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What School Principals Need to Know about Libraries: Implications for Practice and Preparation

This manuscript has been peer-reviewed, accepted, and endorsed by the National Council of Professors of Educational Administration as a significant contribution to the scholarship and practice of school administration and K-12 education.



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Principals in K-12 education face increasingly complex responsibilities and must maximize student learning within the boundaries of available funding and staffing. Effective library programs have been correlated to higher test scores and can be a resource for principals to meet improvement goals. The purpose of this Delphi study was to describe the knowledge, skills, and dispositions needed by K-12 administrators to direct effective school library programs. Across three expert profile groups, 23 panelists participated in three rounds of the Delphi process. A high level of consensus led to 44 statements of application for aspiring and practicing administrators. The four highest ranked items were statements of dispositions about the library program. Implications for administrators in preparation and practice are noted.

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School principals face increasingly complex and overwhelming responsibilities (Wise, 2015). For example, the current trend of accountability through high-stakes testing drives public school administrative decisions about programs, facilities, and resources (Ravitch, 2010). National educational leadership standards (the Interstate School Leaders Licensure Consortium or ISLLC) report that school leaders are “increasingly accountable for raising student achievement among students from all population subgroups” (Council of Chief State School Officers [CCSSO], 2008, p. 3). In best practice, administrator decisions for student learning are evidence-based. One example of a campus resource that is evidence-based and tied to increased student learning is the effective school library (e.g., Haycock, 2011; Kachel, 2013; Todd, 2007). As the “biggest classroom in the building” (Kuon, Flores, & Pickett, 2014, p. 65), the library can be positioned to serve as the “silver bullet for boosting literacy and academic achievement” (Kachel, 2012, p. 33).

In contrast to those research findings supporting the implementation of effective library programs, however, K-12 administrators and boards of education are frequently seen cutting, reducing, or removing the library from the campus educational plan (Ballard, 2012; Hartzell, 2012b; Lance, 2010). Yet, because of the library’s potential to increase student learning (Kachel, 2013), school leaders and those who prepare them must ensure they are aware of the research base for the library and in particular, aware of those identified attributes that correlate to student achievement (Francis, Lance, & Lietzau, 2010). Not using a school asset correlated with increased student achievement has been called “benign neglect” at best (Kaplan, 2006, p. xi) and programmatic “inequity” at worst (Achterman, 2008, p. 191).

Why might the misuse of a resource that supports student learning happen? The phenomenon may be explained by the K-12 administrative literature and principal preparation programs. Studies have documented the lack of information about effective library programs in the curricula of school leadership preparation programs (e.g., Hartzell, 2012a; Pickett, 2013; Roberson, Schweinle, & Applin, 2003). Additionally, professional reading for school leaders largely lacks data from the most recent library impact studies, which now point to libraries supporting gains in student reading and writing, narrowing the achievement gap, and improving graduation rates (Coker, 2015; Haycock, 2011; Kachel, 2013; Lance & Schwarz, 2012). This lack of exposure leaves principals out of the global conversation that “school library programs with certified, full-time librarians are essential building blocks for 21st century learning” (Kachel, 2013, p. 3). In light of this lack of exposure, the purpose of this Delphi study was to describe the knowledge, skills, and dispositions needed by K-12 administrators to direct effective school library programs, in particular programs that are embedded within the larger goal of school improvement. Such an understanding of principals’ competencies can carry implications for in-service professional development of school leaders, as well as inform higher education preparation programs for administrators, teachers, and librarians.

Research at the Nexus: Libraries and Pre-Service Preparation of Administrators

The literature of principal preparation programs first crosses the literature of effective school libraries after the 1980s. Both disciplines were experiencing the early tremors that would later become the turmoil of school reform and high-stakes accountability. During that decade, the first national standards for higher education preparation programs were being shaped (McCarthy, 1999). In that decade as well, the national standards for school libraries and librarians were shifting to highlight the collaborative instructional and curricular roles for media centers (libraries) and their media specialists (Midland, 2008). The convergent story lines for the two

disciplines are recounted in five scholarly articles that underscore two foundational principles: The nature and purpose of the school library program was becoming increasingly correlated to student achievement; and new and experienced school administrators were largely unaware of the new potential of libraries, unable to value them, and unable to fully serve as instructional leaders without that knowledge. Ironically, the literature did support principals as having “tremendous influence” to position their library programs to influence student learning (Roberson et al., 2003, p. 99).

In 1991, Veltze published a dissertation from the University of Southern Mississippi focusing on the status of the inclusion of information regarding school libraries in the curricula of principal preparation programs. Her literature review reported no previous literature existed that considered the nexus of the two fields. Veltze (1991) conducted a quantitative, linear regression study of a randomly selected national sample of 77 professors in higher education school administrator programs. Of those professors, 47% reported not including information about libraries in what they taught; yet 84% agreed their students should be encouraged to learn about the library program. Participants indicated general agreement with the fairly new national standards for school librarians, but these professors held no clear understanding of the implications of those standards. Conclusions conveyed two crucial implications for administrator preparation programs: the critical need to include in the curricula information about the new conception of libraries, and the need of the faculty themselves to understand that conception, particularly as expressed in the updated national library standards (Veltze, 1999).

Concurrent to Veltze (1991) completing her study, Wilson and Blake (1993) were also studying the nexus of principal preparation and school libraries. Both were faculty members at the University of Houston-Clear Lake, Wilson teaching library science and Blake teaching educational leadership. Together they examined the experience and perceptions of a randomly selected national sample of 423 school principals and 572 library media specialists. They reported that participating school administrators were generally unaware of the library’s role in teaching and learning. Most of the principals (69%) reported they were inadequately prepared regarding the management and function of the school library. Additionally, a majority of participants (78%) agreed that information about facilitating library programs should be included in principal preparation programs. Comments from both principal and librarian participants were used to describe specific topics about libraries that should be included in preparation programs. Taken as a whole, Wilson and Blake (1993) identified this content as the missing component in principal preparation curricula, concluding that “until education leadership programs at universities across the nation highlight information concerning school library media programs in their course work, the potential of the school library. . . in the educational process *will not be reached* [emphasis added]” (p. 68).

A few years later, another study from the University of Houston-Clear Lake was published by library professor Wilson and educational leadership professor MacNeil (1999). In this study, the researchers explored the question of what principals actually learn in their preparation programs. Specifically, Wilson and MacNeil (1999) sought to determine if the preparation programs were providing principals with information about the expanded role of libraries in K-12 schools. From a randomly selected national sample of faculty from educational leadership programs certified by the National Council for the Accreditation of Teacher Education, a total of 250 professors responded to the questionnaire. Of those 250 faculty, only 19% indicated they did include information about school libraries in their courses. But follow-up telephone interviews clarified that a more accurate response was probably less than 15%: A

number of the original positive responses had counted instruction about research methods as constituting information about school libraries. This phenomenon again supported that aspiring principals were exiting leadership programs unprepared for the potential of libraries. Wilson and MacNeil (1999) concluded, "Very few principal-preparation programs across the nation are preparing school principals for the leadership role related to the school library media center" (p. 23). The authors recommended professors provide library information in K-12 administrator preparation and accreditation agencies include descriptors specific to school library supervision that would encourage institutions to do so.

Alexander, Smith, and Carey (2003) revealed principals who had pre-service with information about libraries were statistically significantly more likely to value the library than were principals who received no such training. In 1990, the state of Kentucky initiated a broad-sweep reform of its public schools through the Kentucky Education Reform Act (KERA). An additional \$1 billion funding for education promoted the option of libraries, and in 2000, KERA was amended to require a library in each public school. But in 2003, Alexander et al. revealed that a randomly selected sample of Kentucky state principals regarded libraries as only of moderate importance. In general, those principals held only an amorphous understanding of the expanded role of librarians to impact student learning. The authors attributed this lack of knowledge in part to the principals' inadequate preparations, with less than 10% of respondents reporting that they had received any preparation for implementing a library program. Yet those who had been so trained were strikingly more aware of the valuable potential of the library to support student learning. This study supported the idea that principal preparation had not kept pace with the changes in the field of school librarianship and the re-conceptualization of the role of libraries and librarians (Alexander et al., 2003). The authors theorized that principals unprepared to manage that changed reality were not aware of and were ill-equipped to take advantage of the potential of the school library for student achievement.

A 2003 study by faculty from the University of Southern Mississippi provided a discussion of what strategic pre-service principal curricula might resemble. Almost 10 years after Veltze's (1991) study from this institution, Roberson et al. (2003) reported their institution's work to design curricular changes to the education administration program to adequately prepare principal candidates to manage effective libraries on their campuses. The first of their two-part study examined the current state of school libraries in Mississippi, and their findings aligned with the national body of empirical work supporting effective libraries as correlates to improved student achievement and narrower achievement gaps. The second part of their study described the curricular changes their university was implementing in principal preparation courses. Grouping their preparation courses in three blocks or stages, the faculty was embedding library information strategically in each block. In addition to the model for program curricula, Roberson et al. (2003) provided two compelling findings: "Students in [Mississippi] schools with better funded, better equipped, and better staffed libraries tend to perform better on standardized tests" (p. 111), and that, despite the body of research that supports similar conclusions for other states, there is a "void [about this research] in the knowledge possessed by pre-service principals" (p. 111). The authors concluded that "the need for [library] training in educational administration programs is imperative" for administrators and professors to understand the "vital and essential element" that the library presents for student learning (Roberson et al., 2003, p. 111).

Taken together, these five studies support the foundational concepts of the dynamic role of the school library program and the void in the knowledge of aspiring principals to understand

the potential of the library to support student achievement. To understand national expectations for preparation of K-12 administrators, our study took the perspective of national school leadership standards articulated originally by the ISLLC in 1996 and revised in 2008 and in 2015. These standards have evolved to prioritize leadership that deals with a school's instruction, worded as "leadership for learning" (CCSSO, 2014, p. 6), specifically serving to "outline what educational leaders should know and be able to do" (CCSSO, 2014, p. 6) toward the goal of college and career readiness. The latest iteration emphasizes the continuing purpose of "communicat[ing] expectations to practitioners" (National Policy Board for Educational Administration, 2015, p. 4). In our study, the standards provided the framework for examining curricular content of leader preparation: What are the knowledge, skills, and dispositions needed by K-12 administrators to direct effective school library programs?

Method

Developed in the 1950s, the Delphi technique involves a selected group of experts who reply to a researcher's series of questionnaires (Dalkey, 1968; Linstone & Turoff, 2002). The method is structured to minimize group influence on individual responses. After each round of questions, the experts receive feedback concerning the group response and "range of opinions" (Ludwig, 1994, p. 55). Each iteration builds upon the previous round with the goal being "to reduce the range of responses and arrive at . . . expert consensus" (RAND, 2014, para. 1). In our study, individuals acknowledged as experts in school administration and library programs were invited to develop consensus regarding the effective principal and the school library. Working through a collaborative and dynamic process, these experts sought an understanding that did not exist in prior literature—a concise articulation of the knowledge, skills, and dispositions needed by K-12 administrators to direct effective school library programs. The Delphi was selected as the most appropriate method because the research topic did not "lend itself to precise analytical techniques" but required the collective experiences of experts (Linstone & Turoff, 2002, p. 4).

As advised by Keeney, Hasson, and McKenna (2011), participants were selected according to criteria that targeted the expertise needed in this study. First, the participants were selected based on their knowledge and experience in three arenas: K-12 administration, K-12 librarianship, and higher education preparation of K-12 educators. Second, participants were recognized as experts by national acknowledgement of effective performance in their area of practice. Because the American Library Association annually awards exceptional individuals from the three areas examined in this study, a pool of candidates was drawn from their list of honorees.

Although there is no consensus in the literature about the ideal sample size for a Delphi study (Hsu & Sandford, 2007), some support is given for panels with fewer than 25 participants (Brooks, 1979). After initial contact, 23 panelists, who were nationally recognized for their work with school libraries, participated (three administrators, seven librarians, and 13 higher education faculty). The experts had a mean of 25 years of educational experience. Panelists were widely dispersed among 14 states. Of the 23 participants, 18 were women and 22 identified as White. All 23 panelists participated in three rounds of data collection representing a 100% response rate throughout the study.

In a Delphi study, the instrument is designed to elicit data to generate a broad range of ideas by posing open-ended questions (Keeney et al., 2011). Those responses are used to shape the subsequent rounds (Linstone & Turoff, 2002). The Round 1 questionnaire, as shown in

Table 1, was refined through a pilot study to improve validity and consisted of four open-ended questions about the roles, values, and understandings of a principal leading an effective school library program. Participant free-text responses were verified before analysis and from the confirmed responses, we used content analysis techniques to identify categories. We grouped similar ideas and comments and concluded by identifying 10 themes in the expert opinions. From these themes, we created 77 statements using participants' exact words and phrasing. Those statements were grouped by the domains expressed in the study's research questions: knowledge, skills, and dispositions. Those statements, in those three groups, constituted the Round 2 questionnaire.

Table 1
Round 1 Open-ended Questions

Open-Ended Question
1. In a school with an effective library program, what is the role of the principal regarding the library?
2. In a school with an effective library program, what understandings or general knowledge about the library does the principal use?
3. In a school with an effective library program, what skills does the principal demonstrate in his work to support the library?
4. In a school with an effective library program, what does the principal value about that program?

In Round 2, participants were asked to evaluate the importance of 77 statements using a 4-anchor scale: *not important at all*, *not very important*, *somewhat important*, *very important*. Experts were also invited to add free-response content in optional open-ended questions for each domain. After a frequency analysis, we selected statements using a priori consensus levels (i.e., rated as important by 100% and very important by 75%). For the Round 3 questionnaire, experts were given the results of the group's ratings from Round 2 and asked to confirm, deny, or amend importance ratings. Results from Round 3 confirmed broad agreement of 44 statements (see Appendix) ranked as *important* or *very important* by at least 75% of the experts.

Findings

Organized across the constructs of knowledge, skills, and dispositions, we identified 44 statements of high consensus by the expert panelists in the study after the completion of three rounds of the Delphi as shown in the appendix. Of those, five statements received unanimous agreement at the highest level. In this paper, we will focus on these five key findings as displayed in Table 2. These findings provided details about the knowledge, skills, and dispositions needed by K-12 administrators to direct effective school library programs.

Table 2
Five Statements of Unanimous Agreement

Statement receiving 100% support	Domain
1. The principal values the strong library's impact on student achievement.	Disposition
2. The principal values the librarian's expertise as a teacher.	Disposition
3. The principal values the library being an integral part of instruction.	Disposition
4. The principal values the library providing equitable and open access to its resources.	Disposition
5. The principal hires and retains the best certified librarian available.	Skills

Discussion

The consensus of the panelists aligned with the ISLLC Standards in targeting a single goal: authentic student learning resulting from well-prepared and knowledgeable leaders. The learning goals of each of our study's five unanimous statements echo the focus on student growth: student achievement (Statement 1), instructional expertise of the librarian (Statement 2), the library as an integral part of instruction (Statement 3), equitable access to library instruction and resources (Statement 4), and the presence of an effective certified librarian (Statement 5). Each of these statements align with the dispositions of an instructional leader, and thus the statements hold powerful implications for principal preparation programs and curricula.

Of the five unanimous expert statements, four were categorized as dispositions and none were grouped within the study's domain of a principal's knowledge. Yet the disposition and skill statements developed by our study's experts necessarily depend on knowledge of the decades of research about effective libraries. For example, in order to value the library's impact on student achievement (Statement 1), an administrator understands and believes the evidence concerning the relationship of certain library attributes to increased student test scores (e.g., Coker, 2015; Haycock, 2011; Kachel, 2013; Lance & Schwarz, 2012). The literature on the nexus of principal preparation and school libraries, however, has demonstrated that administrator candidates do not learn about school library impact through preparation program curricula (e.g., Hartzell, 2012b, Roberson et al., 2003; Wilson & MacNeil, 1999). This gap in knowledge helps explain why school district administrators might neglect, defund, or even remove library programs and staff (Kaplan, 2006, 2010; Kuon et al., 2014; Shannon, 2012).

Statement 2 from the study's findings, the principal values the librarian's expertise as a teacher, reflects the teaching experience and expertise required of certified librarians in most states. In many cases, the certified librarian has earned a bachelor's degree and certification in education, has taught for at least two years, and has then earned a master's degree either in library science or other instructional area (Lance, 2006). In schools with effective library programs, principals aware of these librarian qualifications might be able to utilize the certified librarian for collaborative lesson planning and co-teaching, as well as for expertise in curriculum

design, inquiry lessons, and project planning. Moreover, Kachel (2013) noted that in-service training provided by librarians correlated to higher student scores. Educational leaders unaware of this instructional expertise of the librarian might fail to take advantage of this instructional resource.

Both Statements 3 and 4 of the study's findings speak to the cross-curricular and interdepartmental strengths that a certified librarian and the program bring to supporting student learning. These concepts indicate the centrality of the library's reach into many areas of learning. Lance and Schwarz (2012) suggested that the greatest impact from libraries was experienced by students who are most at-risk academically. For these students, the possibility of greater loss by absent library programs raises questions of equity and social justice when leaders fail to provide resources (Achtermann, 2008; Kuon et al., 2014). Principal preparation programs should ensure that candidates recognize the positive impact of libraries, as well as the negative impact for students whose learning lacks the support of an effective library program.

Statement 5 of the study findings sums up the collective body of knowledge needed by a school administrator: the principal hires and retains the best certified librarian available. Without the knowledge necessary for implementing Statements 1 through 4, a principal might be unable to identify, let alone hire and supervise, an effective school librarian. Without identifying what constitutes an effective library program, the hiring of an effective librarian is made more difficult. Fortunately, three decades of library impact research have consistently identified the attributes of an effective school librarian (e.g., Coker, 2015; Haycock, 2011; Kachel, 2013; Lance & Schwarz, 2012). When a principal knows and values these attributes, he or she is more likely to hire and supervise an effective librarian. Principal preparation educators can empower their candidates when they embed research about effective libraries in their preparation curricula. The experience of educational leadership programs cited previously (Roberson et al., 2003; Wilson & Blake, 1993) provides evidence to both the means of including such curricular content in preparation curricula and the effectiveness of doing so. Together, the five statements of findings represent what an effective administrator needs to know regarding library impact on student achievement.

Conclusion

Principals and school administrators lead the work to improve schools (Hess & Kelly, 2007), and the myriad challenges they face are overwhelming (Wise, 2015). The potential of the school library program to support school leaders and student learning is promising, but the knowledge to implement that library program eludes many school principals. In this study, experienced administrators recognized for their work with school libraries collaborated with recognized librarians and higher education professors to develop a high degree of consensus on five key statements. Together this body of experts gave direction for educators seeking to potentiate student learning through effective school libraries: Principals need to know what an effective library looks like, how a credentialed librarian works, and the synergy created by leadership, librarians, and teachers.

Evidence and experience have shown that most principal candidates lack the knowledge to supervise a school library. Likewise, evidence and experience have provided guidance for those seeking to do so. The latest iteration of the ISLLC Standards, now published as *Professional Standards for Educational Leaders* (National Policy Board for Educational Administration, 2015), calls for fresh approaches to improve learning for all students and to

achieve “more equitable outcomes” (p. 1). There has been some progress in improving preparation programs for school leaders by including performance tasks and relevant field experiences in the preparation curricula (Wise, 2015); however, more work is needed. The implications from our study call for including strategic instruction about effective school libraries and the research base thereof in the curricula of preparation programs. In doing so, candidates might be able to develop an “equity lens” needed by school leaders (Wise, 2015, p. 113).

Although we applied Delphi procedures with legitimacy according to literature (e.g., Hsu & Sandford, 2007; Linstone & Turoff, 2002), limitations should be noted. The 44 statements (see Appendix) produced through this collaborative work represent what recognized experts in the field of K-12 administration and library practice believed to be the essential knowledge, skills, and dispositions of the principal of an effective library program. It is possible that other Delphi studies, using justified experts answering the same questions, could produce answers with differing degrees of consensus. Another limitation was the lack of ethnic and gender diversity among the expert panel members. Although we used a specific sampling strategy that did not include consideration for gender and ethnicity (see explanation in Method section), future researchers might consider this limitation in their research designs.

