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The Influence of Placement in an Inclusive Classroom on the Academic Performance of Non-disabled Eleventh Grade Students in A Suburban New Jersey School District

Jocelyn Easley Brown

*Rancocas Valley Regional High School
District*

Gerard Babo

Seton Hall University

The purpose of this study was to determine the influence, if any; assignment to an inclusive secondary language arts classroom setting has on the academic performance of grade 11 non-disabled general education students in two suburban New Jersey High Schools. Using a sampling process known as Propensity Score Matching (PSM), a statistical technique that greatly reduces the influence of selection bias endemic to most observational designs, a sample of 214 grade 11 students' 2013 NJHSPA Language Arts Literacy performance scores were analyzed to see what influence placement of non-disabled students in inclusion classes has on performance while controlling for ethnicity, gender, socioeconomic status, time in district, attendance, and past academic performance. Results suggested that placement in an inclusive classroom did have a slight, yet statistically significant, negative influence on non-disabled grade 11 student performance on the language arts literacy section of the 2013 New Jersey HSPA. Additionally, further analysis indicated that this effect could be exacerbated by the number of years a non-disabled student has been assigned to an inclusive language arts classroom environment and the school they attend.

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Due to initiatives such as Race to the Top, teacher and administrator evaluations have been linked to student performance on test scores in many states (U.S. Department of Education, n.d.). With high stakes accountability policies such as value-added measures of teacher and administrator effectiveness at the center of a national movement to evaluate, promote, compensate, and dismiss teachers, it is necessary for educators and policy makers to be informed of effective educational practices that benefit all students (Tamayo, 2010).

With the increased responsibility of school administrators and teachers to improve student outcomes on assessments, school leaders are faced with the challenge to develop programs that will allow students of varying needs to be successful (Corcoran, 2010). Although legislation places an emphasis on developing inclusive practices that meet the needs of students with disabilities, it is necessary to ensure that the needs of non-disabled students are also addressed.

School leaders have access to an abundance of research on the influence of inclusion classes on classified students when making decisions. However, they have minimal access to literature addressing its influence on students without disabilities (Daniel & King, 1997; Gattuso, 2008; St. John & Babo, 2015). Educators tend to focus on the benefits of inclusion for students with special needs; however, with the diverse needs of students in most classrooms, it is also necessary to measure the influence of inclusion practices on general education students. Providing the most appropriate environment in which to learn to all students will help to increase student achievement and consequently prevent negative outcomes for administrators, schools and students.

Brief Review of the Literature

Educators rely on current research to make informed decisions on the placement of students with special educational needs as well as those without. Current policy requires that students be placed in the least restrictive environment (LRE), which oftentimes for students with special needs, is an inclusion setting. Therefore, it is necessary for educators and policy makers to understand the influence of such an environment on students with special needs as well as non-disabled students.

It is difficult to draw clear conclusions about the potential benefits or drawbacks about this method of instruction based upon available research (McDonnell, Thorson, Disher, Mathot-Buckner, Mendel & Ray, 2003; Ruijs & Peetsma, 2009). Those in support of the practice of inclusion argue that students who are educated in an inclusion classroom setting may benefit both socially and academically from the environment (McDonnell et al., 2003). Those who advocate for inclusion contend that non-disabled students who are educated with students who have special needs are more tolerant of differences, and students with disabilities who are educated with typical peers are exposed to peers who demonstrate and model appropriate social behavior (Daniel & King, 1997; Lindsay, Prolux, Thomson & Scott, 2013).

Educators who oppose the practice of inclusion argue that non-disabled students who are educated among their disabled peers experience negative consequences. For instance, opponents state that when educated among students with disabilities, regular education students imitate undesirable behaviors displayed by their disabled peers (Ruijs & Peetsma, 2009). Additionally, those who do not support the practice of inclusion make the argument that non-disabled students become bored with the pace of instruction when educated among students with disabilities, while students with disabilities struggle to keep up with the pace of instruction (Daniel & King, 1997).

The majority of studies have found that there are no statistically significant differences in the performance of non-disabled students when placed in an inclusion setting (Ruijs & Peetsma, 2009). In an exploratory study by McDonnell et al. (2003) of the influence inclusive educational

practices had on the achievement of students with disabilities and their non-disabled peers, it was determined that the placement of students with developmental disabilities in an inclusion setting did not have a statistically significant negative impact on their non-disabled peers as measured by state mandated assessments in language arts or math. These results are consistent with the research that indicates neutral academic outcomes for non-disabled students who are educated in classrooms with peers who have special needs (Ruijs & Peetsma, 2009).

Several factors in addition to classroom setting may have an influence on student achievement. Such variables may include socioeconomic status (SES), gender, ethnicity, and attendance (Coleman, 1966). The combination of these variables in addition to placement in an inclusive setting may potentially influence student achievement. The current study contributes to the small body of research that exists on the factors that may influence the academic achievement of regular education students. It is important to explore this area further due to federal law requirements that students be educated within the regular education classroom when appropriate. In addition, with the increased accountability of educators to ensure that students perform at a proficient level on standardized tests, research on the effects of inclusive practices must be conducted and understood by individuals in the field.

