Teacher Leadership and Collective Efficacy: Connections and Links

Mary Lynne Derrington  
*University of Tennessee, USA*

Pamela S. Angelle  
*University of Tennessee, USA*

Teacher leadership studies have identified attributes of teachers who assume leadership roles. This study expands the literature by adding the theoretical frame of collective efficacy. The Teacher Leadership Inventory and the Teacher Efficacy Belief Scale – Collective were administered in two states to 1193 teachers in 50 schools; 719 teachers completed the surveys. Findings indicate a strong relationship between a faculty’s collective efficacy and the extent of teacher leadership in a school. The exception to this relationship is the finding that principal selection of teacher leaders is negatively correlated with teacher leadership.

Introduction

Collective efficacy is an organizational construct that researchers identify as promoting or increasing school capacity. Regarding student achievement, Bandura (1993) posited that “Faculties’ beliefs in their collective instructional efficacy contribute significantly to their schools’ level of academic achievement” (p. 117). Leadership capacity is evident when a group of teacher leaders believe they can bring about change, desire to work for change, and have the knowledge and skills to do so (DiRanna & Loucks-Horsley, 2001).

Research on teacher leadership discusses various Constructs including reform (Silva, Gimbert, & Nolan 2000; Wasley, 1991), roles (Evans, 1996; Fullan & Hargreaves, 1996; Katzenmeyer & Moller, 2001; Lieberman, Saxl, & Miles, 2000; Little, 2003), effects (Katzenmeyer & Moller, 2001; O’Connor & Boles, 1992; Ovando, 1996), responsibilities (LeBlanc & Shelton, 1997; Smylie, 1992), skills (Katzenmeyer & Moller, 2001; Lieberman, Saxl, & Miles, 2000; Odell, 1997; Snell & Swanson, 2000), and personal benefits (Frost & Harris, 2003; Harris & Muijs, 2005; Katzenmeyer & Moller, 1996, 2001; Ovando, 1996; Smylie, 1994). The majority of these studies examine leadership at the teacher level of analysis, drawing conclusions that speak to those teachers who assume leadership roles. The literature rarely reports organizational benefits in schools with a broad support for teacher leadership.

The purpose of this study was to explore schools through the wider lens of organizational influence by examining the variables of teacher leadership and the faculty’s collective efficacy. To accomplish this purpose, the following research questions guided this study: (1) What is the extent of teacher leadership in schools, as measured by the Teacher Leadership Inventory? (2) What is the extent of teacher collective efficacy in schools, as measured by the Teacher Efficacy Belief Scale – Collective Form? (3) Is there a relationship between the extent of teacher leadership and the extent of collective efficacy in schools?
Review of Literature

Collective Efficacy

Bandura’s social cognitive theory (1977, 1986) examines not only whether individuals believe they are capable of a task but also the outcomes expectancy, that is, the likely consequences of performing a specific task at an optimum level (Tschan nen-Moran, Hoy, & Hoy, 1998). Bandura (1986) noted that “among the mechanisms of personal agency, none is more central or pervasive than people’s beliefs about their capabilities to exercise control over events that affect their lives” (p. 1176). Bandura (1977) introduced the idea of self-efficacy as “beliefs in one’s capacity to organize and execute the courses of action required to produce given attainments” (p. 3). Four primary sources of information contribute to self-efficacy: performance accomplishment (also called mastery experience), vicarious experience, verbal persuasion, and physiological states (Bandura, 1977).

While self-efficacy is essential to the individual, collective efficacy refers to the larger group in an organization. Collective efficacy is “the perception[s] of teachers in a school that the faculty as a whole can organize and execute the courses of action required to have a positive effect on students” (Goddard & Goddard, 2001, p. 809). While teacher efficacy has long been associated with student achievement, the impact of a staff’s collective efficacy has surfaced in research over the last 15 years. The perceived collective efficacy of teachers within a school is a construct that is “systematically associated with student achievement” (Goddard, Hoy, & Hoy, 2000, p. 480). Teachers who believe that their colleagues are able to behave in ways that promote student achievement indicate high collective efficacy (Goddard & Goddard, 2001).

When a staff’s collective belief in achieving their tasks is high, each teacher’s individual efficacy is also higher. These beliefs indirectly influence student achievement, as shown by Muijs and Reynolds (2002) who found that “teacher behaviors were not only the most significant predictor of student progress over the year [of their study], but also significantly affected teacher beliefs and self-efficacy” (p. 13), indicating a reciprocal relationship.