Both fields of professional practice represented in this study, administration and librarianship, are deeply entrenched in their relevant research, responsibilities, and priorities. Although this study attempts to find overarching goals and to arrive at mutually beneficial paths to those goals, the division between the fields will remain. Yet, as one administrator expert commented, “library values and beliefs should be the same as the principal’s, definitely not something separate . . . the beliefs of the leader should flow into and throughout the library.” Future research that more closely conjoins the mutual aspirations and activities of principals and librarians could continue to build common understandings.

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Appendix

44 Statements of Highest Consensus after Three Rounds of the Delphi

Delphi Statement	% rating <i>very important</i>	Domain
60. The principal values the strong library's impact on student achievement.	100	Dispositions
57. The principal values the librarian's expertise as a teacher.	100	Dispositions
76. The principal values the library being an integral part of instruction.	100	Dispositions
56. The principal values the library providing equitable and open access to its resources.	100	Dispositions
33. The principal hires and retains the best certified librarian available.	100	Skills
58. The principal values the librarian's expertise as a collaborator.	96	Dispositions
59. The principal values the librarian's expertise as a leader.	96	Dispositions
63. The principal values instruction for digital and information literacies.	96	Dispositions
6. The principal understands that credentialed librarians are certified teachers who integrate with the curriculum to support instruction.	96	Knowledge
30. The principal clearly communicates to teachers the value of the library program to student learning	96	Skills
34. The principal includes the librarian in the campus' professional development activities, in order to keep the librarian informed and current.	96	Skills
40. The principal trusts in the knowledge, skill, and professionalism of an effective librarian.	96	Skills
44. The principal ensures proper technology infrastructure for the library.	96	Skills
45. The principal holds the librarian accountable for a strong, integrated program.	96	Skills
48. The principal supports reading across the curriculum.	96	Skills
62. The principal values the library's work to build engagement for a culture of reading.	91	Dispositions
50. The principal recognizes that "adequate" is not enough and expects and supports a strong library program that increases student learning and engagement.	91	Skills
53. The principal values the library's welcoming and accepting environment.	87	Dispositions
55. The principal values the unique nature of the library program and supports it accordingly.	87	Dispositions

61. The principal values the library's integration of technology to strategically support the curriculum (not just gadgets).	87	Dispositions
6. The value the school librarian can bring to the students' learning is essential knowledge for the principal. (Added in Round 3)	87	Knowledge
15. The principal envisions the library as the hub of the school, setting a welcoming and accepting environment.	87	Knowledge
18. The principal understands the importance of continuous and adequate funding to maintain an effective collection of print and digital resources.	87	Knowledge
20. The principal understands the need to schedule time for the librarian to collaborate, plan, and teach.	87	Knowledge
3. The principal understands the changing role of libraries during a time of widespread educational change.	87	Knowledge
31. The principal seeks out the definition of a strong school library program, learns about it, expects it on her/his campus, and asks for change or celebrates its strength.	87	Skills
43. The principal leads in establishing a culture centered on reading and the pursuit of knowledge.	87	Skills
54. The principal values the library program's contribution to teacher development.	83	Dispositions
64. The principal values building student self-confidence and independence as readers and learners.	83	Dispositions
66. The principal values the library engaging both students and faculty in the process of learning.	83	Dispositions
67. The principal values the library's facilitating 21st Century learning.	83	Dispositions
68. The principal values the librarian's integration of library standards into curricular content.	83	Dispositions
74. The principal values intellectual freedom.	83	Dispositions
23. The principal understands the importance of equitable and open access to library resources.	83	Knowledge
8. The principal knows what a good librarian does.	83	Knowledge
28. The principal allocates appropriate funds for the library from the building budget.	83	Skills
35. The principal initiates and expects teacher-librarian collaboration.	83	Skills
39. The principal schedules grade-level or content-area collaborative time that includes the librarian.	83	Skills
69. The principal values the library offering just-in-time, at-point-of-need, instruction.	78	Dispositions
71. The principal values the library as the hub for media resources and technology.	78	Dispositions
73. The principal values the library's high-quality	78	Dispositions

collection of resources.		
75. The principal values affective support for students (beyond quantitative measures and statistics).	78	Dispositions
11. The principal understands what constitutes 21st Century skills and how the librarian mediates that learning.	78	Knowledge
4. The principal holds an accurate understanding of the librarian's complex role.	78	Knowledge

A Study of Preferred Conflict-Management Behaviors Among Small-School Principals: Effects of Gender and Experience

This manuscript has been peer-reviewed, accepted, and endorsed by the National Council of Professors of Educational Administration as a significant contribution to the scholarship and practice of school administration and K-12 education.



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It cannot be overstated the broad skill set managers must have to manage conflict in modern organizations (Lang, 2009; Ramani & Zhimin, 2010;). Few studies have explored this topic in smaller organizational settings where leaders often assume a greater number of roles and responsibilities. For this reason, this study analyzed preferred conflict management behaviors for small-school principals. A sample of head school principals answered a series of questions on a modified Thomas-Kilmann Instrument (TKI) – an instrument widely used in conflict-management studies. Behavioral preferences for male and female respondents were compared as in addition to exploring the effect of leadership experience. Although the gender of the principal had no statistical effect, leadership experience significantly explained preference for competing and compromising behaviors. Implications for conflict resolution skill development and research are discussed.

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It cannot be overstated the broad skill set managers must have to manage conflict in modern organizations (Lang, 2009; Ramani & Zhimin, 2010). The varied interpersonal abilities leaders need to resolve employee disputes are in large respect a reflection of the dynamic workplace context. Relationships between employees within and across layers of the organization are vastly more complex given the virtually unfettered access to information and technology (Senge, 1994). Findings from one report reflect the magnitude of workplace conflict and suggest the need for a renewed focus on conflict-management (Consulting Psychologists Press [CPP], 2008). The study found 85% of respondents reported having to cope with conflict on the job and 29% reported conflict as “always” or “frequently” (CPP, 2008, p. 3). The same report (CPP, 2008) noted 70% of the employees surveyed perceived managing conflict as a “very or critically important leadership skill while 54% of employees [thought] managers could handle disputes better by addressing underlying tensions before things go wrong” (p. 3). Also within this report, managers rated their abilities to handle conflict more favorably than their employees’ perceptions of how well the managers managed conflict. School leaders, like most managers, must learn to be adaptive in their behaviors to account for the new realities of the workplace and to properly serve organizational interests and goals (Einarsen, Aasland, & Skogstad, 2007).

For this reason, researchers examined preferences among school principals as to how conflicts should be managed. Leadership preferences for conflict-management were studied within small school district contexts. Prior work reveals the unique context of smaller, less bureaucratic school systems. In smaller schools, management/leadership tends to reflect a greater level of interpersonal intimacy among workplace participants and leaders are usually more engaged in and have a broader understanding of the day-to-day operations of the school compared to leaders in large school settings (Clarke & Wildy, 2004; Mohr, 2000; Wasley, et al., 2000). Experience and gender were explored in the study as possible factors influencing perceptions related to preferred conflict-management approaches as both variables have been linked to leadership effectiveness. The early work of Blake and Mouton (1964) still seems relevant today: leaders seem to still need a dual focus characterized by concerns for both tasks and people.

To begin, a rationale for the analysis is presented as well as a review of prior research related to the gender and experience of the leader and conflict-management. This study employs a well-established school leader conflict-management survey, the Thomas-Kilmann Instrument, and is discussed briefly in the following sections. Results and a discussion of the findings are presented in turn.

Rationale for Exploring Conflict-Management in Small Schools

Conflict is not only inevitable for groups but one that is often viewed as natural and necessary. Conflict has been described as “a critical mechanism by which we navigate the variety of personalities, goals, interests, and values in social interaction” (Oore, LeBlanc, & Leiter, 2015, p. 306). To be sure, conflict management is both a complex and evolving domain of study. Recent studies draw attention to enduring differences among conflict management theories but have found that there is greater agreement among types of strategies employed for resolution (Carton & Tewfik, 2016). Recent work also reveals advances in analyzing the management of conflict as well as anticipated outcomes associated with the use of different modes of resolution in the workplace. This has led to the development of a four framed typology that captures the modalities of conflict resolution strategies (i.e., relational [interpersonal], status [hierarchical],

process [role meaning], and task [specific job related issues]) – each frame is different yet mutually impactful (Carton & Tewfik, 2016).

Without question, the burden of nurturing positive workplace behaviors falls largely on leadership. Be that as it may, a litany of social factors continues to shape the traditional managerial-subordinate relationship in the workplace (Lang, 2009). Increasing globalization (Lipsky, Avgar, & Lamar, 2016; Prause & Mujtaba, 2015), diversity of religion (Gebert et al., 2014), immigration, trade, and advances in technology have altered the status quo of workplace obligations and production (Lipsky et al., 2016). Consequently, leaders are expected to act responsively to the various needs of a diverse workforce while at the same time render fair judgment. Seemingly, the nature of conflict in the workplace, as Prause and Mujtaba (2015) describe, is shifting from the “authoritative approach with ignorance towards other parties to cultural awareness, value creation and skills advocacy, listening, and negotiation” (p. 14).

Growing evidence points to a need for managers in today’s organizations to be more aware and sensitive to difference. One such area of research addresses the varying generational impact (Hillman, 2014; Messarra, Karkoulian, & El-Kassar, 2016). For example, findings from one study (Hillman, 2014) suggest leaders today must have the capacity to resolve conflict stemming from differences in values and acceptable norms between generation groupings (i.e., Traditionalists, Baby Boomers, Generation X, Generation Y). Hillman (2014) suggests managers skilled at understanding generational differences are more apt to establish workplace policies and procedures that accommodate differences in attitudes and preferences across birth-year cohorts, which, in turn, may diminish the likelihood of conflict. Other research points to the need for today’s leaders to foster greater awareness of the emotional dimensions associated with conflict (Hopkins & Yonker, 2015; Oore et al., 2015). One study found leaders are relying to a greater degree on emotional intelligence behaviors such as social responsibility, problem solving, and impulse control when addressing workplace conflict (Hopkins & Yonker, 2015). According to Hopkins and Yonker (2015), encouraging leaders to “deconstruct the thought process” (p. 240) for themselves and for those of others may yield more impactful responses to conflict.

At the same time, the nature and scope of work in school settings continues to evolve (Lieberman, 2005). Principals charged with managing campuses face an increasingly diverse set of expectations from various parties (Tschannen-Moran, 2009; Wolcott, 2003). For example, it is now the norm that schools are accountable for student learning across all groups and must show evidence of growth or face the threat of sanctions. Evidence suggests schools are struggling to respond to demographic shifts in the workplace and have advanced only slightly in challenging “normative” (p. 51) ideas about people and their abilities in the workplace (Holme, Diem, & Welton, 2014). In light of this more recent expectation and others too numerous to list, the principal is challenged to maintain a task-oriented strategy in his/her managerial approach.

For the campus principal, fulfilling organizational goals demands not only a strong task-orientation but requires relational skills and a stronger focus on climate and culture (Lumpkin, 2008). The principal’s ability or inability to meet the needs of teachers is linked to teacher attitudes and work-habits. To earn trust and build support among teachers, the school leader must have at minimum skills to persuade, convince, and motivate. The ability of leaders to build consensus and retain steady support in an increasingly diverse and pluralistic organization is an aspect worthy of greater scrutiny within the conflict-management sphere.

There is much agreement in the literature that workplace communication is a key leadership aspect (Gronn, 2000; Maxwell, Scheurich, & Skrla, 2009; Spillane, 2006). Norms and customs of communication are often organization specific, each organization reflecting

differentiated roles and power dynamics. Principals and teachers hold varying orientations (personal and professional), which bring about conflicting priorities (Balay, 2006; Blase & Blase, 2002; Deutsch, Coleman, & Marcus, 2006; Louis, 2007; Marshall, 1991; Tschannen-Moran, 2009, 2007;). Be that as it may, the failure to meet teachers' needs may lead to undesirable organizational outcomes, such as diminished student academic performance. Effective principal-teacher conflict-management skills (Berry, 1994) and positive relationships (Currall, 1996; Picucci, Brownson, Kahlert, & Sobel, 2002) appear to enable more positive outcomes in the workplace. While fostering relationships and effective communication may be powerful levers for organizational progress, little is known as to what effect the gender and experience of the leader might have on managing conflict in particular organizational contexts.

Conflict-Management and Gender

As females have formed a critical mass in workforce leadership in North America, interest in gender differences in conflict-management has intensified. A growing body of research addressing women's experiences in school leadership reveals this trend (Blackmore, 2013; Brunner, 2000; Eckman, 2004; Grogan, 1996). Previous studies have linked specific leadership characteristics with gender (Harriman, 1996; Hines, 1992; Marshall, 1993). One dimension of interest to this study is whether recent evidence confirms the traditional gender leadership archetypes that have been manifested over centuries. For example, beliefs persist that male leaders tend to exhibit behaviors that are more self-reliant, dominant, hard, impersonal, outer-focused, action-oriented, competitive, and assertive. The counter narrative is that female leaders are seen more in the vein of displaying more nurturing, passive, sensitive, compassionate, and family-centered behaviors. In many cases, this view reflects women as the person primarily responsible for the education of children in the household.

Tannen (1990) suggests differences in conflict-management styles of male and female may be largely due to socialization. Organizations are powerful socialization structures, which tend to reproduce and reinforce norms of power that largely reward men who promote those who are most like themselves (Grant, 1988). Prior work suggests women who have been able to advance in organizations have done so by embracing male behaviors (Blackburn, Martin, & Hutchinson, 2006). Gender conflict style differences in organizations have been widely documented (Brandt & Laiho, 2013; Holt & DeVore, 2005; Kark, Waismel-Manor, & Shamir, 2012; Schuh et al., 2013;), but some studies have reached mixed findings (Putnam & Poole, 1987; Ruble & Schneer, 1994). Some studies have explored leadership styles women prefer (Cardona, 1995; Holt & DeVore, 2005; Sone, 1981). Schaubhut (2007) notes that when gender differences in conflict-management behaviors were identified in the literature, men seemed more inclined to exhibit more competitive behaviors. Eagly, Karau, and Johnson (1992) reviewed fifty studies comparing leadership styles between male and female principals. Females across the studies tended to be more task-oriented. There was little evidence to find differences between male and female on measures of interpersonal orientation. Findings also point to a pattern of female principals displaying a more participative style, while male principals demonstrated a more directive style.

Few studies have probed the link between gender and conflict-management among female school administrators. In one study, researchers examined perceptions of principals and teachers relative to gender, conflict-management style, and school culture (Blackburn et al., 2006). Male principal participants exhibiting a dominating conflict-management style received

lower school culture scores in the domain of teacher collaboration. Female principals, who were seen as having more integrated conflict-management styles, received higher school culture scores in the domains of professional development and teacher collaboration.

The present study employs the Thomas-Kilmann Instrument to measure modes of conflict-management among leaders – an instrument that has been used extensively in prior studies. Using the Thomas-Kilmann, researchers in one study examined conflict-management behaviors of participants in the private sector, governmental agencies, and a university (Shockley-Zalabak & Morley, 1984). Although no differences were found across avoiding, collaborating, or accommodating modes, significant differences were found among the compromising and competing modes, with females exhibiting more compromising behaviors and males more competing. The researchers, however, cautioned against generalizing the findings to other populations due to differences in student and non-student populations in the study.

One other study (Chusmir & Mills, 1989) found no significant differences between the conflict resolution styles of men and women managers at either home or work. The authors suggested differences in conflict resolution styles might be more a reflection of hierarchical placement within the organization than gender. The researchers also found both genders adapted their conflict behaviors to the situations at hand. Other studies using the Thomas-Kilmann Instrument suggest women may be more inclined to prefer compromising (Erickson, 1984; Holt & DeVore, 2005), accommodating (Sone, 1981), or avoiding (Cardona, 1995) behaviors. For example, one study reported men exhibited higher levels of competing behaviors, while women tended to utilize compromising behaviors more frequently (Holt & Devore, 2005).

Overall, prior research reveals an evolving association between gender and conflict-management. Although it has previously been argued that female administrators manage conflict more through compromise (Erickson, 1984), recent studies suggest a far less definitive link (Corral-Carlson, 2008; Dillard, 2005; Indelicato, 2005; Schaubhut, 2007).

Conflict-Management and Experience

Minimal literature focuses directly on the topic of conflict-management preferences relative to the experience of a school principal. Experience and conflict-management have been studied in work-related situations, but few within the area of educational leadership. One study (DeTurk, 2010) examined the conflict resolution styles of Nebraska superintendents utilizing the Thomas-Kilmann Instrument (2007; 1974). Findings in the study suggest more inexperienced superintendents tended to report an orientation toward more collaborative behaviors with peers than did experienced leaders. More experienced superintendents also reported more satisfaction with their conflict resolution behaviors. A separate study (Meier, 2007) found teachers having more experienced principals reported fewer instances of staff conflict, which, according to the researcher, may suggest more experienced principals may be more effective at enabling teachers to work together. Berry (1994), on the other hand, reported no significant differences between conflict-management styles of male and female elementary principals when examining the effects of age and years of administrative experience.

While prior research reveals gender and experience might play a role in the manner in which contentious workplace matters are resolved, much remains unclear as to how these two factors impact conflict-management behaviors in particular organizational settings. Given the importance of children succeeding academically and socially, more research is needed to better

understand what factors might predict the manner by which principals prefer to address and resolve workplace conflicts.

Theoretical Framework

Researchers employed the ethic of care (Gilligan, 2002, 1982; Noddings, 2002;) and Leader-Member exchange theory (Erdogan & Bauer, 2010; Scandura, 1999) to contextualize the study. Under the ethic of care, the emphasis is placed on relationship between the leader (i.e., the person caring) and the followers (i.e., the object of care) rather than “out of duty to carefully reasoned principle” (Noddings, 2002, p. 14). Motivations for caring emerge from a desire to fulfill obligations and respond to the needs of others. The ethic of care has been largely recognized as a female dominant perspective (Gilligan, 1982). Noddings (2002) when discussing the need for a female perspective on what it means to be good rejects the impulse to claim “moral superiority” but instead to call attention to a “perspective on ethical life” that uses “women’s experience” to “help all of us lead better lives” (p. 107). The question arises as to whether this gender predisposition to caring behaviors results in preferred conflict resolutions for women leaders that are more relational and sensitive to the needs of others (i.e., accommodating and compromising modes of resolution).

Contextualizing leadership experience as it relates to conflict resolution presents a greater challenge. This is partly due to the rational supposition the more experience a leader has the more effective the leader will be in handling workplace conflict. Yet, evidence suggests leaders may be prone to resist adapting to the expectations of “new professionalism” and revert back to behaviors classified under “old professionalism” (Anderson & Cohen 2015). This is all to say that context may be a critical dimension to understanding preferred leadership behaviors. Little is known to what extent leaders give sufficient attention to norms of workplace interaction between managers and followers and what it means for managing conflict within a context of varying views of “fairness.” Research related to leader-member exchange theory (LMX) offers a promising avenue to explore subtle relational nuances, particularly between leaders and subordinates (Erdogan & Bauer 2010; Scandura, 1999). According to Erdogan and Bauer (2010), “LMX theory refers to the idea that leaders form relationships based on trust, liking, and respect with some employees they work with, whereas with others the relationship does not go beyond the basic terms of the employment contract” (p. 1104). These types of relational manifestations warrant greater scrutiny without question. For these reasons, researchers set out to examine to what extent the profile of the leader according to gender and experience explained preferred conflict resolution behaviors.

Method

Participant Selection and Data Collection

The school districts in this study were located in the southwestern part of the United States having student enrollments ranging from 109 to 905 during the 2008-09 academic years. A total of 191 head principals were mailed surveys during the 2009-2010 term. The Thomas Kilmann Instrument was selected given its focus on conflict-management styles. Of the 191 surveys distributed, 91 were returned for a response rate of 48%. Several surveys were eliminated due to incompleteness or errors resulting in a total of 76 valid cases. All 76 principals returning useable

surveys reported being the head principal at their campuses. Of those 76 principals, 47 were male and 29 female. Table 1 contains the age and experience of participants in the study.

