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Leading Together

Strengthening Relational Trust in the Adult School Community

ABSTRACT: Research from the past two decades positions relational trust as a key factor in school reform efforts. Trust between teachers and their principal (teacher-principal trust) and teachers and their colleagues (teacher-teacher trust) are particularly important. *Leading Together* (LT) is a new professional development and coaching model of the Center for Courage & Renewal designed to develop individual and collective capacity to build trust and enhance communication among adults in schools. In this article, we investigate the relation between successful implementation of LT and changes in trust in eight schools that participated in a pilot study of LT from 2012 to 2014. Results showed moderate increases in teacher-principal trust and teacher-teacher trust in schools implementing LT successfully. This article describes changes in trust and processes needed for the successful implementation of team-implemented programs, models, or approaches.

KEY WORDS: Trust, Implementation, Implementation Measure, Teacher-principal Trust, Leading Together

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INTRODUCTION

Schools face difficult issues daily: curricular demands, implementation of new curricula, academic failure, student bullying, and many more. To deal with these issues, teachers and principals need to be able to come together to collaborate in meaningful ways (e.g., to develop strategies for instructional practices) (Makiewicz & Mitchell, 2014). Mounting evidence suggests that *relational trust* between school-relevant pairings (e.g., teachers and principals) is needed to help teachers and principals negotiate the myriad challenges that occur in schools (Bryk & Schneider, 2002; Bryk, Sebring, Allensworth, Luppescu & Easton, 2010; Louis, 2007a; Tschannen-Moran, 2014a). Within schools, relational trust is considered to be an organizational property that is created throughout multiple social exchanges between members of one group (e.g., teachers) and members of another group (e.g., administrators) based upon discernments of respect, personal regard, competence, and personal integrity (Bryk & Schneider, 2002). Relational trust is considered an organizational property because it is a school-specific resource that has important consequences for school functioning and for a school's capacity to engage in necessary reforms (Bryk & Schneider, 2002; Forsyth, Adams, & Hoy, 2011; Tschannen-Moran, 2009; Tschannen-Moran, 2014a).

Two decades of accumulated evidence points to relational trust as a key factor in facilitating and sustaining school reform (Bryk et al., 2010; Kochanek, 2005; Louis, 2007a; Meier, 2002) and improving student performance (Bryk et al., 2010; Forsyth, 2008; Forsyth, Barnes, & Adams, 2006; Goddard, Tschannen-Moran, & Hoy, 2001). The importance of establishing relational trust in schools is not new. There are several widely used approaches, such as Critical Friends Groups (Dunne, Nave, & Lewis, 2000), Professional Learning Communities (DuFour, 2004), and Adaptive Schools (Garmston & Wellman, 1995) that districts rely on to establish norms for building relational trust.

Relational trust between teachers (teacher-teacher trust) and between teachers and their principal (teacher-principal trust) are important for creating a healthy and productive school climate (Bryk & Schneider, 2002; Smith, Hoy, & Sweetland, 2001). However, there is still much to learn about strategies that schools can use to build teacher-teacher or teacher-principal trust (Adams, 2008; Kochanek, 2005). The act of building teacher-teacher or teacher-principal trust in schools is a complex process that requires careful thought about both approaches to building trust as well as how these approaches are implemented.

In 2012, Pamela Seigle, Chip Wood (developers of two well-known social emotional learning programs, Open Circle and Responsive Classroom), and Lisa Sankowski (Associate Director of Courage and Renewal,

Northeast) approached our research team, the Social Development Lab at the University of Virginia, to engage in early-phase research. Seigle, Wood, and Sankowski were developing a professional development and coaching model for the Center for Courage & Renewal called *Leading Together: Strengthening Relational Trust in Schools (LT)*. LT builds the capacity of individual and groups of teachers and administrators for facilitating positive, trusting relationships between adults in their school community and thus building teacher-teacher and teacher-principal trust.

With any new model, such as LT, it is important to conduct small mixed-methods pilot studies early in the process to signal whether the model is worth pursuing (Comer, 1993; Comer & Emmons, 2006). This pilot study is an important first step before conducting a resource-intensive randomized controlled trial (RCT), exposing large numbers of educators to a model that may not be effective or that may be difficult to implement (Grissmer, Subotnik, & Orland, 2009). Therefore, Seigle, Wood, and Sankowski enlisted our team as independent evaluators to conduct a mixed-methods pilot study of LT. Our goals were to examine the initial efficacy of the model for building teacher-teacher and teacher-principal trust and to give feedback for improving the LT model (for more information, see Rimm-Kaufman, Leis, and Paxton, 2014). Given decades of work indicating the necessity of proper implementation for models or programs to work as intended by the developers (Century & Cassata, 2016; Dane & Schneider, 1998; Dobson & Cook, 1980; Durlak & DuPre, 2008), we focused on implementation of LT activities and protocols in schools involved in the LT pilot study. It is of utmost importance to understand the specific implementation processes that need to occur for a program to function as intended (Weiss, 1997), especially when considering the scalability and dissemination of a model (Elias, Zins, Graczyk, & Weissberg, 2003). Focusing on implementation allowed us to both understand how LT was being realized in schools as well as provide valuable information to the field about necessary processes for bringing trust-building models or approaches into schools.

LITERATURE REVIEW

RELATIONAL TRUST

Individuals in different roles in schools share a mutual dependence and vulnerability. For instance, teachers depend on the principal to keep the school functioning smoothly so that they can focus on teaching. In turn, the principal depends on teachers to be able to communicate information to students in a way that increases learning. There are many social

exchanges between individuals in these different role groups during a typical school day. Principals may come into classrooms to observe teachers or may interact with them more informally in the lunchroom or school hallway. Teachers may talk to other teachers in the break room or may walk by an open door and observe what is happening in another teacher's classroom. Relational trust forms, grows, and/or changes during these social exchanges (Bryk & Schneider, 2002). Three key elements define relational trust: (1) it is embedded in interpersonal relationships; (2) it grows through social exchanges between different role groups based on the fulfillment of obligations and shared expectations; and (3) it functions as an organizational property, as it is seen as enhancing the quality of a school (Schneider, Judy, Ebmeye, & Broda, 2014).

