

Introduction

Accountability efforts, such as quality rating and improvement systems (QRIS) often sample teachers for observation as an indicator of center quality. Thus a basic yet important line of inquiry focuses on the amount of center-level variance attributable to observations. Although there has been a great deal of research on classroom quality, analyses typically only nest children within teachers, but not teachers within centers. Evidence suggests that variations in early childhood classroom quality ratings are attributable, to some extent, to the center in which a classroom is housed (Karoly, Zellman, & Perlman, 2013), but the degree to which characteristics of the center or center director (e.g., salary, management style, prioritization of social and emotional learning) may account for some of the center-level variance is largely unknown. Specifically, the present study seeks to address the following research questions:

- 1) To what extent are ratings of classroom Emotional Support dimensions attributable to the centers;
- 2) Which characteristics of a center or its director best predict teachers' emotional supportiveness dimensions?

Methods

The present study replicates analyses on two early childhood datasets (Table 1):

1. The **Head Start Family and Child Experiences Survey (FACES)**, 2009 cohort provides a nationally representative sample of Head Start programs. The sample includes 120 centers, and 370 preschool classrooms.
2. The **Teachers as Socializers of Social Emotional Learning (TASSEL)** project is an ongoing IES-funded research project exploring the impact of preschool teachers' socialization of emotion on children's social and emotional competencies. These analyses utilize data from the first wave of data collection (2012-2013) and include 10 centers and 39 teachers in Northern Virginia.

Measures:

Both datasets included the following measures:

- Emotional Support (CLASS; Pianta et al., 2008). Including the dimensions of Positive Climate, Negative Climate, Teacher Sensitivity, and Regard for Student Perspectives. Additionally, a student:teacher ratio was computed by averaging across CLASS observations.
- Director reported Education Level, Salary, Job Satisfaction, and Perception of Management Challenges.

Additional study specific variables were included:

- **FACES:** Director reported Prior-Turn-Over Rate, Steps Taken to Address Turnover, and Supportive Management Practices.
- **TASSEL:** Director reported Beliefs about Social Emotional Learning (SEL) and Staff Management Skills.

Table 1: FACES and TASSEL participant demographics

	FACES		TASSEL	
	Directors	Teachers	Directors	Teachers
Head Start	100%	100%	20%	38%
Female	92.20%	99.40%	100.00%	100.00%
Race				
White/Caucasian	61.60%	60.40%	80.00%	73.20%
Black/African American	31.20%	32.1	20.00%	19.50%
American Indian/Alaska Native	0.80%	0%	-	-
Asian/Pacific Islander	1.60%	3.80%	-	4.90%
Hispanic	17.10%	22.60%	0.00%	2.60%
Highest Degree				
High School or Equivalent	-	11.30%	-	10.30%
Some College or Associate's	26.40%	43.40%	30.00%	18.00%
Bachelor's Degree	40.30%	37.70%	40.00%	53.80%
Graduate Training or Professional Degree	33.30%	7.50%	30.00%	15.40%
Mean Annual Salary (SD)	\$41,944.44 (\$15,152.70)	\$22,707.32 (\$7,827.02)	-	-
Mean Years Working in Head Start (SD)	10.84 (8.13)	6.02 (6.12)	-	-

Table 2: Results from HLM analyses examining variance in Emotional Support dimensions attributable to classroom and center-level predictors

	Positive Climate		Teacher Sensitivity		Regard for Student Perspectives	
	FACES	TASSEL	FACES	TASSEL	FACES	TASSEL
	ICC	.18	.32	.23	.18	.34
Intercept	5.38***	5.06***	4.74***	3.94***	4.54***	4.44***
Level-1 Both Studies						
Student: Teacher Ratio			-0.04*			.23*
Level-2 Both Studies						
Salary						
Education						
Job Satisfaction						
Management Challenges	-0.18 ^a					
Level-2 FACES						
Prior Turnover Rate	0.27*		0.34**			
Addressing Turn-Over Supportive Management	0.11 ^a					
Level-2 TASSEL						
Head Start		1.17**		1.49***		
Staff Management Skills						
SEL Beliefs						

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, ^a indistinguishable effect. Either is statistically significant when the other is removed

References

- Karoly, L. A., Zellman, G. L., & Perlman, M. (2013). Understanding variation in classroom quality within early childhood centers: Evidence from Colorado's quality rating and improvement system. *Early Childhood Research Quarterly*, 28(4), 645–657. doi:10.1016/j.ecresq.2013.05.001
- Pianta, R. C., La Paro, K. M., & Hamre, B. K. (2008). *Classroom Assessment Scoring System: Manual PreK*. Charlottesville, VA: Teachstone.
- Raudenbush, S. W., & Bryk, (2002). The logic of hierarchical linear models. In *Hierarchical linear models: Applications and data analysis methods*. SAGE.

Data Analysis

Analyses were conducted in a Hierarchical Linear Model (HLM; Raudenbush & Bryk, 2002), modeling the nesting of multiple teachers within each center. The first step in our analysis was to run an unconditional model for each outcome in each dataset (FACES, TASSEL). Next predictors were added to the model using parsimonious model specification. Final models are shown in Table 2.

Results

- ICCs from the unconditional models were significant for all dimensions of Emotional Support except Negative Climate in both samples., thus no further analyses were done with Negative Climate. Center membership explains between 8-34% of the variance in teachers' emotionally supportive teaching practices.
- **Positive Climate** in the FACES data was positively predicted by prior turnover rate. The two other significant, but indistinguishable, predictors were the directors' rating of management challenges and supportive management practices. In the TASSEL data, Head Start was positively related to climate.
- **Teacher Sensitivity** was positively explained by the Level-1 predictor of Student:Teacher Ratio in the FACES data, but not in TASSEL. In TASSEL, Head Starts (vs. Private Centers) had teachers with higher levels of Sensitivity.
- **Regard for Student Perspectives** was positively predicted by the Level-1 TASSEL Student:Teacher Ratio.

Conclusion

- The variance estimates attributable to the centers ranged from an insignificant amount of variance in Negative Climate to 34% in Regard for Student Perspective (in FACES). Thus, to some extent, dimensions of emotional support can be viewed as a characteristic of the center.
- These results draw into question the use of the CLASS instrument as an indicator of center quality, such as in QRIS programs, in instances when few teachers from a center are sampled (Karoly et al. 2013).
- Additionally, these results point towards factors to consider beyond classroom CLASS scores when studying center quality, such as management practices.
- Furthermore, the Emotional Support dimensions are typically aggregated together; however, the amount that they are attributable to the center varied substantially across dimensions.
- Future quantitative and qualitative research will be necessary to explore these potential predictors and their pathways of influence on teachers and students.