Table 1
Participant Descriptive Statistics by Age and Experience (N=76)

Descriptor	Minimum	Maximum	Female Mean	Male Mean	Overall Mean
Age	30	67	45.9	48.4	47.4
Years in Education	6	42	18.8	21.7	20.6
Years in Administration	1	39	6.4	9.7	8.5

Research Instrument

A modified version of the Thomas-Kilmann Instrument (TKI, 2007, 1974) was used in this study. In short, the Thomas-Kilmann (TKI) instrument measures conflict-management behavior (2007; 1974). The original TKI consisted of 30 questions. The instrument employs statements representing five behavioral modes - competition, collaboration, compromise, avoidance, and accommodation. The five behavioral modes are arranged according to two perpendicular continuums. The vertical continuum is assertiveness, while the horizontal continuum is cooperativeness (Thomas, 2002). Competing is the most assertive behavior, and the least cooperative. The object of competing is to win by satisfying selfish concerns at the expense of others. Collaborating is also a highly assertive behavior; however, unlike competing, it is very cooperative. With collaborating, every effort is made to satisfy the concerns of both parties with a win-win solution.

The other three conflict-management behaviors are less assertive, with varying degrees of cooperativeness. Compromising is a somewhat assertive, and a somewhat cooperative approach that seeks an acceptable solution that only partially satisfies each party's concerns. Unlike compromising, avoiding involves being unassertive as well as uncooperative; it often involves side-stepping conflict. Accommodating is also an unassertive approach, but it is cooperative in attempting to satisfy the other party's concerns at personal expense.

The Thomas-Kilmann Instrument contains statements within each of the modes that are posited against one another. The participant is forced to choose one statement over another or rather one mode over another. Participants receive a score for each mode ranging from 0 to 12. A scenario where a participant scores a twelve would indicate a clearly preferred mode; a score of six would show a preference for balancing behaviors. For this study, CPP, Inc. granted permission to add a stem to the TKI because of the study's goal of focusing specifically on the principal-teacher relationship. Whereas the original TKI (2007, 1974) generalizes the relationship between the participant and others the leader encounters in the workplace, only those items capturing information about the preferred behaviors between the participant principal and teachers on their campus were selected.

Demographic questions were added to the last page of the modified TKI to permit exploring the gender and experience effect. Beyond gender and leadership experience, questions

captured relative participant characteristics such as age and whether or not the participant was the lead campus principal.

Validity and Reliability of the Instrument

The Thomas-Kilmann Instrument (2007; 1974) was first normed in 1977 with a group of fewer than 400 participants. In 2007, a new group of 8,000 participants was sampled to assure representative numbers of people by organizational level and race/ethnicity (Schaubhut, 2007). The re-norming resulted in minimal changes to the low, medium, and high ranges in the TKI scoring graph (Thomas & Kilmann, 2007). Kilmann and Thomas (1977), reported a non-significant social desirability differential; a Pearson coefficient of .21.

Overview of Mode of Analysis

Logistic regression analysis was used to explore the influence of gender and experience on a preference for a particular behavior (Agresti, 2007). Binary logistic regression focuses on success and failure; its outcomes are not continuous, and contain two possible categorical responses (Agresti, 2007). A stepwise method (Agresti, 2007; Field, 2005) was administered to analyze the relative impact of the predictors (see Table 2).

Table 2
Structure of the Logistic Regression Analysis

Predictors	Level of Measurement	Outcomes
Gender	Nominal	Less v. More Competitive
		Less v. More Accommodating
Experience in Education	Scale	Less v. More Collaborative
		Less v. More Compromising
Experience in Administration	Scale	Less v. More Avoiding

Categorical Coding

Item outcomes from the Thomas-Kilmann were recoded into binary format to allow for binary logistic regression analysis. Cut-off points were established to indicate less or more of a behavior. To recode, a cut-off point was established for each mode. Each mode score was then converted from the standard zero to twelve score to a participant scoring in one of two categories: less or more of a behavior (e.g., scores falling below cut-off points indicated a lesser tendency to exhibit a behavior while scores above indicated a greater likelihood). While researchers acknowledge the limitation in reassigning scores to categories, steps were taken to

identify places in the distribution that best approximated a dividing midpoint. Table 3 shows how participants were categorized as far as preferring ‘more’ or ‘less’ of a behavior.

Table 3
Categorical Coding for the Logistic regression Analysis (N = 76)

Binary Category by Outcome	Raw Score Split	Category by Score	Number of Raw Scores
0: Less competitive	<5	0-4	51
1: More competitive	>4	5-10	25
0: Less collaborative	<8	3-7	33
1: More collaborative	>7	8-12	43
0: Less compromising	<7	0-6	35
1: More compromising	>6	7-11	41
0: Less avoiding	<7	3-6	42
1: More avoiding	>6	7-12	34
0: Less accommodating	<6	1-5	37
1: More accommodating	>5	6-9	39

Results

Descriptive Findings

Overall, 67% of the participants (N=51) fell into the less competitive category as opposed to the remainder, who reported a preference for a more competitive conflict management approach. On the whole, means across the constructs reveal that a majority of the respondents reported themselves as more collaborating, more compromising, and more accommodating. The descriptive findings also appear to reveal a consensus across the group for rejecting avoiding behaviors, the only indicator of the five possible modes of behavior that might be considered a marginal characteristic (see Table 4). The overall picture of the raw numbers in table 3 is that the small-school principals in this study were not very competitive, nor did they prefer to avoid conflict, but they preferred collaborative, compromising, and accommodating approaches to conflict-management with campus teachers.

To the question of male versus female differences in preferred conflict management behaviors, the study examined the average scores for each behavior (see Table 4). First, the overall average in competing between males and females was exactly the same. The overall average differences within collaborating and avoiding behaviors were also nearly identical between males and females. Females and male averages differed slightly more in the accommodating and compromising behaviors. The male and female averages differed the most in the compromising category – a difference of 9/10 of a point. Comparison of male and female average scores, descriptively, seemed to reveal minimal difference among the five behaviors. Competing, collaborating, and avoiding showed a difference of only one-tenth of a point or less. The average male score for compromising 6.3, as compared to the average female at 7.2, possibly indicating that females preferred more compromising than males, accounting for the largest mean difference. The average male accommodating score was 5.6 to a female score of 5.0.

Table 4
Comparison of Male and Female Behavioral Scores

Behavior	Overall	Male	Female
Competing	3.6	3.6	3.6
Collaborating	7.8	7.9	7.7
Compromising	6.7	6.3	7.2
Avoiding	6.5	6.6	6.5
Accommodating	5.4	5.6	5.0

Overall average scores for each of the five behaviors revealed a possible link between experience and competing (Table 5). The principals who scored highest in the competing category were all older and had more years of experience. Older and more experienced principals also scored lower in compromising, indicating that, as a group, they did not prefer compromise. Older and more experienced principals also appeared to be slightly more accommodating. Collaborating and avoiding averages appeared to show no link to age or experience.

Table 5
Age and Experience Profiles for Principals in the Study

Behavior	Average Age	Average Years in Education	Average Years in Administration
Less Competing	45.9	18.9	7.1
More Competing	50.6	23.9	11.2
Less Collaborating	47.7	20.9	8.5
More Collaborating	47.2	20.3	8.4
Less Compromising	48.5	22.2	10.1
More Compromising	46.6	19.2	7.1
Less Avoiding	47.7	20.9	8.9
More Avoiding	47.1	20.2	7.9
Less Accommodating	48.8	21.4	8.4
More Accommodating	46.2	19.8	8.5

Logistic Regression

The intent of this study was to explore the degree to which gender and experience predicted alternative conflict resolution preferences under competition, collaboration, compromise, avoidance, and accommodation. For each behavior, a backward stepwise (conditional) was performed (see Table 6). “Years of experience in administration” was the only significant variable. It significantly predicted a preference for competition conflict-management behaviors (Wald=6.914, $p<.05$) accounting for 15.6 percent of the variance ($R^2=.156$). and compromising behaviors (Wald=4.585, $p<.05$) accounting for 9.7 percent of the variance ($R^2=.097$). Under collaboration, accommodating, and avoiding, none of the explanatory variables were significant.

In sum, small-school principals in this study showed a preference for competitive conflict-management behaviors as experience in administration increased. The principals also reported a decreased preference for compromising conflict-management behaviors as experience in administration increased.

Table 6
Rank Order of Strongest Predictors

Predictor(IV)	Outcome(DV)	Rank	S.E.	Wald	Sig.a	Exp(B)	RN2
Yrs. Admin. Constant	Competing	1	0.05 0.513	6.914 13.325	0.009 0	1.139 0.154	0.156
Yrs. Admin. Constant	Compromise	2	0.047 0.45	4.585 4.954	0.032 0.026	0.905 2.725	0.097
Yrs. Admin. Constant	Avoiding	3	0.039 0.402	0.681 0.026	0.409 0.873	.968 1.066	0.013
Gender Constant	Accommodating	4	0.476 0.295	1.138 1.035	0.286 0.309	0.602 1.35	0.02
Gender Constant	Collaborating	5	0.476 0.297	0.449 1.702	0.503 0.1921	0.727 .474	0.008

a=p<.05

Discussion, Implications, and Conclusions

Overall, the findings of this sample of small school principals point to leadership experience being a fairly strong predictor of particular conflict-management preferences. All the while, the findings seem to confirm gender as an evolving leadership dimension in the workplace (Berry, 1994; Brahnam, Margavio, Hignite, Barrier, & Chin, 2005; Corral-Carlson, 2008; Dillard, 2005; Schaubhut, 2007; Shockley-Zabalak, 1981). The results of this analysis cast a new light on the traditional presumption that males tend to exhibit preferences toward competitive behaviors while females opt for compromise (Eagly, Karau, & Johnson, 1992; Holt & DeVore, 2005; Ilmer, 1980; Kilmann & Thomas, 1977; Shockley-Zabalak, 1984; Thomas, Thomas, & Schaubhut, 2007). Female leaders were no more likely than male leaders to demonstrate a preference for any of the preferred conflict-management behaviors. This is a finding consistent with prior studies that have examined, for instance, collaborating (Berry, 1994; Chismur & Mills, 1989; Duane, 1989; Schaubhut, 2007; Shockley-Zabalak, 1981; Shockley-Zabalak & Morley, 1984; Sorenson, Hawkins, & Sorenson, 1995; Thomas, Thomas, & Schaubhut, 2007;) and compromising behaviors (Berry, 1994; Brahnam et al., 2005; Duane, 1989; Schaubhut, 2007; Shockley Zabalak, 1981; Thomas, Thomas & Schaubhut, 2007). Findings from this sample of small school principals seem to confirm the ever growing complexity in the gender and leadership link.

As for experience, two findings are noteworthy. First, the principals in this study exhibited a preference for more competing behavior as administrative experience increased. This finding is not consistent with previous research that found no significant differences in groups of male and female principals (Berry, 1994; Indelicato, 2005). However, no other satisfactory research could be found that strictly examined administrative experience and competing behaviors.

Yet, a significant negative relationship was found between administrative experience and compromising behaviors. As administrative experience increased, compromising behaviors decreased. This finding lends support to the first finding – the idea that more administrative experience results in increased assertive behavior. A reduced tendency to compromise could also indicate more assertiveness and less accommodating behaviors.

Implications for Leaders

Practice

Some situations may require leaders to exercise varying forms of conflict resolution. In other words, a particular mode might be more effective in light of special circumstances. As such, a more experienced small-school principal may need to re-examine his or her competitive conflict-management behavioral tendencies and determine if these behaviors are beneficial to the school. Conversely, the inexperienced principal may need to demonstrate competitiveness when appropriate. Thomas (2007) has noted managers who exhibit more compromise may often lose sight of larger issues, which may weaken the organization's core beliefs. Too much compromise may also foster a climate of gamesmanship where bargaining and trade-offs de-emphasize trust and direct attention toward meaningless and/or time-consuming issues. Reluctance on the part of the leader to exert influence or show hesitancy in taking action when needed may also undermine confidence from followers. Leaders who over accommodate the personal interests of employees at the expense of the students' academic interests may also threaten group stability. Followers can become frustrated or resentful when a leader does not lead decisively or in a timely manner (Thomas, 2007).

One obvious advantage eluding inexperienced administrators is experience itself, which offers a measure of insight for what might be an appropriate course of action. However, veteran administrators are prone at times to be inflexible and form habits that impair judgement. As such, too little compromise diminishes the potential influence of a principal. Employees dependent on a single decision-maker may exhibit low morale, tend to underachieve, or be less willing to take initiative to address issues. Under overly competitive leaders, employees may be afraid to express themselves or take risks. Failing to value the contributions and feedback from employees in addressing problems diminishes feelings of unity and shared purpose, which may ultimately impact student success.

The findings of this analysis stress at the very least the need for principals at all levels of experience to be more reflective of their conflict resolution practices. Experienced principals may need to give pause to the advantages compromise brings and explore the approach as a valid technique to managing interpersonal conflict. Conversely, inexperienced principals may need to acknowledge that compromising behaviors may not always be best for all situations. The results of this study point to the need for principals to tap into particular conflict-management behaviors when appropriate, regardless of experience and gender. Some have noted the advantages to the androgynous school administrator as he or she can react to situations free from cultural stereotypes or expectations (Berry, 1994; Erickson, 1984).

Leadership Preparation

CPP Human Global Capital Report (2008) noted conflict-management training is critical for managers but still lacking in most preparation programs worldwide. Many managers who participated in the report indicated no conflict-management training. Ninety-five percent of those who did receive training reported that it helped them navigate the workplace. An increased focus on managing conflict may be needed in order to teach potential principals about situational leadership. Inexperienced principals are perhaps more influenced by the more recent college preparatory experience that encourages compromise and collaboration, whereas the principal with increasing experience may not have the benefit of continuing training and may have a lesser view of the importance of collaborative approaches and compromise in interpersonal relationships.

Preparatory programs need to move to discussions stressing conflict-management as context-based and adaptive. The five conflict resolution behaviors are complimentary approaches that carry advantages and disadvantages and each can be overused or underused.

Without question, increased attention is needed in training programs to enable leaders to better adapt and respond to changing social conditions (Lang, 2009). As forms of diversity increase (Gebert et al., 2014; Lipsky et al., 2016; Prause & Mujtaba, 2015) so do the obligations of the leader in responding to a multiplicity of needs. To address these conditions, school leadership programs must focus more intently on developing skills that more effectively manage differences in attitudes and values across birth cohort generations (Hillman, 2014; Messarra et al, 2016), encourage more sensitivity to the role of emotions in workplace conflicts (Hopkins & Yonker, 2015; Oore et al., 2015), and promote a more thoughtful reflection of workplace interactions and what it means for perspectives of fairness across different groups (Erdogan & Bauer 2010; Scandura, 1999;). Further, an increased focus on the complicated interpersonal conflicts that are characteristic in small environments could be an important skill set for small-school principals. Cook and Johnston (2008) have recently emphasized the need for school superintendents with the skills to manage conflicts. Since the 1980s, the educational system in the United States has been under attack by many different parties. Cook and Johnston (2008) refer to previous research that brings to light the many types of conflicts superintendents face due in large part to society's growing criticism of the public school system. The research suggests that conflict-management skills are a necessity for school leaders. With regard to the political environment of small campuses, flexibility in the sense that the five behaviors are to be viewed as a means to an end may need to be emphasized. For example, administrators should continue to be trained that they are to be leaders of the larger group and decisions should be made for the benefit of all on the campus.

Policy

CPP's Global Human Capital Report notes the costs of ineffective conflict-management in the workplace worldwide as indicated by lost production, personal attacks, sickness, excessive absences, and project failures. Legislation that addresses the problem of conflict in the workplace could focus on this need to use human resources more efficiently by encouraging preventative measures in the workplace (CPP, 2008).

Lawmakers may need to consider the implications of any possible legislation because of the effects that it can have on the behaviors of those at the campus level. For example, it has

been argued that No Child Left Behind (2001) created pressures and unintended outcomes that took the form of academic dishonesty (Bruhn, Zajac, Al-Kazemi, & Prescott, 2002; Cummings Maddu, Harlow, & Dyas, 2002; Evetts, 2006; Kidd, 2010; Storm & Storm, 2007). Direct approaches by school leaders are fostered when school districts are held to specific goals such as increased test scores with the impending threat of sanctions. NCLB, to some degree, could explain the more competitive and less compromising experienced administrator in this study.

Research

While scholarship in the area of conflict-management has advanced greatly since the early part of the 20th century, more work is needed in exploring leadership behavior as a tactical exercise that relies on the integration of varying skills and personal dispositions to improve the school. Research surrounding the effects of experience on conflict modes is sparse. More studies are needed that explore the nuances of experience in situations where it is leveraged for maximizing students' best interests and when it does nothing more than perpetuate the status quo. Administrators generally learn in training programs that collaborative methods are preferred in most circumstances; however, an increased emphasis on the effects of alternative modes of conflict management could serve to benefit researchers and practitioners alike. Research on small schools and conflict-management is sparse. This study focused solely on the small-school atmosphere and stopped short of making comparisons to larger campuses. Perhaps important insight could be gained through researching the differences between school settings of various sizes and geographical settings. Research on the topic of interpersonal conflict-management from a principal's perspective could be enriched through qualitative studies. Interpersonal relationships are hallmarks in schools, and effective leaders know how to cultivate them and how to interact with teachers and students in ways that further the goals of the school while preserving the dignity of individuals. This line of inquiry would surely be enhanced by a more qualitative turn in exploring how, why, and in what conditions/contexts certain behavioral modes manifest.

Conclusion

The study of interpersonal conflict-management behavior is complex when considering that the campus leader must often assume the shifting role of boss, friend, advisor, and confidant, while also addressing the pressing needs of the school. Leadership calls for judgment and discretion. Overt conflict between principal and teacher is rare and often can be readily resolved. Yet, the subtle interpersonal conflicts can be the more difficult tests for school leaders. Although no gender link was found, it has proven to be a valuable lens to enriching the discussion of preferred conflict-management techniques. It should continue to evolve in the larger discussion of effective campus leader behaviors. The findings of this study do, however, point to experience as impacting conflict-management behaviors, particularly compromise. Campus principals should be more aware of their views and behaviors and how these may adapt over time and across contexts. Encouraging self-awareness can also promote more effective management. Understanding tendencies of self, or at least acknowledging their existence, may go a long way to forming more positive perspectives. Principals should recognize that personal feelings can often cloud decisions.

From this study, campus principals, policy-makers, and researchers should take note the need for enhanced managerial knowledge and practice in the leadership domain of conflict-management. School principals are closest to the interpersonal happenings on school campuses and they are also responsible for seeing the big picture. Principals must remain focused on system goals all the while accepting interpersonal conflict as a reality in schools. Policy-makers should also realize the effects that conflicts can have on the workplace and policies should reflect that fact. Researchers must continue to address the void in the knowledge-base in the broader quest to better prepare leaders for the highly uncertain aspects surrounding conflict-management in schools. Amid these efforts to enhance organizational performance, the primary focus of this work should always be directed toward students' best interests.

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Principal Evaluation in Indiana: Practitioners' Perceptions of a New Statewide Model

This manuscript has been peer-reviewed, accepted, and endorsed by the National Council of Professors of Educational Administration as a significant contribution to the scholarship and practice of school administration and K-12 education.



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This study examines administrators' perspectives of a state-developed principal evaluation model adopted by a majority of Indiana school districts after legislation mandated policy reform in educator evaluation. Feedback was gathered from public school superintendents (the evaluators) and principals (those being evaluated), with 364 participants. Mixed-methods analyses revealed areas of model utility, implementation challenges, and statistically significant differences between principals' and superintendents' perceptions of model efficacy. Both superintendents and principals agreed the new model was an improvement over traditional, locally developed models; however, superintendents rated the model higher in efficacy and implementation fidelity. Principal participants did not perceive the new model to be effective for principal evaluation and would not recommend the model to colleagues. Implications for future policy development in educator evaluation include the integration of findings from essential evaluative research. Recommendations for practice include suggestions for facilitating field-based support when developing and implementing evaluative models.

