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Are Leader Behavior and Emotional Intelligence related to Teacher Efficacy?



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Introduction

Identifying the leader factors that drive student achievement is of paramount importance to school leaders. With knowledge of those factors clearly understood, the burden of moving a school in a positive direction would be a much more manageable undertaking. While there is some debate as to whether leaders directly or indirectly impact student achievement, the preponderance of evidence seems to suggest an indirect impact. Chief among those indirect factors are those that enhance or improve teacher performance. One such indirect factor is teacher efficacy which has been shown to be directly related to student achievement. Leader emotional intelligence has also been posited as an indirect factor as it impacts teacher performance. This study deals with the relationship between those factors.

In an expansive study for the Wallace Foundation, Leithwood, Louis, Anderson, and Wahlstrom (2004, p. 5) found that “the total (direct and indirect) effects of leadership on student learning account for about a quarter of total school effects.” Moreover, Leithwood, et. al, (2004, p. 5) share that “there are virtually no documented instances of troubled schools being turned around without intervention by a powerful leader. Many other factors may contribute to such turnarounds, but leadership is the catalyst.” Waters, Marzano, and McNulty (2003) in a meta-analysis of the relationship between leadership and student achievement came to essentially the same conclusions, stating the “data from the meta-analysis demonstrate that there is, in fact, a substantial relationship between leadership and student achievement.” A study of transformational school leadership (TSL) by Sun and Leithwood (2012) found that “TSL has small but significant effects on student achievement.” Labby, Lunenburg, and Slate (2012) hold that,

The qualities that principals possess and the styles of leadership are two factors critical to the effective operation of the school. Effective principals generate optimism, passion, and an atmosphere of trust and cooperation to lead their staff in a manner to motivate students to high levels of academic achievement. Successful leaders envision their role as eliciting the maximum potential from others. To accomplish this task, principals demonstrate the ability to radiate appropriate needs and then move between being directive and non-directive with spontaneous competence (p. 5).

Other recent studies regarding the influence of leadership on student achievement indicate similar results. Branch, Hanushek, and Rivkin (2013), in a study of schools in Texas, found that “highly effective principals raise the achievement of a typical student in their schools by between two and seven months of learning in a single school year; ineffective principals lower achievement by the same amount.” Valentine and Prater (2011, p. 8) report similar findings in a state-wide study of leadership and student achievement. “The results from this study should serve as encouragement to practitioners and others interested in the effect of school leadership on student achievement since the preponderance of evidence supports an affirmative answer to the question “Can principal leadership enhance student achievement?” Hardman (2011, p. 923), in a study of teacher perceptions on the impact of leadership on student achievement, found that “leadership styles were statistically significant predictors of student achievement.”

Notwithstanding the general agreement and findings that school leadership is related to student learning/achievement, the nature and strength of that relationship is still uncertain. Reiterated, Leithwood, et. al. 2004, questioned whether the leadership effects were direct or indirect. Similar questions arose in a more recent meta-analysis by Karadag, Bektas, Çogaltay, and Yalçın (2015, p. 83) revealing when “educational leadership studies were examined, it was found that leadership is associated with student achievement” but also indicated “there are ongoing discussions as to whether this effect on student achievement is direct or indirect.” Identifying the direct or indirect effects leaders have on student learning/achievement is imperative to the further development of leadership theory.

Leader effects may be related to a leader’s hard technical skills and knowledge such as designing, budgeting, scheduling, or evaluating/monitoring. A second possibility is that leader effects may be related by what Maulding and Leonard (2016) defined as Leadership Intelligence (LSI),

LSI is a construct that represents the level of leadership capacity an individual possesses at any given time. It addresses the characteristics, dispositions, and the ‘soft’ people/relational skills of individuals including credibility, competence, ability to inspire, vision, and emotional intelligence. Within each of these five areas are specific subsets of characteristics, dispositions, or skills such as ethical behavior, discernibility, enthusiasm, commitment, and resilience (to name a few) that contribute to each component, respectively (p. 3).

Or perhaps, leader effects may be related to the leader behaviors, the dispositions, the leadership style/approach of the leader, (i.e., transformational or transactional leadership style/approach), and/or to the circumstances and conditions leaders create or impact. These may include support for instruction, provision of instructional support services, teacher efficacy, school climate/atmosphere, job satisfaction, community support, parental involvement, or even something as straightforward and important as the ability to maintain student discipline.