DETERMINANTS OF RELATIONAL TRUST

Individuals try to discern the intentions of other people during every social exchange. People make judgments about the other's objectives through witnessing, or even by hearing about, social interactions that occur in their organization. This discernment builds a foundation for the growth of trust (or distrust). Relational trust comes from individuals making judgments about the *social respect*, *interpersonal regard*, *integrity*, and *competence* of others (Bryk et al., 2010). *Social respect* refers to inferences about whether the other recognizes the important role each person plays in educating students and recognizes the mutual dependencies between role groups (e.g., teachers and principals). It includes respectful exchanges, valuing of other's opinions, and timely communication. *Interpersonal regard* refers to acting in a way that reduces the other's sense of vulnerability (e.g., showing that you care for the person as an individual, not just as a cog in a machine). *Integrity* refers to a person acting in a way that aligns with their spoken goals (e.g., doing what you say you will). *Competence* involves the perception that the other has the ability to achieve desired outcomes (e.g., they do their job well) (Bryk & Schneider, 2002).

The determinants of relational trust refer to social exchanges that occur because of the roles that people play in the school, not only because of the individuals who are in those roles (Schneider et al., 2014). Each person has a perception of what is expected from a person in a specific role (e.g., the principal). This perception leads each person to appraise whether the individual in that role meets those expectations (Tschannen-Moran, 2014b). For example, if a teacher expects principals to be able to set a compelling vision, a teacher may have less trust in a principal who is unable to do so. Key role groups in schools include principals, teachers, staff, parents, and students (Tschannen-Moran, 2014a).

TEACHER-PRINCIPAL AND TEACHER-TEACHER TRUST

Tschannen-Moran (2014a) found that 78% of the variance in student achievement could be explained by faculty trust in the principal, colleagues, and families; parent trust in the school; and student trust in teachers. Though relational trust between each of these role groups is important, in this article we focus specifically on teacher-principal trust and teacher-teacher trust. There is a growing body of research that links teacher-principal and teacher-teacher trust to important school outcomes, such as a healthy and productive school climate (Bryk & Schneider, 2002; Smith, Hoy, & Sweetland, 2001; Tarter, Sabo, & Hoy, 1995; Tschannen-Moran, 2009; Uline & Tschannen-Moran, 2008). Higher levels of teacher-principal trust are related to increased levels of collaboration between teachers and principals in school improvement efforts which result in fewer student behavior and attendance issues and gains in student achievement (Bryk & Schneider, 2002; Hoy & Tschannen-Moran, 2003; Tschannen-Moran, 2001). Teacher-teacher trust has also been linked to important school outcomes, such as a school climate of continuous learning (Kensler, Caskie, Barber, & White, 2009), innovation (Moolenaar & Sleegers, 2010), and student achievement (Tschannen-Moran & Barr, 2004). Trust between these two role groups is correlated: trust that teachers have in their principal relates strongly with the extent to which teachers trust one another (Tschannen-Moran, 2014a). Therefore, theoretically, enhancing teacher-principal trust should also result in enhanced teacher-teacher trust, as the principal leads the school staff in more collaborative efforts (Bryk & Schneider, 2002).

Bryk and Schneider's (2002) seminal work on relational trust in Chicago public schools built a strong case for trust as a catalyst for organizational school change. They found that relational trust amplified teachers' school commitment and positive orientation toward change, while also facilitating collective decision-making and supporting teacher learning. In turn, these organizational changes fueled instructional changes, leading to improvements in student engagement and learning (Bryk et al., 2010). The Annenberg Institute for School Reform reinforced this view of the importance of relational trust with their research linking relational trust in the school climate to teacher satisfaction and development (Johnson, 2010).

APPROACHES DESIGNED TO IMPROVE RELATIONAL TRUST

Studies of relational trust between teachers, or between teachers and their principal, tend to explore organizational or student outcomes based on levels of relational trust in schools (Bryk et al., 2010; Cranston, 2011; Goddard, Goddard, & Tschannen-Moran, 2007). Although these studies add

to the growing evidence of the importance of relational trust in schools, they do not examine the cultivation of teacher-principal or teacher-teacher trust.

There are several school-based approaches designed to improve relational trust and professional community in schools. The National School Reform Faculty (NSRF) designed a program that trains coaches to work with Critical Friends Groups (CFGs), groups of practitioners working together to solve problems of practice within their school. Coaches were trained to create a collegial, trusting culture within their CFG. In a study of 62 schools with new CFGs, researchers found that teachers who participated in CFGs reported more positive professional school climate outcomes (e.g., collaboration, engagement) than their non-participating peers (Dunne et al., 2000). The specific relationship between participating in a CFG and changes in teacher-teacher and teacher-principal trust were not examined in this study. Professional Learning Communities (PLCs), which are defined as teachers collaborating to improve student learning (DuFour, 2004), are another common school-based approach used to improve the professional community in schools. Louis (2007b) describes trust as a necessary precondition for developing PLCs, but notes that few schools focus on this important construct. Similarly, trust is a necessary precondition for the Adaptive Schools approach (Garmston & Wellman, 1995), which focuses on the five human energy fields of interdependence, flexibility, efficacy, craftmanship, and consciousness in order to improve schools. Though all of these approaches see trust as a byproduct or as a necessary prerequisite, none focus specifically on building teacher-teacher or teacher-principal trust as their main outcome of interest. *Leading Together* (LT) is the only professional development and coaching model that we are aware of that explicitly prioritizes building school-wide teacher-teacher and teacher-principal trust.