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The principal's role is complex and multi-faceted. Research and federal mandates for accountability have attempted to define, categorize, and connect human behavior to the job in order to determine the most effective practices that promote student achievement (Marzano, Waters, & McNulty, 2005; Stronge, 2013). However, the link between principal evaluation and effective leadership for evaluative purposes continues to elude the education field (Fuller & Hollingsworth, 2013). The need for deeper understanding is underscored by the lack of empirical evidence to connect evaluation to effective leadership while researchers continue to search for scientifically proven practices (Shelton, 2013).

History is replete with educational change efforts and the American educational system has experienced many reforms. Recent reforms have resulted in an increased emphasis on the evaluation of educators due to the ideology that schools, as places for reshaping individuals and reforming society, must improve and educators are significant in this process (Tyack & Cuban, 1995). Early in the twenty-first century, the No Child Left Behind Act required states to dramatically increase educator evaluative and qualification standards, introducing "highly qualified" accountability (2001). In 2009, the Race to the Top program required additional evaluative accountability in order for school districts to be eligible for substantial federal grants (Manna & Ryan, 2011). These educational reform efforts had noteworthy influences on the direction of educational policy regarding the evaluation of educators (Hazi & Rucinski, 2009).

Traditional principal evaluation models have been called into question in terms of fidelity of implementation and actual impacts on principal effectiveness (Davis & Hensley, 1999; New Leaders for New Schools, 2010; Reeves, 2006). These models were typically summative in nature and characterized by one or two (or sometimes zero) school observations conducted by the principal's supervisor (usually the superintendent or the superintendent's designee), followed by a written year-end evaluation (Portin, Feldman, & Knapp, 2006).

In 2006, Reeves found that traditional principal evaluations were often based on brief annual observations, and grounded in little or no context, hearsay, and exaggerated one-time situations. In Reeve's study, 60% of principals felt their evaluations had no impact on their job performance. In 2000, Thomas, Holdaway, and Ward reported that supervisors responsible for evaluating principals inconsistently conducted such evaluations, concluding that principal performance was inconsistently measured. Thomas et al. also suggested that there were differences between how principals and superintendents viewed principal evaluation in terms of importance and usefulness (2000).

Davis and Hensley (1999) found that principals regarded their evaluations as something that happened to them, not something that was useful for improving job performance. In addition, Davis and Hensley noted that principals' felt their evaluations were influenced by external political factors, such as parents and board members, rather than daily practice. Other reports have suggested that traditional evaluations served more to maintain the status quo than to promote educator effectiveness (New Leaders for New Schools, 2010).

Meanwhile, a body of research developed showing that the effectiveness of the principal made a significant difference for student academic achievement and overall school success (Branch, Hanushek, & Rivkin, 2013; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Marzano et al., 2005; King-Rice, 2010). In a landmark report from The Wallace Foundation, principals were found to be second, only behind classroom teachers, in terms of school-related factors influencing student learning (Leithwood et al., 2004). Leithwood et al. provided three sets of practices that were basic to successful leadership: Setting direction, developing people, and redesigning the organization. The practice of setting directions implies that the leader

develops shared meaning in the school, which will lead to a strong purpose or vision with challenging, but achievable goals. The second set of practices centers on developing people. In order to build the capacity of the people within the organization, effective leaders stimulate thinking, support individual needs, and model best practices and values. When redesigning an organization, leaders strengthen the culture, build collaboration, and modify the structures of the organization so that the organization adapts with the changes in the school improvement process. Leithwood et al. (2004) also reported that the impact of leadership was most significant in the neediest of schools, emphasizing the importance of highly-effective leadership in schools considered “failing.”

In 2005, Marzano et al. conducted a meta-analysis of 69 studies, resulting in a list of 21 responsibilities of effective school leaders. This study was considered a milestone in the attempt to identify leadership behaviors that lead to improved student achievement. These 21 responsibilities included important practices and attributes demonstrating principals’ leadership effectiveness in areas such as communication, knowledge of curriculum, instruction, and assessment, and the ability to be a change agent.

In 2011, the National Association of Elementary School Principals (NAESP) and the National Association of Secondary School Principals (NASSP) joined forces to form a principal evaluation committee with the objective of creating a research-based framework for evaluation designed to build principals’ leadership capacities. Through the committee’s work, the following seven essential features of quality evaluation were identified: Systemic support, utility, flexibility, accuracy (validity and reliability), relevance, fairness, and creation by and for principals (Clifford & Ross, 2011). Then, in 2013, Stronge, Xu, Leeper, and Tonneson outlined a summary of findings on qualities of effective principals based on notable research in the field. These reports, as well as others, made strong contributions towards reform efforts in principal evaluation practices.

Due to increased attention on the significance of effective school leadership, in concert with heightened accountability, policy makers began to view the principal as a key educational variable (Hallinger & Heck, 1996). In recent years, there has been considerable state-level momentum towards the development of new principal evaluation models that not only measure performance for accountability purposes, but also promote improvement efforts, requiring both formative and summative evaluations (Jacques, Clifford, & Hornung, 2012; Samuels, 2011). Since 2005, thirty-four states have passed legislation requiring district adoption of new principal evaluation systems (Jacques et al., 2012). A number of states now require value-added models (VAMs) that use student academic assessment data as one factor in measurement of principals’ effectiveness ratings (American Educational Research Association [AERA], 2015; American Statistical Association [ASA], 2014; Samuels, 2011).

However, even as new evaluative models are designed and introduced, school leadership paradigms are shifting and expectations for principals growing. American society is becoming increasingly complex, diverse, globally networked, and technologically driven. School leaders must understand and address much more than student achievement, but must also address important concerns impacting school-community culture, such as safety, equity, diversity, and social justice (Kemp-Graham, 2015; Miller & Martin, 2015). The challenges of school leadership in an increasingly complex and diverse society, combined with growing demands for accountability and political scrutiny to increase student achievement, validates the need to understand the models and practices that are being utilized to evaluate school leaders.

Indiana Context

Historically, Indiana has allowed its 290 public school districts a great deal of local autonomy in the development and implementation of evaluation policies for educators. However, Indiana's Public Law 90 (PL 90) passed in 2011, mandated substantial change, calling for reform in educator evaluation. This law required that every Indiana school district develop and implement a state-approved evaluation model for teachers and administrators. Although districts were still allowed to develop their own models, the implementation timeline was tight and all components outlined in the legislation were compulsory. Requirements included annual performance evaluations for all educators using effectiveness ratings of one (ineffective) to four (highly effective). The mandated effectiveness ratings were to be based, in part, on student achievement indicators (test scores) and ratings in six identified "competencies" of effectiveness. These competencies were aligned with the Indiana Content Standards for Building-Level Leaders and included: Instructional Leadership, Building Relationships, Student Learning, Human Capital Management, Culture of Achievement, and Personal Behavior (Indiana Department of Education [IDOE], 2010). Significant consequences were outlined for educators who scored in the two lowest evaluation categories (ineffective or improvement needed), including being blocked from receiving raises and being dismissed (IDOE, 2012a).

In 2011, the IDOE developed a proposed model for teacher evaluation, which included a comprehensive evaluation rubric. Shortly after, in 2012, the IDOE put forth the model and rubric for principal evaluation. The teacher and principal evaluation models were termed "RISE" (the RISE Evaluation and Development Systems). In developing the RISE Principal Evaluation and Development System, a team reviewed many nationally recognized publications in the area of principal leadership, including work by Doug Reeves, Todd Whittaker, VAL-ED, the National Board's *Accomplished Principal Standards*, and several other models of effective evaluation. However, it is unclear from the documentation provided by the Indiana Department of Education how well the RISE model and rubric align with other research cited in this article or the research (Young & Mawhinney, 2012) supporting the ELCC standards.

The RISE principal evaluation model requires annual protocol (multiple observations and conferences), and the IDOE provided training opportunities for evaluators throughout the state. Two major components, professional practice and student learning, provide the data sources to rate a principal's performance. Professional practice is measured by using the Indiana Principal Effectiveness Rubric. Two domains comprise the principal evaluation rubric: teacher effectiveness and leadership actions. To promote teacher effectiveness, principals must demonstrate competencies in human capital management, instructional leadership, and the ability to identify indicators of student learning in the school. Some of the more discrete 23 sub-competencies aligned with teacher effectiveness include areas such as hiring and retention, evaluation of teachers, professional development, and addressing teachers who are in need of improvement or ineffective.

The Leadership Actions domain on the RISE principal evaluation rubric incorporates the three areas of 1) personal behavior (such as professionalism and using feedback effectively), 2) building relationships (such as forging consensus for change and communication), and 3) creating a culture of achievement. To create a culture of achievement, the rubric assesses sub-competencies like high expectations, academic rigor, and data usage in teams.

In addition to the principal evaluation rubric, the second major component used to assess Indiana principals involves measurements of student learning. The state includes several

measures of student learning. Indiana annually rates schools with an A-F grade based on the student achievement results. That rating is added as a percentage into the overall evaluation of the principal. Furthermore, the principal sets two administrative student learning objectives, which are weighed equally and again added as a percentage into the final evaluation for the principal. These learning objectives can focus on growth or achievement goals. Finally, the summative score given to the principal is based on these metrics: Principal evaluation rubric at 50%, the school's A-F grade at 30%, and administrative student learning objectives at 20%.

Several of the evaluative practices included in RISE and described above are considered “emergent,” such as the Administrative Student Learning Objectives (school-wide academic goals), rubric-based assessment, and VAMs that have been integrated into Indiana's model for principal evaluation. Emergent practices are newer evaluative strategies; in some cases, considered best practice, such as rubric-based assessment (Danielson, 2011). However, some emergent practices, such as VAMs, are not yet fully vetted and considered problematic (AERA, 2015; ASA, 2014; Darling-Hammond et al., 2012; Newton et al., 2010).

The RISE model for teachers, including the evaluation rubric, was piloted in three Indiana school districts during the 2011-2012 school year. After the pilot year, the teacher evaluation model was revised slightly based on recommendations from the pilot participants. At that time, almost 80% of Indiana districts reported intent to implement the RISE models (IDOE, 2012b). However, no pilot for the RISE principal evaluation model ever took place. Indiana school districts needed to move quickly in order to be compliant with the new law and many districts adopted the RISE models as written by the IDOE in 2012. Other school districts adopted RISE, but made “allowable modifications” to the model. Since the development and implementation of the RISE principal evaluation model in 2012, no statewide studies had been conducted to examine practitioners' perceptions of the model, prompting the need for this study.

Purpose

“While principal evaluation holds great potential, a relatively small number of studies on principal evaluation practices are available, and those suggest that improvements are long overdue. The studies raise questions about the consistency, fairness, effectiveness, accountability, and value of current principal evaluation practice” (Clifford & Ross, 2011, p. 2). School districts are moving away from traditional practices for the evaluation of public school educators, and there is momentum towards state-level reform, including the use of emergent evaluative practices (Gullickson, 2009; Jacques et al., 2012; New Leaders for New Schools, 2010). This may be because traditional principal evaluation has not been routine and systematic, and evaluations have not been comprehensive, informed by valid measures, or aligned with contemporary professional standards (Clifford & Ross, 2011; Davis, Kearney, & Sanders, 2011). In addition, principals have not viewed evaluation systems as providing valuable feedback to improve their practice (Reeves, 2006; Davis & Hensley, 1999).

However, the landscape is changing. Indiana has aggressively moved forward with an innovative principal evaluation model with emergent practices such as rubric-based assessment, VAMs, required evaluator training, regular observations, and principal/evaluator conferences meant to encourage principals' professional growth. The RISE principal evaluation model recommends five direct observations per year and three conferences. In contrast, PL 90 does not specify the number of observations, but requires a rigorous annual evaluation with objective measures used to inform the evaluation. The rigorous methods of the RISE program of

evaluation include student achievement results and other performance indicators, but observation requirements are not designated. In sum, the law is vague about observation specifics, but the RISE model is clear in recommending multiple observations with prompt feedback. One of the intentions of the RISE model is to facilitate feedback to increase principal effectiveness. The purpose of this study was to gather and examine practitioners' opinions as to whether the new model is meeting intended purposes. Seven research questions guided this study:

1. To what extent do Indiana superintendents and principals perceive that the RISE principal evaluation model supports improvement of principal leadership?
2. What competencies do Indiana's superintendents and principals identify as most important for principals? Do participants' rankings align with IDOE priorities for principal effectiveness?
3. For districts implementing allowable modifications to RISE, what modifications are being made?
4. What are Indiana's superintendents' and principals' perceptions regarding the levels of fidelity of implementation of the RISE model?
5. What are Indiana's superintendents' and principals' ratings of effectiveness of the RISE rubric as a tool for evaluating principals?
6. Would superintendents and principals recommend the RISE model to a colleague not currently using the model?
7. What do participants perceive are the strengths and challenges of the RISE model?

Methodology

Our goal was to obtain information directly from Indiana principals and superintendents regarding their perceptions of the RISE model for principal evaluation. We also wanted to compare the responses of principals with those of superintendents in order to determine any differences in perceptions between those being evaluated and the evaluators. In Indiana, superintendents or their designees (e.g. assistant superintendents) are responsible for principal evaluation, and this duty is typically assigned to one person per school district.

Based on our goals, an anonymous online survey approach was deemed most appropriate. Superintendents' and principals' whose school districts used the RISE principal evaluation model or a modified version were asked to participate. The survey first gathered participants' basic demographic information, including age, gender, degrees earned, and years of experience. General information about the school district was also obtained, including student enrollment, percent of students on free/reduced meals, and school community type (rural, suburban, or urban). The rationale for collecting this demographic information was to provide a context of those who participated in the study and determine if this sample was representative of the state.

Next, using a Likert-type scale, the survey asked eleven "perception" questions designed to gather participants' views on the RISE model. Several open-ended survey items were also included to allow respondents the opportunity to provide narrative regarding perceived strengths or challenges of the model. All survey items were directly related to the study's research questions and grounded in the literature review. Before implementation, a panel experienced in survey development reviewed the entire survey and submitted feedback regarding face and content validity. This seven-member panel consisted of university faculty members and several recently retired Indiana principals and superintendents. Based on the panel's feedback, several edits and wording revisions were made to improve survey clarity and flow. The survey was then pilot tested with a similar panel with favorable results.

Data Sources

After pilot testing, the survey link was made available through the Indiana statewide associations for principals and superintendents (the Indiana Association of School Principals [IASP] and the Indiana Association of Public School Superintendents [IAPSS]). Thus, this study was an open call to any public school principal or superintendent through their membership associations. The survey was launched in early February 2015, with 364 respondents by the beginning of March 2015, when the survey was officially closed. Based on the IASP and IAPSS membership numbers, we determined a response rate of approximately 22%. For the perception questions using a standardized Likert-type scale, the Cronbach alpha coefficient for internal consistency reliability was .924, establishing high reliability (Gay & Airasian, 2000).

After compiling results, descriptive statistics were utilized to provide an overview of participants' responses. Then, inferential analyses were conducted to compare principals' and superintendents' mean responses on the Likert-type scale questions. Finally, the narrative responses from the open-ended questions were coded and categorized into emerging themes (Saldana, 2009; Strauss & Corbin, 1990).

Results

Principals' and superintendents' mean responses for Likert-type scale items were analyzed, broken down by two subgroups, superintendents and principals, compared and examined quantitatively. Then, qualitative techniques were employed to scrutinize the narrative responses. In the following paragraphs, demographic responses will be summarized first, followed by an analysis of results in alignment with each research question.

Demographics

Demographic data collected on 364 respondents revealed that 68% ($n = 231$) were principals and 32% ($n = 108$) superintendents. Of the principals, 58% ($n = 135$) indicated male and 42% ($n = 96$) female. Of superintendents, 78% ($n = 85$) were male and 21% ($n = 23$) female. Overall, the participants described as 65% ($n = 220$) male and 35% ($n = 119$) female.

The typical principal was in the age range of 41-50 years (36%, $n = 83$), while 37% ($n = 40$) of superintendents were in the age range of 51-60. The majority of principals, 41% ($n = 113$) and superintendents, 41% ($n = 38$) reported having between four to ten years total experience in their positions. Most principals, 78% ($n = 181$) had earned a Master's degree, while 45% ($n = 48$) of superintendents had earned an Education Specialist's degree, and another 47% ($n = 50$) of superintendents had earned a Doctorate degree.

A total of 40% ($n = 134$) of respondents, 58% ($n = 89$) principals, and 42% ($n = 45$) superintendents, served student populations with 41-60% qualifying for free or reduced meals. An additional 20% ($n = 67$) of principals and superintendents reported serving student populations with greater than 61% qualifying for free or reduced meals. Only 13% ($n = 13$) reported student enrollments of 20% or less qualifying for free or reduced meals.

School community was defined as rural by 58% of participants, with suburban next at 25%, and urban at 17%. Overall, it was observed that the school communities of the participants presented an accurate representation of Indiana (U.S. Census Bureau, 2010). Indiana is primarily

a rural state, with only 16 areas considered “large urban” (Indiana State Government, 2009). There are a total of 1,933 public schools in the state serving 1,040,765 students (IDOE, 2015).

Research Question One

1. To what extent do Indiana superintendents and principals perceive that the RISE principal evaluation model supports improvement of principal leadership?

Respondents were asked to rate the RISE model in terms of how well it supported improvement in principals’ overall leadership effectiveness using a Likert-type scale (1 = Strongly Agree to 4 = Strongly Disagree). When principals and superintendents were combined ($n = 318$), responses indicated agreement that the RISE model supported principals’ leadership effectiveness ($M = 2.17, SD = .571$). When the two groups were separated, superintendents ($n = 103$) reported higher agreement ($M = 2.01, SD = .495$), and principals ($n = 215$) indicated a slightly lower level of agreement with a mean of 2.25 ($SD = .590$), and a statistically significant difference was revealed, $t(316) = 3.592, p = .000$.

Research Question Two

2. What competencies do participants identify as most important for principals? Do participants’ rankings align with IDOE standards-based priorities for principal effectiveness?

The survey asked respondents to rank the six competencies in the RISE principal evaluation model in the order of importance with 1 = Most Important and 6 = Least Important. Not all participants selected a ranking for each competency and a few ranked more than one competency the same. Combining participants’ selections of 1, 2, or 3 assisted in determining the competencies deemed most important. It was clear from these combined rankings that Student Learning was viewed as the most important competency, 75% ($n = 230$). The second most important competency was Instructional Leadership, 67% ($n = 207$), followed by Building Relationships, 54% ($n = 165$) and Culture of Achievement, 50% ($n = 155$). Human Capital Management, 27% ($n = 85$) and Personal Behavior, 26% ($n = 80$) were noted as the least important competencies for principals. Table 1 summarizes responses.

Table 1

Rank of Competencies in Order of Importance as Reported by Superintendents and Principals

Rank	Competency	<i>n</i>	%	<i>M</i>	<i>SD</i>
1.	Student Learning	230	75	2.59	1.52
2.	Instructional Leadership	207	67	2.84	1.64
3.	Building Relationships	165	54	3.30	1.46
4.	Culture of Achievement	155	50	3.54	1.55
5.	Human Capital Management	85	27	4.36	1.55
6.	Personal Behavior	80	26	4.35	1.69

Note. Selection of a 1, 2, or 3 is combined to indicate that Principals and Superintendents rate the competency as Most Important

Next, the participants’ ranking of the competencies were compared to the rank or “weight” assigned to the competencies by the IDOE on the Principal Licensure Assessment (IDOE, 2012c) and outlined in the Indiana Content Standards for Building-Level Leaders (IDOE 2010). By examining the assessment blueprint (IDOE, 2012c) and analyzing the weights given to each area, we determined that Human Capital Management was weighted as the most

important competency (25% weight). Next in weight were: Instructional Leadership, Student Learning and Culture of Achievement, Personal Behavior, Building Relationships, and Organizational (Operational and Resource) Management, with the last three standards receiving equal weight per the IDOE (2012c). In sum, there was a discrepancy between the state’s priority competency and the competency our participants perceived to be most important for principals.