Problem

The national movement to utilize value-added measures to promote, evaluate, compensate, and dismiss teachers and administrators has increased the importance of Federal, state and local policy makers to be informed of effective practices that benefit all students. Therefore, school leaders have begun to measure teacher effectiveness based on student achievement instead of teacher input (Corcoran, 2010). The shift in attention to teachers' impact on student growth is largely based upon research that indicates that individual teachers are the most influential component of an effective school (Marzano, 2007).

Recent policies of high-stakes accountability such as Race to the Top, a four billion dollar competitive government grant program aimed at systemic education reform that requires teacher evaluations to be linked to student progress, and foundations such as the Bill & Melinda Gates Foundation which provide financial support for teacher evaluation reform efforts, have increased pressure on school leaders to measure the academic performance of students (Corcoran, 2010). In addition to Race to the Top requirements that teachers and administrators be evaluated on the academic performance of students on high-stakes tests, Federal policies such as No Child Left Behind (NCLB) and Individuals with Disabilities Education Improvement Act (IDEIA) require that students with disabilities have access to the same curriculum as their non-disabled peers in the LRE to the maximum extent possible. In some instances, the LRE for disabled students is in an inclusion classroom with typically developing peers.

School leaders have been charged with the task of developing programs that most appropriately meet the needs of students with varying abilities so they may attain a passing score on state assessments. Therefore, educators must foster an academic environment that meets the needs of all students. Although NCLB emphasizes developing inclusive practices to address the needs of students with disabilities, it is also necessary to ensure that the needs of regular education students are met. Many educators question whether inclusion settings are beneficial to all students, including those who do not have a disability, however school leaders must determine the appropriate placement for all students, with and without a disability.

Research on the influence of inclusion on the non-disabled students' academic performance yields varied results (Daniel & King, 1997; Idol, 2006; McDonnell et al., 2003). A great deal of

quantitative evidence suggests that students with disabilities benefit socially from being educated in an inclusion classroom setting. A smaller body of evidence, however, examines the effect of being in an inclusion classroom setting on students without disabilities. Within the research that exists on this topic, the variables that may influence the academic achievement of regular education students in an inclusive classroom such as ethnicity, socioeconomic status, gender, attendance, and free and/or reduced lunch eligibility are rarely identified (Daniel & King, 1997).

Purpose and Research Questions

The purpose of this study was to examine the influence of an inclusive classroom setting on the academic performance of general education secondary students on the language arts literacy section of the 2013 New Jersey High School Proficiency Assessment (NJ HSPA). In addition, this study examined the dependent variable of performance on the language arts literacy section of the 2013 NJ HSPA, while controlling for the independent variables of socioeconomic status, ethnicity, gender, attendance, past academic performance, length of time in district, placement in an inclusive language arts classroom setting, and number of years in an inclusive language arts classroom setting.

The overarching question that guided this study was: What influence, if any, does placement in an inclusive language arts classroom setting have on Grade 11 non-disabled students' academic performance in Language Arts Literacy as measured by the Language Arts Literacy section of the 2013 NJ HSPA when controlling for gender, student ethnicity, SES, student attendance, and academic past performance?

Methodology

Population

The participants of this study were selected from a suburban middle to upper middle class PreK-12 school district located in central New Jersey. The school district is comprised of 17 schools and serves approximately 10,500 students. The school district contains two PreK-5 elementary schools, ten K-5 elementary schools, three 6-8 middle schools, and two 9-12 high schools.

The sample was limited to two high schools, MTN and MTS. MTN High School had approximately 1,474 students, 373 in grade nine, 363 in grade ten, 364 in grade eleven, 350 in grade twelve, and 24 students who were repeating grade 12. About 88.2% of the students in MTN were classified as white, 2.8% were African American, 6.3% were Hispanic, 2.7% were Asian, 0.3% American Indian, 0.6% Pacific Islander, and 0.1% were of two or more races. Approximately 16% of students in the school had been classified as having special educational needs, and 13.6% of students qualified for free or reduced lunch.

MTS High School consisted of about 1,364 students with 344 in grade nine, 329 in grade ten, 323 in grade eleven, 344 in grade twelve, and 25 students repeating grade twelve. 91.6% of the students were classified as white, 1.4% African American, 3.8% Hispanic, 2.7% Asian, 0.3% American Indian, and 0.1% Pacific Islander. Sixteen percent of students in the school had been classified as having a disability, and 5.4% of the students qualified for free or reduced lunch.

Participants in the study met the following criteria: students in the sample were in the eleventh grade during the 2012-2013 school year at MTN High School or MTS High School, each student had valid overall and cluster scores in language arts literacy on the 2010 NJ ASK 8 and the

2013 NJ HSPA state assessments, each student was enrolled in the district during grades 8-11, and each student in the sample was considered a general education student and was deemed ineligible for special education services.