LEADING TOGETHER (LT)

LT is a professional development experience for adults in K–12 schools, designed to build their capacity to facilitate positive relationships in order to develop the trust and social capital necessary to improve student outcomes. The LT model develops individual capacity by providing protocols and activities to strengthen interpersonal skills (e.g., active listening) and create a common set of cultural norms in the adult community. LT focuses on cultivating respect, regard, and integrity (Figure 1), three of the determinants of relational trust (Bryk et al., 2010). Since relational trust is dynamic and can change over time as expectations are, or are not, fulfilled (Tschannen-Moran, 2014b; Tschannen-Moran & Hoy, 2000), programs or
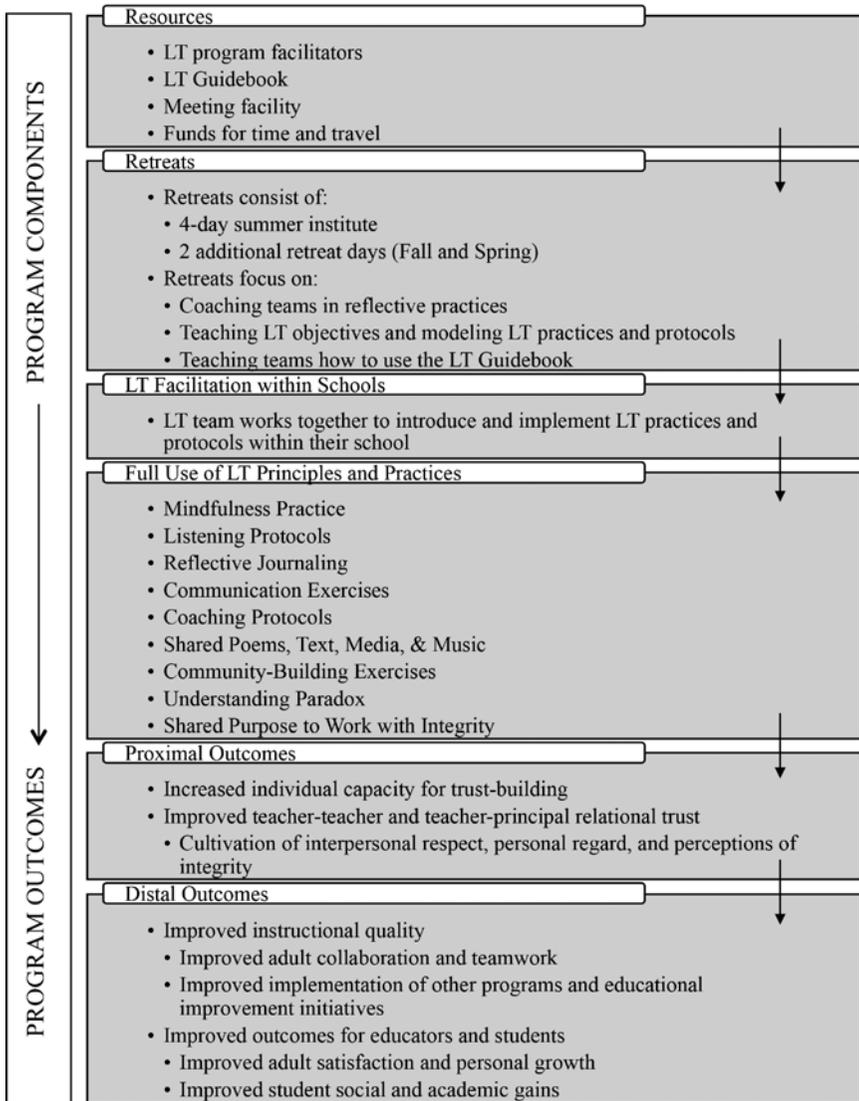
Figure 1.   Leading Together (LT) Theory of Change.

models targeted specifically at enhancing the determinants of relational trust (i.e., regard, respect, integrity, competence) between specific role groups (e.g., teachers and administrators) hold promise as a way to build relational trust.

Figure 1 shows the theory of change explaining how LT influences relational trust. Participants (i.e., the principal and a group of several teachers from each school; called the LT team) attend a four-day summer institute and follow-up retreats led by the LT developers. The institute and retreats are designed to teach participants a new set of practices intended to build their interpersonal skills. Participants engage in various activities designed to improve their listening skills, increase empathy, and build trust. Participants also receive a guidebook that contains instructions for activities and protocols to unite the group, create a safe and social space, enhance listening skills, show gratitude to others, reflect on "traffic" in their mind, and build community through appreciation (Seigle, Wood, Ackerman, & Sankowski, 2011). After attending the summer training institute, the LT team returns to their school and leads LT activities and protocols with the rest of their staff. According to the theory of change, the implementation of LT by the LT team will result in the full use of LT activities, practices, and protocols within the school.

An example LT activity is *Developing Adult Community Guidelines*. In this activity, staff members work together to establish guidelines for the adult school community based on the individual staff member's hopes and dreams for the school year. These guidelines are then distributed and posted throughout the school. The activity follows a structured protocol that allows for all teachers to participate. The idea behind this activity is that it takes everyone's ideas into consideration, thus helping to build a tone of respect among adults in the school.

All of the LT activities and protocols are designed to enhance the capacity of participants for demonstrating respect, regard, and integrity towards others. As respect, regard, and integrity are three of the four determinants of relational trust, our theory of change posits that enhancing these determinants will improve relational trust. LT activities do not focus specifically on improving perceptions of competence. However, Bryk and colleagues (2010) demonstrated that the determinants of relational trust have been shown to vary together, so our theory of change assumes that perceptions of competence will change as perceptions of these other determinants of trust change. Improvements in relational trust should eventually lead to improved instructional quality as teachers become more willing to collaborate and improved outcomes for educators and students (Bryk et al., 2010).

LT must transfer successfully from the summer institute into the individual school to have its intended positive effects (Dane & Schneider, 1998; Dusenbury, Brannigan, Falco, & Hansen, 2003; Elliott & Mihalic, 2004; Metz, Halle, Bartley, & Blasberg, 2013). Positive outcomes hinge on high-quality implementation (Berkel, Mauricio, Schoenfelder, & Sandler, 2011; Durlak & DuPre, 2008). When a model is fully implemented, we

expect to see more responsiveness on the part of the participants, increased levels of participation, and greater amounts of enthusiasm (Berkel et al., 2011). If model components are not delivered in a way consistent with program objectives, then what is actually being assessed is how the program is being implemented, not the effectiveness of the program itself (Dobson & Cook, 1980). Therefore, a first step to examining the efficacy of LT was understanding the processes through which it became implemented successfully within a school. Since LT activities and protocols can differ by school based on the comfort levels of the implementing team and the context of the school, we considered successful implementation as adherence to a set of processes rather than adherence to a set of specific activities (O'Donnell, 2008; Weiss, 1997). This article presents an implementation process measure that we created which can be used when thinking about the implementation of any program, model, or approach.