Purpose of the Study

The purpose of this study was to examine the relationships between and among leader behaviors, leader emotional intelligence, and teacher efficacy. More specifically, the study dealt with three questions. Are leader behaviors related to leader emotional intelligence?

Are leader behaviors related to teacher efficacy? Is leader emotional intelligence related to teacher efficacy?

Leader Behavior and Emotional Intelligence

It seems well settled that leader behavior has a significant impact on individual and organizational performance. What a leader says and does sets the tone for the organization and the organization's members. However, characteristics that are linked to successful leadership, have not been universally accepted and continue to emerge. Emotional intelligence (EI) is one of those relatively new leadership characteristics that impact organizational and individual performance and emerged from the work of Goleman in the 1990's. Goleman (1995) suggested that in the workforce there tend to be "stars" who seem to rise above the rest. In his 1995 book *Emotional Intelligence*, Goleman defined EI as "the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing the emotional will in ourselves and in our relationships" (p. xii).

Goleman further contends that although it takes a particular IQ for benchmark success, some with the highest IQs never truly excel in life. Similarly, those with an average IQ necessary for a particular vocation may advance rapidly. Sternberg supported Goleman's belief (1996) by stating that IQ alone is a weak predictor of job performance.

Emotional intelligence has been described by Salovey and Mayer (1990, p. 186) as "a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's own thinking and action." Blair, in a 2002 study, revealed that leaders who were successful in multiethnic contexts possessed the ability to demonstrate transformational leadership and change in an in-depth examination of 12 schools. In particular, "strong leadership" was characterized by more emotional forms of communication as well as such characteristics as "courage and perseverance (as well as resilience)" (pp. 184-185).

Reed (2005, p. 30) states that "new organizational performance theory suggests collective emotional intelligence may predict relationships between emotionally intelligent leadership, organizational climate, and organizational performance." Emotional intelligence ability measures and the empathy of the leader (Clark, 2010) was noted to contribute to competencies of teamwork, attentiveness, and managing conflict (after controlling for cognitive ability and personality). In 2012, (Lam & O'Higgins) in a study to examine leader influence based on emotional intelligence, found that employee job satisfaction was mediated by the leaders' EI. Finally, the 2013 *Primal Leadership: Unleashing the Power of Emotional Intelligence* by Goleman, Boyatzis, and McKee touted "emotional intelligence" as a necessary skill for leaders. Emotional intelligence, then, has become one of the defining characteristics of the best leaders and leads to the first question addressed in this study. Are leader behaviors related to leader emotional intelligence?

Leader Behavior, Leader Emotional Intelligence and Student Achievement/Learning

As shared in the introduction, leadership has been shown either directly or indirectly to effect student learning/achievement. However, the mechanism(s) of that/those effect(s) remains to be determined. Assuming direct effects are limited, at least two questions arise.

What leader behaviors are indirectly related to student learning/achievement? And, what leader characteristics are indirectly related to student learning/achievement?

Potential answers to that question can be found by examining factors leaders *can* impact directly, that are recognized as being related to student learning/achievement and are therefore subject to indirect leader influence. One such factor is the teachers who populate a school. The literature is replete with research indicating that teacher quality has a substantial impact on student learning/achievement (Sanders & Rivers, 1996; Darling-Hammond, 2000; Wayne & Youngs, 2003; Knoepfel, Logan, & Keiser, 2005; Goe, 2007; Alvarez, 2008; Goe & Stickler, 2008; Lomos, Hofman, & Bosker, 2011; Curry, 2016). Identifying, quantifying or operationally defining teacher quality has also proved to be confounding as no one single definition has emerged. West et al. (2014) share there is little consensus among educational scholars defining a “quality teacher” in spite of the significance of quality teaching. Even so, one factor that is prominent among the variables that are viewed as contributing to teacher quality is teacher efficacy.

Zee and Koomen (2016, p. 981) in a meta-analysis of forty years of teacher self-efficacy (TSE) research share that “Results suggest that TSE shows positive links with students’ academic adjustment, patterns of teacher behavior and practices related to classroom quality, and factors underlying teachers’ psychological well-being, including personal accomplishment, job satisfaction, and commitment.” Other researchers have found similar results (Ji-Won Son, Seong Won, Chungseo, & Oh Nam, 2016; Künsting et.al, 2016; West et. al, 2014; and Curry, 2014).

Teacher Efficacy and Student Achievement/Learning

Within the walls of the schoolhouse is the climate that has no visual identity but is palpable to those who experience it. It is embedded in the minds of the employees, students and stakeholders, and “can be shaped by the work of the leader...” (Peterson & Deal, 2012). Evidence of this climate can be measured in many ways, but for the purpose of this study was measured based on teacher efficacy in relationship to the leader.