Research Question Three

3. For districts implementing modifications to RISE, what modifications were being made?

The RISE principal evaluation model is a statewide model introduced for use in school districts, but there were “allowable modifications” per the IDOE. Our survey was designed to discriminate if districts were using the model as it was originally developed or a modified version. If participants’ indicated their district had modified the model they were asked to describe the modifications that had been implemented. These open-ended responses were coded and then refined through a categorization process to identify themes (Saldana, 2009).

Of the 305 respondents answering this question, 60% ($n = 182$) indicated their district used the RISE model as originally developed and 40% ($n = 123$) had made modifications. The 123 participants who indicated a modified model were asked to describe the modifications made, and there were 78 useable responses. Of these, the most common modification described changing the language or wording of the rubric. For example, a participant stated, “The original wording is negative, our school district rewrote the rubric to demonstrate the behaviors and outcomes we want to observe. We combined some areas as it seemed redundant.” Another wrote, “The RISE system has been modified to lessen the harshness of the language of several of the indicators.”

The second most common modification was changing the rubric metrics. An example comments was, “We don’t use all of the criteria; we have selected those that are the most important to us.” The next most common modification was changing the number of observations, followed by changing everything possible, and using only the rubric. As one respondent noted, “We have modified all of the RISE system as RISE was way over the top!” Multiple participants indicated that their districts had created different schedules, rubrics, timelines, and suggested protocols. In addition, several participants noted that the criteria for evaluations were not being followed in their districts. Table 2 summarizes the modification categories reported.

Table 2
Types of Modifications to the RISE Model as Reported by Participants

Modifications	<i>n</i>	%
Changed rubric	27	35
Changed metrics	17	22
Changed number observations	13	17
Changed everything possible	11	14
Criteria not being followed	5	6
Use rubric only	2	3
Other	3	4
Total	78	100

Research Question Four

4. What are Indiana's superintendents' and principals' perceptions regarding the levels of fidelity of implementation of the RISE principal evaluation model?

The next section of the survey collected responses on a Likert-type scale asking respondents to rate the RISE model as to fidelity of implementation according to the requirements. Combining principals' and superintendents' responses ($n = 300$), the mean suggested agreement that the RISE model was being implemented with fidelity ($M = 2.23$, $SD = .783$). However, when separating the two groups, superintendents ($n = 99$) reported higher agreement ($M = 2.06$, $SD = .793$), and principals ($n = 201$) indicated a lower level of agreement with a mean of 2.31 ($SD = .766$). A statistically significant difference was found between the superintendents' and principal's mean responses ($t(298) = 2.658$, $p = .008$) for fidelity of implementation.

Research Question Five

5. What are Indiana's superintendents' and principals' ratings of effectiveness of the RISE principal evaluation model as a tool for evaluating principals?

Respondents were asked to rate the RISE model as to whether they perceived it to be an effective tool for evaluating principals. Together, principals' and superintendents' ($n = 303$) responses indicated agreement, suggesting the model was viewed as an effective tool for evaluating principals ($M = 2.40$, $SD = .668$). However, upon separating the groups, superintendents' ($n = 98$) reported agreement ($M = 2.17$, $SD = .658$), while the principals' mean indicated disagreement ($n = 205$, $M = 2.51$, $SD = .646$), with a statistically significant difference found ($t(301) = 4.242$, $p = .000$).

Research Question Six

6. Would participants recommend the RISE model to a colleague not currently using the model?

This question asked respondents if they would recommend the RISE model to their colleagues. Principals' and superintendents' combined mean response indicated they would not recommend the model to colleagues ($M = 2.52$, $SD = .713$). When separated, superintendents ($n = 99$) reported agreement ($M = 2.34$, $SD = .717$). However, principals ($n = 204$) reported disagreement with a mean of 2.61 ($SD = .697$), indicating they would not recommend the model. Once again, inferential analyses revealed a statistically significant difference between the superintendents' and principals' mean responses, $t(301) = 3.069$, $p = .002$.

Research Question Seven

7. What do participants perceive are strengths and challenges of the RISE model?

At the end of the survey, open-ended items allowed participants to provide written commentary about perceived strengths and challenges of the model. These items were: "Compared to the evaluation system my district previously used, describe the strengths of the RISE Principal Evaluation and Development System," and "Compared to the evaluation system my district previously used, describe challenges of the RISE Principal Evaluation and Development System."

For the question asking about the strengths of the model, 189 participants provided a total of 195 responses, which were hand-coded. The theme of “clear expectations,” was most prominent, with participants noting that the RISE model had a clearer definition of principal expectations than previous evaluation tools or models. For example, one principal stated, “It is crystal clear on what needs to happen at each area for effective and highly effective performance.”

In addition, the evaluation rubric was seen as a strength of the model, with comments like, “The RISE rubric hits the areas that are important in improving student achievement.” Participants also described increased communication between principals and supervisors as a strength, with one superintendent noting, “... it can be used as a collaborative tool on an on-going basis.” Other strengths mentioned by participants included a heightened focus on using data and the model prompting principals to spend more time with teachers.

Although this question asked about strengths, multiple participants commented that they could find no strengths with the RISE model. One principal noted, “It doesn’t correlate to what is actually done in a building on a daily basis.” Another principal noted, “It could be beneficial if it was utilized effectively,” indicating a lack of fidelity in implementation. One superintendent commented, “RISE does not provide any benefit compared to our old system,” and another stated, “... it is somewhat better, but I do not believe it is a good evaluation tool.” Table 3 summarizes the themes derived from comments regarding perceived strengths of the model.

Table 3
Descriptors of the Strengths of the RISE Principal Evaluation Model

Strengths of RISE	Principals		Superintendents		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Clear expectations	37	30	25	35	62	32
There are no strengths	28	23	11	15	39	20
More focused on data	19	15	12	17	31	16
Rubric is a strength	14	11	10	14	24	12
Comments not useable	14	11	4	6	18	9
More communication	8	6	4	6	12	6
More time with teachers	4	3	5	7	9	5
Total	124	100	71	100	195	100

The next open-ended survey item asked about perceived challenges of the RISE model. There were 189 participants who responded, providing 227 comments. After these were coded and categorized, the model being “too time consuming,” was the challenge most commonly expressed by both superintendents and principals. When the two groups were separated, more superintendents than principals noted concerns about the time commitments required to conduct evaluations. Many superintendent comments had a negative tone such as, “Time and the observation of the principal on location seem, in many cases, rather contrived and less than productive.” Another said, “Time is always the biggest challenge as it has been difficult for me to arrange observations of principals.” A principal observed, “It is very time consuming. Superintendents do not have time to see us work in each of the evaluated areas.”

Another perceived challenge was lack of fidelity in implementation. There were recurring comments from participants, especially principals, discussing how the model had not

been implemented in the manner in which it was intended. One principal noted, “Evaluation is based on perception rather than observation,” while another commented, “A principal’s job is not easily defined in just a couple short observations (and I would venture to say many districts are not even completing those).” There were also comments from principals that were interpreted as concerns about lack of inter-rater reliability, such as, “It depends on the evaluator,” and “... the challenge lies in developing a common understanding of the competencies being measured.”

Participants also indicated that the RISE model did not adequately represent the responsibilities of a principal, including comments implying skepticism in the required value-added measures. For example, “It is hard to statistically evaluate all facets of the principal’s job.” “The RISE System does not support the management job principals have.” And, “The RISE model does little to offer opportunity to react to the daily demands and tasks principals must perform that impact the climate and general management of the school.”

Other themes suggested perceptions that the RISE model was impersonal, too broad in scope, and created an unhealthy climate. One superintendent remarked that, “It is not rich in the dialogue that is essential for trust and professional growth for principals who are eager to learn and improve the culture for learning in their schools.” Another superintendent noted, “It is very structured and not relationship-based when implemented as written.” A principal commented, “One big challenge from our previous model is the competition it has created between those ranked highly effective to those who are ranked effective.” Another principal noted, “One size fits all systems may improve efficiency of procedures and human capital decisions, but very seldom have long-term effects with positive culture needed to improve performance.” Table 4 summarizes the themes coded from participants’ comments for challenges of the RISE model.

Table 4
Descriptors of Challenges of the RISE Principal Evaluation Model

Challenges of RISE	Principals		Superintendents		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Too time consuming	33	23	37	43	70	31
Not representative of the job	24	17	14	16	38	17
Lack of implementation fidelity	22	16	12	14	34	15
Too broad and impersonal	23	16	11	13	34	15
Creates unhealthy climate	11	8	5	6	16	7
Comments not used	10	7	2	2	12	5
Did not use other model/no comparison	11	8	1	1	12	5
No challenges	7	5	4	5	11	5
Total	141	100	86	100	227	100

Summary of Results

This research investigated perceptions of principals and superintendents regarding a new principal evaluation model in Indiana. Our purpose was to gain a sense of practitioners’ perceptions of model effectiveness, utility, and implementation fidelity, and then compare superintendents’ views (the evaluators) with those of principals’ (those evaluated).

Analyses of responses revealed several perceived areas of model strength such as clear expectations, a useful rubric, a focus on data, and increased communication between principals and supervisors. However, challenges were revealed including time-based implementation issues, doubts about job representativeness, concerns about implementation fidelity, and perceptions that the model did not facilitate overall leadership effectiveness.

Many participants indicated that their districts had made modifications to the state-developed RISE model, including changing the rubric, the metrics, and the recommended protocols. Participants' rankings of the standards-based competencies were not found to be in direct alignment with IDOE priorities (the IDOE prioritizes Human Capital Management on the principal licensure assessment, but our participants ranked Student Learning as the most important principal competency). Several statistically significant differences were found between principals' and superintendents' perceptions of the RISE model in terms of how effectively it supported principal evaluative processes, how well it supported improvement in principals' overall leadership effectiveness, and levels of implementation fidelity. Many principals in our study did not perceive the RISE model to be an effective tool for evaluating principals and would not recommend the model to their colleagues. In general, superintendents viewed the model more favorably than did principals.

Discussion

In recent years, there has been impetus towards state-level reform efforts that include the use of new educator evaluative processes (Gullickson, 2009; Jacques et al., 2012; New Leaders for New Schools, 2010). In 2012, the State of Indiana moved forward with an innovative principal evaluation model incorporating several emergent practices. This study gathered and compared superintendents' and principals' perceptions regarding principal evaluation utilizing this new model. We found that overall, principals and superintendents agreed that the RISE model supported the improvement of principal leadership. However, comparing the two groups' mean responses revealed significantly higher levels of agreement from superintendents. These results substantiated Thomas et al. (2000) findings that there were differences between how principals and superintendents viewed principal evaluation in terms of importance and usefulness.

According to Derrington and Sharratt (2008), the foundation of an effective evaluation is determining the competencies or criteria for assessing performance. Stronge et al. (2013) noted that there are a host of variables that affect the principal's position on a daily basis and it has been difficult to determine which parts of the position are most important. To address this issue, we asked participants to rank the six RISE competencies in terms of importance, and then we compared their rankings with state-level priorities for principals per the state's building-level licensure assessment.

Principals and superintendents ranked Student Learning as the most important competency for principals, closely followed by Instructional Leadership. However, when we analyzed IDOE priorities in terms of the competencies, we found that Human Capital Management was given top weight, with Instructional Leadership second. Although the remaining competency weights were fairly closely aligned with our practitioners' rankings, we found it disconcerting that the IDOE considered Human Capital Management to be a top priority in principal practice. Our participants' ranking of Student Learning as the most important competency aligns with research (e.g. Marzano et al., 2005). Marzano et al. found a compelling relationship between leadership and student achievement and that effective leaders align their actions with the priorities in the

school. In other words, Marzano's research team concluded that effective leaders focused on student learning make a difference in students' achievement. We believe that competencies closely associated with student achievement should be the top priorities on building-level principals' evaluations. Certainly, human capital management is a responsibility, but may not impact student achievement as strongly as a focus on student learning and instructional leadership. Therefore, this mismatch in building-level leadership priorities between the IDOE and research-based best practice should be addressed.

In terms of use of the RISE model, we found that approximately 60% of participants' districts used the model as is, while 40% had made modifications. We found these results telling because modifications indicate that districts were not satisfied with the model as designed. Changing the rubric, the metrics, and the frequency or duration of the observations were the most common modifications mentioned. These modifications suggested challenges in implementation of the original design, which required districts to make adjustments for the model to be workable.

To effect school change Waters, Marzano, and McNulty (2004) noted that the magnitude or order of change processes is important. Some changes are considered first order, which imply incremental change that is fairly consistent with prevailing norms and values. For many school districts attempting to implement this new model for principal evaluation, the changes were second order. In other words, the changes were complex, required new skills and knowledge to implement successfully, and may have been a dramatic break from past practice. The implications of change can vary widely depending on the norms, values, and perceptions of the stakeholders in the school district. Unless appropriate practices and strategies are selected to support this new initiative, the changes may not be sustainable and ultimately may not have a positive impact on student achievement.

Fidelity of implementation was another area of concern. Our results suggested similar findings to a survey by Duke and Stiggins (1985), which found that principals and superintendents disagreed on the thoroughness of evaluations, with superintendents feeling more satisfied than principals about the process. In our study, superintendents reported significantly higher levels of agreement when asked if the model was being implemented with fidelity. Implementation requirements of the model were outlined in the RISE Principal Handbook (IDOE, 2012a); however, it appeared from principals' written comments that there were concerns regarding lack of alignment between written procedures and current practices. Principals noted that procedures for implementation were not being followed. In addition, principals commented that the results of their evaluations depended on the individual evaluator. Principals perceived the lack of evidence gathering, lack of time for superintendents to be in the buildings, and lack of acknowledgment of the job responsibilities, to be challenges to accurate and consistent implementation. Superintendents indicated that the many responsibilities of their position have been barriers to consistency, as well as the evaluation process itself being too time consuming to be effective. These findings confirmed results by Thomas et al. (2000) who found that principal performance is inconsistently measured.

However, when asked to compare the RISE model with previous evaluation models, principals and superintendents indicated that the new model was more thorough and specific, increased accountability and objectivity, facilitated communications, and focused more on data. Overall, both superintendents and principals perceived the RISE model to be a more effective tool to evaluate principals than traditional locally-developed models. Prior to 2012, Indiana school districts had autonomy to create their own evaluation model or adopt a pre-existing

model. Historically, principal evaluation was not a priority and in some districts, it did not occur at all (NAESP, 2012). The RISE model was Indiana's first attempt to develop a system that could be used statewide. Our results suggest that although improvements to the RISE model may be needed, the new model is perceived to be more effective than prior models.

Nevertheless, there is discrepancy between principals and superintendents regarding the model. More principals than superintendents indicated a lack of faith in the effectiveness of the model to accurately evaluate job performance. One principal stated that the evaluation is based on perception rather than objective measures. Another principal commented that the system is only as good as the evaluator's perception of the principal's work, as the superintendent is limited in what they actually observe. Whether it is lack of training or lack of understanding that leads to ineffective evaluative processes, these differences in perceptions between principals and superintendents are important findings in this study. These results suggest the need for research-based revisions to the RISE model in addition to state-led training initiatives.

Implications and Recommendations for Practice

Portin et al. (2006) found that principals' viewed their evaluations as perfunctory and having limited value. In Indiana, it is possible that low implementation fidelity and evaluators not following the protocols contributed to principals' perceptions regarding lack of internal consistency with their RISE evaluations. Our findings imply that there is still a need for training on the RISE model for both principals and superintendents.

By conducting this study, we were able to gain a clearer understanding of the perceptions of principals and superintendents regarding the RISE model for principal evaluation in Indiana. Results indicated a clear delineation between superintendents and principals regarding the model's effectiveness to evaluate and support principals in their leadership roles. Although the RISE model was perceived generally as an improvement over traditional locally developed models, our principal participants did not see the model as providing an effective tool for principal evaluation and would not recommend it to colleagues. Superintendents, on the other hand, would recommend the model and perceived it to be effective, albeit time-consuming.

This gap between superintendents' and principals' perceptions of the effectiveness of the model highlights the need for ongoing support of principal practice. Even though superintendents and principals indicated that communication had increased with the implementation of RISE, our results indicated a certain lack of confidence among principals in the evaluation process that may not be overcome without improved fidelity to the process.

Although the Indiana RISE model has now been implemented and many districts have made modifications, there is still a struggle to implement a system of evaluation that is acceptable to all parties and provides desired results in this era of accountability. This study revealed a strong need to revise and align the RISE model to more recent collaborative leadership behaviors (Clifford & Ross, 2011; Gullickson, 2009, NAESP, 2012; Tran & Bon, 2015) that may provide supportive and accountable measures for the role of principal. In addition, the standards-based priorities of the state must be aligned with current research on best practices for principal effectiveness (Marzano et al., 2005; Stronge et al., 2013) in order to focus on the competencies that foster meaningful improvements in leadership practices.

Moreover, the responsibilities of the principalship are multi-faceted (Kemp-Graham, 2015; Young & Mawhinney, 2012). Both superintendents and principals suggested that some indicators of the principal's role were not addressed in the RISE model. It is important that both

superintendents and principals regard the evaluation process as comprehensive and objective in order to accurately measure, support, and increase leadership effectiveness. In revising the current model or developing a new statewide model, it is important that practitioners have a voice in the process. This voice should not be limited to a select few serving on a state-appointed development committee. Instead, broad opportunity for input should be facilitated through electronic surveying or other means. The NAESP and NASSP research committee found that an essential feature of sound practice was that principal evaluation models be created by and for principals (Clifford & Ross, 2011). Practitioners in the schools are the field experts, and their input provides valuable feedback for improved, yet practical evaluative tools and processes. However, in Indiana, principals have been involved minimally in the development process and change in this practice is vital to a more transparent and inclusive effort.

Finally, there is a need for greater collaboration between principals and superintendents in developing clear and concise implementation criteria that can be consistently employed to attain the highest level of support for principal practice. These efforts could ultimately assist in increasing overall consistency in effectiveness of the evaluation process.

Limitations and Need for Further Research

A limitation of this study was that it involved educators in only one state, Indiana. Principal evaluation research with a broader range of participants across several states would increase our understanding of practitioners' perceptions regarding emergent evaluative practices.

Another limitation was that because the survey was anonymous, there was no way to control for the possibility that more than one central office administrator responded to the survey from within a single district. This limitation may be somewhat reduced since many districts in Indiana only have one person in the central office responsible for principals' evaluation. Therefore, it is likely that only one superintendent (or the superintendent's designee) responded to the survey within each district.

An additional limitation was the lack of survey questions specifically addressing emergent practices. For example, in hindsight, we wished we had included a separate question about participants' perceptions of the Administrative Student Learning Outcomes and also the VAMs incorporated in the RISE model. Several open-ended comments from participants suggested low confidence in the VAMs, prompting further inquiry. The RISE model currently requires that 50% of the principal's evaluation be based on a combination of student achievement indicators and the school's letter grade. However, recent research has called into question the use of VAMs for evaluation purposes, suggesting that gains in student achievement may be influenced by a plethora of factors (AERA, 2015; ASA, 2014; Darling-Hammond et al., 2012). Therefore, it would have been interesting to gather practitioners' perceptions on this matter as this topic necessitates further exploration.

Furthermore, follow-up studies are needed to explore the local modifications of the RISE model, which might uncover potential practices or competencies that would enhance the effectiveness of the evaluation system. This might also assist in developing guidelines for modifications in order to develop more statewide consistency in evaluation processes.

Conclusion

This study explored perspectives of superintendents and principals regarding the RISE principal evaluation model, a state-developed model that was implemented in 2012 in response to legislation passed in Indiana mandating reform in educator evaluation. The development of the RISE model represented a paradigm shift in the state because school districts previously had local control in developing their evaluation models. This research was important to undertake, as the Indiana RISE model for principal evaluation had not yet been studied. Through this study, we hope to add Indiana practitioners' voices to the developing professional dialogue about effective leadership evaluation and whether or not this new model is meeting intended purposes.