CONTEXT OF THE CURRENT STUDY

LT was piloted with eight schools in New England over a two-year period. We were specifically interested in examining: (a) the implementation process of LT within each school and (b) how teacher-principal and teacher-teacher relational trust was changing in schools that were successfully implementing LT compared to schools that were not successfully implementing LT. We hypothesized that teacher-principal and teacher-teacher trust would increase in schools that were implementing LT successfully and remain stable in schools that were not implementing LT successfully.

METHOD

To answer our research questions, we conducted a sequential mixed-methods study (Johnson, Onwuegbuzie, & Turner, 2007). We investigated LT implementation through the Implementation Process for Teams Instrument (IPT) that we created based on interview data (see Measures section). The IPT is a qualitative measure of effective implementation that evaluates schools on five dimensions using a four-point scale. We used scores on the IPT to sort schools into two groups: *Group A*, schools where LT had been implemented successfully, and *Group B*, schools where LT had not been implemented successfully. Then we used quantitative survey measures to examine changes in relational trust between and within schools in each group.

PARTICIPANTS

Information about LT was offered through the developers and school participation was at the behest of the school principal. Eight public schools in the New England region participated in the full two-year pilot study. The schools served elementary (n = 7) or middle school students (n = 1), with enrollments between 250 and 650 students (M = 493 students). The schools were demographically diverse in percentage of students receiving free/reduced price lunch (FRPL) (Range = 4% - 98% FRPL, *M* = 30% FRPL) and minority student composition (Range = 7% - 94% racial minority, *M* = 36% racial minority). Sixty-three percent of schools (n = 5) were Title I schools. The principal from each school selected a group of teachers and/or specialists from their school to attend the initial LT training with them. The principal and staff members constituted the school LT team. Each LT team held responsibility for bringing LT activities and practices back to their individual schools.

In Year 1, each school had an LT team that consisted of between three and five members (total n = 33). Seventy-nine percent of LT team member participants were female and 88% were Caucasian. In Year 2, the LT teams expanded to include five or six members from each school (total n = 45). Most (92%) of LT team member participants were female, and 91% were Caucasian. All principals remained in their positions for both years of the study. Principals (n = 8) were 38% female and 88% Caucasian.

Each principal identified an additional three teachers at their school to participate in data collection. These teachers (called site teachers) were not part of the LT team and did not participate in LT retreats. Their participation in data collection allowed for assessment of school change from another perspective. Site teachers (n = 24) were 88% female and 100% Caucasian.

PROCEDURES

LT teams received initial training in LT during a four-day summer institute in July 2012, followed by day-long retreats in November 2012, April 2013, October 2013, and April 2014. The teams were responsible for working together to bring LT practices and protocols into their respective schools. LT developers provided two days of on-site coaching in the winter and spring of each year. The research team gathered qualitative and quantitative data during this same two-year period. The initial baseline data collection occurred prior to the start of the school year (in August 2012), and the final data collection occurred at the end of the second year of implementation (May 2014). All LT team members and site teachers were administered surveys online via Surveymonkey.com during data collection periods. The

surveys were intended to collect information about changes in relational trust as well as to gather information on school leaders' and teachers' perceptions of whether LT "worked" at their school.

The principal and one school leader from each school (randomly selected from the LT team with a random number generator) were interviewed at the beginning and end of every school year for a total of four times during the study (Summer 2012, Spring 2013, Fall 2013, and Spring 2014). One site teacher per school was selected at random to participate in interviews during the same data collection periods. The interviews collected information about how LT was being implemented and how LT was viewed by the staff (i.e., "If any, what specific Leading Together activities has your school used? Please describe how the activities were received by the group and what happened."). Research team members followed scripted questions in phone interviews lasting 15 to 30 minutes. All interviews were audio-recorded and transcribed.

MEASURES

Implementation Process for Teams (IPT) Instrument

The Implementation Process for Teams (IPT; Leis, Sandilos, & Rimm-Kaufman) is a qualitative measure of the LT team's competent delivery of and commitment to LT, developed by the research team with feedback from LT program developers. The IPT evaluates schools on five categories of implementation processes: *purpose*, *introduction*, *program-commitment*, *team-commitment*, and *shared leadership*. Each category is rated from 1 to 4, with 1 representing low or non-existing evidence of implementation and 4 representing high levels of implementation. Key questions that represent each category and coding criteria for each category are presented in Table 1.

A five-person team (the lead author, one post-doctoral fellow, and three undergraduate research assistants) rated each school independently on the IPT based on transcripts of interviews with LT team members across the two study years. Inter-rater reliability for the five categories was calculated using Conger's (1980) exact Kappa. Kappa scores were .79 for independent scoring. The ratings for each school were discussed until 100% agreement was reached between all coders, following procedures described by Hill, Thompson, and Williams (1997). All correlations among the five categories were between .55 and .82. The categories were averaged to form a composite score called Implementation Level (IL) for each school (α = .92).

To examine the validity of the IPT for measuring successful implementation, we inspected the relationship between IL and the holistic perception of whether LT "worked." The end-of-year interview of LT members and site

Table 1. Implementation Process for Teams Instrument (IPT)

Items/ Questions	Coding Criteria
1. PURPOSE What is the purpose of the program? How is this purpose related to your school goals and vision?	1 = All implementation team members have incorrect views of the purpose of the program; 2 = Implementation team members have different views of the purpose of the program. At least one member of the team has a correct view of the purpose of the program; 3 = Implementation team members have similar, correct, views of the purpose of the program. No mention of relationship between purpose of the program and school vision/goals; 4 = Implementation team members have a similar, correct, view of the purpose of the program. Implementation team members can explain how the purpose of the program specifically aligns with school vision/goals, and how it will help move these goals forward.
2. INTRODUCTION How did you explain the program? How did you explain why your school was participating in the program?	1 = The program is not introduced to the staff. A program activity may be introduced, but it is not described as part of the program; 2 = The program is introduced (perhaps with an activity), but the purpose of the program is not clearly explained. There is confusion about the purpose of the program or why the school is participating; 3 = The program is clearly introduced to the faculty. The team unambiguously explains the program; 4 = The program is clearly introduced to the faculty. The team unambiguously explains the program, why the school is participating, and how the work will move the goals of the school forward.
3. PROGRAM-COMMITMENT How much time per month do you devote to program activities with the **entire** staff? With specific groups of staff members? How consistent has this been so far?	1 = No time is given to program activities; 2 = Some time is given to program activities. However, this time is sporadic or inconsistent or stops completely over time; 3 = Time is consistently given to at least some aspects of the program; 4 = Time is consistently given to implementing most aspects of the program. The program appears to have permeated the school culture.