Mayer, Mullens, and Moore (2000) explain this relationship in terms of school-level indicators that relate to student learning, a goal whereby all teachers accept accountability for student achievement, that is, the “school faculty that collectively takes responsibility for student learning” (p. 36). If teachers believe they can accomplish a task, they expend more effort and are motivated to persist. Thus, ‘teachers’ pedagogical competence to affect student learning through their instructional practices is closely tied to their assumptions about whether students can learn and to their ability to modify their instructional practice” (Printy, 2008, p. 198). Ross and Bruce (2007) note that when teachers with high efficacy face struggling students in danger of failure, they exert greater effort, rather than surrendering by deeming that the causes for failure are beyond their control. This belief in self, motivation to persist, and ability to modify practice likely will positively impact student achievement.

An outcome of collective efficacy is the concept of collective responsibility. Walstrom and Louis (2008) define this concept as “teachers’ belief that they not only have the capacity to influence student learning but the shared obligation to do so” (p. 466). This collective responsibility is a type of collegial accountability, one where teachers share obligations for both teacher and student learning (Taylor & Angelle, 2007). Lee and Smith (1996) consistently found that schools with high collective responsibility for learning not only had students who learned more but were more equitable schools, particularly in terms of social characteristics. As a group
construct, the level of collective efficacy is essential to understanding an organization’s norms by “encouraging certain actions and discouraging others” (Goddard, LoGerfo, & Hoy, 2004, p. 404) as well as “establishing common expectations for action and goal attainment” (p. 405) and group responses to problems.

Additional critical outcomes of collective efficacy are persistence and effort. Ross and Bruce (2007) found that teachers with high efficacy persisted and expended greater effort when faced with student failure. This finding is particularly pertinent for lower ability students or students with a history of discipline problems. This study determined that “high-efficacy teachers have positive attitudes toward low achieving students, build friendly relationships with them, and set higher academic standards for this group than do low-efficacy teachers” (p. 51).

**Teacher Leadership**

Teacher leadership reflects teacher agency; that is, teachers’ school-wide work is supported through establishing relationships, breaking down barriers, and marshaling resources throughout the organization in an effort to improve students’ educational experiences and outcomes (York-Barr & Duke, 2004). Katzenmeyer and Moller (2001) defined teacher leadership in terms of influence, while LeBlanc and Shelton (1997) discussed the construct by describing teacher behaviors.

A report by the Coalition of Essential Schools noted that teachers who self-identify as teacher leaders rarely make up more than 25% of a faculty (Barth, 2001). Yet, studies of teacher leadership have found that teacher leaders can influence policy at the district level and make a difference at the school level through their expertise (Hatch, White, & Faigenbaum, 2005), and that support of teacher leaders is critical for school reform to occur (Silins & Mulford, 2004). Moreover, Ryan (1999) found that teacher leadership brings about school change, promotes democratic schools, and transforms schools into places of adult, as well as student, learning.

Schools are designed as bureaucracies, an authoritarian model that stifles the ability of teachers to be effective change agents (Wynne, 2005). However, teacher leaders, by using influence, instead of control, can have a profound effect on a school’s success promoting both student achievement and a collaborative and healthy school culture. Informal teacher leaders define success not just by what happens in the classroom but by success throughout the school (Ryan, 1999). Barth (2001) notes that teachers as leaders serve as role models to students. Teacher leaders also serve as role models for their peers. Ultimately, the more that teachers participate in school-wide decisions, the higher faculty morale will climb and the more teachers will be committed to fulfilling school goals (Barth, 2001).

Teacher leaders’ roles documented in the literature include sharing knowledge with colleagues, reflecting on instructional work, engaging in action research, mentoring others, promoting social consciousness, taking risks, nurturing relationships, encouraging professional growth, standing for and helping others with change, challenging the status quo, focusing on curriculum improvements, and playing a vital role in school reform (Silva, 2000; Suranna & Moss, 2002; Wynne, 2001). Teachers who are successful leaders are self-directed, take risks, and see opportunity where others might not. Moreover, teacher leaders feel valued in their work and are able to develop support systems among their peers (DiRanna & Loucks-Horsley, 2001).

