

The Influence of Schools on Adolescent Behavior and Risk-Taking

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Prepared for:

Board on Children, Youth, and Families
Institute of Medicine / National Research Council
Committee on the Science of Adolescence

Workshop on Understanding and Preventing Adolescent Risk Behavior:
Integrating Findings across Domains of Influence

December 14, 2009

Schools as Entities

Identifying Salient Phenomena and Processes

- n Schools are a primary context for development
 - n School Characteristics
 - n Broad Structural Characteristics
 - n Micro-Contexts (places) and Micro-Systems (networks)
 - n Composition
 - n Norms for Behavior and Discipline
 - n Schooling Processes
 - n Quality of Relationships (with teachers, among peers)
 - n Connectedness and Bonding
 - n Climate
 - n Violence & Safety
- n Outcomes
 - n Adolescent Risk-Taking
 - n Related Problems and Competencies

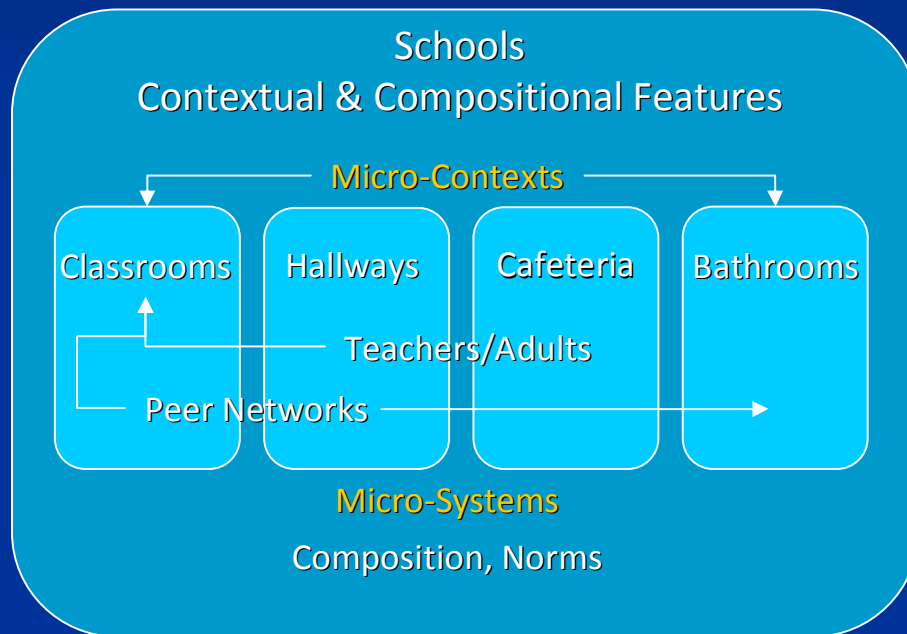
Organizational Heuristic

Schools
Contextual & Compositional Features

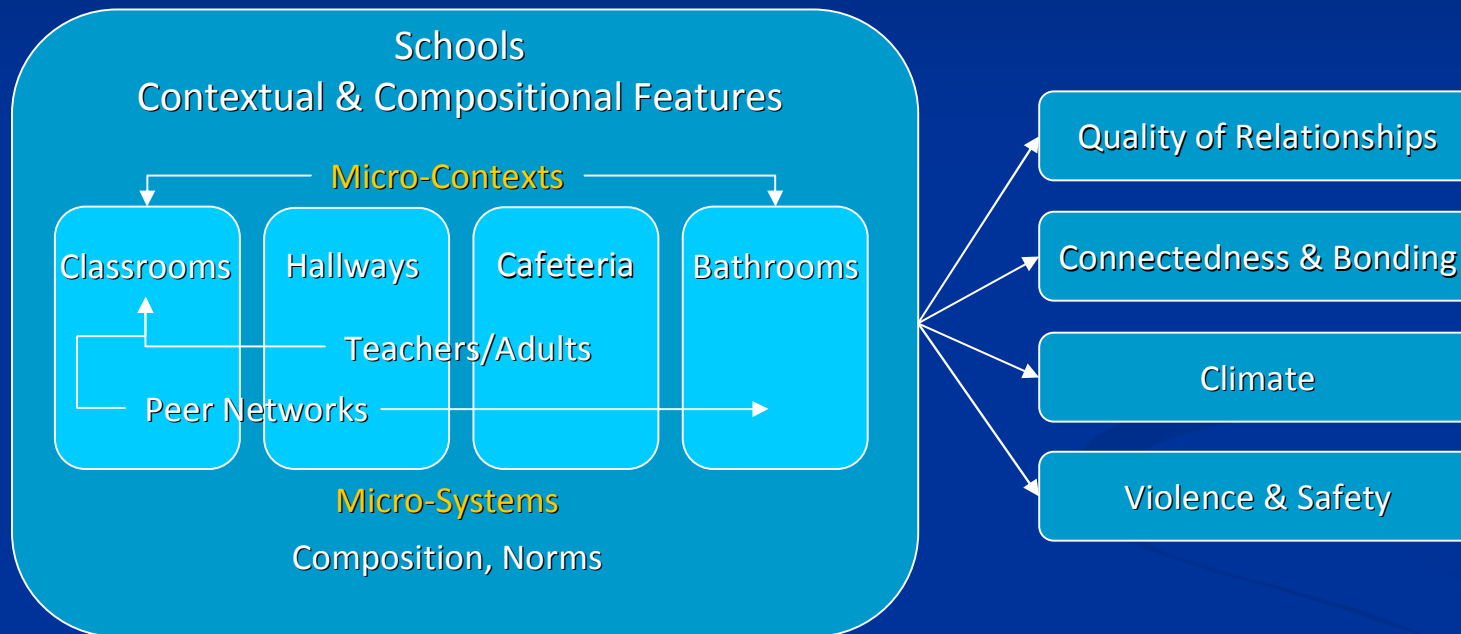
Organizational Heuristic



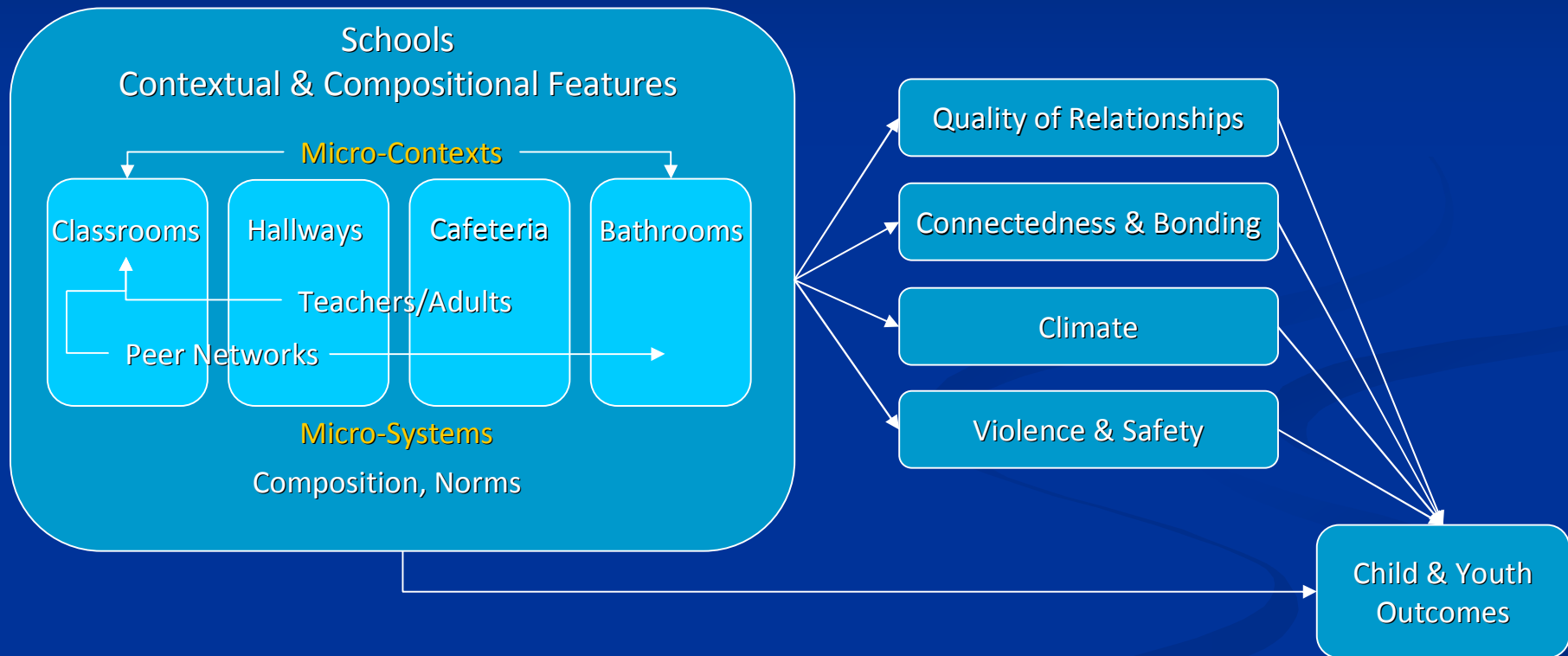
Organizational Heuristic



Organizational Heuristic



Organizational Heuristic



Fallacy is that these entities are (appear) FIXED.

In reality they change across time: across years, within a year, within a day (esp., for middle and high school students).

Key Points

- n Direct effects of structural features are limited.
- n Little research on micro-contexts.
- n Structural features influence youth experience in school settings
 - n quality of their relationships,
 - n experiences of violence, and
 - n perceptions of connectedness and overall climate.
- n School-based environmentally-focused interventions and those focused on social-emotional skills and competencies *can* influence
 - n the culture and climate of school settings,