4. TEAM-COMMITMENT
How often does the implementation team meet? What is discussed in these team meetings regarding the implementation process? What proportion of those meetings are devoted to pushing the program work forward?

1 = The implementation team almost never meets or only meets when program developers are coming into the school;

2 = The implementation team occasionally meets. They may have planned to meet consistently, but other priorities take precedent. Or the team meets consistently, but the meeting time is not devoted to talking about the program;

3 = The implementation team meets consistently. Team meeting time is dedicated to planning next steps of implementation, following the program protocol (the team does not take into account how the program is being received by teachers);

4 = The implementation team meets consistently. Team meeting time is dedicated to planning next steps of implementation based on an evaluation of how the program is going and how it should be adapted for the specific school.

5. SHARED LEADERSHIP
How is leadership distributed within the implementation team? How do you decide who is responsible for the different aspects of implementation?

1 = Leadership is not shared. Rift between principal and rest of implementation team in terms of commitment to the program;

2 = Leadership is not shared. Leadership is driven by one individual (usually the principal), though the leader may sometimes delegate specific tasks to team members;

3 = Leadership is shared between most of the team members. A couple of team members (not the administrator) may feel disconnected from the rest of the team, or may not participate in all implementation team meetings or decisions;

4 = Leadership is shared between all team members. The team works together to decide how to implement aspects of the program with the rest of the staff. All members of the team share responsibility for the different activities and decide together who is responsible for each aspect of the program.

Note. The IPT uses the term "program" synonymously with "approach," "model," or "intervention."

teachers (described above) included the question: "Did LT 'work' at your school?" Coders assigned either a negative or positive valence to every response. Negative valences were given to responses that said that LT was not working, not implemented properly, or not well-received in their school. Positive valences were given to responses that said LT was working, making positive changes, and/or enhancing school culture. We then summed negative and positive responses separately by IL and conducted a chi-square test of independence to examine the relation between IL and response type.

Chi-squared tests revealed a statistically significant relation between IL and response to whether LT "worked" in the school, X^2 (1, N = 50) = 15.47, p < .01. Schools with IL scores greater than or equal to 3 had almost four times more positive responses than negative responses. Schools with IL scores less than 3 had over three times more negative responses than positive responses. These results showed a relation between implementation level, as measured by the IPT, and teachers' perceptions of the successful implementation of LT. Thus, we used a score of 3 or higher on the IPT as the criterion for successful implementation of LT within the school. These schools were categorized as *Group A*. Schools with IPT scores less than 3, which can be thought of as not having implemented LT successfully, were categorized as *Group B*.

Relational Trust

Teachers reported on the trust they had for their administrator and for other teachers through surveys administered at the beginning and end of each school year. Administrators reported on the amount of trust between teachers in their school.

Teacher-principal Trust

The Teacher-Principal Trust scale is a six-item teacher report measure (α = 0.92) that examines the extent to which teachers feel their principal respects and supports them (Consortium on Chicago School Research [CCSR], 1997). Items address each determinant of relational trust: respect ("To what extent do you feel respected by the principal at your school?"), regard ("It's OK for staff members to discuss feelings, worries, and frustration with the principal."), competence ("I have confidence in the expertise of the principal."), and integrity ("I trust the principal at his or her word."). Teachers rated each item on one of two four-point scales (1 = strongly disagree; 4 = strongly agree or 1 = not at all; 4 = to a great extent). The six items were averaged to create a composite teacher-principal trust score for each teacher, which was then aggregated to the school level.

Teacher-teacher Trust

This scale is a four-item teacher- and administrator-report questionnaire ($\alpha = 0.92$) that measures the extent to which teachers and administrators believe that the teachers in the school generally have open communication with and respect for each other (CCSR, 2011). Questions focus on whether teachers in the school respect other teachers who lead school improvement efforts and whether teachers trust and respect each other (e.g., "Teachers respect other teachers who take the lead in school improvement efforts."). Teachers and administrators rated each item on a four-point scale (1 = strongly disagree; 4 = strongly agree). The four items were averaged to create a composite teacher-teacher trust score for each individual and then were aggregated to the school level.

ANALYSES

Using the IPT to Establish Implementation Group Membership

We used the IPT to examine variation in implementation among the eight schools and categorize schools as either Group A or Group B. Independent sample t tests were conducted to compare schools in the two groups on each category of implementation measured on the IPT.

Changes in Relational Trust Based on Implementation Level

Quantitative survey responses from all teachers in the study were used to investigate changes in trust over the two-year pilot study between and within schools in Group A and Group B. Independent sample t tests were conducted to evaluate whether differences between relational trust measures in Group A and Group B schools were statistically different. We also analyzed the determinants of relational trust (respect, regard, competence, and integrity) independently for teacher-principal trust for schools in each implementation group. Independent sample t tests were conducted to compare various demographic characteristics (e.g., percent low-income) between schools in Group A and schools in Group B. Then, we examined effect-size changes (Cohen, 1994) for relational trust in Group A schools in order to examine how the direction and the degree of these variables had changed in schools that had implemented LT successfully.

Lastly, since relational trust is a school organizational property (Schneider et al., 2014), we were interested in exploring whether participating in LT was related to changing the perceptions of relational trust within a school community. To examine this, we calculated intraclass correlations (ICCs) at

baseline and two years later. In data with a nested structure (e.g., teachers within schools), ICCs show how much variation in scores is attributable to the cluster (e.g., schools). Thus, the ICC value reflects the coherence of opinions within a school, where a higher value indicates greater coherence (Forsyth & Adams, 2014). If LT contributed to changing perceptions of trust at the organization level, then we would expect to see more coherence in teacher beliefs within a school (higher between-school variability) over time.