Students were assigned to either a College Prep I (CPI) or College Prep II (CP II) level English course based on standardized test data from the previous year, teacher recommendations based on course performance and district requisites, and parent input. Students who did not perform on at least the proficient level on standardized tests or did not receive the requisite course grade were recommended to the CP II English level. The CPII level courses were inclusion classes where general education and classified students were taught in the same classroom. Two certified teachers, one content expert, and one special education teacher, taught the students in the class. Both general education and special education students in the classes were exposed to the same curriculum and assessments, and were taught in the same classroom at all times. Students who received a score of proficient or above and received the requisite course grade in language arts were recommended for the CPI level. During their junior year, CPI and CPII classes were merged because both courses provided students exposure to the same curriculum and common assessments. Therefore, in their junior year, students were assigned to a general college preparatory level English course by the computer, rather than by their counselor.

Propensity Score Matching (Sampling)

The sample used for statistical analysis was obtained through the use of Propensity Score Matching (PSM). Developed by Rosenbaum and Rubin (1983), PSM attempts to increase the validity of causal inference from observational studies by balancing the distributions of the observed covariates between the treatment and control groups (Bai, 2011). A propensity score is used to reduce the selection bias by balancing groups and allowing direct comparisons of the observational data, according to Bai (2011). In other words, PSM allows one to compare groups as if conducting a randomized experiment (Olmos & Govindasamy, 2015). We decided to use PSM for two primary reasons. First, PSM assists in marginalizing the influence of selection bias, which in turn reduces the possibility of a Type I error (the probability of rejecting a null hypothesis that is true). Second, the study was based on data obtained from students attending two separate schools. Therefore, we would have been obliged to run the analysis separately for each school. However, PSM allowed us to better control for the school as a nested community and to identify the effects of condition on an individual student's performance. Consequently, we were able to combine both school samples into one overall sample since PSM controlled not only for school factors but also for individual student factors.

PSM has been widely used in many fields of study, however it is a method that is relatively new to the field of education (Lane & Henson, 2010). Randomly assigning students to inclusion classrooms in a school is impractical and most often unethical; therefore, an alternative method of reducing selection bias is necessary. PSM allows statistically equivalent groups to be developed through matched sampling. Group differences due to demographic characteristics rather than treatment effects are eliminated by utilizing matched sampling (Haas-Vaughn & Onwuegbuzie, 2006). In order to study the effect of the independent variables on the student achievement of eleventh grade students at two schools, a quasi-experiment was designed where students from one school were matched with students from another based on relevant characteristics. In addition to what was previously stated as the rationale for using PSM in a quasi-experimental design correlation study, is the implication that PSM provides an artificial condition of a randomized design type methodology. Randomized design is one of the strongest methodologies of all

research designs (Cresswell, 2012; Gall, 2012).

Results

A simultaneous multiple regression was run to determine the amount of influence the independent variables gender, race, SES, time in district, attendance, academic past performance as measured by the NJASP 8 LAL, and placement in an inclusive English classroom had on eleventh grade students' performance on the 2013 NJ HSPA Language Arts Literacy section (see Table 1).

Table 1

Variables in Model 1 Regression

Variable	Variable Type	Measurement
Gender	Categorical/Dichotomous	0 = male; 1 = female
Race	Categorical/Dichotomous	0 = non-white; 1 white
SES	Categorical/Dichotomous	0 = not on Free & Reduced Lunch; 1 = on Free & Reduced Lunch
TID (Time in District)	Scale	# of years in school district
Attendance	Scale	# of days absent from school
NJASK 8 LAL	Scale	Composite Score from 100 - 300
Inclusion	Categorical/Dichotomous	0 = gen. ed. student not in inclusive classroom; 1 = gen. ed. student in inclusive classroom

Model 1 involved 214 eleventh grade students. In multiple regression Model 1, the dependent variable was the 2013 NJ HSPA Language Arts Literacy scaled score for eleventh grade students. In this model, the value of R^2 was .377, which indicated that 37.7% of the variance in performance on the Language Arts Literacy section of the 2013 NJ HSPA was attributed to the independent variables. The Durbin-Watson score was 2.215, which indicated that the residuals of the variables were not related and this assumption for regression was met. The Model 1 regression was statistically significant ($F = 17.795$, $df=7,206$, $p < .001$)

Examination of the standardized beta coefficients table (see Table 2) indicated that the three statistically significant predictors of performance on the Language Arts Literacy section of the 2013 NJ HSPA were inclusion, attendance, and past performance, which accounted for 34% of the variance in this regression model. Multicollinearity was not of concern because all predictor variables included in the regression met the tolerance level threshold for this model, .644 ($>1-R^2$) (Leech, Barrett, & Morgan, 2011).

