

Observing Teacher-Child Interactions Using the CLASS Pre-K in German Preschool Classrooms

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EARLI SIG5 Biennial Conference 2014 in Jyväskylä, Finland

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Study Aims

- Extend existing research on the quality of early childhood education programs in Germany using a relatively new measure, the Classroom Assessment Scoring System CLASS Pre-K
- Examine factors that may contribute to quality

The German Preschool Context

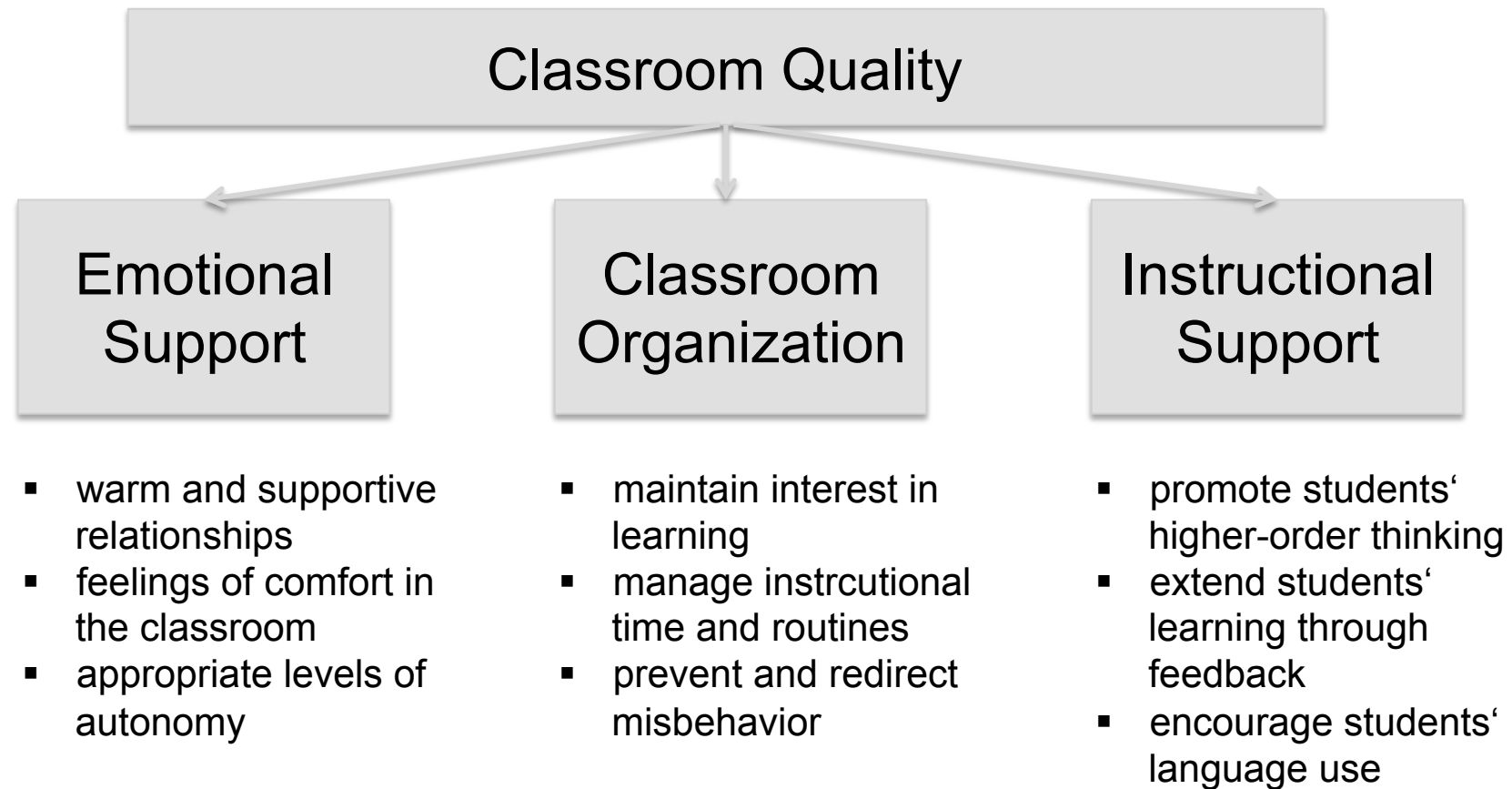
- compulsory formal education starts around the age of six
- early child care and education:
free play dominates
- attendance rate:
 - ✓ 20% of children under the age of three
 - ✓ 92% of all 3- to 6-year old children
- no homogeneous preschool teacher training program