RESULTS

USING THE IPT TO ESTABLISH IMPLEMENTATION GROUP MEMBERSHIP

Half of the schools were categorized as Group A (n = 4), and half were categorized as Group B (n = 4), based on IPT scores (Figure 2). Schools in group A had significantly higher scores than schools in Group B on all five implementation process categories: *purpose*, $t(6) = 4.24$, $p < .01$; *introduction*, $t(6) = 4.90$, $p < .01$; *program-commitment*, $t(6) = 3.27$, $p = .02$; *team-commitment*, $t(6) = 4.90$, $p = .02$; and *shared leadership*, $t(6) = 5.89$, $p < .01$. These results suggest that the two groups were significantly different from each other in terms of successful implementation.
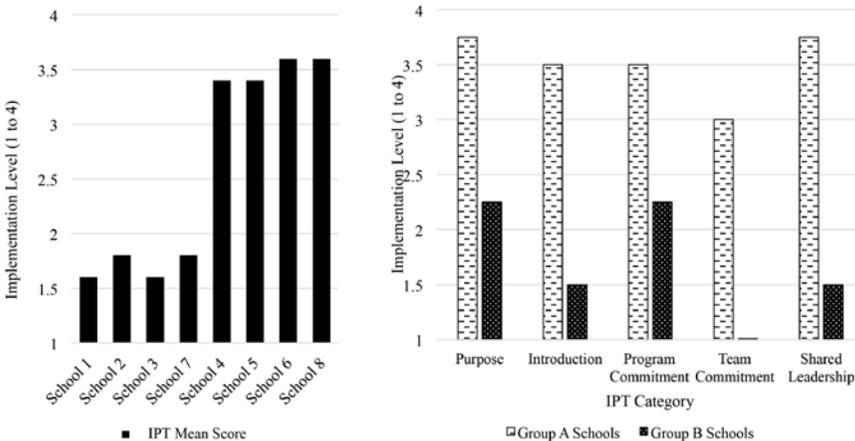

Figure 2. Scores on the Implementation Process for Teams instrument (IPT). The figure on the left depicts the scores for each school based on averaging scores on each of the five categories of the IPT. The figure on the right depicts the average scores on each implementation category for schools that successfully implemented LT (Group A) compared with schools that did not (Group B).

Table 2.   Demographic Differences between Schools that Successfully Implemented LT (Group A) Compared with Schools that Did Not (Group B)

Variable	Group A Schools (n = 4)		Group B Schools (n = 4)	
	Average	*Range*	*Average*	*Range*
Number of teachers	45	25–85	34.5	25–38
Number of students	539	450–650	447.5	250–550
Percent Caucasian	62	6–88	80	49–93
Percent ELLs	27	8–76	9	3–26
Percent low-income	31	4–98	12	3–33
Title I School	4 of the 4 schools		1 of the 4 schools	

Note. ELL = English Language Learner.

T tests showed that there were no statistically significant differences between Group A and Group B on any measured demographic outcomes (i.e., number of teachers, number of students, percent Caucasian, percent English Language Learners [ELLs], percent low-income, and Title I status of the schools) (Table 2).

Differences between the implementation processes of LT teams in the two groups are described in Table 3. We would expect Group A schools to be more successful than Group B schools in positively changing teacher-principal and teacher-teacher trust since successful implementation of a model is related to higher levels of participant responsiveness (Berkel et al., 2011). To explore this hypothesis, we turned to the quantitative data gathered in the teacher surveys.

CHANGES IN RELATIONAL TRUST BASED ON IMPLEMENTATION LEVEL

There were no statistically significant differences in teacher-principal trust and teacher-teacher trust between Group A and Group B schools in August 2012 (Table 4), suggesting that schools had similar levels of these variables at the beginning of the study. Teacher-principal trust was statistically significantly higher in Group A schools compared to Group B schools after two years of exposure to LT (Table 4). Upon closer examination of the determinants of teacher-principal trust, there were no differences in teachers' perceptions of respect, regard, or integrity of their principal between schools in different implementation groups prior to the start of LT. However, teachers in Group A schools had significantly higher beliefs in the competence of their principal than teachers in Group B schools. After two years of LT, teachers' perceptions of the respect, integrity, and competence of their principal were significantly higher in Group A schools

Table 3. Differences in Implementation Processes between Schools that Implemented LT Successfully (Group A) Compared with Schools that Did Not (Group B)

Implementation Category	Group A Schools	Group B Schools
Purpose of LT	All LT team members understood that the purpose of LT was to build trust and collaboration. Team members could explain how the goals of LT matched school improvement goals.	LT team members had different views of the purpose of LT. LT team members did not mention the relationship between LT and the goals of their school.
Introduction of LT	LT teams introduced LT to the rest of their staff by explaining the purpose of the model and why LT fit with the work their school was doing. This reason was unique to each school and was tied to the history and goals of the specific school.	The LT team did not clearly explain why the school chose to implement LT. In these schools, there was confusion among the staff about the purpose of LT. Teachers questioned the purpose of LT, because it was not introduced to them in a way that showed it was a good fit for the school.
Commitment to LT	The LT team consistently committed time to implementing most aspects of LT. Team members in these schools reported that LT had spread beyond specific activities dedicated to relationship building and had become integrated into the culture of the school. LT activities were also used to help implement other priorities of the school, such as a new curriculum.	The LT teams did commit some time to introducing and leading LT activities. However, this time tended to be sporadic or inconsistent or stopped over time.
Commitment to LT Team	The LT team met consistently. Meeting time was dedicated to planning how to implement LT in the school. Teams reflected on how LT had worked so far and planned future implementation to address any issues that might arise.	The LT teams seldom met. They only met as an LT team during the LT retreats or when the LT developers visited the school. In some schools, LT teams met consistently when LT started, but then stopped meeting as the school year progressed.
Shared Leadership	All members of the leadership team, including the principal, shared ownership of LT. The team worked together to decide how to implement LT activities and protocols with the staff.	There was usually a divide between the principal and the rest of the team, with the principal not sharing decision-making power about LT. In some of these schools the LT team worked together to plan how to use LT with the staff, but then the principal did not follow through and did not set aside time for LT activities.