 - n youth positive and negative behavior.
- n Few interventions target (and measure) setting-level features directly, particularly settings beyond the classroom.

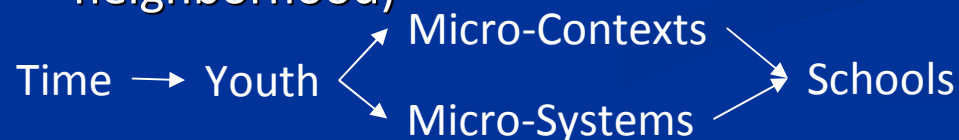
Operationalizing School Effects

Is there sufficient variation between schools, beyond that which exists between individuals within schools, to expect school-level characteristics to make a difference in adolescent risk-taking?

- n 11% variation in delinquency between schools (Felson et al., 1994)
- n .6-2% in victimization; 5-10% retaliatory attitudes; .9% bullying (Bradshaw et al., 2009)
- n 5% in percept. school safety (Bradshaw et al., 2009)
- n 8% of percept. order/discipline between classrooms (Koth et al., 2008)

n Needed:

- n Complex longitudinal multi-level designs
- n Decomposition of variance into finer-grained ecological levels
- n Consideration of intersecting ecologies (families, home/school neighborhood)



Broad Structural Characteristics

n School Disadvantage

- n Contextual: Per-Pupil Expenditure
- n Compositional: School Poverty; Suspension Rate

n School & Classroom Size

- n School Size; Student-Teacher/Adult Ratios

n Additional School Factors

- n Student and Teacher Mobility
- n Urban, Suburban, Rural
- n Public, Private, Parochial
- n Elementary, Middle, High

BOTTOM LINE:

- n Few direct effects
- n Likely path is through related factors: school-wide/social organization, student monitoring, behavior management

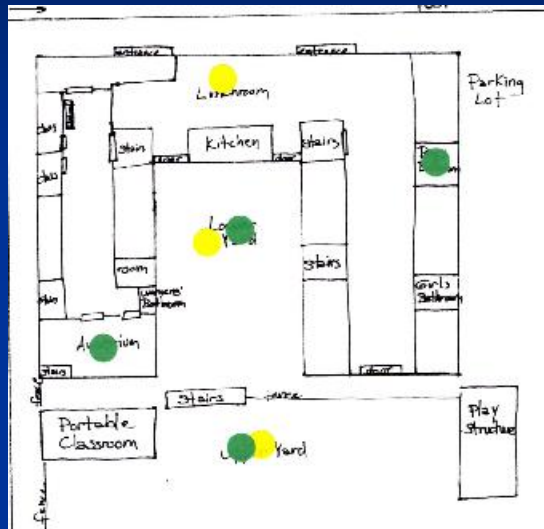
Micro-Contexts & Micro-Systems

- n Variation across *place* within schools in **student experience**
- n Variation across *place* within schools in **supervision...and responsibility**
- n What contributes?
 - n Composition of individuals
 - n Context/System norms for behavior and discipline

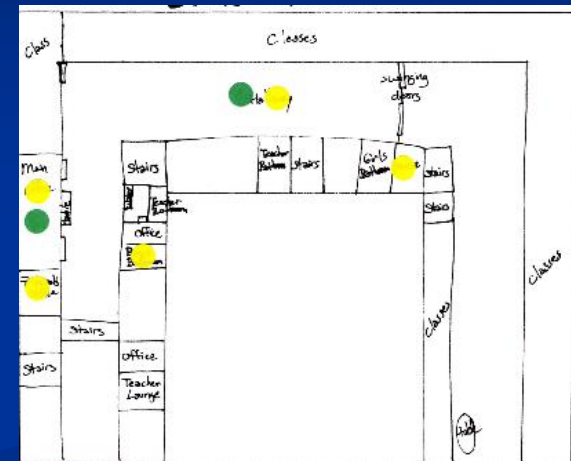
BOTTOM LINE:

- n Hallways, bathrooms, playgrounds, parking lots, stairwells, cafeterias = unsafe
- n “Unclaimed” spaces & non-classroom contexts have no or low (quantity/quality supervision)
- n Particularly true for middle schools

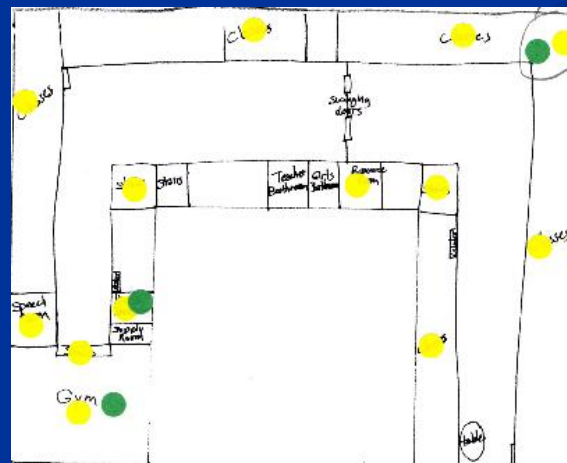
Variation Across Micro-Contexts



first floor



second floor



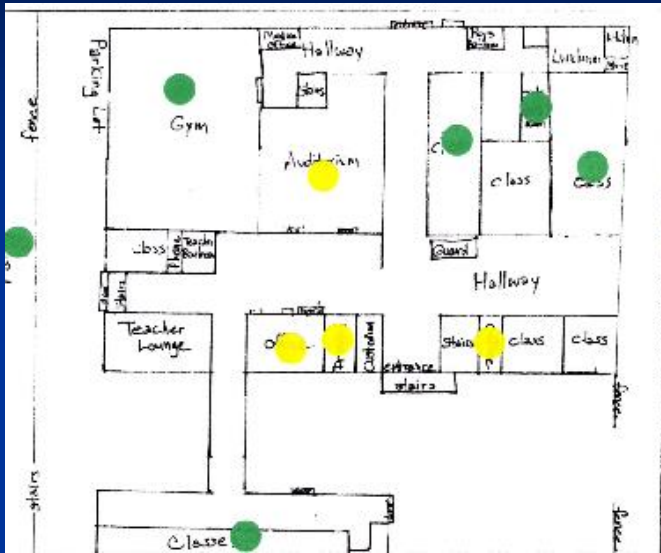
third floor

(child's main classroom is circled)

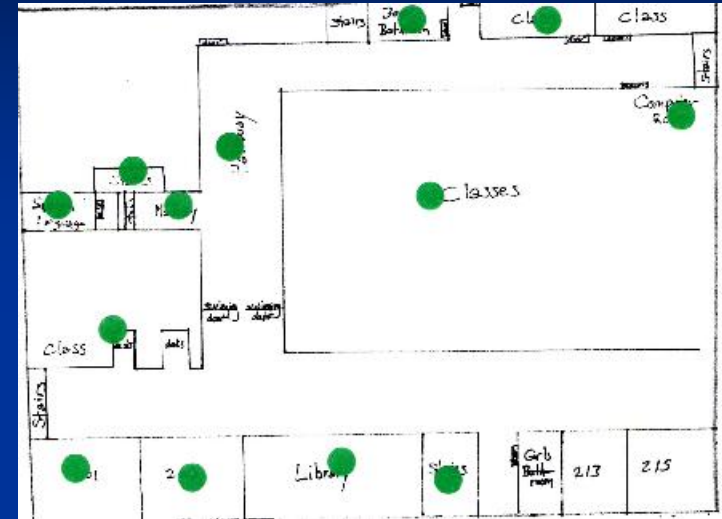
n = places where people do
not get along well

n = places where people
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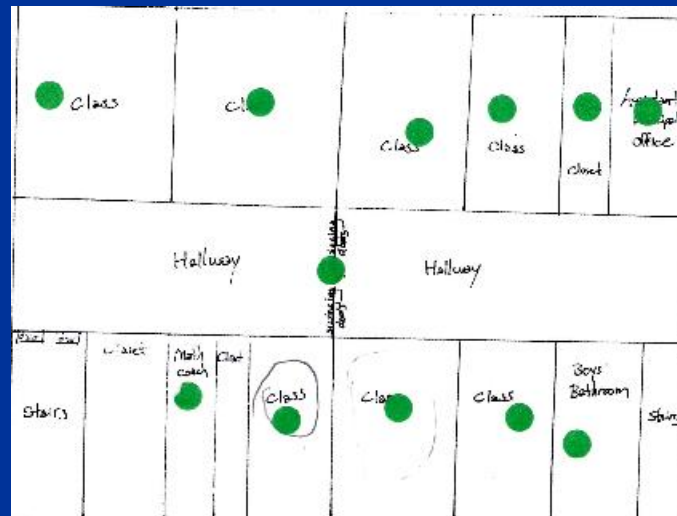
Variation Across Micro-Contexts



