.49*
Organizational support (Obs)	-.29	-.30	-.24	-.21
Instructional support (Obs)	-.02	-.02	'.03	-.03
Proportion of between-classroom variance in outcome explained	21.40%	15.60%	0%	43.30%

[a] Cases with 19 classrooms included. Students: n = 200.

†p < .10. *p < .05. **p < .01. ***p < .001.

What Did We Learn?

- Do student perceptions matter?
  - Yes! CLASS-S domains relate to student outcomes in different ways.
- Do student perceptions and observer perceptions relate to each other?
  - Some do! Emotional support is most predictive of student perceptions across domains.
- Do observer perceptions matter?
  - Not as much. They explain some of between-classroom variation for achievement and climate but not SECs.

Implications: What Does This Mean for Teaching and Learning?

- Provides teachers with useful information about the connection between good pedagogy and SEL.
- Student perceptions matter.
  - There was more within-classroom variability in student perceptions of practices than between-classroom variability.
- There is a need to focus on specific domains for particular outcomes.

Limitations

- Why did observer perceptions not matter for SEC?
  - Low sample, particularly at level 2
  - For observations, looked at average of instructional practices
  - One rater in classrooms
  - Little between-classroom variation in many SECs
- Correlational study

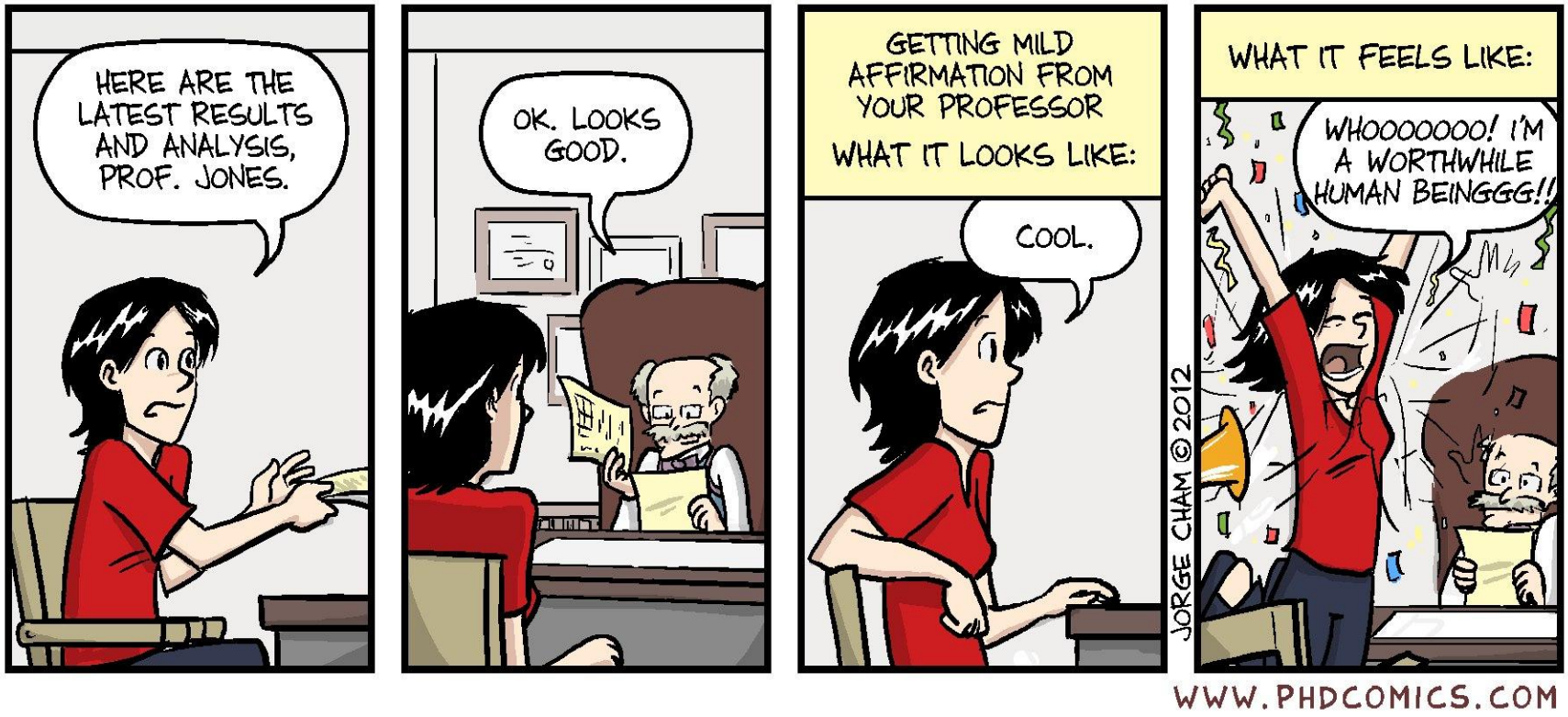
Future Directions

- Be more specific about how students perceive instructional practices similarly and differently from observers.
  - What are students thinking about when they are answering these reports of instructional practices?
- How are teachers interacting with specific students to influence their perceptions?
  - What is happening with individual students to explain within classroom variability?
- How are teachers thinking about this framework?

Summary

- We began by stating the importance of focusing on SEL and the development of SEC.
- I hope this research expands on understanding classroom processes that predict SEC and provides one form of evidence that can engage teachers in the work of SEL.