One of the earliest and most commonly cited definitions of teacher efficacy comes from Berman, McLaughlin, Bass, Pauly, and Zellman, (1977, p.136) who defined teacher efficacy as “the extent to which the teacher believes he or she has the capacity to affect student performance.” They go on to share that,

The regression coefficients of the effects of a sense of efficacy are among the strongest relationships in our analysis. As Table 5.1 indicates, teacher sense of efficacy is positively related to the percent of project goals achieved, the amount of teacher change, improved student performance, and continuation of both projects methods and materials. Teachers’ attitudes about their own professional competence, in short, appear to have major effects on what happens to projects and how effective they are.

Furthermore, a 2001 study by Price revealed that principals’ relationships with their teachers had a profound impact on teacher self-efficacy.

However, as with teacher quality, the literature occasionally provides aberrant results. In a study of 5th grade students’ achievement in math and science, Alrefaei (2016, p. 81) found “there was no significant relationship between fifth grade teachers’ sense of efficacy and students’ achievement in the benchmark test in mathematics and science.”

Nonetheless, given the overwhelming support in the literature considering teacher efficacy as a primary factor in student achievement/learning, this conclusion seems reasonable. Two questions of interest in this study then become the second and third question listed in the purpose of the study. Are leader behaviors related to teacher efficacy? Is leader emotional intelligence related to teacher efficacy?

Quantitative Methods

Three instruments were employed in the study. Two of the instruments were utilized to gather information regarding specific behaviors of the leader and the emotional intelligence of the leader. The third instrument was employed to measure the efficacy of the teacher both personally and in relationship to his/her teaching.

Leader Behavior Description Questionnaire (LBDQ)

Leadership was assessed employing the Leader Behavior Description Questionnaire—Form XII (LBDQ). The LBDQ questionnaire was administered as a survey of leaders' self-perception of their own leadership behaviors. The Leader Behavior Description Questionnaire is widely recognized in the field as an appropriate measure of leadership behaviors. The LBDQ is composed of 100 items and yields a total score and 12 subscales scores. Those subscales as defined in the Stogdill, R. M. in the *Manual for leader behavior description questionnaire—Form XII* are:

1. ***Representation*** – speaks and acts as the representative of the group.
2. ***Demand Reconciliation*** – reconciles conflicting demands and reduces disorder to system.
3. ***Tolerance of Uncertainty*** – is able to tolerate uncertainty and postponement without anxiety or upset.
4. ***Persuasiveness*** – uses persuasion and argument effectively; exhibits strong convictions.
5. ***Initiation of Structure*** – clearly defines own role, and lets followers know what is expected.
6. ***Tolerance and Freedom***– allows followers scope for initiative, decision and action.
7. ***Role Assumption*** – actively exercises the leadership role rather than surrendering leadership to others.
8. ***Consideration*** – regards the comfort, well-being, status, and contributions of followers.
9. ***Production Emphasis*** – applies pressure for productive output.
10. ***Predictive Accuracy*** – exhibits foresight and ability to predict outcomes accurately.
11. ***Integration*** – maintains a closely-knit organization; resolves inter-member conflicts.
12. ***Superior Orientation*** – maintains cordial relations with superiors; has influence with them; is striving for higher status. (Stogdill, p. 3).

Trait Emotional Intelligence Questionnaire (TEIQue)

Emotional intelligence of the school leader was measured employing the 30-item Trait Emotional Intelligence Questionnaire (TEIQue-SF) short form instrument. According to the Technical Manual for the Trait Emotional Intelligence Questionnaires the short form “is based on the full form and includes two items from each of the 15 facets of the TEIQue” (Petrides, 2009). The facets are:

Adaptability...flexible and willing to adapt to new conditions.

Assertiveness...forthright, frank, and willing to stand up for their rights.

Emotion perception (self and others)...clear about their own and other people's feelings.

Emotion expression...capable of communicating their feelings to others.

Emo management (others)...capable of influencing other people's feelings.

Emotion regulation...capable of controlling their emotions.

Impulsiveness (low)...reflective and less likely to give in to their urges.

Relationships...capable of having fulfilling personal relationships.

Self-esteem...successful and self-confident.

Self-motivation...driven and unlikely to give up in the face of adversity.

Social awareness...accomplished networkers with excellent social skills.

Stress management...capable of withstanding pressure and regulating stress.