Student attendance was a significant predictor of performance on the Language Arts Literacy section of the 2013 NJ HSPA ($\beta = -.175$ $t = -3.147$, $p < .05$). Attendance contributed to 3.1% of the variance in this regression model. The negative beta indicated that as number of days absent increased, performance on the Language Arts Literacy section of the 2013 NJ HSPA decreased.

Past academic performance was a statistically significant predictor of performance on the Language Arts Literacy section of the 2013 NJ HSPA ($\beta = .542$, $t = 9.610$, $p < .001$). According to the analysis in this model, past performance accounted for 29.4% of the variability in Grade 11

students' performance on the Language Arts Literacy section of the 2013 NJ HSPA. The positive beta indicated that as student performance on the Language Arts Literacy section of the 2010 NJ ASK 8 increased, performance on the Language Arts Literacy section of the 2013 NJ HSPA also increased.

Placement in an inclusive English classroom setting was a statistically significant predictor of performance on the Language Arts Literacy section of the 2013 NJ HSPA for non-disabled students in Grade 11 ($\beta = -.125, t = -2.260, p < .05$). Placement in an inclusion classroom setting contributed to 1.6% of the variance of eleventh grade students' performance on the Language Arts Literacy section of the 2013 NJ HSPA. The negative beta indicated that general education students placed in a non-inclusive classroom setting performed higher on the Language Arts Literacy section of the 2013 NJ HSPA than general education students who were placed in an inclusive English classroom setting.

Of the three statistically significant variables, student attendance, past performance, and placement in an inclusion classroom setting for Language Arts Literacy, past performance was the strongest predictor of performance on the Language Arts Literacy section of the 2013 NJ HSPA. Past performance was a stronger predictor of performance on the Language Arts Literacy section of the 2013 NJ HSPA than the variables student attendance and placement in an inclusion classroom setting.

Table 2

Model 1 Coefficients Table for 2013 NJHSPA Language Arts Literacy

Model 1 Variables	B	SEB	β	t	Sig.	95% Lower	95% Upper	Tolerance
Gender	-1.380	1.583	-.049	-.872	.384	-4.501	1.741	.951
Race	-2.979	2.457	-.072	-1.212	.227	-7.823	1.865	.850
SES	-.463	2.459	-.011	-.188	.851	-5.311	4.385	.823
TID	-2.007	8.121	-.014	-.247	.805	-18.017	14.00	.927
Attendance	-.953	.303	-.175	-3.147	.002*	-1.550	-.356	.973
NJASK 8 LAL	.421	.044	.542	9.610	.000*	.335	.508	.951
Inclusion	-3.427	1.516	-.125	-2.260	.025*	-6.416	-.438	.985
Constant	157.281	26.89		5.848	.000	104.25	210.3	

Based on this analysis, it was found that placement in an inclusive language arts classroom setting had a statistically significant influence on Grade 11 non-disabled students' Language Arts Literacy academic performance as measured by the 2013 NJ HSPA when controlling for gender, race, SES, student attendance, and academic past performance as measure by the NJASK 8.

Factorial ANCOVA

In order to determine if “school” might serve as a treatment factor, a Factorial Analysis of Covariance (ANCOVA) was performed. The Factorial ANCOVA allowed us to determine if there was a significant interaction between the two schools and the number of years a general education

student was placed in inclusion. This analysis was run based on the results of Robinson (2012), which indicated that differences in the academic performance of general education students placed in inclusion classrooms may exist based on school and possibly attributable to school factors alone. Consequently, we looked at two main effects, school and number of years in an inclusive classroom setting, while controlling for student academic past performance (NJASK 8 LAL). Student academic past performance was included in the analysis as a covariate or control variable, because it accounted for the largest percentage of variance in performance on the Language Arts Literacy section of the 2013 NJ HSPA in the Model 1 regression.

This Factorial ANCOVA included 68 students from MTS and 141 students from MTN. Table 3 displays descriptive statistics by school assignment and number of years a general education student was assigned to an inclusion class for the Language Arts Literacy section of the 2013 NJ HSPA. This table displays mean performance before the covariate was taken into consideration.

Table 3

Descriptive Statistics of School and Inclusion Years

Inclusion Years	School	Mean	Std. Deviation	N
0.00	MTS	238.2424	15.16993	33
	MTN	243.1757	12.76807	74
	Total	241.6542	13.67418	107
1.00	MTS	239.8929	11.51276	28
	MTN	239.2000	11.18195	40
	Total	239.4853	11.23892	68
2.00	MTS	219.2857	26.91167	7
	MTN	234.7407	11.22015	27
	Total	231.5588	16.46519	34
Total	MTS	236.9706	16.28567	68
	MTN	240.4326	12.40467	141
	Total	239.3062	13.84363	209