- Thank you!

Questions?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Additional Data Analysis

RQ 1: Relationship Between Student Perceptions of Practices and Student Outcomes (Climate, SECs, Engagement, and Achievement)

	Achieve	Engage	Relationships—BOY	Relationships—EOY	Misbehavior—BOY	Misbehavior—EOY	Peer Support—BOY	Peer Support—EOY
Intercept	0.24†	'0.04	-0.14	0.14	0.29	'0.22	'0.10	'0.04
Student-level predictor								
Charter school	-0.19	'0.21	0.23	-0.10	-0.46†	-0.35	'0.00	-0.13
Female	-0.28*	-0.31**	0.02	-0.18	0.04	-0.08	-0.22	-0.02
Age	-0.19**	-0.14†	-0.24**	-0.14†	-0.09	'0.08	-0.01	'0.10
Emotional support	0.20†	'0.11	0.36**	0.45***	-0.11	-0.07	'0.06	'0.10
Organizational support	-0.08	0.29**	-0.01	0.18*	-0.07	-0.09	-0.14	'0.00
Instructional support	'0.07	-0.01	-0.08	-0.06	-0.14†	'0.02	0.19*	'0.10
Classroom-level predictor	—	—	—	—	—	—	—	—
Variance components								
Chi-square estimates of between-classroom variation in outcome	32.80*	35.45*	40.00**	51.41***	130.19***	134.81***	50.09***	45.34***
Proportion of individual-level variance explained	9.20%	19.80%	11.10%	22.50%	8.50%	12.10%	11.50%	20.90%

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

RQ 1: Relationship Between Student Perceptions of Practices and Student Outcomes (Climate, SECs, Engagement, Achievement)

	Self-aware—Student	Self-aware—Teacher	SSIS, All—Student	SSIS, All—Teacher	Empathy—Student	Empathy—Teacher
Intercept	'0.34**	-0.09	0.38**	'0.07	'0.48***	'0.20
Student-level predictor						
Charter school	-0.38*	0.37*	-0.34**	'0.21	-0.34**	'0.01
Female	-0.33*	-0.22	-0.43**	-0.36**	-0.63***	-0.48***
Age	-0.11†	'0.06	-0.10*	'0.03	-0.09†	'0.02
Emotional support	-0.08	'0.09	0.24*	0.27*	'0.14	0.30*
Organizational support	'0.18	'0.14	'0.07	0.23*	'0.03	'0.15
Instructional support	0.24**	'0.08	'0.17	-0.05	0.17*	-0.03
Classroom-level predictor	—	—	—	—	—	—
Variance components						
Chi-square estimates of between-classroom variation in outcome	30.02†	50.84***	28.67†	103.99***	24.40	76.60***
Proportion of individual-level variance explained	14.00%	22.80%	19.30%	29.20%	17.80%	24.10%