Trait empathy...capable of taking someone else's perspective.

Trait happiness...cheerful and satisfied with their lives.

Trait optimism...confident and likely to "look on the bright side" of life (Petrides, 2009).

However, the TEIQue-SF "does not yield scores on the 15 TEIQue facets" (Petrides, 2009, p. 454). "Alternately the TEIQue-SF yields scores in four sub-scale areas; well-being, self-control, emotionality, and sociability." In a study examining the psychometric properties of the TEIQue Short Form Cooper and Petrides (2010) found that "Results replicated Study 1, with the instrument showing good psychometric properties at the item and global level" (2010, p. 186) an indication that the instrument is compatible with the measurement of emotional intelligence.

Teacher Efficacy Scale (TES)

The Teacher Efficacy Scale (TES Short Form) instrument was employed to measure the efficacy of the teachers from the schools of the principal respondents. The instrument is comprised of 10 items. According to Hoy and Woolfolk (1993) the TES is recognized as an appropriate measure of teacher efficacy. Scores are reported as item totals in two areas, General Teaching Efficacy and Personal Teaching Efficacy. Of teaching efficacy Hoy and Woolfolk state, "it appears to reflect a general belief about the power of teaching to reach difficult children and has more in common with teachers' conservative or liberal attitudes toward education. For this reason, we have labeled the dimension general teaching efficacy" (Hoy & Woolfolk, 1993, p. 365). Of the second area they relate, the "second dimension appears to be the more accurate indicator of the teacher's personal sense of efficacy and is labeled personal teaching efficacy" (Hoy and Woolfolk, 1993, p. 366). Area totals are derived by summing the indicated response on a polarized 1-6 scale, 1 representing strongly agree and 6 representing strongly disagree.

Research Subjects

A convenience sample of school leaders was secured from school administrators enrolled in the doctoral program at the local institution and/or leaders employed by local school districts. School leaders from 16 schools completed the TEIQUE and LBDQ. Teaching faculty from the 16 schools, totaling 512 teachers, completed the TES. The instruments were

administered online via Qualtrics, an internet-based research company.

Quantitative Findings

Survey data was analyzed employing SPSS Version 23. Correlations were performed between the total score of each instrument and where appropriate the subscales of the respective instruments. The findings are presented in Tables 1-4.

LBDQ and TEIQue Correlations (Table 1 and Table 2)

The small correlation of 0.052 found between the total scores on the leader Trait Emotional Intelligence Questionnaire (TEIQue) and the total scores on the Leader Behavior Description Questionnaire (LBDQ) was not statistically significant. As might be anticipated, given that no statistically significant correlation was found between LBDQ and TEIQue total scores, there were no statistically significant correlations found between the LBDQ subscale and the TEIQue total scores. Interesting to note that while nine of the correlations are small or moderate (ranging from 0.012 to 0.251), three of the correlations are negative. The negative correlations were small to moderate as well (and range from - 0.365 to - 0.180). The demand reconciliation correlation (rec in Table 2) was negative as were the tolerance of uncertainty correlation (tol_of_un in Table 2), and the role assumption (role_assump in Table 2).

TEIQue and TES Correlations (Table 3)

No significant correlations were found between the TEIQue total scores of school leaders for either general teacher efficacy or personal teaching efficacy as measured by the Teacher Efficacy Scale (TES). Each of the correlations were small; 0.162 between TEIQue total scores and general teacher efficacy, and 0.253 between TEIQue total scores and personal teaching efficacy.

LBDQ and TES Correlations (Table 4)

Analysis of the Leadership Behavior Description Questionnaire (LBDQ) total scores and the Teacher Efficacy Scale (TES) scores yield similar results with one exception. No significant difference was found between the leader LBDQ total scores and TES *personal* teaching efficacy scores but a significant correlation was found between the LBDQ total scores and TES *general* teacher efficacy scores. The personal teaching efficacy score correlation was positive and small at 0.197. The general teacher efficacy correlation in contrast was negative, moderate at $r(16) = -0.587$ but statistically significant at the .05 level two tailed $p = 0.017$.

		tei_total	ldbq_total
tei_total	Pearson Correlation	1	.052
	Sig. (2-tailed)		.847
	N	16	16
ldbq_total	Pearson Correlation	.052	1
	Sig. (2-tailed)	.847	
	N	16	16