When discussed in terms of characteristics, rather than roles, teacher leaders demonstrate a focus on student learning, a propensity to develop and maintain relationships, an ability to plan, organize, and lead change, and an understanding of policy and politics (Moller, Childs-Bowen,
& Scrivner, 2001). In a study of teacher leaders, DiRanna and Loucks-Horsley (2001) found common characteristics among these leaders, including a sense of empowerment that they could bring about change, a desire to work for changing issues about which they were passionate, and the knowledge and skills to do so.

Principals are critical to teacher leadership support and success in a school. They recognize a job well done, provide empowerment in the form of decision making, and share in the responsibility when initiatives fail. Furthermore, principals frame the context in which the teacher leadership process succeeds or fails (Moller, et al., 2001). Thus, as Acker-Hocevar and Touchon (1999) found, schools with the greatest extent of teacher leadership are led by principals who are most willing to share power and release control. These researchers noted that such principals respect and trust teachers and cultivate school conditions supportive and conducive to the effective and empowering practices.

Within a school, empowering others to lead alongside the principal builds collegiality and active participation in school improvement. Schools with these cultures are referred to as learning organizations, characterized by collaboration, risk taking, and a shared mission (Silins & Mullford, 2004). Teachers thrive in work environments emphasizing collegiality, communication, and collaboration. School cultures built around these relationships find that teacher commitment to the job and loyalty to the organization are enhanced (Fennell, 1999). Moreover, this healthy work culture of trust and support, where both principal and teachers share a purpose or set of goals, leads to growth in teacher leadership (Moller, et al., 2001).

Methodology

The main purpose of the study was to determine if a relationship exists between the extent of teacher leadership and the extent of collective efficacy in schools. Examining the interrelationship of variables is fundamental to descriptive statistics (Johnson & Christensen, 2004). Data were downloaded from the Mr. Interview © online survey software to SPSS v20 software. Then descriptive statistics were run to examine mean differences. Pearson correlations were calculated to examine the relationship between collective efficacy and extent of teacher leadership.

Sample Procedures

After district permission was received, invitations to participate in this multi-site quantitative study were issued to schools in five districts of one Southeastern state and two districts of one Northwestern state. A convenience sample \((N = 1193)\) was utilized (Johnson & Christensen, 2004) and included districts of similar size and in proximity to two universities. Teachers from the 44 schools in the Southeastern districts and six schools in the Northwest districts agreed to participate. Participation was voluntary and no incentives were offered. An online link to two survey instruments (Teacher Leadership Inventory, Teacher Efficacy Belief Scale – Collective) was sent to school principals. Principals were asked to forward the link to teachers in their respective schools. A follow-up reminder was sent three weeks later with the link and time frame for completion. Access to surveys was available for 30 days. The survey return rate was 60.3%, or 719 surveys completed and returned.
Instruments and Data Collection

The Teacher Leadership Inventory consists of 17 statements constructed along a 4-point Likert scale (never, seldom, sometimes, and routinely) designed to measure the extent of teacher leadership in schools. Angelle and DeHart (2010) reported Cronbach alpha reliabilities of .85 for the entire instrument. The alpha reliability for the first factor, Sharing Expertise, was 0.84, and a sample item from this factor is “Other teachers willingly offer me assistance if I have questions about how to teach a new topic or skill.” The second factor, Sharing Leadership, had an alpha of 0.84; an item from this factor includes “Teachers have opportunities to influence important decisions even if they do not hold an official leadership position.” With an alpha of 0.85, the third factor of Supra-Practitioner is represented by this item “Teachers willingly stay after school to work on school improvement activities.” Finally, the last factor of Principal Selection had an alpha reliability of 0.56; a sample item from this factor is “Most teachers in leadership positions only serve because they have been principal appointed.”

The Teacher Efficacy Belief Scale – Collective Form (TEBS-C) developed by Olivier (2001) – is a 10 item instrument with a one faction solution, and an alpha reliability of 0.96. The 4-point Likert scale for the TEBS-C ranged from Weak Beliefs to Very Strong Beliefs. This instrument measures the strength of teachers’ beliefs in fellow faculty’s capabilities to do such tasks such as produce high levels of learning with our students and effectively communicate with the school administration.