first floor



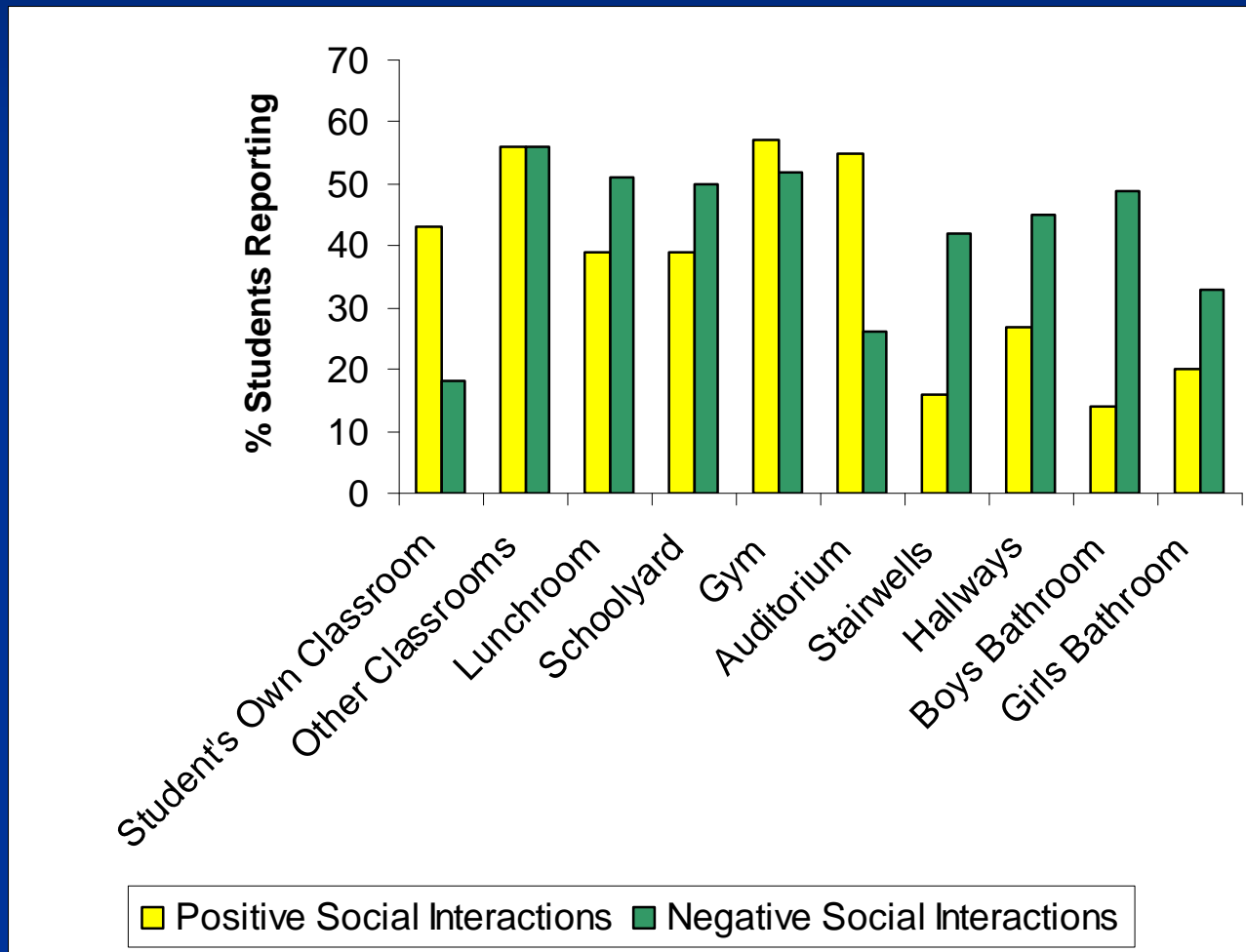
second floor



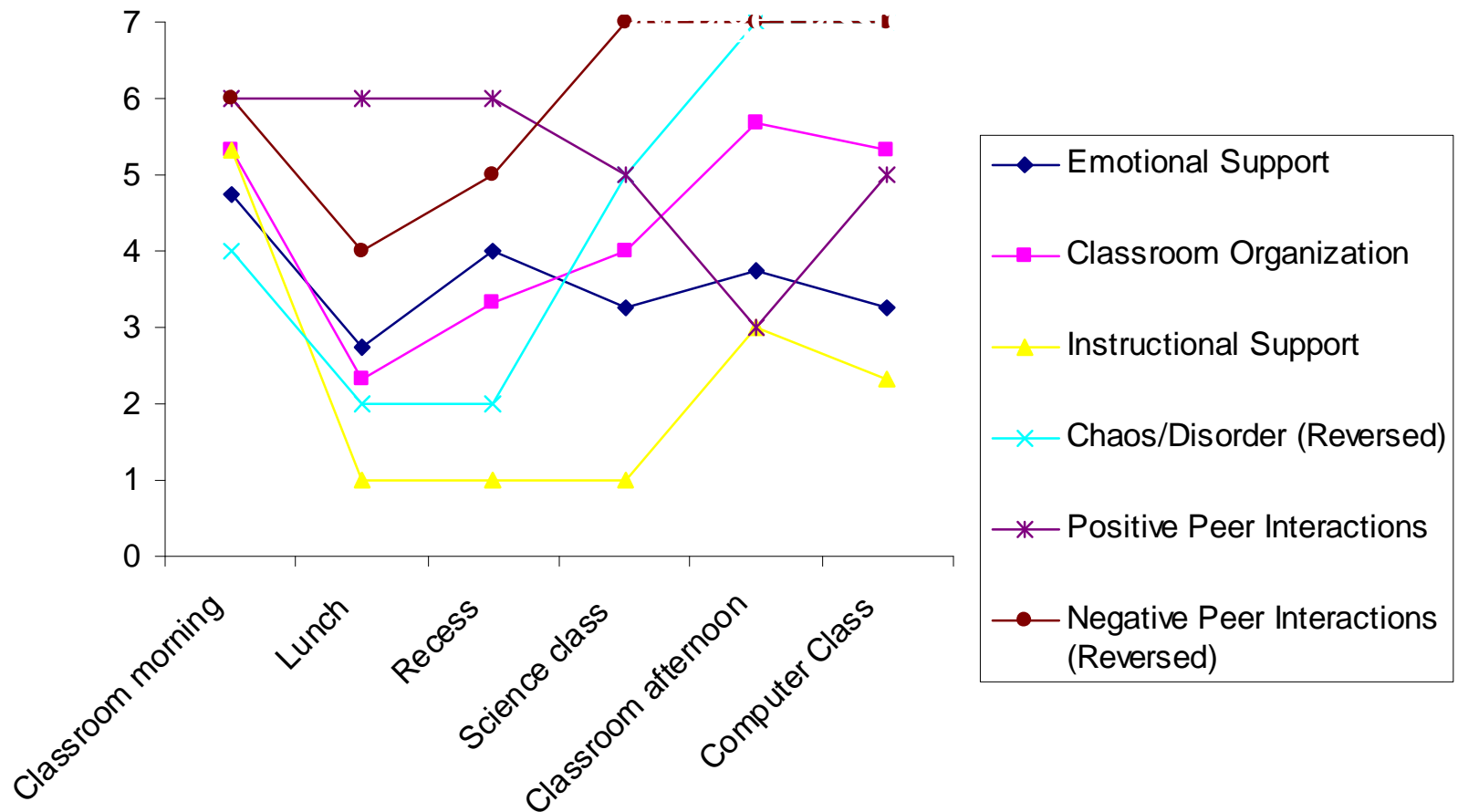
third floor
(child's main classroom is circled)

n = places where people do *not* get along well
n = places where people get along well

Percentage of students who identified each micro-context (on a map of their school) as having positive and/or negative social interactions