Table 2: TEIQue Total Score Correlation with LBDQ Total Score

		tei_total
tei_total	Pearson Correlation	1
	Sig. (2-tailed)	
	N	16
rep	Pearson Correlation	.216
	Sig. (2-tailed)	.421
	N	16
rec	Pearson Correlation	-.280
	Sig. (2-tailed)	.294
	N	16
tolerance_uncer	Pearson Correlation	-.365
	Sig. (2-tailed)	.164
	N	16
persuasion	Pearson Correlation	.078
	Sig. (2-tailed)	.774
	N	16
structure	Pearson Correlation	.069
	Sig. (2-tailed)	.800
	N	16
tolerance_free	Pearson Correlation	.121
	Sig. (2-tailed)	.654
	N	16
role_assump	Pearson Correlation	-.180
	Sig. (2-tailed)	.505
	N	16
consideration	Pearson Correlation	.225
	Sig. (2-tailed)	.402
	N	16
prod_emphasis	Pearson Correlation	.012
	Sig. (2-tailed)	.966
	N	16
pred_accuracy	Pearson Correlation	.114
	Sig. (2-tailed)	.675
	N	16
integration	Pearson Correlation	.251
	Sig. (2-tailed)	.349
	N	16
superior_orientation	Pearson Correlation	.065
	Sig. (2-tailed)	.812
	N	16

Table 3: TEIQue Total Score Correlations with TES Teacher Efficacy and TES Personal Efficacy

		tei_total
TEIQue_total	Pearson Correlation	1

	Sig. (2-tailed)	
	N	16
General_Teaching_Efficacy	Pearson Correlation	.162
	Sig. (2-tailed)	.548
	N	16
Personal_Teaching_Efficacy	Pearson Correlation	.253
	Sig. (2-tailed)	.344
	N	16

Table 4: LBDQ Total Score Correlations with TES Teacher Efficacy and TES Personal Efficacy

		ldbq_total
ldbq_total	Pearson Correlation	1
	Sig. (2-tailed)	
	N	16
General_teaching_efficiency	Pearson Correlation	-.587*
	Sig. (2-tailed)	.017
	N	16
Personal_teaching_efficiency	Pearson Correlation	.197
	Sig. (2-tailed)	.465
	N	16

Conclusions and Discussion

Leadership Behaviors and Emotional Intelligence

The results of the study suggest that there is little or no relationship between leader behaviors and leader emotional intelligence. Moreover, for some leader behaviors, the relationship between leader behavior and emotional intelligence is negative, as leader emotional intelligence increases those specific subscales scores tend to decrease. This inverse relationship may be related to the nature of the behaviors described by those subscales.

Demand reconciliation, for example, deals with reconciling conflicting demands and reducing disorder to system. The duality of that behavior may produce a cognitive dissonance that is reflected in a negative emotional feeling by the leader. Similarly, the tolerance of uncertainty addresses the ability to tolerate uncertainty and postponement without anxiety or upset, clearly another situation in which the duality of the behavior required by the leader could lead to dissonance and a negative emotional feeling. Finally, role assumption describes leader behavior wherein the leader actively exercises the leadership role rather than surrendering leadership to others. Given the current emphasis of shared/distributed leadership the internal conflict generated by this decision could lead to dissonance and a negative emotional feeling. Again, though, taken as a whole, the data indicate that the relationship between leader behaviors and leader emotional intelligence is tenuous and uncertain at best.

These findings conflict with previous findings by the authors. In a 2012 study of emotional intelligence, resilience, and leader behaviors, Maulding, et. al. concluded that,

The findings of the study indicate that both emotional intelligence and resilience are significant predictors of leadership from the perspective of self-analysis of administrators whether subjected to quantitative or qualitative analysis. As a leader's emotional intelligence and resilience increase, leadership capacity increases. These results would seem to indicate that the relationship between leadership characteristics and emotional intelligence and resilience is substantial. These factors (the positive influence of the leader) have been shown to have a positive and profound impact on teacher efficacy and school culture (Hattie, 2009), which in turn enhance student achievement (p. 26).

The findings also diverge from those of Goleman (1995), Blair (2002), Reed (2005), Clark (2010), Lam and O'Higgins (2012), and Goleman, Boyatzis, and McKee, (2013) discussed previously. Additionally, the findings differ from those of Parrish (2015) who found that "emotional intelligence is recognized as a highly relevant and important requirement for academic leadership in higher education." In a study of emotional intelligence and school, DeRoberto (2011, p. 122) elaborates the "findings indicated that all four dimensions of emotional intelligence contributed to variability in all three dimensions of the learning organization (Supportive Learning Environment; Concrete Learning Processes and Practices; and Leadership that Reinforces Learning). DeRoberto's finding also differs from those found in this study. The divergence of findings may reflect the small sample utilized in this study and/or the nature of the leader self-perception of the leaders who participated. That is, they may view their behavior as leaders to be less related to emotional understanding and practice than to rational, objective understanding and practice.