In the Factorial ANCOVA analysis (see Table 4), the covariate NJASK 8 LAL, past academic performance, was found to have a statistically significant influence on Grade 11 Language Arts Literacy performance ($F(1, 202) = 97.375; p < .001$). The index for the effect size for each independent variable and the interaction between school and inclusion, partial η^2 , for past academic performance is .325. Therefore, past academic performance is accountable for 32.5% of Language Arts Literacy achievement on the 2013 NJ HSPA. The influence of inclusion years was also found to have a statistically significant influence on the dependent variable of Language Arts Literacy performance on the 2013 NJ HSPA ($F(2, 202) = 6.230; p = .002$). The partial η^2 for inclusion years was .058, indicating that 5.8% of Language Arts Literacy achievement on the 2013 NJ HSPA can be predicted by inclusion years. In addition, school was

found to have a statistically significant influence on the dependent variable ($F(1, 202) = 13.702; p < .001$). The partial η^2 for school was .064, which indicates that 6.4% of performance on the Language Arts Literacy section of the 2013 NJ HSPA can be predicted by past academic performance. Finally, the interaction term between inclusion years and school was found to have a statistically significant effect on the dependent variable ($F(2, 202) = 3.159; p = .045$). The partial η^2 for the interaction between inclusion years and school was .030, which indicates that 3% of the variance in Language Arts Literacy performance on the 2013 NJ HSPA could be predicted by the interaction between inclusion years and school.

Table 4

Tests of Between-Subjects Effects School and Inclusion Years When Controlling for Past Performance on NJHSPA Grade 11 Language Arts Literacy

Variables & Source	df	Mean Square	F	Sig.	Partial Eta Squared
NJASK 8 LAL	1	11494.225	97.375	.000	.325
School	1	1617.336	13.702	.000	.064
Inclusion Yrs.	2	735.412	6.230	.002	.058
School * Inclusion Yrs.	2	372.858	3.159	.045	.030
Error	202	118.041			

Since it was determined that the interaction between school and number of inclusion years was statistically significant, a variable labeled “School Interact” was created in order to identify precisely where the significant differences between the cross categories took place. Six new groups were created accounting for all possible combinations of the interaction terms. These new groups were formed in order to examine differences between the interactions of the specific group designations and were coded as follows:

- School MTS, 0 years of inclusion (n=33)
- School MTN, 0 years of inclusion (n=74)
- MTS, 1 year of inclusion (n=28)
- School MTN, 1 year of inclusion (n=40)
- School MTS, 2 years of inclusion (n=7)
- School MTN, 2 years of inclusion (n=27)

The initial analysis was a Factorial ANCOVA where the NJASK 8 LAL student performance scores were used to control for student past academic performance, therefore an Analysis of Covariance (ANCOVA) was performed on the main effect “School Interact” while controlling for student NJASK 8 LAL performance and significant differences between groups were found ($F(5, 202) = 4.562; p = .001$). Table 5 displays the adjusted means for each level of the main effect, “School Interact.” Table 6 displays the actual results of the ANCOVA.

Table 5

Adjusted Means for School Interact Categories for the NJHSPA Gd. 11 LAL when Controlling for NJASK 8

School Interact	N	Mean	Std. Error
MTS, 0 years of inclusion	33	237.806	1.892
MTN, 0 years of inclusion	74	242.528	1.265
MTS, 1 year of inclusion	28	237.505	2.067
MTN, 1 year of inclusion	40	239.173	1.718
MTS, 2 years of inclusion	7	223.424	4.128
MTN, 2 years of inclusion	27	238.492	2.125

Table 6

Tests of Between-Subjects Effects on School Interact Main Effect on NJHSPA Grade 11 Language Arts Literacy when Controlling for Past Performance on the NJASK 8 LAL

Variables & Source	df	Mean Square	F	Sig.	Partial Eta Squared
NJASK 8 LAL	1	11494.225	97.375	.000	.325
School Interact	5	538.473	4.562	.001	.101
Error	202	174.081			

A Tukey's Post hoc analysis (see Table 7) was computed showing statistically significant mean differences in NJHSPA Grade 11 Language Arts Literacy performance between general education students at MTS and MTN who were never assigned to inclusion classes when controlling for past academic performance ($p = .039$). For students assigned to an inclusion classroom for one year there were no significant difference in performance between the schools yet there was for those assigned to inclusion classrooms for two years.

Results within the MTS school indicate that whether a student was never assigned to an inclusion class or assigned for one year, average performance was almost identical, which was not the case at MTN; however, the slight difference in scores at MTN was not statistically significant. Interesting to note is that within the MTS school there was a statistically significant difference between one and two years of a general education student being assigned to an inclusive classroom indicating the more years a student was assigned to an inclusive classroom at MTS the lower his/her performance on the NJHSPA Grade 11 Language Arts Literacy assessment. This was not the case within the MTN school. Average performance differences across all three levels were not statistically significant.

Table 7 indicates that all of the significant difference in the adjusted mean scores actually occurred in the differing years of inclusion at MTS or between the MTS and MTN schools with MTN students scoring consistently higher than MTS students. The pairwise comparisons indicate that the general education students at MTN never score significantly different from one another

whether they were never in an inclusive classroom or in for one or two years. This is not the case with MTS. Statistically significant differences were found between zero and two years and one and two years of a general education student being assigned to an inclusive classroom. Consequently, variability in student performance at the MTS school is much more prevalent than that of students at the MTN school.