This research provides insights into the perceptions of currently practicing superintendents and principals that potentially could guide revisions to the Indiana RISE model. This baseline understanding of the model is important as it informs state-level decision-making and also guides future comparative research. This research may also be helpful in other states as they review and revise their policies and systems for principal evaluation. Globally, this study has significance for educational researchers, practitioners, and policy-makers because it increases understanding of evaluation models and strategies used for school leaders, with potential recommendations for improving or sustaining practices. The advancement of excellent school leadership for all students in today's society should be on going and requires thoughtful examination of practice.

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Cross-boundary Leadership: A Framework for Understanding Leadership Preparation

This manuscript has been peer-reviewed, accepted, and endorsed by the National Council of Professors of Educational Administration as a significant contribution to the scholarship and practice of school administration and K-12 education.



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Through the conceptual framework of Cross-boundary leadership, this case study examines the influence of EDLE 6633 School/Community Collaboration, a doctoral course at Oklahoma State University, on course completer's capacity to effectively facilitate and sustain collaborative partnerships between schools and communities. Findings suggest that the course prepared educational leaders to lead from the perspectives of shared influence and shared responsibility; however, evidence also suggests modification to the existing course to more fully meet education goals.

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Community contexts in urban districts provide extraordinary challenges for school effectiveness. For example, increasing numbers of students living at or below the poverty level, fragmented or non-existent families, and cultural issues such as violence, substance abuse and unsafe neighborhoods make the challenges of educating students in these districts very complex (National Center for Education Statistics, 2014; Warren, 2011). In addition to these challenges, schools across the nation are facing financial crises threatening their very existence. For example, in a report to the Center on Budget and Policy Priorities, Leachman and Mai (2014) indicated state per student funding in 35 states across the nation in 2013-2014 was lower than funding before the 2008 recession, and funding in 15 of those states was lower in 2014 than it was the previous year. More recently, Farmer (2016) reported nearly half of the states in the U.S. continue to provide less funding for schools than they provided before the recession began. What is becoming abundantly clear to educational leaders, policy makers, and researchers is the increased intensity of out-of-school factors that pervade in-school factors and hinder student performance, leaving the public school system with more responsibility than it is prepared to handle (Blankstein & Noguera, 2015; Casto, 2016; Green & Gooden, 2014; Milner, 2013; Noguera & Wells, 2011). These circumstances present unprecedented challenges to leaders in urban school districts requiring innovative leadership strategies to meet student needs.

One promising strategy for promoting student success is collaborative leadership; this leadership strategy promotes effective partnerships between stakeholders in a district. Research supports the understanding that establishing effective family/community/school partnerships is an essential component for student success (Bryk & Schneider, 2002; Casto, 2016; Pounder, Reitzug, & Young, 2002; Zacarian & Silverstone, 2015). In 2005, Warren (2005) explained the school/community connection as one so close that “the fates of urban schools and communities are linked” (p. 133). More recent studies emphasize that high stakes accountability demands on urban districts to prepare students for workforce or college readiness reinforce the need for educational leaders to reach beyond the walls of the school and engage the larger community to meet student needs (Epstein, 2013; Blankstein & Noguera, 2015). Blankstein and Noguera (2015) refer to the need for “an ‘outward-facing’ perspective among (educational) leaders and teaching staff” to meet student needs in situations where staff feel “overburdened or confounded” (p. 2).

An outward facing perspective presents numerous implications for leadership. This approach suggests that reactionary reform or implementation of several decentralized efforts within a single building/district are ineffective approaches for school improvement (Jean-Marie, Ruffin, & Burr, 2010). Instead, educational leaders must lead their schools to engage in comprehensive reform that “works in tandem with communities to maximize their collective educational potential” (Jean-Marie, et. al., p. 15). Specifically, comprehensive school-wide reform (CSR) must advance civic capacity to generate partnerships between the public and private sector through the formation of networks and strategic alliances to strengthen schools, families and communities (Green, 2015; Jean-Marie et al. 2010). Now more than ever, leadership preparation programs must prepare their graduates to facilitate effective community/school partnerships to meet the needs of students (Blankstein & Noguera, 2015). Preparing educational leaders to lead and facilitate sustainable partnerships requires an intentional, directed focus on the part of educational leadership preparation programs.

Problem

Despite the importance of partnerships, educational leaders may graduate from educational leadership preparation programs lacking key understandings or the skills necessary to form and sustain effective partnerships because few traditional teacher and administrator preparation programs have developed a specific focus on the prevailing disconnection between families, communities, and schools (Epstein, 2013; Epstein & Sanders, 2006). Not only do most leadership preparation programs fail to emphasize global literacy needed for meeting the needs of increasingly diverse student populations (Brooks & Normore, 2009), they also do not emphasize the larger social context of families and communities in leadership practices (Epstein, 2013; Epstein & Sanders, 2006). The result has been teachers and administrators who view themselves as “relatively isolated individuals who think of themselves as individual leaders of classrooms, schools or districts, with little attention to the importance of teamwork and collaborations with parents, community partners, and others interested in students’ success in school” (Epstein & Sanders, 2006, p. 82).

Research indicates that most universities offer at least some training concerning the importance of parent/school partnerships in educator preparation programs (Epstein, 2013; Epstein & Sanders, 2006; Miller, Lines, Sullivan, & Hermanutz, 2013). However, Epstein and Sanders (2006) and Epstein (2013) found graduates often leave those programs unprepared to successfully facilitate partnerships. Epstein and Sanders (2006) suggested that most training on partnerships is associated with preparing educators for work in early childhood or special education programs, leaving most graduating educational leaders to “piece together” information on family and community involvement from various courses (p. 110). Epstein’s (2013) findings led her to conclude that graduates of most preparation programs “are unprepared to work effectively with the families of students in the schools in which they are placed” (p. 115). Recent findings suggest that the situation has not dramatically improved. Miller et al. (2013) found that most information concerning partnership building is “infused into existing coursework” (p. 156). They also found “limited agreement about topics to cover or how to best develop (partnership) competencies” (p. 156).

In response to recognition of the need to prepare leaders for partnership efforts, Oklahoma State University School Administration faculty designed a required course, EDLE 6633 *School/Community Collaboration*, to instill in future building and district leaders an understanding about the importance of partnerships and to prepare educational leadership for effective collaboration. This course addresses the National Educational Leadership Preparation (NELP) Standards (National Policy Board for Educational Administration, 2015) Standard 5 by developing students’ knowledge and understanding of the relationship of school and community as well as providing a framework to implement change for student success. Standard 5 states,

Leadership candidates who successfully complete a district level educational leadership preparation program understand and demonstrate the capability to promote the success and wellbeing of each student, teacher, and leader by applying the knowledge, skills and commitments necessary for (1) community engagement, (2) productive partnerships, (3) two-way communication, and (4) representation

(National Policy Board for Education Administration, 2015).

The undergirding philosophy of EDLE 6633 is developing leadership capacity to promote a culture of shared influence and collective responsibility among stakeholders for enhanced student and school performance (Adams & Jean-Marie, 2010; Curry, Jean-Marie, & Adams,

2016). This course emphasizes leadership that promotes enhanced practice and development of collaborative cultures to promote effective partnerships. Emphasis is placed on developing course completer skills of collaboration with family and community partners; understanding and utilizing community resources; facilitating and promoting cultures of shared influence and responsibility; and establishing and sustaining positive relationships with community and stakeholder partners. Students in the course develop and actively engage in projects designed to promote meaningful partnerships. What [was](#) unknown, however, is the effectiveness of this required course, a course specifically targeted to develop leadership capacity to promote, facilitate, and sustain meaningful partnerships, in shaping leaders' perceptions and practices concerning effective community/school collaboration or the sustainability of their partnership efforts after completing the course.

Purpose

Utilizing the conceptual framework of cross-boundary leadership, the purpose of this study was to understand the effectiveness of a course at Oklahoma State University, EDLE 6633 *School and Community Collaboration*, to prepare leaders who can develop, promote, and sustain partnerships between the school, families, and community in which they work. With the theoretical framework of cross-boundary leadership guiding this study, the following research questions were advanced:

Research questions

How did participation in EDLE 6633 School/Community Collaboration course influence student perceptions of their ability to develop sustainable school/family/community partnerships?

Sub-questions:

1. How did participation in EDLE 6633 influence student perceptions of and ability to mobilize shared influence in their buildings/districts?
2. How did participation in EDLE 6633 influence student perceptions of and ability to facilitate a sense of shared responsibility in partnership efforts?
3. How successful have students been in developing, facilitating, and sustaining partnership efforts?

Conceptual Framework

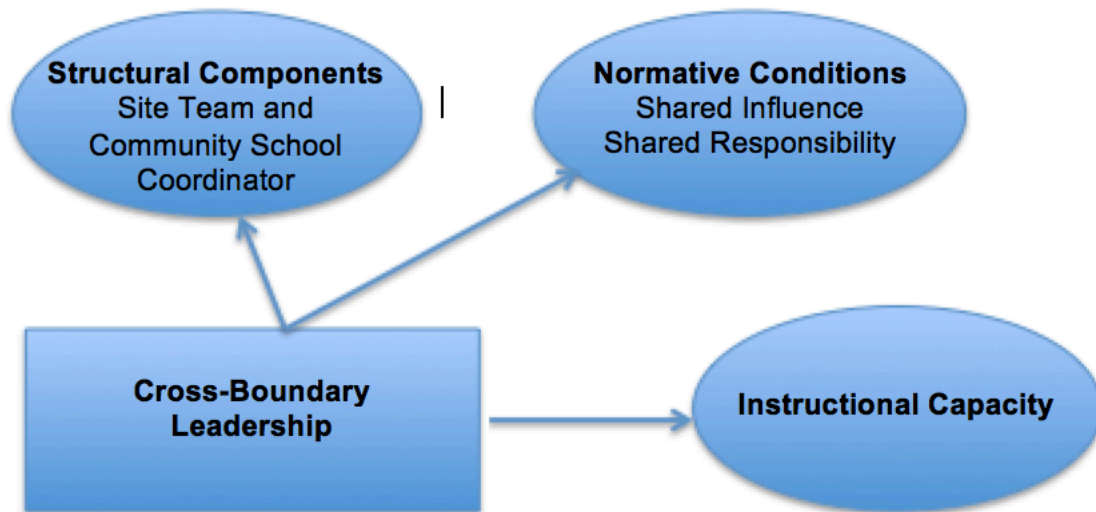
Collective leadership is a common approach in leadership preparation, and the term is often used interchangeably with “shared leadership,” “distributed leadership,” and “democratic leadership” (Harris, 2013a; Wang, Waldman, & Zhang, 2013). This type of leadership resides in a communal relationship where participants are both “shapers of” and “shaped by” one another (Jean-Marie & Curry, 2012). Together, these leaders work to develop and share new ideas and to sustain practices that work to foster a climate of shared purpose, teamwork, and mutual respect (Schacter & Langer, 2006; Harris, 2013a; Harris, 2013b). Collaboration is characterized by shared vision and goals, distributive leadership, transparency in actions, and high levels of communication (Hoch & Kozlowski, 2014; Kohm & Nance, 2009; Waldron & McLesky, 2010). According to Goulet, Krentz, and Christiansen (2003), collaboration is both phenomenon and process; it is “a particular way of coming together, thinking, and acting. Collaboration matures over time through

contributions that each participant makes through the process involved in consultation, collegial interactions, and cooperation” (p. 329).

Cross-boundary leadership builds upon ideas related to collaborative leadership because it is based on the idea that educational and social problems require collaborative approaches to leadership to cross structural boundaries and create a network of shared responsibility among the different spheres of influence in children’s lives (Green & Gooden, 2014). From this perspective, the role of leaders is to build capacity for reform by “leveraging the social ties of school members who interact at the boundaries of role groups” (Jean-Marie, Ruffin, & Burr, as cited in Jean-Marie & Curry, 2012, p. 290). Cross-boundary leadership not only considers cooperative efforts between educators in a building or district, it brings together “community leaders, leaders on the ground, and leaders in the middle to work collaboratively within the educational process” (Jean-Marie & Curry, 2012, pp. 290-291). These leaders represent the school, local government, and civic, corporate and agency leaders (community leaders), organizational managers with the “ability to build an infrastructure across institutions and organizations” (leaders in the middle), and practitioners and community members at school sites who “know local issues and have the skills to build relationships and connect residents to resources and opportunities” (leaders on the ground) (Blank, Berg, & Melaville, 2006, p. vi). In cross-boundary leadership, the structural features of the model (Figure 1) create processes to invite and allow teachers, parents, community members and other constituents to support and advance shared educational goals. Shared influence and responsibility, the normative conditions of cross-boundary leadership, refer to an individual’s “capacity to inspire, motivate, and guide leadership in others to reach desired goals” (Jean-Marie & Curry, 2012, p. 292).

Cross-boundary leadership, as a concept, emerged from research on the implementation and effectiveness of the community school model (Adams & Jean-Marie, 2010; Blank et al., 2006; Green & Gooden, 2014); however, it has implications for all school leaders because of the increasing need to facilitate and sustain partnerships between schools and communities. EDLE 6633 School/Community Collaboration was developed with the undergirding philosophy of the leader’s responsibility to create cultures that promote and facilitate partnerships within their buildings/districts. This discussion is timely because current conditions in high poverty neighborhoods (Casto, 2016) and current financial crises facing many districts (Leachman & Mai, 2014)) highlight the importance of leadership that crosses boundaries to meet the needs of students.

Figure 1



Cross-Boundary Leadership (Adams & Jean-Marie, 2011)

Methods

The intent of this study was to assess course effectiveness in preparing course completers and instilling the skills and dispositions necessary to facilitate successful, sustainable collaborative partnerships with education stakeholders and communities. This qualitative case study was designed to gain an understanding of the participants' experiences in partnership efforts after course completion (Bamberger, Rugh, & Mabry, 2006). The case study design provided an opportunity to study the complex phenomenon of leadership dispositions within the context of schools and districts after the completion of EDLE 6633 (Baxter & Jack, 2008). This exploratory case study (Yin, 2003) met the criteria of investigating "a phenomenon of some sort occurring in a bounded context" (Miles & Huberman, 1994, p. 25). Yin (2003) described an exploratory case study as an investigation used to link program implementation with program effects. This study seeks to understand the influence of EDLE 6633 on partnership efforts. Case study methodology, when applied correctly, becomes a valuable method to evaluate the effectiveness of programs (Baxter & Jack, 2008; Yin, 2003).

Data Sources and Collection

The population for this study included completers of the EDLE 6633 School/Community Collaboration course at Oklahoma State University. These students represented a diverse group of educational leaders across the State of Oklahoma. Emails were sent in the fall of 2014 to sixty-one students who took the course, taught by 3 faculty members during 5 semesters over 5 years (Spring 2010-Spring 2014), requesting their participation in the online Qualtrics survey that served as the initial data source (Appendix A). The survey contained open-ended questions regarding former students' perceptions of skills and attitudes developed during the course and

their perceptions of the effectiveness and sustainability of partnership efforts since course completion. To provide triangulation of data and to enhance data credibility (Patton, 2002; Yin, 2003), course evaluations, project documents collected during the 5 semesters, and district websites and school/community correspondence served as additional data sources.

Data Analysis

Following data collection, we independently reviewed survey data to identify recurring themes in participant responses. Although we were specifically interested in identifying examples of shared influence and shared responsibility in collaborative efforts with parents, families, and community, we remained open to the possibility of “discovered” themes. Utilizing the technique of categorical aggregation (Stake, 1995), we then pooled our individual lists and negotiated one list of recurring themes. This technique encouraged integration of data sources, ensuring that data were converged, to gain an understanding of the overall case rather than various parts of the case (Baxter & Jack, 2008). We categorized interview data using open coding to identify themes or patterns in the responses that might lead to a better understanding of how EDLE 6633 influenced students to develop collaborative endeavors emphasizing shared influence and responsibility. This understanding can also lead to further insight into how the course can be improved to meet the philosophical objectives of the course.

Findings

Twenty completers of EDLE 6633 responded to the invitation to participate in the study, representing a 33 percent response rate. Participants comprised an equal representation of each of the three instructors with a larger number of participants (5) from the most recent semester that the course was offered (Spring 2014). The greater level of participation from more recent completers was somewhat expected; however, it is a potential limitation to this study because these course completers may not have had adequate time (only part of one academic year) to fully understand the sustainability of their partnership efforts. However, since 15 respondents had completed the course from two to five years prior to the study, their responses provided insight into sustainability of partnership efforts.

Student Perceptions of the Course on Their Own Collaborative Efforts

Findings from the study indicate positive perceptions of the influence of the course on completer ability to develop sustainable school/family/community collaboration. Findings suggest that course completers recognize and emphasize the importance of partnerships, and they emphasize effective communication as an essential skill in partnership efforts. Responses indicated that students perceived communication and collaboration as interwoven skills. Respondents recognized these skills as “key factors in furthering educational goals.” One respondent asserted, “Collaboration is key in implementing any changes in educational goals. A school cannot make decisions without a proper amount of communication.” Another stated, “It [the course] helped to reinforce my beliefs on school-community collaboration and communication while also helping to expand my knowledge base on this topic.”

Although the course positively influenced course completers’ perceptions of their competency to facilitate partnerships, the influence differed depending upon students’ prior

experience in leadership positions. For example, one student responded, “As an experienced public school principal, none of the information in this course was entirely new to me,” and another indicated the course “did not dramatically influence my beliefs.” However, the latter concluded, “The course opened my mind to other ways to incorporate parents and the community in the work that we do in educating children.” For veteran administrators, the course confirmed their commitments to partnership efforts and provided new ideas for generating effective partnerships. The sentiment expressed by another student seemed to echo those of the majority: “If you did not understand the importance of school/community collaboration and communication prior to the course, one would surely see the significance and power of the synergistic relationship after the course.” In contrast, students who did not have extensive experience in leadership positions recognized a significant influence of the course on their perceptions about the importance of partnership efforts. One course completer stated, “I had been a classroom teacher for almost 2 decades, and this course broadened my perspective of education to include viewpoints from administrators, families, and communities. I had never thought of education that way.”

Practical application of newly gained knowledge in the course was pivotal to increasing skill level among course completers. As expressed by three respondents, the course “help[ed] me practice with the process of creating school and community collaboration,” and “gave me additional ideas and insights on ways to improve our approach” as well as “various strategies and ideas on how to involve the community in what we are doing at school.” Another explained that the course had practical application because it required students to “dial down to the school site level and consider strategies and issues at an operational level of a school, program, classroom, and patron perspective. Sometimes you have to go back to looking at trees rather than [at] the forest.”

One student noted the value of the heterogeneous composition of the class itself: “Collaboration and discussion within the class was very beneficial as we were all from different schools and had different experiences.” Another student commented, “It gave me an actual framework of ideas to incorporate more parental involvement.” The value of acquiring “ideas for increasing family and community engagement” was reiterated by several, as was the belief that “collaboration among school stakeholders is key...to build/solidify community relationships.”

Student Perceptions of Course Project

The purpose of the major course requirement, the community collaboration project, was to give students “hands-on” opportunities to plan and implement collaborative projects and draw conclusions relevant to the study of communication and collaboration. This project in itself is a collaborative effort, in that students work in groups of 3 to 4 class “partners” to design and implement their projects; working “alone” is not permissible. Projects completed during the study time frame varied in scope and size as well as by topic area; examples of project areas and programs developed during the course included collaborative efforts to facilitate school/grade transitions, collaborating with parents and the community to reduce drug use in school and community, families learning algebra together (FLAT), a Laws of Life essay, involving parents in a high school dropout prevention program, and Spotlight for Kindergarten.

Former students saw the project as one “requiring collaboration among team members and simulating the cooperation needed for an authentic school task.” One student described the project as “very beneficial!” and explained,

Our cohort was made up of a few administrators with some administrative experience and a majority of classroom teachers who wanted to move into administration. Real-world projects gave us the opportunity to practice our administrative skills in a classroom setting.

The majority of students responded that the project was “helpful,” “beneficial,” “offered practical experience,” and “provided confidence and new ideas.” One student stated, “I benefited because I applied some of the ideas that I learned in the process at [name of school], and from what I learned from others and the instructor.” One respondent summarized the experience,

It [the course project] helped me to think about the larger context in my current role and how community influences school practices. I am now more thoughtful and purposeful when involving the community and family members.