Findings

Descriptive statistics were run to examine mean differences (Table 1). Pearson correlations were calculated to examine the relationship between collective efficacy and extent of teacher leadership (N = 719). All results were statistically significant and all indicated a large effect size, except for the negative correlation of the principal selection factor and collective efficacy, which indicated a medium effect (Cohen, 1988). Results of the correlations between collective efficacy and teacher leadership found \( r_{719} = .62, p < .01 \). Correlations of the factors from the TLI with collective efficacy resulted in the following: shared expertise and collective efficacy \( r_{719} = .53, p < .01 \); shared leadership and collective efficacy \( r_{719} = .65, p < .01 \); supra practitioner and collective efficacy \( r_{719} = .52, p < .01 \); and principal selection and collective efficacy \( r_{719} = -.46, p < .01 \).

The variation in the highest and lowest responses by item is displayed in Table 1 on the Teacher Leadership Inventory Descriptive Statistics by Item. A rating of 3.5 or greater was reported for four item responses. Two of the highest rated items emphasize teacher assistance to one another. The first addressed the degree to which teachers ask one another for assistance with a student behavior problem. The second addressed the willingness of teachers to offer assistance to peers on teaching a new topic or skill. Two additional items ranked high and centered on sharing ideas and improving student learning. The first reported the extent to which teachers shared new ideas with others through various school structures such as grade level and department meetings. The next, and the highest rated in the instrument at 3.61, was the item, Teachers discuss ways to improve student learning. The five items rated below a 3.0 mention principal support for teacher leadership in some way. For example, the item indicating teacher involvement in professional development, Teachers plan the content of professional learning activities at the school, was among the lowest.
at 2.82. In contrast, the item, *Administrators object when teachers take on leadership responsibilities*, with a rating of 1.62, indicated that principals seldom object. Examining the two items together might indicate that when teacher leadership is engaged by principals it is on specific tasks and does not include the planning of professional development.

**Discussion**

Findings from the study indicate a clear and strong relationship between collective efficacy and the extent of teacher leadership in a school. This finding is significant: when a teaching staff perceives collective efficacy is strong, the impact on student achievement is high (Bandura, 1993; Goddard et al., 2000). Moreover, a strong collective efficacy belief among staff is indicative of confidence to achieve the school’s educational mission and goals.

Findings from this study indicate that teachers who believe in the capacity of the faculty as a whole and in the capability of individual teachers create schools where the extent of teacher leadership is greater. Mayer, et al. (2000) noted that collective responsibility and group accountability for student achievement originates from teachers who believe in themselves, expend more effort, and are more motivated to persist. Empowered teacher leaders find ways to break through barriers and obtain school resources to improve student outcomes (York-Barr & Duke, 2004).

Teacher involvement is clearly an indicator of teacher leadership practices recognized by colleagues and likely to contribute to collective efficacy. These informal leaders assist others, stay after school to help others, and actively share ideas on a wide-range of topics such as learning, teaching, and managing classrooms. In other words, they go the “extra mile.” In addition, they do this work informally as opposed to taking on the mantel of traditional authority positions in the school.

This study’s findings also support the hypothesis that teacher leadership matters for school success, not just for the teacher who participates in a leadership role. Teacher leadership is a larger organizational construct that extends beyond an individual teacher’s roles and responsibilities. It influences student achievement as well as school improvement efforts. The strong positive relationship between the constructs of teacher leadership and collective efficacy promotes success for students, teachers, and schools.

Our research confirms the findings by Goddard and Goddard (2001) indicating that when teachers believe colleagues can behave in ways that promote student achievement, high collective efficacy results. Based on teacher survey responses (Table 2), these behaviors include support for colleagues in addressing new policies and follow through on decisions regarding school-wide improvement. Indicators of faculty strength also include such fundamental teaching duties as effectively communicating with administration and parents and with managing student behavior.

The exception to these positive findings is that principal selection of teacher leaders is negatively correlated with teacher leadership. Serving as a “chosen one” does not promote a shared teacher belief in a collective capability for leadership or encourage staff belief in the school’s mission and goals according to this study. Further study of this finding might increase our understanding of why teachers hold this belief. In light of the wide-spread practice of principal selection of department heads, leadership teams, and school improvement teams, this topic deserves further study.
Recommendations for Further Study

Understanding principal actions to promote collective teacher efficacy and teachers’ perception of involvement in specific leadership activities is recommended for further study. The finding that administrators do not object when teachers take on leadership responsibilities when examined together with the finding that teachers seldom plan the content of professional learning activities warrants further study. Perhaps the planning of professional development is considered the domain of administration. Whether or not teachers desire to be part of professional development planning was not answered in this study and might be examined in future studies.