Table 7

Tukey HSD Post Hoc Significant Results for NJHPA Gd. 11 LAL Performance based on the Main Effect School Interact

(A) School Interact	(B) School Interact	Mean Difference (A-B)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
MTS, 0 years of inclusion	MTN, 0 yrs. of inclusion	-4.722	2.274	.039	-9.207	-.238
	MTS, 2 years of inclusion	14.382	4.545	.002	5.420	23.343
MTN, 0 years of inclusion	MTS, 1 yr. of inclusion	5.023	2.417	.039	.257	9.789
	MTS, 2 years of inclusion	19.104	4.324	.000	10.579	27.629
MTS, 1 year of inclusion	MTS, 2 years of inclusion	14.081	4.639	.003	-4.935	23.227
MTN, 1 year of inclusion	MTS, 2 years of inclusion	15.748	4.471	.001	6.932	24.565
MTS, 2 years of inclusion	MTN, 2 years of inclusion	-15.068	4.608	.001	-24.155	-5.982

Conclusions, Discussion and Recommendations

Results of this study indicate that placement in an inclusion language arts literacy classroom setting had a statistically significant influence on eleventh grade non-disabled students' language arts literacy performance as measured by the 2013 NJHSPA when controlling for gender, race, socioeconomic status, student attendance and academic past performance (NJASK 8 LAL). It appears that non-disabled students who were placed in an inclusion English classroom setting did not perform as well on the language arts literacy section of the 2013 NJ HSPA as their peers who were not placed in an inclusion classroom. Regular education students who were placed in inclusion classes had lower mean scores on the assessment than students who were not. However, it was evident by the results of this study that the school a student attended had a statistically significant influence on student performance based on the differences between the MTS and MTN

schools. This finding was congruent with the findings of earlier research completed by Robinson (2012) and St. John (2015), which showed that school level factors contributed to the academic performance of middle school general education students who were assigned to inclusive classrooms. As with Robinson and St. John's research, school factors that might have contributed to the lower mean scores on the language arts literacy section of the 2013 NJ HSPA for students at MTS were not identified in this study since it was not its primary focus. Further research will need to be conducted to determine what those school factors might be.

According to the literature on the influence of inclusion on regular education students, differences in schools is an important factor in the academic achievement of regular education students who are educated in an inclusion classroom (Ruijs & Peetsma, 2009; Robinson, 2012). Although the same demographic variables were explored at MTS and MTN, students performed differently on the language arts literacy section of the 2013 NJ HSPA at each school when taking past performance into consideration. The effect size was small in some cases, however this may indicate that school-based factors other than those explored in this study are influencing the academic performance of non-disabled students who are placed in an inclusive language arts classroom setting. These school-based factors could be quality of instruction, class size, curricula, scheduling, student classroom assignment, etc.

Findings of this study suggest that as the number of years a student spends in an inclusion classroom setting increases, academic achievement as measured by the language arts literacy section of the 2013 NJ HSPA declines. In other words, students who spent more years in an inclusion language arts classroom did not perform as well as their peers who spent fewer years in an inclusion setting. This was specifically evident in the MTS school where those differences were statistically significant. Although the findings were statistically significant, the effect of inclusion on student performance in this study was small ($\beta = -.117$, which indicates that 1.37% of the variance in academic performance can be explained by inclusion). More research should be conducted on this topic using a larger and more heterogeneous sample. The sample used in this study was a small sample from an upper middle class, suburban school district and the results may only be generalized to a similar population.

The findings of this study may provide school leaders with information about the importance of addressing the academic needs of all students, specifically general education students assigned to inclusive classrooms. There are several socio-structural barriers that educators may encounter when establishing inclusive programs, however. Such barriers may include lack of training, scheduling challenges, and lack of collaboration (Lindsay, Prolux, Thomson & Scott, 2013). In order to establish successful inclusion programs, instructors must receive training on methods for working with diverse learners during their pre-service training, as well as throughout their tenure as a teacher. According to researchers, general education teachers are expected to be prepared to teach diverse groups of students, however many pre-service and in-service do not equip educators with the necessary knowledge and skills to do so. As a result, teachers are entering classrooms each year unprepared to teach students in an inclusion setting (LeDoux, Graves & Burt, 2012). With this understanding, school leaders must seek and provide appropriate professional development opportunities to general education and special education teachers. The areas that administrators may consider providing support to general education teachers working in an inclusion classroom may include the understanding of various disabilities, behaviors and federal laws (LeDoux, Graves & Burt, 2012). This practice will ensure that teachers receive the support they need in order to meet the needs of all of their students, regardless of their classification.