Sustainability of Partnership Efforts

Critical to the success of collaboration are the efforts made to sustain partnerships (Epstein, 2013). Participant responses indicated understanding of sustainability, stating the course “reinforced how important the community relationship can be for the success of projects and initiatives as well as potential funding sources.” One respondent asserted the course was “a great reminder that relationships are the foundation of all partnerships or joint ventures.”

One way to understand sustainability of their efforts was to gain an understanding of whether or not their projects developed in the course were implemented, and if so, if they were continuing. Responses varied concerning whether or not the course project was actually implemented and sustained in the school. One respondent stated, “We continued our project in pieces.” Another explained that the project her group had developed had been implemented at several school sites in several districts. She explained, “Our group project focused on implementing social media and school communication systems at my school. Two group members’ schools implemented a mass communication system, and my school implemented a Twitter account.” A teacher who was team leader in her school explained the course project “influenced how my teachers communicated with parents, so it was carried out until the end of the school year.” One noted the course project helped her know how to plan and implement another, related, school/community partnership project. Another responded, “This project was very beneficial! The school site is still continuing the project.” In sum, approximately half of the respondents (11) indicated that the projects they had developed in the course were actually implemented in their districts and the projects had been sustained through the time of data collection. Four additional respondents indicated the project had been implemented but was not sustained at the time of data collection, and five respondents indicated the project that they had developed had not been implemented at all.

Another finding from this study was that many of the participants mentioned challenges to the sustainability of collaborative efforts. Respondents noted various aspects that made sustainability of collaboration difficult: lack of time, scheduling problems, low participation by parents, difficulty to effect buy-in or involvement, language barriers, poor communication, lack of trust, and apathy. However, participation in the course encouraged them to think deeply about some of the challenges to partnership efforts. One individual noted the importance of “making time to build relationships, the foundation of all successful partnerships.” Another attributed the lack of participation to prior experiences, stating, “Some parents had difficult school experiences and thus do not want anything to do with their children or school. However, parents innately

want a better life for their children despite their own school experiences."

Trust was a factor mentioned, not only from the parental perspective of prior experience, but also from that of administrators. One course completer noted, "Many administrators fear parental involvement because they worry that parents will become too involved and demanding. Possibly trying to interfere with how the school is run, etc. However, this course helped me to understand that we can't let that fear keep us from involving parents." Summarizing the need for total stakeholder involvement, one student noted the difficulty of obtaining the support of other teachers and administrators. She stated,

Collaboration and communication needs to be part of the school culture and [I need to] support multiple school personnel to be effective in the community. Collaboration is not perceived as being sincere if there are only a handful of school staff participating and promoting this idea. As a leader, I have to encourage all staff to understand the importance [of partnerships].

Although, as one student noted, challenges in sustaining collaborative efforts exist, particularly "finding time to meet and showing the community tangible results of their collaboration with the school," others addressed the commitment needed by all stakeholders. For example, one participant stated, "The most difficult part of collaboration with the community is the 'buy-in' to what you are trying to accomplish in the district. But, if the community is always aware of what you are doing, they are more likely to support you and your endeavors." One respondent reminded us that community members are potential advocates for schools. "Working with community members is really quite easy. I have never been turned down by community members when schools and students are involved." The fact that these course completers recognized challenges and also recognized potential approaches to address the challenges indicates their persistence in partnership efforts was influenced by participation in the course.

Shared Influence and Responsibility

Analyzing the findings of this study through the theoretical lens of cross boundary leadership was central to understanding partnership efforts. Most notably, findings support the normative conditions of shared influence and shared responsibility necessary for successful partnership efforts. Respondents stated that the course encouraged them to re-examine their beliefs, particularly in regard to their ability, as educational leaders, to influence multiple stakeholder groups (parents, community members, business leaders) to become involved in educating children. One primary emphasis among course completers was the realization that educational leaders have the primary role in building and sustaining partnerships with stakeholders. One course completer emphasized her ability to influence partnership efforts by stating, "This course caused me to grow in my belief in the need to as include as many stakeholders as possible to facilitate student success." Another stated, "I gained a wider perspective on communication and collaboration and on my role in allowing others, or even expecting others, to be more involved in the process." Expanding on the diversity of potential involvement opportunities and her responsibility to facilitate those opportunities, one explained, "It opened my eyes to the fact there are many avenues through which collaboration with community members must take place. I must look for those opportunities." Another replied, "The course opened my mind to other ways to incorporate parents in the work that we do in educating their children."

Respondents emphasized an understanding of expanded repertoire of ways to involve stakeholders. For one, the course "provided more knowledge to recognize partnership

opportunities”; for another, the course provided “an actual framework of ideas to incorporate more parental and community involvement.” Commenting on previous involvement in collaborative efforts, one respondent stated the course “gave me additional ideas and insights on ways to improve our approach at [name of school].” Relating content to practical application, one student wrote, “This course influenced me by giving me various strategies and ideas on how to involve the community in what we are doing at school. Involving families in the school setting is tremendously beneficial to the success of our school.”

Shared Responsibility. Participant responses indicated an understanding of shared responsibility among stakeholders. This course and the required project helped one student “identify areas that I need to work in. I need to expect others to be involved.” For another, it helped to develop intentional actions: “I have consciously tried to build relationships with school stakeholders, but now I understand that we all have a role in educating children.” Yet another stated, “The course made me realize how important it is to start from the ‘grass roots’ of developing cross-sectional committees to bring ideas up from the bottom so they will have the support of parents and teachers.” Another stated, “I realize now that the best school practices are supported by community members. The actions of a school cannot be driven from the top down, but everyone has to be brought along.” This statement served as an example of this leader’s understanding of her influence in partnership efforts and in her understanding of shared responsibility among stakeholders to bring out the best in students.

Findings from this study undergird the understanding that for collaborative efforts to be successful, each partner in the relationship must have an understanding of each other. According to Goulet, Krentz, and Christiansen (2001), “Collaboration is challenging because the human element of social interaction is a major part of every collaborative project” (p. 331). For one student, the course instigated consideration of not only diverse activities, but also diverse constituents: “I now thoughtfully consider avenues to include various stakeholder groups from students to staff to families to the community.” Another was inspired by the results of collaborative efforts by “actually going to the parent health fair [project activity]...seeing families of many different nationalities and ethnic backgrounds intermingle in a casual setting.” Another replied, “It helped me to think about the larger context in my current role and how the community actually influences school practices. I am now more thoughtful and purposeful when involving the community and family members.” Most respondents seemed to share the view of one who stated, “It (partnership efforts) always changes as you learn and gain perspective. My approach in my doctoral path is to be a scholar practitioner, so I always look for ways to implement what we discuss and cover.” This participant emphasized the fact that understanding the needs and interests of her diverse community will be a focus for her in the future. One participant wrote that the course raised an “awareness of the great diversity in our district and what is not really talked about (growing and changing demographics).” Another commented,

When dealing with the community, you must keep in mind that not all members have children in school. They may be business leaders, supporters, and sometimes detractors of what you are doing. While communicating with these groups, it is necessary to stay open minded.

Additional Findings

Because case study methodology can be a valuable method to evaluate the effectiveness of programs (Baxter & Jack, 2008; Yin, 2003), we gained valuable insight concerning the

effectiveness of the course, EDLE 6633 *School/Community Collaboration*, through this case study. Findings indicate that course completers were more aware of the communication necessary and the importance of collaborative efforts. Most participants in this study also expressed confidence in their abilities to promote and facilitate sustainable partnership efforts. Additionally, while the shared influence they perceived was primarily expressed as understanding of the influence they have on partnership efforts, findings from this study indicate that the foundational philosophical goals of the course of promoting an understanding of shared influence and shared responsibility are met. However, some responses indicated need for continued course development.

The first area of development includes expanding understandings of shared influence beyond the assumption of the influence of the educational leader on collaborative efforts. Indeed, all stakeholders in education exert influence over the outcomes that a school experiences. While educational leaders and teachers may perceive that they have the greatest influence on educational outcomes because of their positions in the educational context, other stakeholders including parents and community members also influence student outcomes. Our findings indicate there is a need to expand understandings of shared influence in the course.

Other findings in the study indicate the course may not have been as valuable to some students who took the course as it was to others. For example, one respondent stated that the course “had no influence on my work practices at all”; however, this participant further explained, “collaborative efforts have always been a primary focus of mine as an educational leader.” Another participant commented that the “foundation of the course was good,” but the methods were “too heavily focused on elementary education.” These comments indicate that the course needs to be adapted to meet the needs of a more diverse set of educational leaders (e.g. those who are veteran practicing administrators and all levels of P-12 leadership). Another participant in the study indicated, “It wasn’t until I was in a different position that I was able to utilize the community and their input” further emphasizing the need to understand specific student work contexts in course objectives.

Researchers gleaned additional insight concerning the effectiveness of the course project in meeting course objectives. One respondent stated, “It [the course project] was not extremely beneficial for me because this was not an area of research or interest for me,” and another, “[I] do not remember it [the course project]” indicating the need to tailor the project to advance more specific application to individual student contexts in which they work. Further, concerning the course project, one respondent commented that the project was “in another school district,” and another “I am an outsider of the school system” indicating, while a group project meets the objective of encouraging collaborative work within the course, it may have lost application value if group members worked in separate districts. Findings indicate implementation of the course project added significant value to the course. Therefore, allowing students to work with others who work in the same district or in similar contexts is an important component for successful implementation of the course project.

Summary of Findings

Course completers reported having developed new perspectives regarding the generative aspects of stakeholder involvement. Students reported difficulty with the time commitment of collaboration and identified initial perceptions of partnership efforts as something “extra” added to their daily list of responsibilities. However, students reported a change in perception of the

importance of partnership efforts as they progressed through the course. Students expressed a belief that partnerships are central to their leadership efforts to improve education. Further, they believe success of district leadership efforts is influenced by skills/abilities in partnership building. In terms of practice, survey responses revealed a high level of interaction with stakeholders. These educational leaders evidenced collaborative endeavors with parents, families, and communities. Some projects that began as course projects were sustained; others led to new avenues of collaboration.

In sum, EDLE 6633 impressed students with the importance of stakeholder collaboration and provided the impetus for students to seek ways to collaborate with community. The course also promoted understandings of shared influence and shared responsibility; however, attention is needed concerning how to expand course completers' perceptions of influence beyond that of school personnel. Additionally, several deficiencies were noted in the course indicating a need to address the needs of a diverse group of educational leaders (beginning to veteran; PK-Secondary). Also, collaborative approaches to the group project are beneficial to the extent that the project has applicability to each group member's specific school context.

Discussion

The benefits of parent involvement in school are well documented, and the importance of partnerships between schools, families, and communities cannot be over-emphasized. Partnership benefits include the promotion of self-regulatory skills, academic achievement gains, overall grade improvement, and higher graduation rates (Epstein, 2013; Jeynes, 2012; Hill & Tyson, 2009; Xu, Kusher, Benson, Mudrey-Camino, & Steiner, 2010; Wilder, 2013). Additionally, as schools face increasing challenges due to changes in student demographics and community context, partnerships between schools and communities gain importance as a resource to help educators meet educational goals (Green, 2015). However, partnerships between schools and communities are not a natural result of the way that schools typically operate (Coyote, 2007; Blankstein & Noguera, 2015). Thus, educational leaders, particularly those in high poverty communities, must receive training focused on how to facilitate connections between schools and communities to meet the needs of underserved children and families (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010; Epstein, 2013; Jean-Marie, Ruffin, & Burr, 2010; Blankstein & Noguera, 2015).

The premise of EDLE 6633 is that current approaches to leadership must emphasize a shared leadership approach for school improvement. Educational and social problems require collaborative approaches that "cross structural boundaries and create a network of shared responsibility among the different spheres of influences in children's lives" (Jean-Marie & Curry, 2012, p. 290). Therefore, collectively, as leaders from all stakeholder groups work together to develop and share new ideas to promote student learning, a climate of shared purpose, teamwork, and mutual respect evolves (Boris-Schacter & Langer, 2006).

Our findings support this approach to leadership training and suggest that educational leaders who receive specialized training for collaboration between the school and community reap benefits that influence their belief and practice. For example, many students in the course stated that the course motivated them to emphasize collaboration as a means to reach educational goals. Even those students who entered the class with an understanding of the importance of collaborative efforts gleaned information from the course about practical ways to target their efforts. Additionally, both course content and the classroom environment were important

influences on student belief and practice. For example, as students met together in class, they began to exchange ideas and share experiences, and a rich culture of shared understanding and creativity emerged. Ideas and experiences were shared among class members, and these ideas generated deeper understandings of course material and facilitated the application of course learning objectives. However, findings from this course suggest the need to more closely align the course with student level of experience and educational context in which they work. Modifying the course to build upon understandings of veteran administrators who “understand the importance of collaborative efforts” would make the course more meaningful to those students. This goal may be accomplished by recognizing the ways in which course objectives, to enhance student understandings of shared influence and shared responsibility, were not met. What did not seem to happen in this course was a shift in the “balance of power” among educational leaders and other stakeholder groups. Participants in this study continued to see themselves as the primary influencer in collaborative efforts and in enhancing student outcomes. These findings indicate that a greater emphasis is needed on the influence that other stakeholders have in student educational outcomes and how to leverage that influence to benefit students. Additionally, increasing leader capacity to promote shared responsibility among all stakeholder groups is another important finding from this study.

Findings from this study also suggest implications for direct application of skills learned in the course through course projects. The collaborative aspect of the culminating group project supports the philosophical foundations of the course; however, individuals within groups benefitted differently depending upon the focus of each project. For example, when groups consisted of students from different districts, one district from each group was chosen as the focus for the project. As expected, students from the district in each group where the project was focused indicated greater incidence of continuing project goals. However, group members in other districts did not necessarily replicate projects in their own districts, and these students indicated less emphasis on collaborative efforts compared to their colleagues. Therefore, findings from this study suggest a more focused approach to the culminating project is needed to provide opportunity for practical application for all students that can, potentially, motivate a sustained emphasis on collaboration. While the group aspect of the project seems to meet course objectives, modifying the assignment to make it applicable for all group members can more fully support course objectives and lead to sustained practice.

An additional finding from this study was the emphasis placed on awareness of diverse needs throughout stakeholder groups in the school and community. Findings from this study support the idea that understanding the community’s diverse cultural, social, and intellectual resources is the first step in developing, promoting, and sustaining positive relationships with families and caregivers. However, understandings do not happen without intentional, directed effort. Sustaining productive relationships with community partners takes not only dedication but also training to develop skills needed for building effective partnerships. Leadership preparation programs that emphasize collaborative efforts through courses designed specifically to develop those leadership skills offer promise for developing successful leaders for demands of the 21st century.

Limitations

There are several limitations that must be addressed in this study. The first limitation that has already been mentioned is the fact that a larger percentage of participants in the study (25%)

were course completers who had completed the course within the year before data collection. Their responses may not adequately represent sustainability of partnership efforts due to the limited amount of time between project implementation and data collection. Additionally, a 33% response rate is a limitation that must be addressed. There is a chance that course completers who responded to the survey were those that were most satisfied with the course, or respondents may have been course completers most interested in collaborative efforts in their districts. Further study is needed to gain a better understanding of the influence of the course on longer-term sustainability and to capture the perspectives of a larger percentage of course completers. Finally, the study was conducted by faculty who taught the EDLE 6633 *School/Community Collaboration* course. As researchers, they viewed this study as a means to gather important feedback concerning the effectiveness of the course. Care was taken to listen to and represent the voices of participants in the study (course completers) from a position of researcher neutrality. However, unrecognized bias may have influenced results of this study.

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Principal Leadership to Improve Collective Teacher Efficacy

This manuscript has been peer-reviewed, accepted, and endorsed by the National Council of Professors of Educational Administration as a significant contribution to the scholarship and practice of school administration and K-12 education.



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The purpose of this study was to examine the relationships between, and predictive value of, select school and teacher characteristics, and collective teacher efficacy (CTE). CTE is a strong predictor of school and student outcomes that principals may target to minimize the continued strong influence of socioeconomic status. Results from this study suggest that prior levels of student achievement offer more value to practitioners to improve CTE in schools than the other school and teacher characteristics the author examined in this study. The author presents implications for practice and future research recommendations based on these results

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Collective teacher efficacy (CTE) is “the perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students” (Goddard, Hoy, & Woolfolk Hoy, 2000, p. 480). Researchers continue to report findings to suggest that CTE is a strong predictor of a school's overall level of academic achievement (Hoy, Sweetland, & Smith, 2002; Leithwood, Patten, & Jantzi, 2010; Moolenaar, Slegars, & Daly, 2012; Tschannen-Moran, Salloum, & Goddard, 2015), and some have reported that principals may target CTE to minimize the influence of various school level measures of socioeconomic status (SES) on achievement (Hoy, Sweetland, & Smith, 2002; Tschannen-Moran, Salloum, & Goddard, 2015). Bandura (1997) has written that efficacy may be improved in different settings via mastery and vicarious experiences, with verbal persuasion, and through emotional arousal; however, improving CTE in schools requires further inquiry (Goddard, LoGerfo, & Hoy, 2004). In an attempt to identify different leadership behaviors and tasks that might improve CTE, researchers have examined the influence of different principal leadership types, including transformational leadership (Leithwood, Patten, & Jantzi, 2010) and instructional leadership (Fancera & Bliss, 2011). Leithwood, Patten, and Jantzi (2010) provided evidence for behaviors associated with transformational leadership as a means to improve CTE, however, Fancera and Bliss (2011) reported little evidence of relationships between different instructional leadership functions and CTE. Still, Belfi, Gielen, De Fraine, Verschueren, and Meredith (2015) wrote that understanding how to enhance CTE will enable school leaders to further improve school and student outcomes in lower SES schools. Given the evidence for CTE as a school level variable and mechanism to attenuate the continued strong influence of school SES on academic achievement, there is a need to explore administratively mutable variables that practitioners may target to improve CTE, and continuing the line of inquiry on how principals can improve CTE is a worthwhile endeavor.

Purpose Statement

Local education agencies include a variety of school and teacher characteristics on annual school report cards, and the examination of one state’s annual school report card reveals at least three administratively mutable school and teacher characteristic variables that may serve as antecedents to improved CTE. Therefore, I framed the study to examine whether the selected administratively mutable school and teacher characteristic variables included in one state’s school report card are related with and predict CTE. The purpose of this study was to examine the relationships between administratively mutable school and teacher characteristics, and CTE, as well as to assess whether these administratively mutable characteristics predict CTE. The school and teacher characteristics under examination in this study include student attendance rate, percentage of teachers with advanced degrees, and prior mathematics achievement.

Figure 1 shows how I conceptualized CTE for this study. This framework includes the administratively mutable school and teacher characteristics, including student attendance rate (SAR), percentage of teachers with advanced degrees (TAD), and prior math achievement (PMA), and school SES to influence CTE. Findings from this study will inform scholars regarding the value of continuing this line of inquiry into administratively mutable school and teacher characteristics to improve CTE, and it will inform principals about their leadership efforts to target the selected school and teacher characteristic variables as antecedents to enhance CTE in their schools. These findings will also be useful to policy makers who focus on improving school and student outcomes to suggest changes to school leader preparation. The literature supports improving CTE to perhaps mitigate the influence of school SES while

positively influencing student achievement, however, this study addresses a gap in the research base with respect to specific school and teacher characteristic variables that principals may target as antecedents to enhance CTE.

