

**In the Pipeline: Testing The Promise Of Restorative Practices For Reducing Teacher
Turnover In Hard-To-Staff Schools**

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Background

In the United States, fears of an inadequate supply of quality teachers have prompted the study of why teachers leave their classrooms (Ingersoll, 2003; Sutchter, Darling-Hammond, & Carver-Thomas, 2016). Underfunded and overburdened schools in large urban districts face the largest losses in their teaching forces; less than half of the teachers in these districts remain after five years (Ingersoll, 2004). Individual schools face staggering annual turnover (and therefore replacement) rates at an average of 20%, or one fifth, of their teaching staff (Holme, Jabbar, Germain, & Dinning, 2017; Papay, Bacher-Hicks, Page, & Marinell, 2017).

Most of the research on teacher turnover has examined descriptive patterns, particularly observed variation in turnover based on school working conditions (Guarino, Santibanez, & Daley, 2006; Simon & Johnson, 2015). Few studies have examined the impact of Restorative Practices (RP) on teachers and no studies have yet examined its impact on teacher turnover (Fronius, Persson, Guckenbug, Hurley, & Petrosino, 2016; Hurley, Guckenbug, Persson, Fronius, & Petrosino, 2015). Theoretically, RP is designed to improve the whole school environment and positively impact all school community members' relationships and satisfaction. Regarding teacher turnover, if RP succeeds at improving school climate, a factor teachers rate as important to their decision to stay, teachers should want to stay at their school. However, some qualitative studies and media reports of opposition to RP have picked up on potential resistance from teachers who claim that RP could instead lead to less organized schools with no consequences for student behavior and more stress for teachers (Dominus, 2016; Lustick, 2017).

Purpose & Research Questions

This study seeks to add to the current research on teacher turnover by evaluating the impact of RP on teacher turnover. Specifically, I examine the results from a randomized control trial of RP when these practices are combined with the teacher and student supports provided by Diplomas Now (DN). RP is a relatively new intervention aimed at whole school change: reducing punitive disciplinary measures, eliminating disciplinary inequities, and promoting a more positive school environment (Costello, Wachtel, & Wachtel, 2009; Evans, Lester, & Anfara Jr, 2013). Although many schools and districts have raced ahead to implement this intervention, evidence of its efficacy largely remains limited to observational and case studies (Fronius et al., 2016; Song & Swearer, 2016). This study examines how teachers in schools randomized to implement RP responded to this intervention in their intentions to leave their school and the profession of teaching. I specifically answer the following research questions:

- 1 Did assignment to the treatment, RP/DN improve school climate, as reported by teachers and students?
- 2.2 Did assignment to RP/DN, increase teachers' intentions to remain at their school?
- 2.3 Did assignment to RP/DN increase teachers' intentions to remain in the teaching profession?

Participants

The sample consisted of 33 "low performing schools" (20 middle schools and 13 high schools) from 8 large districts. Table 1 provides further descriptive characteristics of the schools in the sample and Table 2 describes the 579 teachers in the analytic sample (blocks where at least one treatment and control school responded to the Spring 2016 survey).

Intervention

The main focus of this study is the combined effect of RP/DN on school climate and teachers' turnover intentions. Figure 2 below provides the logic model for the combined intervention, embedding RP within the Diplomas Now framework, and shows how the components of the intervention and intended outcomes relate to each other. This study specifically examines the model of RP from the International Institute for Restorative Practices (IIRP), also called *SaferSanerSchools Whole School Change Program*. Unlike some RP programs that emphasize only certain practices or focus on parts of the school structure, the IIRP's model promotes an approach that involves whole school change. The IIRP model specifies 11 essential elements for full implementation (described fully in the appendix), e.g., affective statements ("personal expressions of feelings in response to specific behaviors") and restorative staff community ("a staff that models and consistently uses restorative practices with each other to build and maintain healthy adult relationships") (Costello et al., 2009).

Research Design

This impact study is a school-level cluster randomized control trial (RCT). Schools were originally recruited in 2011 and 2012 to participate in the I3 validation study of the Diplomas Now model (a sample of 62 low-performing middle and high schools in 23 randomization blocks in 11 districts). In 2014, we recruited the 33 schools, representing 12 of the randomization blocks, to participate in a new follow-up study of the combined impact of DN and RP. The 17 treatment schools added implementation of RP during the 2014-2015 and 2015-2016 school years to their ongoing implementation of DN and the 16 control schools continued implementing "business as usual" practices of their own choosing.