Policy makers and post-secondary school leaders bear the responsibility to ensure that pre-

service programs provide teachers with practical strategies and support to more effectively instruct diverse learners so that they may obtain the skills necessary to become successful adults (Jones, Weber & McLaughlin, 2013). For instance, it is important that educators employ differentiated strategies to meet the varying needs of students in the inclusive classroom (Obiakor, Harris, Mutua, Rotatori & Algozzine, 2012). By providing opportunities for teachers to learn more effective, research-based practices to implement, the academic achievement of all students may improve.

It is also recommended that school leaders examine scheduling and recommendation processes and protocols for placing regular education students into inclusive classrooms (St. John & Babo, 2015). Practices must be implemented that allow educators to appropriately place students in inclusion or non-inclusion classes based upon their needs as well as multiple data points. It is further recommended that once placed in an inclusion setting, the performance of non-disabled students be frequently reviewed and monitored by instructors, administrators and support personnel and adjustments be made when warranted. Instructional leaders must also ensure that all students placed in inclusion or non-inclusion settings receive the same access to qualified teachers, curricula and standards. Finally, school administrators are encouraged to take into consideration teacher interests and strengths when developing teacher schedules. This practice will allow district administrators to transform their districts into more effective, inclusive school communities that are conducive to the success of all students (Bublits, G., 2016).

Developing an inclusive environment that meets the needs of all students requires strong, visionary leaders committed to sharing the ideology of inclusion to all staff (Lindsay, Prolux, Thomson & Scott, 2013); Al-Natour, M., Amr, M., Al-Zboon, E., & Alkhamra, H. , 2015; Shani & Ram, 2015). Likewise, Yeung (2012) states that a strong leader promotes a collaborative school culture, fosters professional partnerships and facilitates the learning of students. Successful collaboration requires schedule time allocated for collaboration and willingness of teachers to share responsibility for what takes place in the classroom (Al-Natour, M., Amr, M., Al-Zboon, E., & Alkhamra, H. 2015). The authors argue that if collaboration is promoted and facilitated by the instructional leader, and appropriate decisions are made by teachers regarding instructional methods, positive student outcomes will be achieved.

In closing, the results of this research suggest that in the climate of high stakes accountability policies requiring that all students receive a minimal level of academic success, it becomes increasingly more important that school administrators remain abreast of practices that lead to the success of all students. They may consider providing relevant and on-going professional development to educators during their pre-service programs and during their professional tenure, strategic scheduling of students and teachers, and creating an atmosphere of collaboration. With the adoption of these critical strategies, school leaders may establish an inclusive environment that will lead to the success of all students.

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Searches of Students' Cell Phones: Case Analysis and Best Practices

Benjamin Nowak
Fairfax County Public Schools

William J. Glenn
Virginia Tech

Lower courts are beginning to grapple with challenges to students' Fourth Amendment right to be free from unreasonable search and seizure as it relates to the digital environment, cell phones in particular. Recently, lower courts in several states have applied standards set forth decades ago to decide cases involving searches of students' mobile devices.

Given the absence of guidance from the Supreme Court, this study aims to: (1) identify and analyze trends in the current application of legal standards related to search and seizure in the digital age; (2) synthesize these findings into a set of essential guidelines for school officials to use as they navigate a legal landscape that has yet to be well defined; and (3) make recommendations to further develop the body of law.

Findings indicate that students possess reasonable expectations of privacy in their personal mobile devices and password-protected private Web 2.0 communications. T.L.O governs searches of students' personal mobile devices, so the reasonableness of the search is the key consideration. Substantive suspicion at the outset, carefully tailored searches, and a clear governmental interest will keep school officials from violating students' Fourth Amendment protections.

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Lawsuits involving searches of students' cell phones by school officials are on the rise. These searches can place districts in danger of violating students' rights and being held liable for damages. For example, in September, 2010, the American Civil Liberties Union of Pennsylvania and the Tunkhannock Area School District settled a lawsuit that alleged that school officials had illegally searched a student's cell phone. The school district denied any wrongdoing but agreed to pay the student \$33,000 to resolve the suit. School officials had confiscated the student's cell phone, searched it, discovered semi-nude images of the student, and suspended her for three days ("ACLU Settles", 2010).

The above search illustrates the types of challenges presented by the rapid growth in ownership, use, and capabilities of mobile devices. Mobile devices are pervasive, powerful, and the primary means by which students interact with each other. According to a study by the Pew Internet & American Life Project, 78% of teens own mobile phones, with almost half (47%) owning smartphones; one in four teens (23%) have a tablet computer and 74% of teens are mobile internet users, meaning they access the internet via mobile devices at least occasionally (Madden, Lenhart, Duggan, Cortesi & Gasser, 2013). In addition, 77% of teens bring their mobile phones to school every day (Lenhart, Ling, Campbell & Purcell, 2010) and 80% of teens use social networking sites, with most logging on daily (Lenhart, Madden, Smith, Purcell, Zickuhr & Rainie, 2011).