Variation in Climate Across a School Day



Schooling Processes

n Quality of Relationships

- n Peers
- n Teachers

n Connectedness & Bonding

n Climate

n Violence & Safety

n **BOTTOM LINE:**

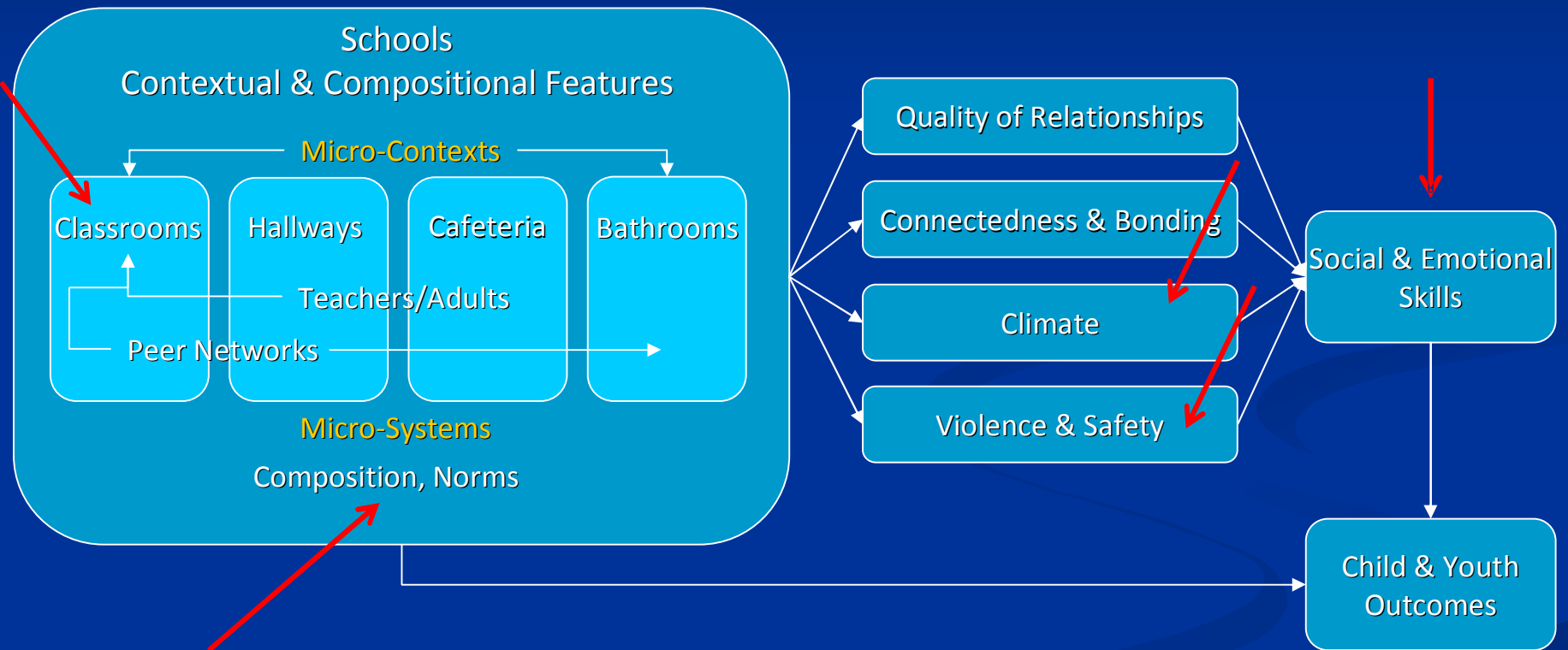
- n The vast majority of research on social & behavioral outcomes focuses on these dimensions. They have been linked to a broad array of positive and negative outcomes.
- n Little considers variation in experiences/perceptions across settings within schools (e.g., the power of relationships with non-classroom teachers).
- n Represent opportunities for multi-layered interventions (e.g., teacher-student relationships, student skills & supervisory structures across settings) .

Intervention/Prevention: Changing School Contexts to Change Youth Outcomes

- n School Climate, Whole School, Environmentally-Focused Interventions
- n Cross Context, Cross-System, Multi-Level
- n School Safety (Structural) Interventions
- n Policy Interventions

School Climate, Whole School, Environmentally Focused

- n School Climate (Δ relational environment - create caring classroom/school community)
 - n E.g., Child Development Project
- n Whole School SEL (Δ teacher & student skills, sometimes across settings)
 - n E.g., Social & Character Development Research Network (NYC Study of Social & Literacy Development)
- n Environmentally Focused (e.g., Δ norms within across settings – capitalize on composition)
 - n E.g., Good Behavior Game; Olweus; PBIS/PBS
- n Cross Context, Cross-System, Multi-Level
 - n E.g., Multisite Violence Prevention Project)



School-Based...from Meta-Analyses

(School Climate, Whole School, Environmentally Focused)

Table 5

Comparing current effect sizes to previous meta-analytic findings for school age populations

Outcomes	Mean Post Effects				
	Current Review	Other Reviews			
Skills	0.57	0.40a			
Attitudes	0.23	0.09b			
Positive Social Behaviors	0.24	0.39a	0.37c	0.15d	
Conduct Problems	0.22	0.26a	0.28c	0.21d	0.17e 0.30f
Emotional Distress	0.24	0.21b	0.24c	0.17g	
Academic Performance	0.27	0.29b	0.11d	0.30f	0.24h

From: Durlak, Weissberg, Dymnicki, Taylor & Schellinger (in press). The Impact of Enhancing Students' Social and Emotional Learning: A Meta-analysis of School-based Universal Interventions. *Child Development*.

Other reviews include:

a = Lösel & Beelmann, 2003 b = Haney & Durlak, 1998 c = Wilson & Lipsey, 2007 d = DuBois et al., 2002
 e = Wilson et al., 2001 f = Durlak & Wells, 1997 g = Horowitz & Garber, 2007 h = Hill, Bloom, Black, & Lipsey, 2007

From: Wilson, Gottfredson & Najaka (2001). School-Based Prevention of Problem Behaviors: A Meta-Analysis. *Journal of Quantitative Criminology*.

Table VI. Random Effects Mean Effect Size by Sample Character

Outcome	\bar{d}	95% CI		k^a
		Lower \bar{d}	Upper \bar{d}	
School grades				
Early elementary	0.05	-0.06	0.16	19
Late elementary	0.05	0.00	0.11	56
Middle/junior high school	0.09	0.04	0.13	68
Senior high school	0.14	0.06	0.22	32
Level of criminal involvement*				
General school population	0.07	0.04	0.10	155
High-risk population	0.20	0.14	0.21	61

^aNumber of effect sizes contributing to each analysis.

* $p \leq 0.05$.

From: Wilson, Gottfredson & Najaka (2001). School-Based Prevention of Problem Behaviors: A Meta-Analysis. *Journal of Quantitative Criminology*.