Data Collection and Analysis

Students and teachers responded to a questionnaire in Spring 2016 which were used to create measures for: teachers' turnover intentions and school climate (53 items). Student and teachers survey data were collected in ten of the twelve blocks participating in the study. The analysis will have four main steps: analytic setup and sample description, school climate factor analysis, intent-to-treat analysis on school climate (research question 1), and an intent-to-treat analysis on teachers' turnover intentions (research questions 2 and 3). For the intent-to-treat analyses, I will use a two-level HLM (adjusting for school clustering), incorporating block-level fixed effects to estimate the impact of treatment on student and teachers' perceptions of school climate and teachers' intentions to remain at their school and in the profession. A HGLM logistic regression model will be used to estimate the impact of treatment on the binary turnover outcomes.

Preliminary Findings

Table 3 provides the bivariate correlations between the main variables of interest, which are modest. Preliminary estimates of the full models accounting for clustering of teachers in schools and blocks, show a significant impact of assignment to RP on school climate as perceived by students and teachers, but not on teachers' turnover intentions. Future sensitivity analyses include testing baseline covariates, alternate measurements of school climate, and measures of Diplomas Now.

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Tables and Figures

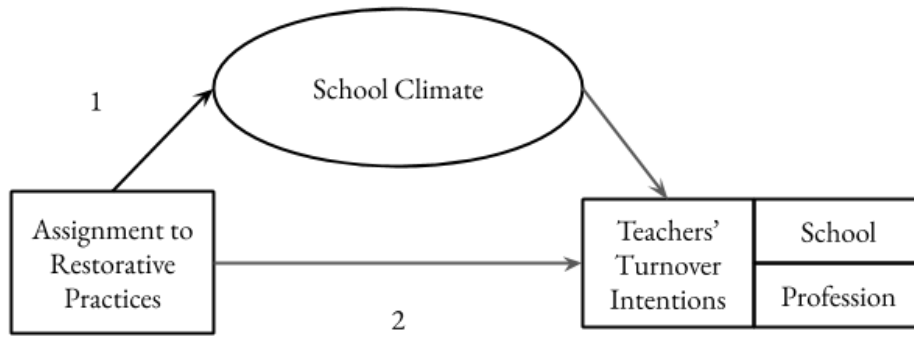


Figure 1. Causal Graph (and Analytic Model).
The numbers (1, 2) in this figure refer to the hypotheses described below.

INPUTS	OUTCOMES
<p><i>1. Restorative Culture and Climate</i></p> <ul style="list-style-type: none"> ● Professional development and manuals on: basic restorative concepts and skills, using circles effectively, facilitating restorative conferences, & restorative family engagement ● Ongoing consulting, coaching, and professional learning groups on restorative practices to refine skills and build sustainability and self-management ● Use of Essential Elements of <i>Restorative Practices</i> <ul style="list-style-type: none"> ○ School-wide use of affective statements, restorative questions, and small impromptu conferences ○ Broad-based use of proactive circles and responsive circles ○ Targeted-use of restorative conferences ○ School-wide use of fair process and reintegrative management of shame ○ A restorative staff community that models and consistently uses restorative practices with each other ○ A restorative approach to family and community involvement ○ Inappropriate behavior is not ignored but is addressed restoratively ● Training of local school staff and partners to become licensed IIRP trainers 	<p><i>Primary Early Outcomes</i></p> <ul style="list-style-type: none"> ➤ 1. Increased use of Restorative Practices ➤ 2. Increased tiered supports for students who exhibit early warning indicators of dropout risk <p><i>Primary Intermediate Outcomes</i></p> <ul style="list-style-type: none"> ➤ 3. Reduction in the prevalence/severity of disciplinary problems in the school (bullying, fighting, out-of-control classrooms, verbal or physical abuse of teachers or staff, vandalism, weapons possession, use of drugs/alcohol, and gang involvement) ➤ 4. Reduction in the probability that students will be suspended for 3 days or more (and reductions in other suspension outcomes).* ➤ 5. Higher student attendance rates and lower chronic absenteeism rates.* <p>*Impacts on outcomes 4 and 5 above are expected to be higher for Black, Hispanic overage, and special education students (who suffer the most under zero-tolerance/punitive/exclusionary approaches)</p> <p><i>Primary Long-term Outcomes</i></p> <ul style="list-style-type: none"> ➤ 6. Improved student graduation rates ➤ 7. Increased teacher retention (as indicated by increased % of teachers intending to remain in the school)
<p><i>2. Diplomas Now's Integrated Onsite Support for School Transformation (e.g., on-site team from Talent Development Secondary, City Year, and Communities in Schools)</i></p>	
<p><i>3. Diplomas Now's Tiered Student Supports and Interventions Guided by an Early Warning System (EWS)</i></p> <ul style="list-style-type: none"> ● Tiered Intervention Model with EWS response meetings ● Tier II Student Supports ● Tier III Case-Managed Supports for highest needs students 	
<p><i>4. Diplomas Now's Strong Curriculum and Instruction with Professional Development</i></p> <ul style="list-style-type: none"> ● Professional development, instructional coaching, & professional learning groups for math & English faculty ● Curriculum for College Readiness 	
<p><i>5. Diplomas Now's Strong Learning Environments (e.g., teacher teams with common planning, SLCs, extended class periods)</i></p>	