Theoretical Background

- Interactive and contextual nature of development and learning
(Bronfenbrenner & Morris, 1998; Vygotsky, 1978)
- Teacher-child-interactions as primary mechanisms through which children learn in classrooms
(Curby et al., 2009)
- Teaching through Interaction framework
(Hamre et al., 2013)

Teaching through Interaction Framework

(Hamre et al., 2013)



The Present Study

- (1) Structure of the CLASS Pre-K
- (2) Quality across the preschool day
- (3) Predictive validity of the CLASS Pre-K

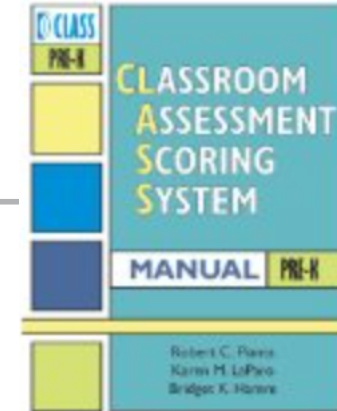
Sample

- 63 teachers from classrooms in 26 preschools in Freiburg



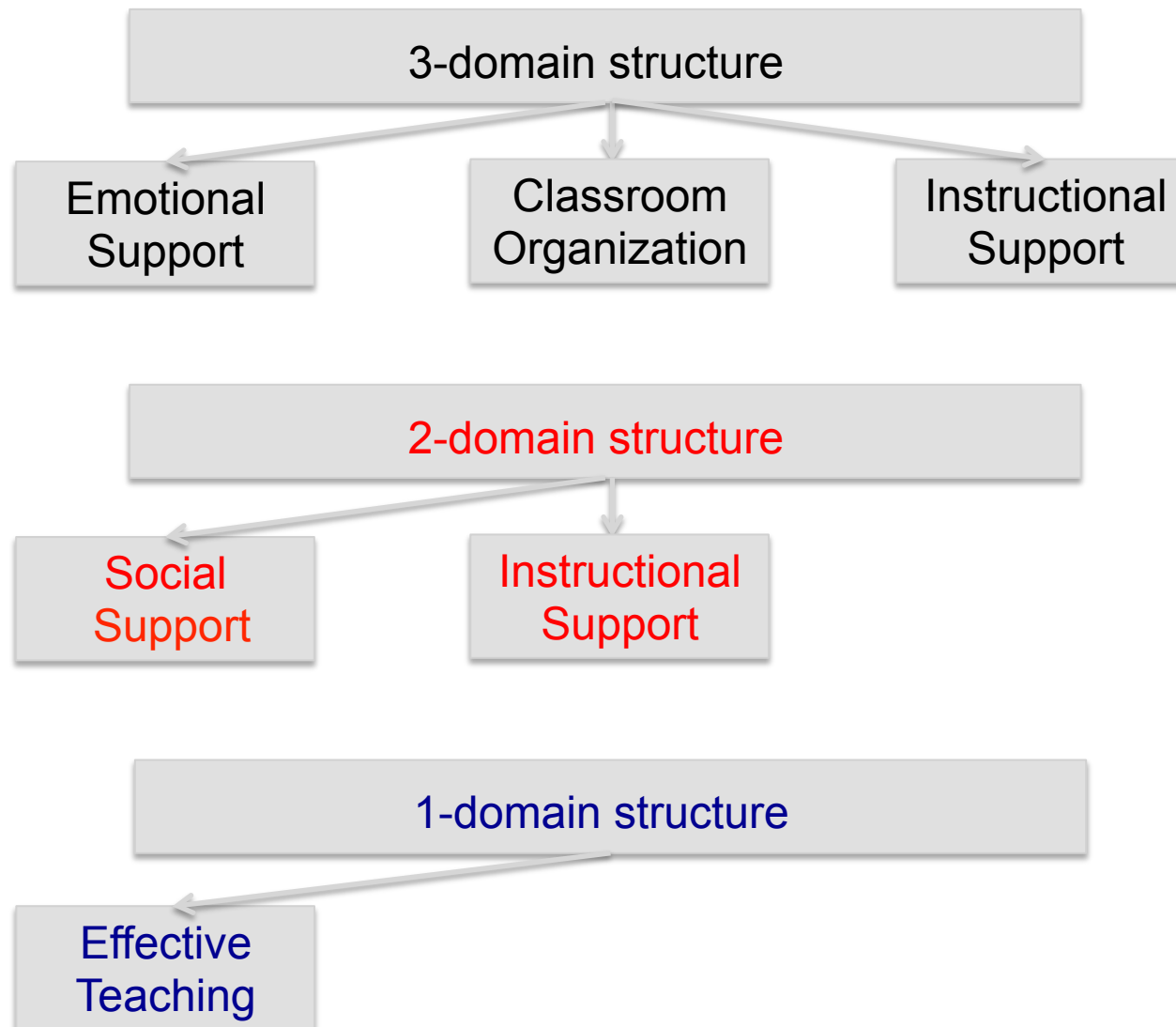
- ✓ cluster size: 2.4 teachers per preschool
- ✓ teacher age: $M_{\text{age}} = 36$ years, $SD_{\text{age}} = 9.72$
- ✓ average class size: 21 children, 50% of children being boys
- ✓ all classrooms were monolingual German