Table VIII. Random Effects Mean Effect Size by Major Intervention Category and Outcome Category for all 216 Intervention–Comparison Contrasts Using the Observed and Imputed Effect Sizes

Variable	Outcome category											
	Delinquency			Alcohol/drug use			Dropout truancy			Other problem behavior		
	\bar{d}_r^a	\bar{d}_c^b	<i>k</i>	\bar{d}_r	\bar{d}_c	<i>k</i>	\bar{d}_r	\bar{d}_c	<i>k</i>	\bar{d}_r	\bar{d}_c	<i>k</i>
Environmentally focused interventions												
School and discipline management interventions	0.39*	0.16*	2	0.10	0.07	1	0.07	-0.14	2	0.11	0.04	4
Establish norms or expectations for behavior	0.02	-0.07	2	0.09*	0.08*	13	— ^c	— ^c		0.15*	0.05	6
Classroom or instructional management	0.13*	0.19*	5	0.11*	0.10*	6	0.20*	0.14	5	0.04	-0.01	12
Reorganization of grades or classes	0.23*	0.34*	2	0.40*	0.48*	1	0.09	-0.03	4	0.14	-0.01	4
Individually focused interventions												
Self-control or social competency (instructional)												
With cognitive-behavioral or behavioral instructional methods	0.10*	0.10*	9	0.04*	0.05*	32	0.29*	0.09	4	0.18*	0.08*	38
Without cognitive behavioral or behavioral instructional methods	-0.00	-0.00	12	0.03	0.03	34	0.02	0.03	11	0.06	0.01	15
Other instructional	-0.09	-0.08	3	-0.02	-0.01	7	0.11	-0.00	3	0.22	0.02	3
Cognitive behavioral, behavioral modeling, or behavior modification	0.12	0.06	4	0.18	0.22	3	0.37*	0.22*	8	0.32*	0.16*	25
Counseling, social work, and other therapeutic interventions	-0.41*	-0.17*	3	-0.19	-0.18	2	-0.20*	-0.18	6	0.04	-0.14	6
Mentoring, tutoring, and work study	0.06	-0.02	5	-0.12	-0.15	2	0.19	0.05	8	0.13	-0.03	6
Recreation, community service, enrichment, and leisure activities	— ^c	— ^c		-0.14	-0.11	2	0.11	0.13	2	0.03	-0.02	3

^aThe raw effect size.

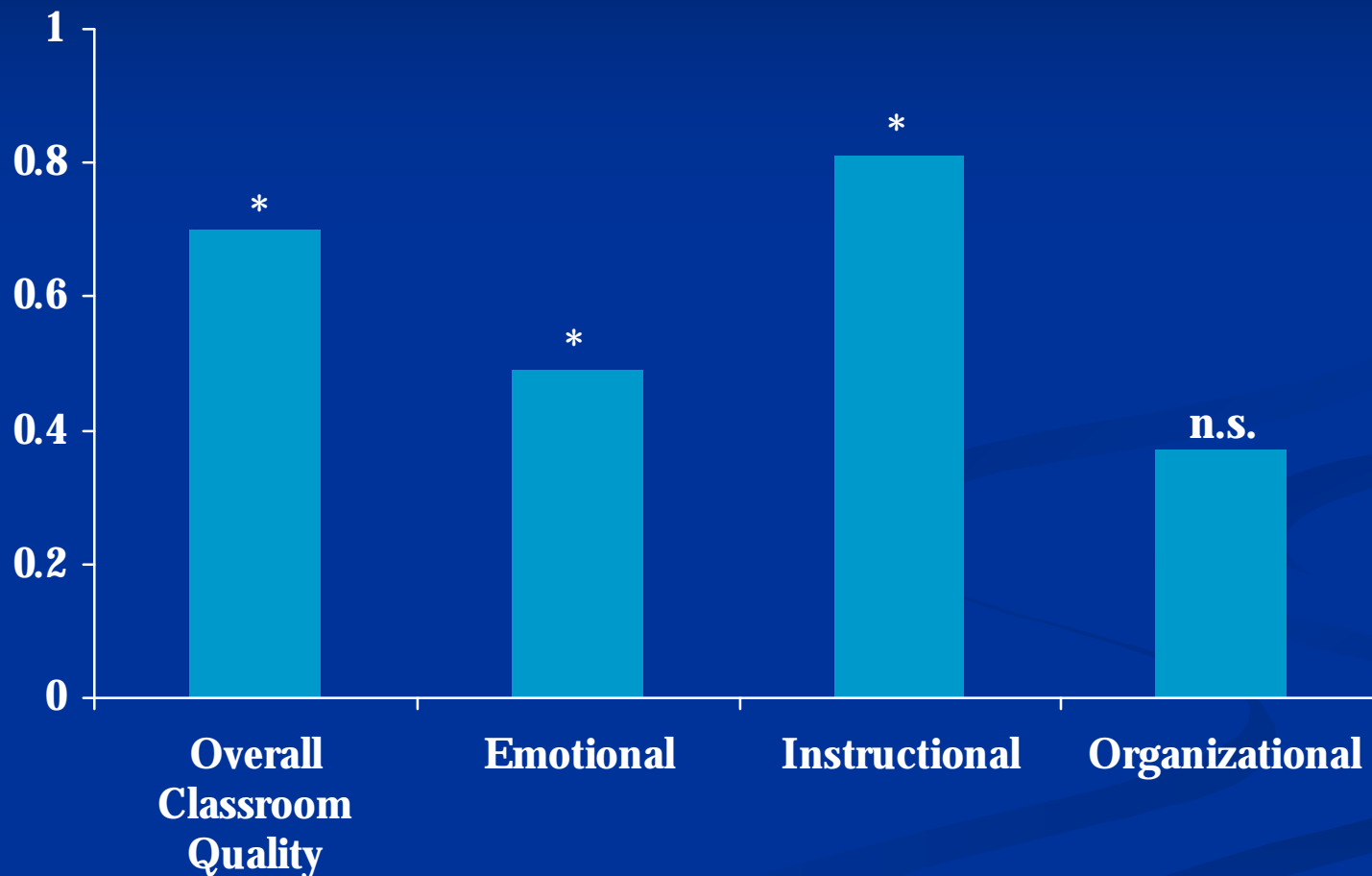
^bThe covariance adjusted effect size (method and sample equated).

^cNo effect size.

* $p \leq 0.05$.

NYC Study of Social & Literacy Development (with Brown, Aber)

n Effects on ratings of classroom climate (CLASS) in effect sizes.



From: Brown, J.L., Jones, S.M., LaRusso, M., & Aber, J.L. (in press). Improving Classroom Quality: Teacher Influences and Experimental Impacts of the 4Rs Program. *Journal of Educational Psychology*.