Figure 2.3. Diplomas Now and Restorative Practices Logic Model

Source: MacIver et al. (2018). This logic model was put together by the RP/DN research team at Johns Hopkins and shows the integration of the RP and DN programs.

Table 1

School Composition Characteristics, Overall and by Treatment Status, in the Full RP Sub-study

Characteristic	Full RP Sub-study		
	All	Treatment	Control
Enrollment	974	1006	938
% FRL	76.9	79.6	73.8
% Minority	96.4	97.3	95.4
Sample Size	33	17	16

Note. Based on administrative data from the Common Core of Data (CCD) in 2010-11. There are no statistically significant differences between treatment and control groups at the $p < .01$ level ($df = 31$).

Table 2

Teacher Characteristics

Variables	Full Analytic Sample		Treatment	Control
	n	%	%	%
<i>Teacher – Individual Characteristics</i>				
Experience – as a teacher	579			
New (1 year or less)		13.1%	10.5%	16.0%
Experienced (15+ years)		37.0%	37.1%	36.7%
Experience – in current school	578			
New (1 year or less)		33.7%	33.3%	34.2%
Experienced (15+ years)		10.9%	10.9%	10.9%
Educational attainment	579			
Bachelor’s degree		34.0%	25.7%	43.3%
Master’s degree		50.1%	56.9%	42.6%
Specialist certificate/degree		13.1%	14.5%	11.6%
Doctorate		2.8%	3.0%	2.6%
Certification (within state)	578			
Regular		78.7%	76.4%	81.1%
Advanced		9.4%	11.4%	7.0%
Probation/Temporary/Other		12.0%	12.1%	11.9%
<i>Teacher – Job Characteristics</i>				
Full-time (1 = full-time)	579	89.0%	84.3%	94.2%
Leader (1 = leader)	579	9.97%	10.8%	9.1%
Subject	568			
Math		19.9%	18.8%	21.1%
English		26.9%	25.2%	28.9%
Social Studies		13.0%	13.1%	13.0%
Science		12.0%	11.7%	12.2%
Other		28.2%	31.2%	24.8%
Grade Level				
Middle School (6-8 th)		74.2%	72.9%	75.6%
High School (9-12 th)		25.8%	27.1%	24.4%

Note. The n shows how many cases were observed for each variable in dataset before imputation.

Table 3
Bivariate Correlations Between Variables of Interest

Variable	1	2	3	4	5	6
1. Turnover Intentions (1=stay)	1					
2. Turnover Intentions (1=move)	-.75**	1				
3. Turnover Intentions (1=leave)	-.55**	-.14**	1			
4. RP Assignment	-.02	.05	-.03	1		
5. School Climate (teacher perception)	.11**	-.04	-.11**	.13**	1	
6. School Climate (student perception)	.00	.04	-.06	.06	.15**	1
Range	0, 1	0, 1	0, 1	0, 1	1 - 5	1 - 5
Mean/Proportion	74.6%	16.0%	9.5%	52.6%	2.85	2.93
SD	-	-	-	--	.66	.12
Number of Items	1	1	1	1	19	32
Cronbach's alpha	-	-	-	-	.87	.94

Note. Analytic sample, $N=539-579$. RP = Restorative Practices, PD=Professional Development. * $p<.05$; ** $p<.01$