

School-wide Classroom Management Fidelity and Outcomes with Students in Elementary School

Raymond V. Burke¹, Robert G. Oats², Jay L. Ringle², Leah O'Neill Fichtner³, Mary Beth DelGaudio⁴, and Jim Gross²

Abstract

The present study investigates the use of a school-wide classroom management program and its relationship to elementary students' behavioral and academic outcomes.

Three years after training in the classroom management program, 56 second-, third-, and fourth-grade teachers in an urban school district were assessed for fidelity to the program. Program fidelity was determined via direct observation in the classroom and validated by teacher self-ratings of fidelity and administrator ratings of teacher fidelity. Dependent variables included student engagement during academic lessons, out-of-school suspension rates, and grade point average (GPA).

Results indicated that high program fidelity of implementation was significantly related to greater academic engagement and fewer suspensions, but not significantly related to GPA.

The Study

- Study took place during 2004-2005 school year
- 4,137 students from an urban district that were at risk for academic and school problems due to poverty, mobility, and other risk factors
- Fifty-six 2nd-, 3rd-, and 4th-grade teachers from 8 elementary schools:
 - 14 hours of training in The Well-Managed Classroom[®] (WMC)
 - Yearly refresher training
- Three years post-training, assessed:
 - WMC fidelity of implementation
 - Student academic engagement, suspensions, and GPA
- For descriptive purposes, teacher implementation was grouped into Low, Moderate, and High categories, based upon an 8-point fidelity observation instrument
- To take advantage of student level data, Hierarchical Linear Modeling (HLM) was performed on Suspensions and GPA

Well-Managed Classroom Fidelity

- Classrooms were observed for 16 minutes
- Teacher fidelity ratings were based upon rates of:
 - Praise, Prompts, and Corrections
- Inter-rater Reliability = 81%
- There was a non-significant positive correlation between teacher self-rating of fidelity and administrator ratings of teacher fidelity ($r(29) = .286, p = .06$).
 - This provides mild evidence of convergent validity between observed WMC fidelity ratings and the self- and other-rating measures of WMC fidelity

Student and Teacher Demographics

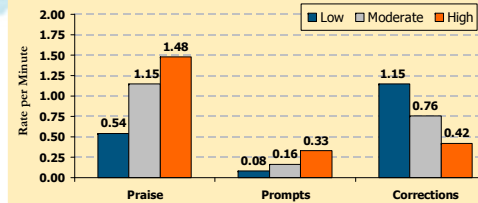
Student data	Schools								
	A	B	C	D	E	F	G	H	Avg.
Enrollment	618	558	729	384	493	540	371	444	517
Race/ethnic group									
% African Am	13	89	83	23	73	17	56	50	51
% Latino	85	10	11	73	27	79	43	49	47
% Caucasian	2	1	.4	4	.4	3	.5	1	2
% free/reduced	71	53	62	67	78	74	80	67	69
Teacher data									
% master's degree	67	62	67	54	67	59	58	76	64
% minority	36	43	50	26	31	22	42	41	37
# yrs teach-state	15	13	16	7	8	11	11	14	12

Classroom Interaction Examples Across Low, Moderate, and High Implementers

Interaction	Implementation Level		
	Low (n=20)	Moderate (n=19)	High (n=18)
Praise			
Academic	"That's the right width." "Great!" "Very nice!"	"Excellent, give yourself a pat on the back."	"Jevon, that's a very good research report." "That was a wonderful job with your robot stories!"
Behavior	"Wonderful! That's being a good citizen." "Thank you."	"Thank you for waiting." "Good, your eyes are up and hands are folded."	"I like how Victor's group has their books out and is ready." "Thank you for raising your hand."
Prompts			
Academic	Before starting writing task, "You have to start at the beginning and write everything that happens."	"We're going to review our fractions using our whiteboards. Be sure to write so your answers fit on board."	Before starting reading activity, "Be sure to read it in your head, then practice it with your lips."
Behavior	Before reading time, "I'm looking for people who are focused."	Before answering phone, "Remember it's quiet time when I'm on the phone."	Before student presentations, "Our voice level is at a zero because someone's going to be presenting."
Correction			
Behavior	"Shh! Shh! Shh!" "Excuse me!" "I'm hearing voices again."	"Look up here." "I'll wait for you, it's your recess time."	"Kiera, you're shouting out. Please raise your hand and wait to be called on."

Note: All student names are pseudonyms

Results Praise, Prompts, and Corrections by Implementation Level



Results Academic Engagement, Suspensions, and GPA by Implementation Level

Outcome	n	Mean	SD	
Academic Engagement	Low	20	81%	9.7
	Moderate	19	92%	5.0
	High	18	97%	3.9
Suspensions	Low	20	7.9	6.4
	Moderate	19	5.2	5.8
	High	18	3.8	4.4
GPA	Low	17	3.2	0.30
	Moderate	16	3.4	0.29
	High	17	3.4	0.26

Results Regression and Hierarchical Linear Modeling (HLM)

- A linear regression indicated that teacher fidelity of implementation was a significant predictor of student academic engagement ($b = .75, p = .000$), accounting for 57% of the variance in academic engagement
- HLM results indicate that higher fidelity teachers had students with fewer suspensions ($p = .007$)
- HLM results indicate that fidelity was not significantly related to GPA ($p = .337$)

Limitations

- Retrospective evaluation not a prospective experiment
- Cannot rule out assignment bias (e.g., assignment of well-behaved students to higher-fidelity teachers)
- Limited time sample of model fidelity observations (16 min per classroom)

Summary

- Higher fidelity of implementation teachers provided approximately 3 times the frequency of positive statements to students compared to lower fidelity teachers
- Higher fidelity teachers had a 4:1 praise-to-correction ratio, while lower fidelity teachers had a 1:2 praise-to-correction ratio
- Teachers with higher fidelity scores had students with higher academic engagement
- HLM results indicate that higher fidelity teachers had students with fewer suspensions; however, fidelity was not significantly related to GPA
- Results support literature on teacher pro-social behavior and positive classroom environment

References

- Connolly, T., Dowd, T., Criste, A., Nelson, C., & Tobias, L. (1995). The well-managed classroom. Boys Town, NE: The Boys Town Press.
- Hensley, M., Powell, W., Lamke, S., & Hartman, S. (2007). The well-managed classroom (2nd ed.). Boys Town, NE: Boys Town Press.