Measures



- **Spring 2012: CLASS Pre-K**
(Pianta, La Paro, & Hamre, 2008)
 - ✓ 4 observation cycles; on average 18 min per cycle (M = 18.21, SD = 1.87)
 - ✓ double coding in 15% of the classrooms: ICCs between .67 and .82
- **Spring 2013: Student-Teacher Relationship Scale STRS** (Pianta, 2001; German Version Mayr, 2012)
 - ✓ 44 items, e.g., *If upset, this child will seek comfort from me.*
 - ✓ 3 scales: closeness, conflict, and dependency

(1) Structure of the CLASS



(1) Structure of the CLASS - Results

Table 1. *Fit Statistics of the Different CFAs*

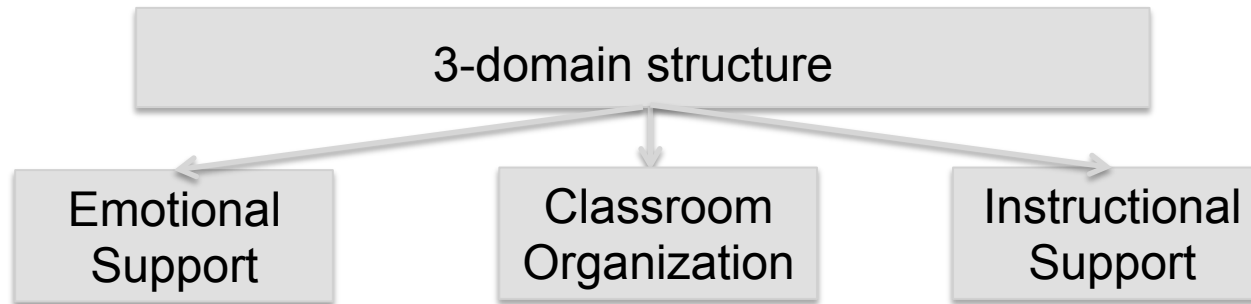
Model	χ^2	df	CFI	RMSEA	SRMR
1. Effective teaching	89.91***	35	.85	.16	.07
2. Social and instructional support	66.41***	34	.91	.12	.06
3. Teaching through interactions	56.94**	32	.93	.11	.06

Note. ** $p < .01$. *** $p < .001$.

The pattern of results was replicated in multilevel analyses.

(Suchodoletz, Fäsche, Gunzenhauser, & Hamre, 2014, Early Childhood Research Quarterly)