Table 4. Differences in Relational Trust between Schools that Successfully Implemented LT (Group A) Compared with Schools that Did Not (Group B) in August 2012 and May 2014; Changes in Relational Trust for Schools that Successfully Implemented LT (Group A)

Group	August 2012 Group A Schools M (SD)	Group B Schools M (SD)	t(49)	p	May 2014 Group A Schools M (SD)	Group B Schools M (SD)	t(49)	p	Mean Increase	Effect Size
Teacher-Principal										
Trust	3.44 (.69)	3.13 (.51)	1.83	.07	**3.57** (.49)	**2.88** (.66)	**4.23**	**<.01**	+0.13	.22
Respect	3.79 (.63)	3.52 (.68)	1.47	.15	**3.89** (.32)	**3.29** (.85)	**3.31**	**<.01**	+0.10	.20
Regard	3.05 (.89)	3.00 (.67)	0.23	.82	3.11 (.90)	2.71 (.85)	1.63	.11	+0.06	.07
Integrity	3.50 (.83)	3.09 (.67)	1.94	.06	**3.56** (.62)	**2.65** (.61)	**5.28**	**<.01**	+0.05	.08
Competence	**3.40** (.68)	**2.74** (.62)	**3.62**	**<.01**	**3.50** (.79)	**2.47** (.62)	**5.19**	**<.01**	+0.10	.14
Teacher-Teacher Trust	2.87 (.70)	3.04 (.56)	0.96	.34	3.19 (.55)	2.90 (.55)	1.88	.07	+0.32	.51

Note. Numbers in bold show statistically significant differences between groups. M = mean. SD = Standard Deviation. For Group A Schools, missing data resulted in n = 13 for participants who responded in both August 2012 and May 2014. The small sample size reduces the power needed to detect an effect. Effect sizes were calculated to indicate the magnitude of changes.

than in Group B schools. The means and effect sizes showed an upward trend in teacher-teacher trust among the Group A schools and a downward trend in teacher-teacher trust among the Group B schools. These trends are not statistically significant which could stem from the small sample size and insufficient statistical power or weak signal.

Effect-size changes were also calculated for teacher-principal trust and teacher-teacher trust for Group A schools (Table 4). We examined changes in trust in the adult community for the four schools that implemented LT successfully. In these schools, there was an effect size change of .22 standard deviations for teacher-principal trust and .51 standard deviations for teacher-teacher trust, indicating that teacher-teacher trust and teacher-principal trust had increased by a sizeable magnitude. For teacher-principal trust, the majority of this effect appears due to changes in respect. However, there was also a small positive change in perception of principal competence. These analyses suggest a relation between being in a school where LT has been successfully implemented and increases in teacher-principal and teacher-teacher trust.

Lastly, to explore the relation between participating in LT and changing perceptions of relational trust at the organizational level, we calculated ICCs for all schools before and after exposure to LT. The between-school variability more than doubled for teacher-principal trust between baseline and the end of the pilot study (Figure 3). The ICC for teacher-teacher trust (n = 73) nearly tripled from .13 in August 2012 to .34 in May 2014. This
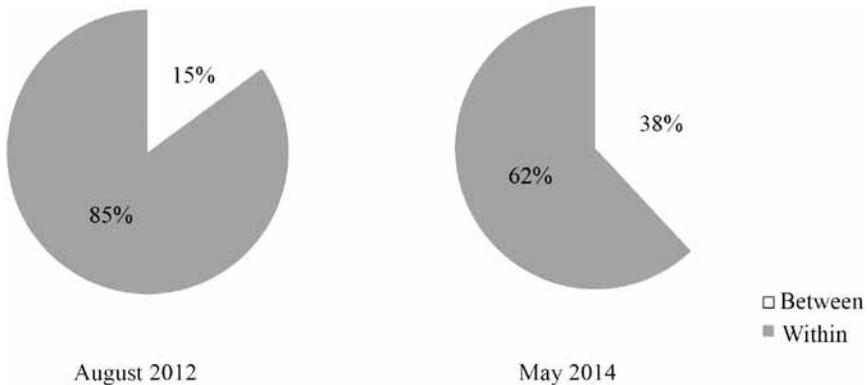

Figure 3. Teacher-principal Intraclass Correlations (ICCs). The chart on the left represents the variability of teacher responses to the teacher-principal trust measure in August 2012, while the graph on the right represents the variability of teacher responses in May 2014 (n = 59). "Between" refers to between school variability, while "Within" refers to within school variability. These graphs show that teachers' perceptions of teacher-principal trust are becoming more homogenous within schools.

confirmed our hypothesis: there was more coherence in teacher beliefs within a school after exposure to LT. One caveat requires attention: greater coherence over time does not imply that the principal and teacher beliefs are more positive. Rather, coherence over time suggests amplification, where positive schools become more homogenously positive and negative schools become more homogenously negative. It is plausible that LT opens the channels of communication and creates common definitions within schools of trustworthy and untrustworthy behavior (Figure 3).

DISCUSSION

The aim of LT was to enhance teacher-principal and teacher-teacher relational trust in schools by providing leadership teams with activities and protocols that help build interpersonal skills and enhance participants' capacity for building trust. To examine the evidence of the ability of LT to build relational trust, we first needed to understand how effectively LT teams implemented LT in their school. We found that LT was implemented successfully in half of the schools (Group A). LT teams at Group A schools understood that the purpose of LT was to build relational trust and they explained this purpose clearly to their faculty. These teams showed their faculty members that they believed the LT work was important by consistently giving time to LT activities. In these schools, the LT teams met consistently and shared ownership of LT.

In the schools where LT was not implemented successfully (Group B), LT teams held varied views of the purpose of LT. They did not explain clearly to their staff why the school was participating in LT or how LT was supposed to help the school advance its goals. Lack of enthusiasm from the staff resulted in the LT team not providing time for LT activities or purposefully not explaining that specific activities were part of the LT model. The principals at Group B schools tended to neither share leadership of LT, nor devote time to LT activities or team meetings, despite prior promises to do so.