Gaps & Challenges

- n Few interventions address schools as *settings*, or *settings* in schools, as...
 - n a primary target of intervention,
 - n a primary pathway to impacts on youth,
 - n moderators of intervention effects.
- n Methodological Issues
 - n Design: need large samples of schools, need short and long-term longitudinal data (from ES to MS)
 - n Measurement: need reliable and valid measures of settings
 - n Analysis:
 - n Complexity of modeling
 - n Whole schools = direct and synergistic compositional effects (the problem and promise of interference between units)
 - n Identifying causal mediators

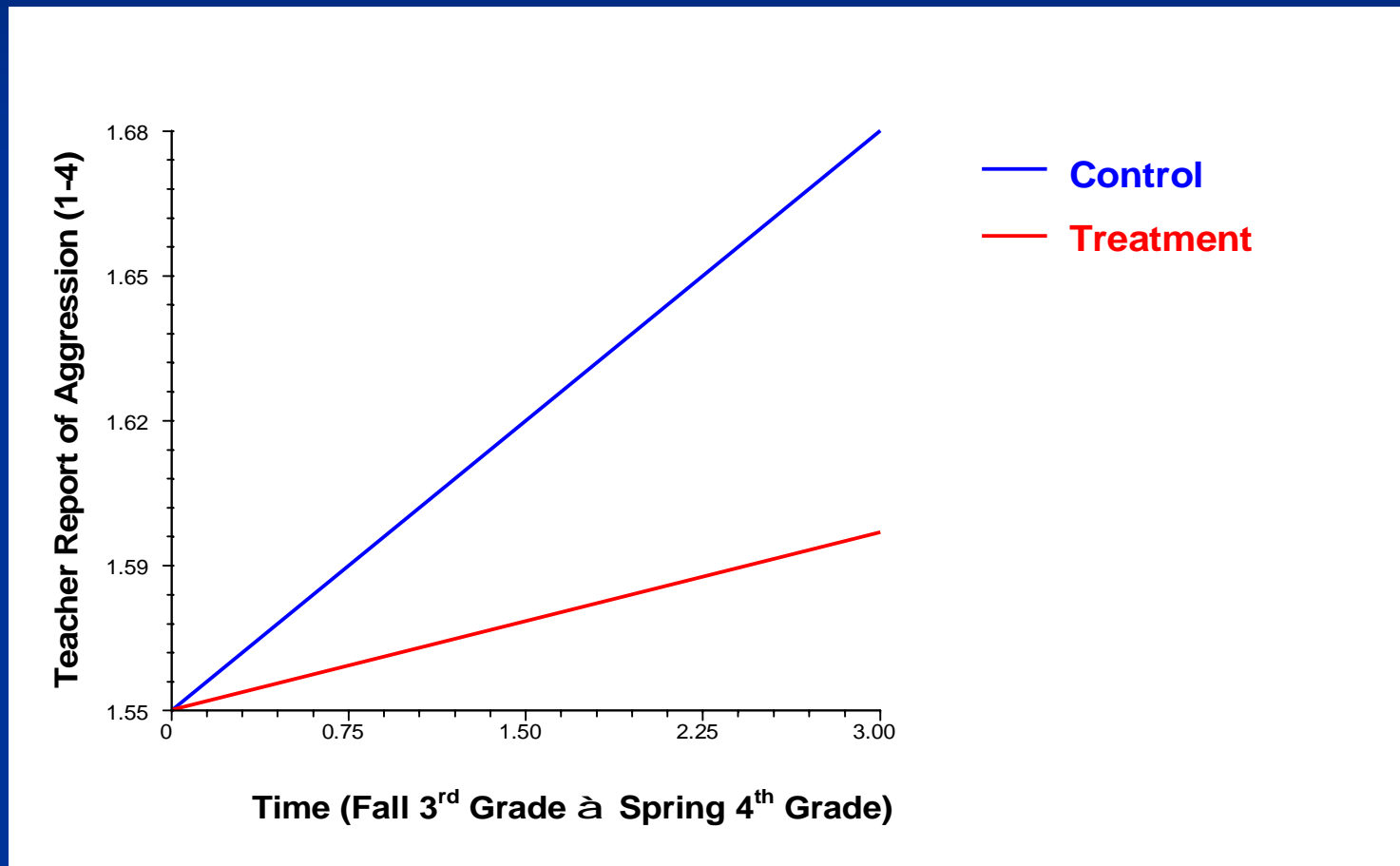
Comments on Integration...

n For later...

END!

NYC Study of Social & Literacy Development (with Brown, Aber)

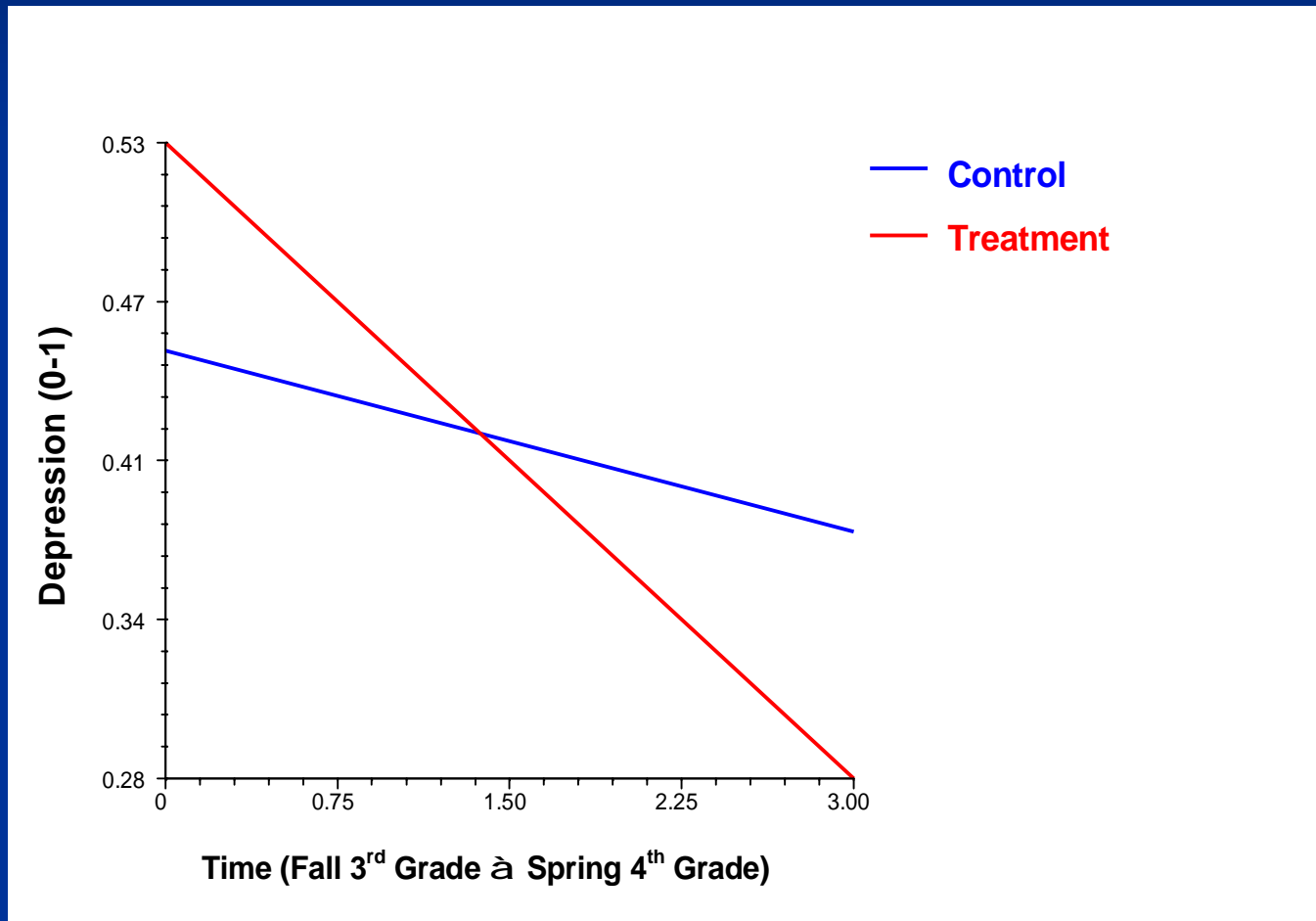
- n Effects on TR Aggression (ES T4=.21).