(1) Structure of the CLASS - Results



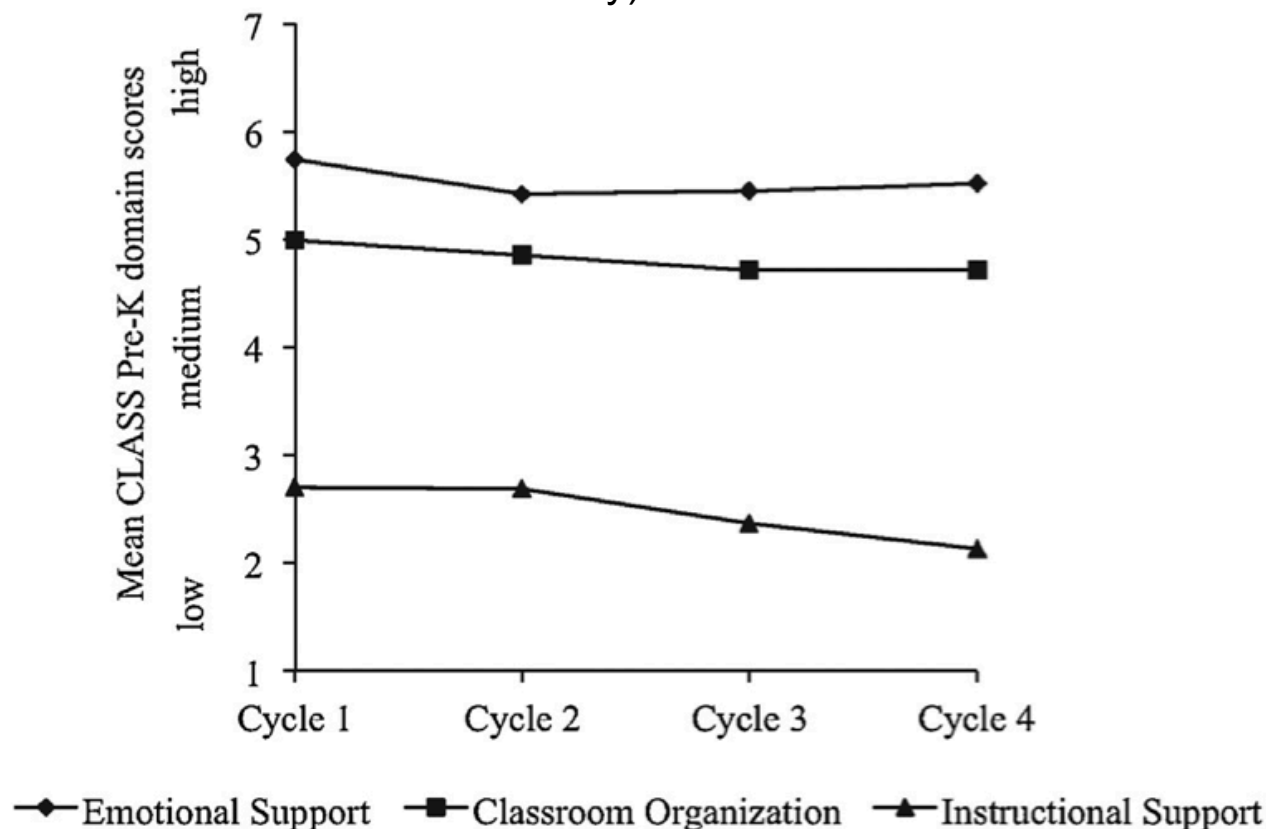
(2) Quality Across the Day - Results

Table 2. *Descriptive Statistics for the CLASS Pre-K*

	<i>M</i>	<i>SD</i>	α	Range
Emotional support	5.54	0.65	.82	
Positive climate	5.38	0.95		2-7
Negative climate	6.02	0.27		6-7
Teacher sensitivity	5.04	0.89		2-7
Regard for student perspective	4.86	0.90		3-7
Classroom organization	4.82	0.87	.81	
Behavior management	5.30	0.99		3-7
Productivity	4.92	1.10		2-7
Instructional learning formats	4.23	0.97		2-6
Instructional support	2.47	0.68	.83	
Concept development	2.17	0.78		1-4
Quality of feedback	2.52	0.81		1-5
Language modeling	2.73	0.76		1-4

(2) Quality Across the Day - Results

- **Within-morning variability in CLASS Pre-K scores** (Suchodoletz, Fäsche, Gunzenhauser, & Hamre, 2014, Early Childhood Research Quarterly)



(2) Quality Across the Day - Results

- Teacher, classroom, and program features related to within-morning variability in CLASS Pre-K scores:
 - ✓ **Teacher-child ratio** was negatively associated with the intercept and slope of *Emotional Support*
 - ✓ **Program structure** (i.e., length of the school day) partially explained the decline of *Instructional Support*

(3) Predictive Validity - Results

Table 3. *Correlations between CLASS Pre-K Scores and Teacher-rated Relationships with Students (STRS)*

<div>CLASS Pre-K</div> <div>STRS</div>	Emotional Support	Classroom Organization	Instructional Support
Closeness	-.03	-.02	-.03
Conflict	-.25**	-.28**	-.11
Dependence	-.28**	-.25**	-.11

Notes. ** $p < .01$.

Conclusions

Structure and Validity of the CLASS Pre-K

- Teaching through Interaction framework reflects the reality of teacher-child interactions in German preschool classrooms
- preliminary evidence for three-domain structure and validity of CLASS Pre-K ratings

Classroom Quality

- variability classroom quality
- only few high-quality classrooms
- decrease in quality over the morning

Practical Implications

- CLASS Pre-K can be used as an instrument to evaluate classroom quality in Germany
- Providing additional international examples and training videos might help to improve the CLASS Pre-K training and make it a better fit for international use
- Professional development/interventions need to include the promotion of high-level instructional support