Leader Emotional Intelligence and Teacher Efficacy

Analysis of the data indicates that leader emotional intelligence is positively though not statistically significantly related to teacher efficacy when viewed as either general or personal teacher efficacy. While there is a dearth of studies in the literature that specifically examine the relationship between leader emotional intelligence and teacher or employee efficacy, there are also studies that deal with employee characteristics related to efficacy such as motivation (Bandura, 1982; and Canrinus, Helms-Lorenz, Beijaard, Buitink, & Hofman, 2012). Brown (2006) in a study of leader emotional intelligence and employee motivation in a transportation organization found the "survey results suggested no correlation between leaders' use of emotional intelligence and the motivational behavior of employees/followers" (p. iii). In fact, Brown's analysis revealed a small negative correlation between the two variables. Clarke (2016), in a meta-analysis of studies between of the relationship between leader emotional intelligence and employee motivation, found no relationship. The conclusion was that the "results shows that emotional intelligence had a negative but not significant relationship with motivation." Again, the correlations found were small and negative. The small negative correlations aside, the findings here align with the findings in those studies, that there is no relationship between leader emotional intelligence and employee, in this case teacher efficacy.

Leadership Behaviors and Teacher Efficacy

The correlation found between leader behaviors and personal teacher efficacy, was found to be small and positive but not statistically significant. This finding aligns with the work of Nir and Kranot (2006). They found, based on a study of leadership style and teacher efficacy, "that teachers' perceived general efficacy (GTE) is not related to school principal's

leadership style, but rather reflects a wider perception that goes beyond the characteristics of organizational contexts.” However, those findings conflict with those of Mehdinez had and Mansouri (2016, p. 54) who found that, [sic] “there is a significant relationship between the components of principals’ leadership behaviours and teachers’ sense of self-efficacy.” Similarly, the findings conflict with those of a study of the relationship between principal behaviors and teacher efficacy by Walker and Slear (2011) who stated that, “Findings suggest that teacher efficacy is significantly affected by principal behaviors.” The differences in these findings point to the unsettled nature of the relationship between these variables.

The correlation between general leader behaviors and teacher efficacy was found to be moderate, negative and statistically significant. This finding does not align with any of the forgoing studies but instead indicates a different and potentially important relationship. This finding illustrates that, at least in some instances, leader behaviors may have a depressing effect on teacher efficacy even when those leader behaviors are directed toward generally accepted leader responsibilities/duties. What this may represent is a strong difference in the perception of the leader’s behavioral intent.

Limitations of the Study

Certain aspects of the study warrant mention as limitations to the generalization of the results of the study. First, and most importantly, while the number of faculty subjects is large at 512, the number of school leader subjects was small (n=16). A larger leader sample with a correspondingly large faculty sample would provide a stronger basis for generalization. A second consideration is that for some schools the faculty response approached one hundred percent participation while for other schools the percentage of faculty response was much smaller approaching at 10 % or less. Faculty size could also be a limitation as there was a large amount of variation in the size of the faculty at each school ranging from four to well over fifty. Regarding this same aspect of the study, faculty participation was voluntary.

Suggestions for Future Research

It seems apparent from the results of this study that further research is required to begin to define the leadership factors that indirectly impact student achievement. A first suggestion would be to expand the sample size. A larger leader sample with a correspondingly larger faculty sample would provide a stronger basis for generalization. A second consideration would be to author a study in which all faculty members responded. A pivotal question that might also be explored is to determine the key factors today that impact teacher development and student results in important ways.

Another consideration could be to examine the relationship between leader behaviors, leader emotional intelligence, and other factors as previously listed: a leader’s hard technical skills and knowledge such as designing, budgeting, scheduling, or evaluating/monitoring; a leader’s “soft” people/relational skills with individuals including credibility, competence, ability to inspire, vision, and emotional intelligence; the leadership style/approach of the leader; the circumstances and conditions leaders create or impact such as support for instruction, provision of instructional support services, teacher efficacy, school climate/atmosphere, job satisfaction, community support, parental involvement, or even something as straight forward and important as the ability to maintain student

discipline; or Leithwood et. al's (2004, p. 89) suggestion that "school conditions, classroom conditions, teachers, or leaders professional learning experiences" be examined.

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