From: Jones, S.M., Brown, J.L., & Aber, J.L. (Accepted). The Longitudinal Impact of a Universal School-Based Social-Emotional and Literacy Intervention: An Experiment in Translational Developmental Research, *Child Development: Special Issue on Raising Healthy Children: Translating Child Development Research into Practice*.

NYC Study of Social & Literacy Development (with Brown, Aber)

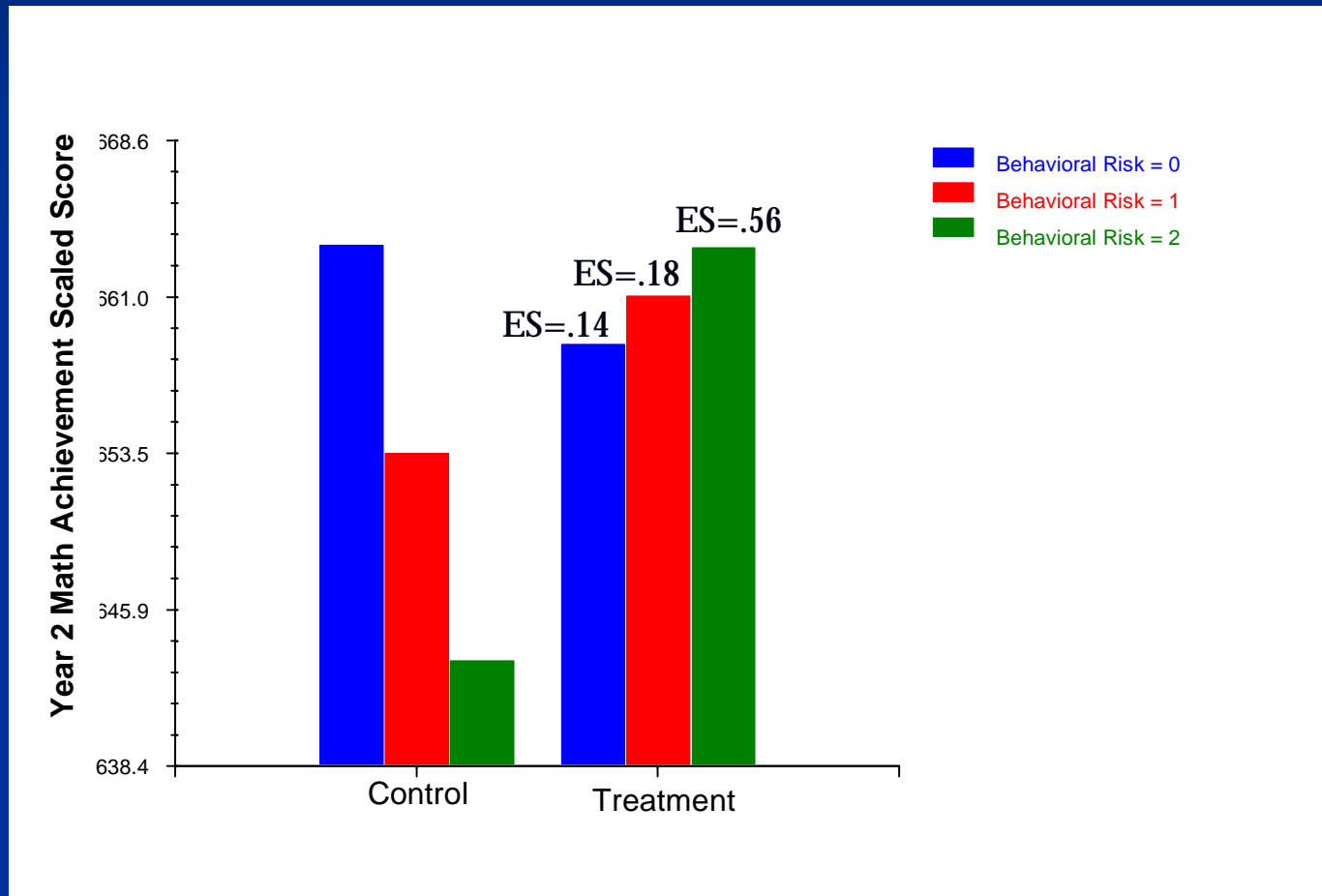
- Effects on SR Depression (ES T4=.22).



From: Jones, S.M., Brown, J.L., & Aber, J.L. (Accepted). The Longitudinal Impact of a Universal School-Based Social-Emotional and Literacy Intervention: An Experiment in Translational Developmental Research, *Child Development: Special Issue on Raising Healthy Children: Translating Child Development Research into Practice*.

NYC Study of Social & Literacy Development (with Brown, Aber)

n Effects on Math: Tx by Behavioral Risk at Baseline.



From: Jones, S.M., Brown, J.L., & Aber, J.L. (Accepted). The Longitudinal Impact of a Universal School-Based Social-Emotional and Literacy Intervention: An Experiment in Translational Developmental Research, *Child Development: Special Issue on Raising Healthy Children: Translating Child Development Research into Practice*.