This study informs the discussion on teacher leadership by examining teacher leadership practices and the collective efficacy of the faculty. It provides a link between the extent of teacher leadership and the level of collective efficacy in schools. Recommendations for further study are noted as building and strengthening the actions that lead to collective efficacy, which cannot be a function of serendipity or chance.
References


Table 1

**Teacher Leadership Inventory Descriptive Statistics by Item**

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers ask one another for assistance when we have a problem with student behavior in the classroom</td>
<td>3.55</td>
<td>.58</td>
</tr>
<tr>
<td>Other teachers willingly offer me assistance if I have questions about how to teach a new topic or skill.</td>
<td>3.60</td>
<td>.62</td>
</tr>
<tr>
<td>Teachers here share new ideas for teaching with other teachers such as through grade level/department/school wide meetings, professional development, etc.</td>
<td>3.60</td>
<td>.58</td>
</tr>
<tr>
<td>Teachers discuss ways to improve student learning.</td>
<td>3.61</td>
<td>.58</td>
</tr>
<tr>
<td>Teachers are involved in making decisions about activities such as professional development, cross curricular projects, etc.</td>
<td>3.12</td>
<td>.80</td>
</tr>
<tr>
<td>Teachers are actively involved in finding ways to improve the school as a whole.</td>
<td>3.31</td>
<td>.69</td>
</tr>
<tr>
<td>As a faculty, we stay current on education research in our grade level or subject area.</td>
<td>3.44</td>
<td>.68</td>
</tr>
<tr>
<td>Teachers willingly stay after school to work on school improvement activities.</td>
<td>3.21</td>
<td>.74</td>
</tr>
<tr>
<td>Teachers willingly stay after school to help other teachers who need assistance.</td>
<td>3.24</td>
<td>.76</td>
</tr>
<tr>
<td>Teachers willingly stay after school to assist administrators who need volunteer help.</td>
<td>3.15</td>
<td>.74</td>
</tr>
<tr>
<td>Administrators object when teachers take on leadership responsibilities.</td>
<td>1.62</td>
<td>.77</td>
</tr>
<tr>
<td>The principal responds to the concerns and ideas of teachers.</td>
<td>3.43</td>
<td>.72</td>
</tr>
<tr>
<td>Teachers plan the content of professional learning activities at my school.</td>
<td>2.82</td>
<td>.80</td>
</tr>
<tr>
<td>Teachers have opportunities to influence important decisions even if they do not hold an official leadership position.</td>
<td>2.99</td>
<td>.77</td>
</tr>
<tr>
<td>The principal consults the same small group of teachers for input on decisions.</td>
<td>2.91</td>
<td>.94</td>
</tr>
<tr>
<td>Time is provided for teachers to collaborate about matters relevant to teaching and learning.</td>
<td>3.15</td>
<td>.78</td>
</tr>
<tr>
<td>Most teachers in leadership positions only serve because they have been principal appointed.</td>
<td>2.63</td>
<td>.82</td>
</tr>
</tbody>
</table>
Table 2

**Collective Efficacy Belief Scale Descriptive Statistics by Item**

<table>
<thead>
<tr>
<th>The strength of faculty’s belief in our capabilities to:</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carry out decisions and plans designed for school-wide improvement.</td>
<td>2.92</td>
<td>.79</td>
</tr>
<tr>
<td>Produce high levels of learning with our students.</td>
<td>3.09</td>
<td>.78</td>
</tr>
<tr>
<td>Create ways to improve the school environment.</td>
<td>2.94</td>
<td>.85</td>
</tr>
<tr>
<td>Maintain effective communication with parents and the larger community.</td>
<td>2.86</td>
<td>.85</td>
</tr>
<tr>
<td>Support each other in addressing new policies, rules, and regulations.</td>
<td>2.92</td>
<td>.86</td>
</tr>
<tr>
<td>Maintain a school environment in which students feel good about themselves.</td>
<td>3.11</td>
<td>.78</td>
</tr>
<tr>
<td>Provide input in making important school decisions.</td>
<td>2.73</td>
<td>.90</td>
</tr>
<tr>
<td>Effectively communicate with the school administration.</td>
<td>2.79</td>
<td>.93</td>
</tr>
<tr>
<td>Work with disadvantaged and troublesome students.</td>
<td>2.92</td>
<td>.81</td>
</tr>
<tr>
<td>Manage student misbehavior</td>
<td>2.82</td>
<td>.84</td>
</tr>
</tbody>
</table>

*N = 719*