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

RQ 1: Relationship Between Student Perceptions of Practices and Student Outcomes (Climate, SECs, Engagement, and Achievement)

	Assertion—Student	Assertion—Teacher	Self-control—Student	Self-control—Teacher	Comm—Student	Comm—Teacher
Intercept	0.43**	'0.08	'0.09	-0.04	0.23*	-0.02
Student-level predictor						
Charter school	-0.33**	-0.10	-0.30**	'0.23	-0.14	'0.28
Female	-0.53**	'0.00	'0.11	-0.17	-0.31*	-0.26**
Age	-0.04	'0.06	'0.01	'0.09	-0.10†	'0.02
Emotional support	'0.10	-0.16	0.22†	0.32**	0.19†	0.26**
Organizational support	-0.19†	'0.04	'0.07	0.22*	0.23*	0.19†
Instructional support	0.29**	0.14†	'0.05	-0.13*	'0.07	-0.04
Classroom-level predictor	—	—	—	—	—	—
Variance components						
Chi-square estimates of between-classroom variation in outcome	18.09	105.94***	20.65	89.93***	19.84	109.22***
Proportion of individual-level variance explained	12.90%	22.00%	11.20%	25.70%	16.10%	26.50%

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

RQ 1: Relationship Between Student Perceptions of Practices and Student Outcomes (Climate, SECs, Engagement, Achievement)

	Cooperate—student	Cooperate—teacher	Engage—student	Engage—teacher	Responsibility—student	Responsibility—teacher
Intercept	0.22†	'0.15	'0.38***	-0.05	0.24*	0.08
Student-level predictor						
Charter school	-0.14	'0.12	-0.52***	0.43†	-0.10	0.23
Female	-0.29*	-0.42***	-0.26*	-0.30**	-0.37***	-0.40***
Age	-0.09	'0.01	-0.15***	0.05	-0.06	0.04
Emotional support	0.23*	0.27*	'0.12	0.15	0.20*	0.36**
Organizational support	0.23**	0.27**	-0.03	0.11	0.16	0.25*
Instructional support	-0.04	-0.12†	'0.25*	0.06	0.05	-0.10
Classroom-level predictor	—	—	—	—	—	—
Variance components						
Chi-square estimates of between-classroom variation in outcome	37.90**	53.07***	13.69	110.40***	34.03*	44.54***
Proportion of individual-level variance explained	14.80%	27.60%	14.50%	20.30%	17.90%	25.60%

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

RQ 2: Relationship Between Observer Perceptions of Practices and Student Outcomes (Climate, SECs, Engagement, and Achievement)

- Classroom observations predict student outcomes.
  - Negatively predict academic achievement
  - Positively predict aspirations and student-teacher relationships
  - Negatively predict classroom misbehavior

	Achieve	Aspiration	Student-Teacher Relationships—EOY	Misbehave—EOY
Intercept	0.29*	0.11	0.23	0.17
Student-level predictor				
Charter school	-0.23†	0.00	-0.12	-0.31
Female	-0.35*	-0.27*	-0.28†	-0.12
Age	-0.26***	0.11	-0.06	0.00
Classroom-level predictor				
Instructional practices—All	-0.14*	0.17*	0.17*	-0.17†
Variance components				
Chi-square estimates of between-classroom variation in outcome	20.13	21.42	28.26*	80.55***
Proportion of between-classroom variance explained in outcome	46.60%	47.80%	23.70%	9.90%

Note. Model uses only 19 classrooms, compared with 21 classrooms in another analysis.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.