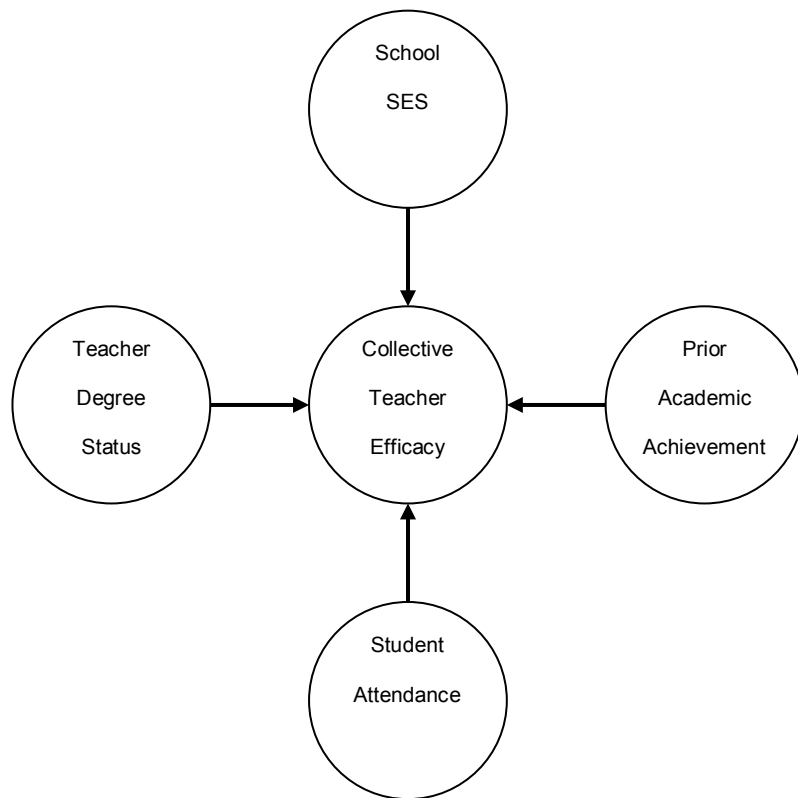


Figure 1: Study’s Conceptual Framework

Research Hypotheses

To accomplish the purpose of this study, the following research hypotheses guided this inquiry.

- H₁: School and teacher characteristics, including student attendance rate (SAR), the percentage of teachers with advanced degrees (TAD), and prior mathematics achievement (PMA), are associated with collective teacher efficacy (CTE).
- H₂: School and teacher characteristics, including SAR, TAD, and PAM, predict CTE when modeled with school socioeconomic status.

Literature Review

Collective teacher efficacy (CTE) has been “conceptualized as the level of confidence a group of teachers feels about its ability to organize and implement whatever educational initiatives are required for students to reach high standards of achievement” (Leithwood, Patten, & Jantzi, 2010, p. 676). In one theoretical model of school achievement, which included school socioeconomic status (SES), academic press, and CTE, CTE was a stronger predictor of school achievement than school SES (Hoy, Sweetland, & Smith, 2002). The importance of this work has been to propose that principals can lead their schools to overcome district, school, and

student level indicators of SES by targeting CTE. Although researchers have reported evidence for transformational leadership practices to improve CTE (Leithwood, Patten, & Jantzi, 2010), there is a need to examine other mechanisms under leadership control that practitioners can target to improve CTE (Goddard, LoGerfo, & Hoy, 2004; Leithwood, Patten, & Jantzi, 2010).

Bandura (1997) has discussed how mastery and vicarious experiences, verbal persuasion, and emotional arousal are sources of information to improve one's sense of efficacy, and it is important for school leadership practitioners to embrace a variety of sources as they attempt to improve CTE (Kennedy & Smith, 2013). As an individual's sense of efficacy improves, the efficacy of the group follows. In schools, this implies that as individual teachers feel they are effective at teaching and improving student learning, the feeling of the faculty as a whole regarding their effectiveness improves (Calik, Sezgin, Kavgaci, & Kilinc, 2012; Katz & Stupel, 2015). Important to the study of school leadership is to uncover how principals can provide these sources of information (Bandura, 1997) to their faculties to develop efficacy as they attempt to improve CTE and subsequently school and student outcomes. Salanova, Martinez, and Llorens (2012) found that past academic success is a relevant predictor of future academic success. Practitioners may provide mastery experiences for teachers by celebrating their school's performance on a variety of outcome measures, including measures such as state assessment results, student attendance, and college acceptance. Principals may organize vicarious experiences for their faculties by encouraging them to pursue advanced degrees, modeling instructional strategies for teachers who have had challenges improving student achievement, permitting time for teachers to observe colleagues who have high levels of self-efficacy, and by arranging visits for their teachers to observe the instructional practices implemented in classrooms of high achieving students. Derrington and Angelle (2013) found that improved CTE happens in schools when teachers believe their colleagues behave in ways that promote student achievement. School leaders might also encourage lead teachers and administrators to model exemplary classroom instruction to teachers with lower levels of self-efficacy as another vicarious experience. "At a collective level, observing successful performances of colleagues within the group to which the observer belongs may enhance efficacy" (Zakeri, Rahmany, & Labone, 2016, p. 160). Communicating the school's goals, increasing the availability of professional development opportunities and workshops, supervising and evaluating instruction followed by constructive feedback of instructional methods, monitoring student progress, and maintaining high levels of visibility in the school are examples of leadership tasks that principals can use as forms of verbal persuasion to improve individual teacher efficacy and CTE. In an out of school context, Bruton, Mellalieu, and Shearer (2014) found that positive, neutral, or negative feedback can manipulate the collective efficacy beliefs of a group. To extend these findings to school settings, perhaps principals can provide teachers with sources of information to develop self-efficacy through mastery and vicarious experiences, as well as through verbal persuasion, to improve a school's CTE.

In the *Equality of Educational Opportunity* report (Coleman, Campbell, Hobson, *et al.*, 1966), the researchers reported that school socioeconomic status (SES) is one of the strongest predictors of student success, but they also suggested that teacher quality has a strong relationship with student achievement. More recently, Moolenaar, Slegars, and Daly (2012) reported that SES is related with math and language achievement. Others have supported these teacher quality findings by reporting that some school level variables, including teacher effects and their perceptions of effectiveness, are stronger predictors of school achievement than SES (Bandura, 1997; Hoy, Sweetland, & Smith, 2002; Leithwood, Patten, & Jantzi, 2010; Nye,

Konstantopoulos, & Hedges, 2004). It is reasonable to deduce from these previous studies that practitioners might consider engaging in leadership practices to improve teacher quality and instructional skills to improve the overall level of achievement of their schools. Principals can improve the quality of their faculties through various means, including hiring the best candidates to fill vacancies, implementing teacher induction and retention programs for newly hired and novice teachers, and by providing and supporting job embedded, on-going professional development opportunities to address areas of instructional need. These means to improve teacher quality, however, are often district level responsibilities, and the influence of building level leadership on this decision making process varies among school districts.

Past student performance on measures of achievement are likely to provide teachers with perceptions of their efficacy regarding the production of desired outcomes. As student performances improve or decline over time, a faculty's belief about its efficacy is likely to follow similar trends. This prior academic achievement is important in shaping collective teacher efficacy, and as such, provides mastery experiences. Principals can emphasize any improvements to bolster his or her faculty's belief that as whole, the teachers in the school are providing students with the learning experiences that elicit the desired student outcomes.

One route to improve teacher quality that is more directly under principal control than the previously discussed means is for principals to encourage teachers to pursue advanced degrees. While most school districts compensate teachers who hold an advanced degree, researchers who have studied the influence of teachers with advanced degrees on school and student outcomes is inconclusive (Wayne & Youngs, 2003). Some have reported little or no influence of teacher degree status on either national or statewide standardized test scores (Campbell & Lopez, 2008; Eide & Showalter, 1998), while others have found that teacher degree status matters for content specific areas, including mathematics and science (Goldhaber & Brewer, 1996). In their extensive review of research in this area, Wayne and Youngs (2003) indicated that teachers with advanced degrees in mathematics taught students who achieved at higher levels in mathematics than teachers who either held a non-mathematics advanced degree, or did not hold an advanced degree. Although their review did not suggest similar findings in other content areas, Wayne and Youngs (2003) concluded additional inquiries in this area are needed to further distinguish the influence of teacher degree status on school and student outcomes.

In practice, school and district leadership devote time to ensure that students attend school regularly. The accumulation of missed learning opportunities due to student absence from school is likely to have a detrimental influence on school and student outcomes, and the evidence supports this practice. In one urban school district, the frequency at which high school students attended school influenced mathematics achievement on a standardized test (Parke & Kanyongo, 2012). Additionally, achievement levels of elementary and middle school students were related with attendance at school (Gottfried, 2010). The evidence for a leadership focus on improving student attendance warrants additional examination of this school characteristic, especially when principals lead to improve CTE in schools.

Method

Sample

The school served as the unit of analysis for this correlational study. I collected data from a sample of New Jersey (NJ) high schools, which I defined as a NJ public school that meets the following criteria: it is included in the NJ School Report Card (NJSRC); it includes a grade 11

class; and it is categorized into one of eight socioeconomic categories called district factor groups (DFGs), determined by NJ Department of Education (NJDOE, New Jersey Department of Education, n.d.). The eight NJ DFGs include the following categories, A, B, CD, DE, FG, GH, I, and J. School district SES increases through the alphabetic categorization continuum. For example, the A-DFG represents school districts with the lowest levels of SES in NJ, while the J-DFG represents those school districts with the highest levels of SES in NJ. This study's convenience sample included 60 NJ high schools. This sample includes high schools from each of the eight DFGs and 19 of NJ's 21 counties. Table 1 and Table 2 represent the distribution of sample schools by DFG and NJ region, respectively. These data imply that this convenience sample overrepresented middle SES high schools from the central region of NJ.

Table 1

Distribution of Sample by New Jersey District Factor Group, (N = 60)

New Jersey District Factor Group	Number of Schools in Sample	% of Sample	% of Schools in Population
A	4	7	15
B	4	7	11
CD	2	3	9
DE	12	20	16
FG	16	27	14
GH	9	15	17
I	10	17	15
J	3	5	4

Table 2

Distribution of Sample by New Jersey Region, (N = 60)

New Jersey Region	Number of Schools in Sample	% of Sample	% of Schools in Population
Northern	25	42	48
Central	20	33	23
Southern	15	25	29

Data Collection

I accessed school report card data to quantify the four independent variables included in the conceptual framework depicted in Figure 1. I collected data from the NJSRC to measure the following predictors of collective teacher efficacy (CTE): student attendance rate (SAR); the percentage of teachers with advanced degrees (TAD); and prior mathematics achievement (PMA). I utilized the ENROLL data base to calculate the percentage of students in each sample school who qualified for free lunch (FL) to serve as a school level measure of SES.

I quantified the dependent variable, CTE, by administering the short version of the collective efficacy scale (CES, Goddard, 2002) to teachers from the sample schools via an online survey provider. CTE is dependent on the interaction of group competence, the ability of the

faculty as a whole to effectively instruct students to learn, and teaching task analysis, or teacher perceptions of students (Goddard, 2002). The CES (Goddard, 2002) measures the interactions that occur between group competence and task analysis to provide a school level measure of CTE (Goddard, 2002). Goddard (2002) and Goddard *et al.* (2000) have previously discussed the validity of the CES. In this study, I obtained a school level CTE score from teacher responses to the CES (Goddard, 2002). This instrument includes 12 Likert-type items that are scored on a six-point scale that ranges from “strongly disagree” to “strongly agree.” For each school included in the sample, I computed an average item score for each of the 12 items on the CES (Goddard, 2002) from the responses obtained from teachers in that school. Next, I summed average item scores and divided by 12 to calculate a school level CTE score for each high school included in the sample. In this study’s sample, Cronbach’s α for the 12 CES items was .82.

Data Analysis

I analyzed all data using OpenStat and computed and reported Pearson product-moment correlation coefficients (r) to determine relationships between each of the variables included in the conceptual framework. I also computed coefficients of determination (r^2) to report effect sizes for each of the relationships. In addition, I conducted a multiple regression analysis to determine whether SAR, TAD, PMA, and FL predict CTE. These analyses allowed me to draw conclusions relative to each of the study’s research hypotheses.

Limitations

The purpose of this study was to examine the relationships between administratively mutable school and teacher characteristics, and CTE, as well as to assess whether these administratively mutable characteristics predict CTE. I aggregated the percentage of teachers in a school who held either a master or doctoral degree, or multiple master or doctoral degrees, as their highest degree to examine the predictive nature of teacher degree status on CTE. The decision to aggregate teachers with either a master or doctoral degree, or multiple advanced degrees, as their highest degree earned into one variable, AdvDeg, limited my ability to report the variance accounted for by either a master or doctoral degree alone, or that of multiple advanced degrees. I made the decision to aggregate degree status to limit the number of independent variables included in the analysis to four given the number of schools included in the sample. Although the multiple regression analysis conducted for this study is limited by the sample of 60 high schools, I determined that the results are nonetheless worthwhile to principals who lead to improve CTE in their schools, as well as to scholars who continue to explore mechanisms that educational administrators can target to improve CTE.

Findings

I included a description of the sample schools in Table 1 and Table 2. Schools categorized in the mid-level DFGs comprised 47% of the sample (20% in DE and 27% in FG), and 33% of the sample was located in the central region of New Jersey. Table 3 displays the descriptive statistics for school SES, school and teacher characteristics, and CTE. The average school SES, as measured by the percentage of students in a school who received free lunch (FL), was 11.91% ($SD = 14.41$). Half of the teachers ($M = 50.09\%$, $SD = 12.84$) in these schools held an advanced degree (TAD), and the student attendance rate (SAR) in the sample averaged 94.18% ($SD = 2.47$).

Table 3
Descriptive Statistics

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
1. FL	60	11.91	14.41
2. TAD	60	50.09	12.84
3. SAR	60	94.18	2.47
4. PMA	60	78.12	12.24
5. CTE	60	4.09	0.43

I computed correlation coefficients for all pair-wise combinations of variables, which are included in Table 4, to answer H₁. All variables were related with CTE in these sample schools, including FL ($r = -0.68, p < 0.01$), TAD ($r = 0.48, p < 0.01$), SAR ($r = 0.63, p < 0.01$), and PMA ($r = 0.74, p < 0.01$). The effect sizes of the correlations between FL and CTE ($r^2 = 0.46$), as well as PMA and CTE ($r^2 = 0.55$) suggests that a moderate amount of the variance of either variable is shared by the other variable, indicative of moderate practical value. On the contrary, the effect sizes of the correlations between TAD and CTE ($r^2 = 0.23$), and SAR and CTE ($r^2 = 0.40$) suggests that a low amount of the variance of either variable is shared by the other variable, indicative of lower practical value. The positive correlation between PMA and CTE indicates the influence of mastery experiences on a faculty's belief about their effectiveness, while the negative correlation between FL and CTE indicates that higher concentrations of student poverty influences a faculty to believe it is less effective at teaching and student learning, which is consistent with previous findings (Rubie-Davies, Flint, & McDonald, 2011).

Table 4
Correlations among Independent Variables and Collective Teacher Efficacy (CTE)

Variable	1	2	3	4	5
1. FL	-				
2. TAD	-.45**	-			
3. SAR	-.70**	.35*	-		
4. PMA	-.77**	.45**	.64**	-	
5. CTE	-.68**	.48**	.63**	.74**	-

Note: ** $p < .01$

A summary of the regression analysis that I conducted to answer H₂ is included in Table 5. PMA ($\beta = .45, p < .05$) emerged as the only variable included in the model to predict CTE, while FL ($\beta = -.13, p > .05$), AD ($\beta = .16, p > .05$), and SAR ($\beta = .20, p > .05$) did not predict CTE. The overall model fit was $R^2 = 0.62$.

Table 5
Summary of Regression Analysis

Variable	<i>B</i>	β	<i>t</i>	<i>p</i>
FL	-.004	-.13	-.86	> .05
TAD	0.01	.16	1.64	> .05
SAR	0.03	.20	1.66	> .05
PMA	0.02	.45	3.30	< .05

Note. $R^2 = .62, F(4, 55) = 22.0, p < .01$

In sum, I found that FL was negatively related with CTE, and that TAD, SAR, and PMA were positively related with CTE. As determined by effect sizes, I found that the relationships between FL and CTE, and PMA and CTE, offered more value to principals than either the relationships between TAD and CTE or SAR and CTE. PMA emerged as the sole predictor of CTE when modeled with FL, TAD, and SAR.

Implications for Practice

In light of the increasing evidence for collective teacher efficacy (CTE) as a school level variable to improve student outcomes (Hoy, Sweetland, & Smith, 2002; Leithwood, Patten, & Jantzi, 2010; Moolenaar, Slegars, & Daly, 2012; Tschannen-Moran, Salloum, & Goddard, 2015), it is important for researchers to continue to examine other school level variables that practitioners may target as antecedents to enhance CTE. I examined the relationships between administratively mutable school and teacher characteristics, and CTE in this study, and assessed whether these administratively mutable characteristics predict CTE.

A major goal of this study was to identify if school leaders can target any of the three administratively mutable variables that I examined to improve CTE, and prior academic achievement emerged as the most useful independent variable for this purpose. The relationship between prior academic achievement, as measured by prior mathematics achievement (PMA) in this study, and CTE was positive and offered a moderate effect to enhance CTE. Additionally, PMA emerged as the sole predictor of CTE in this study when modeled with free lunch (FL), percentage of teachers with advanced degrees (TAD), and student attendance rate (SAR), and these four variables included in the model accounted for 62% of the variation in CTE. Therefore, only prior academic achievement can serve as an antecedent to CTE that practitioners can target to enhance CTE in these sample high schools. This conclusion is consistent with that of other researchers who previously found that past academic successes can predict future academic success, thereby serving as a mastery experience for improved CTE (Salanova, Martinez, & Llorens, 2012). This conclusion is further supported by previous researchers who discussed the importance of mastery experiences as sources of information to improve efficacy beliefs (Calik, Sezgin, Kavgaci, & Kilinc, 2012; Derrington & Angelle, 2013; Katz & Stupel, 2015; Zakeri, Rahmany, & Labone, 2016). Bandura (1997) has written extensively on the topic of efficacy and the influence of mastery experiences as one of the strongest predictors of both self and collective efficacy. When an individual or group experiences success at a task, the individual or group has the belief that they will meet subsequent attempts at similar tasks with equal or greater levels of success. This concept of mastery experiences to influence efficacy beliefs holds in this study. PMA emerged as the sole predictor of CTE in these sample schools, which suggests that when students achieved at high levels on this state's standardized mathematics assessments, the

teachers in these schools believed that they and their colleagues were successful at delivering the curriculum and helping their students learn. So, school leaders who wish to enhance CTE in their schools must prioritize the recognition of prior academic successes to provide members of their school's faculty with the mastery experiences required to improve each individual's self and collective efficacy beliefs.

In the absence of the specific mastery experience of PMA, results from this study indicate the neither SAR nor TAD predict CTE. It may be prudent, however, for principals to continue to target SAR and TAD to improve CTE, because both variables in these sample schools were positively related with CTE and offered a moderate effect. That is, schools with higher student attendance rates were comprised of faculties that had higher levels of CTE, as did schools that had more teachers who held advanced degrees. Given these results, principal leadership to improve CTE should continue to consider the relationships between these school and teacher characteristics and CTE.

A troubling conclusion for practitioners who lead schools with high concentrations of student poverty that I can draw from these data and analyses is with regard to the strong, negative relationship between school SES, as measured by the percentage of students who qualify for free lunch (FL), and CTE. This relationship suggests that a school faculty's belief about their effectiveness at delivering classroom instruction and improving student learning is lower in schools that have higher percentages of students who qualify for free lunch. Principals in schools with higher concentrations of student poverty might do well to lead with a focus on positive feedback to manipulate the collective efficacy beliefs of the faculty, as described by Bruton, Mellalieu, and Shearer (2014) in a non-school setting. Principals in these schools might best serve their students and faculty by providing teachers with sources of information to develop self-efficacy through mastery and vicarious experiences, as well as through verbal persuasion, to improve a school's CTE.

Future Research Recommendations

Future work needs to continue to examine administratively mutable variables that principals can target as they lead to improve collective teacher efficacy (CTE) in their schools, because the evidence for the value of this variable to improve school and student outcomes is too strong for principals to not make it a leadership priority (Tschannen-Moran, Salloum, & Goddard, 2015). For practitioners, specific knowledge of school and teacher characteristics that are under leadership control that can serve as antecedents to enhance CTE is critical for higher levels of student learning, so future researchers should look to identify any such school level antecedent variables. Additionally, considering the relationship between teacher degree status and CTE that I found in this study, future work is needed to examine if the type of advanced degree, master versus doctoral or content specific versus non-content specific, matters with respect to improving CTE.

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