At the end of the two-year LT pilot study, teacher-principal and teacher-teacher trust were significantly higher in Group A compared to Group B schools. Additionally, teacher-principal and teacher-teacher trust increased by moderate effect sizes in schools with successful LT implementation. ICCs showed that all teachers became more cohesive in their perceptions of both teacher-principal and teacher-teacher trust after exposure to LT. LT appears to give teachers a common language and view of trust. Since relational trust is based on perceptions of the other's motives (Bryk & Schneider, 2002), having common definitions and language is an important first

step. However, this highlights one challenge in building trust: it is not a task to be undertaken lightly. If a school leader says that trust is important, but does not provide time for building relationships, it can make teachers think their leader is untrustworthy. This may be due to the perceived lack of integrity that accompanies the dissonance between words and actions (Leis & Rimm-Kaufman, 2015; Tschannen-Moran, 2014b).

Two limitations of this study require mention. First, the findings may underestimate the contribution of LT on relational trust because of the small sample size. Second, we did not manipulate levels of implementation, limiting our ability to make causal claims about the relation between LT and relational trust. Other extraneous factors need to be considered. As one example, differences in initial teacher ratings of principal competence between Group A and B schools suggest that perceptions of principal competence may forecast successful implementation and also subsequent relational trust. Teachers may be cynical about principal-initiated change if they do not believe that the principal is competent at the start (Louis, 2007b).

However, making causal claims about the efficacy of LT was not the purpose of this pilot study. Before testing the efficacy of any model with a large, costly RCT, it is important to conduct a pilot study. Pilot studies provide redesign and retargeting insights to make a model more effective, while also establishing viability for the model (Grissmer et al., 2009). Pilot work also leads to the identification of critical components so that the model can be honed and developed further, without compromising the elements that are essential to its success (Hulleman, Rimm-Kaufman, & Abry, 2013). This pilot study exemplifies an important first step in a line of research needed to develop and establish the efficacy of new models, such as LT.

This study also provided information to the developers of LT about critical implementation process components needed for future development and success of the model (Elias at al., 2003; Han & Weiss, 2005). Future iterations of LT should involve helping LT teams develop strategies for the following implementation processes:

Purpose: LT teams should discuss the purpose of LT prior to introducing it in the school to make sure that they share a common understanding of how LT will help the school achieve its goals and how it connects with the school's core values and other initiatives. This discussion should include a focus on the research on the relation between increased relational trust and improved student outcomes and understanding how LT increases relational trust.

Introduction: LT teams should work together to practice introducing LT to the rest of the faculty at their school. The introduction should include an

explanation of the purpose of LT and why the school is participating. Teams should create sample scripts to practice.

Program commitment: The LT team should agree on a consistent time to conduct LT activities and protocols with faculty members. Time needs to be allotted to LT activities and protocols at least once a month in staff meetings.

Team commitment: LT teams should decide on a time for team meetings where they can discuss the implementation of LT activities and protocols. These meetings should occur at least monthly to reflect on implementation and to plan which LT activities and protocols to use with staff in the next staff meeting. LT team meeting time should be devoted to discussing LT. Future iterations of LT could consider having the existing leadership team in a school become the LT team, given that most schools have a leadership team that meets consistently.

Shared leadership: LT teams should decide which team members will be responsible for leading different types of LT activities and protocols. LT consists of different types of activities, some of which may be beyond the comfort level of some members of the team. For instance, we found that many team members felt uncomfortable leading the singing activities. Sharing leadership of the model allows team members to discuss who should lead different activities based on personal strengths. Additionally, shared ownership among all team members will strengthen the commitment to implementing the LT consistently, as previously theorized by Bryk et al. (2010).

It should be noted that the commitment of the principal to the model is highly related to the last three categories (i.e., program commitment, team commitment, and shared leadership). As the leader of the school, the principal needs to show that he or she is committed to LT by consistently setting aside time for LT activities and protocols, creating time for LT team meetings, and sharing leadership with other members of the LT team.

This study also provided an opportunity to identify the target population for this type of professional development model as well as how the benefits of the model are (or are not) well-matched to the needs of this population. This is valuable information because schools' readiness to implement school-wide programs has been found to be related to the effectiveness of those programs (Holt, Raczynski, Frey, Hymel, & Limber, 2013). It appears that focusing on the commitment and perceived competence of the principal is an important factor when selecting schools that would most benefit from this model.

FUTURE DIRECTIONS AND IMPLICATIONS

The field of education needs models and approaches specifically focused on building teacher-teacher and teacher-principal trust to facilitate schools'

engagement in positive reforms for teachers and students (Bryk et al., 2010). In addition to being immensely valuable, trust-building is also very complex. There need to be a wide variety of models and approaches that schools can use to help with this complex task. This pilot study of LT suggests that LT has the potential to build teacher-principal and teacher-teacher trust in schools where it is implemented successfully. Follow-up research that uses a more rigorous experimental design with a larger sample of schools and teachers could contribute to an enriched understanding of the ability of LT to build teacher-principal and teacher-teacher relational trust. LT might also be valuable when paired with other school-wide programs such as Professional Learning Communities or Adaptive Schools since LT seemed to open channels of communication and create common definitions within schools of trustworthy and untrustworthy behavior. This approach requires further study.

Results from this mixed-methods pilot also offer some interesting applications when thinking about the implementation process. Though the implementation findings described in this article are tailored to LT, they offer some valuable advice for teams of teachers and administrators planning on introducing a new program, model, or approach to the rest of the staff. Every member of the team needs to understand the purpose of the program and why it is valuable for their specific school goals. This purpose needs to be explained transparently to the rest of the staff when the program is being introduced. There needs to be commitment from the team (especially from the administration) for sharing leadership in implementing the program and time that will be devoted consistently to both the implementation of the program as well as to meeting to discuss this implementation.

Additionally, the implementation processes related to the successful implementation of LT point to the process of implementation as a trust-building mechanism in itself. In implementing a program in their school, teams can show *respect* for teachers by explaining the purpose of the program and how it relates to school goals. Teams can show *regard* for teachers by explaining why the program is going to help them accomplish their goals. Teams can show *integrity* by saying that they will commit to the program and then making sure to provide enough time for program activities. Teams can show *competence* by being able to deliver program components successfully. Theoretically, following these implementation processes could build trust while implementing any program. This is an idea that should be examined in future research. The IPT measure, which was originally created for use with LT, may be used to explore team implementation processes with other programs, models, and approaches.

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