School officials struggle to balance the educational benefits of mobile devices with the harm that the devices facilitate. Research shows advantages for teaching and learning when cell phones are used appropriately in schools and classrooms. Lu (2008) discovered that second language learners recognized more vocabulary words after reading regular, brief text messages than when they read more detailed paper materials. Similarly, Matthews, Doherty, Sharry, and Fitzpatrick (2008) found that completion of assigned tasks was significantly higher when students used cell phones. In a small pilot study, Engel and Green (2011) learned that students using cell phones in a mathematics classroom showed gains in participation, reflection and assessments throughout the school year. Katz (2005) found that cell phones helped students reference information on the move, connect with teachers, retrieve schedule and assignment information, coordinate with other students, discuss assignments and seek help with their academics. He also found that cell phones provided managerial benefits for both teachers and administrators.

Unfortunately, the power of these devices also brings risk of harm to the school community. School officials across the nation work to maintain order in the school environment by investigating disputes, accusations, and suspicions (often involving serious issues such as cyberbullying, sexting, and drugs). They increasingly feel compelled to search the content of students' mobile devices. Student and parent resistance to such searches has led to a limited but growing number of challenges to cell phone searches in the courts.

School officials must properly apply the legal standard to searches of these devices. Through an analysis of relevant case law and legal commentary, this article synthesizes the current body of such searches and seizures in the digital age and provides a set of guidelines for school officials. The following research questions guide the discussion, which is organized into three sections.

1. How are courts applying long standing legal standards to decide search and seizure cases involving students' mobile devices?
2. What are the essential legal guidelines for school officials regarding the search of students' mobile devices?

The first section includes an overview of the foundational Supreme Court cases that set the legal standards that govern search and seizure in the public school setting (*New Jersey v. T.L.O.*

(1985) (*T.L.O.*), (*Vernonia School District 47J v. Acton* (1995) (*Vernonia*), *Safford v. Redding* (2009) (*Safford*), and *Riley v. California*, (2014) (*Riley*)). The second section reviews how courts have applied these legal standards to more recent search and seizure cases involving mobile devices. The final section synthesizes the rulings to provide guidelines for school officials as they engage in these types of searches.

Supreme Court Precedent

The standards set forth by *T.L.O.*, *Vernonia*, and *Safford* guide any court that decides a case involving searches within the public school setting. Although these cases did not involve mobile devices or Web 2.0, courts have relied on the reasonableness standard and the tests they produced to decide all cases involving these technologies. The more recent case *Riley v. California*, provides insight into the sensitive issues related to cell phone searches, though *Riley* was decided in the context of a criminal case, not at a school.

T.L.O.

In *New Jersey v. T.L.O.*, a 14-year old student (*T.L.O.*) was caught smoking with a friend in a school restroom. When confronted by the school's Assistant Principal (AP), *T.L.O.* denied smoking in the bathroom and smoking in general. The AP searched *T.L.O.*'s purse and found a pack of cigarettes. Upon removing the cigarettes, the AP noticed a package of cigarette rolling papers, which he associated with marijuana. The AP then continued with a more thorough search of *T.L.O.*'s purse and discovered a small amount of marijuana, a pipe, empty plastic bags, a substantial amount of money, an index card with a list of students who owed *T.L.O.* money, and two letters implicating *T.L.O.* in dealing drugs. Subsequently, *T.L.O.* was suspended by the school and charged with delinquency by the state (*New Jersey v. T.L.O.*, 1985).

In court, *T.L.O.* moved to have the evidence from her purse suppressed claiming that the search violated her Fourth Amendment rights. The Juvenile and Domestic Relations court ruled that the search was reasonable, denied the motion to dismiss, and sentenced *T.L.O.* to a year of probation. On appeal, the appellate court affirmed the ruling of the Juvenile court. *T.L.O.* appealed to the New Jersey Supreme Court, which reversed the ruling of the appellate court and ruled that the search was not legal. The U.S. Supreme Court reversed the lower court's ruling (*New Jersey v. T.L.O.*, 1985).

The Court held that the "[Fourth] Amendment's prohibition on unreasonable searches and seizures applies to searches conducted by public school officials" (*New Jersey v. T.L.O.*, 1985, p. 333), and that "in carrying out searches and other disciplinary functions pursuant to such policies, school officials act as representatives of the State, not merely as surrogates for the parents" (*New Jersey v. T.L.O.*, 1985, p. 336). In addition, the Court held that students have legitimate expectations of privacy. However, balancing the privacy right with the school's need to maintain an environment that is conducive to learning "requires some easing of the restrictions to which searches by public authorities are ordinarily subject" (*New Jersey v. T.L.O.*, 1985, p. 340). Therefore, "school officials need not obtain a warrant before searching a student who is under their authority" (*New Jersey v. T.L.O.*, 1985, p. 340) and are not required to adhere strictly "to the requirement that searches be based on probable cause to believe that the subject of the search has violated or is violating the law" (*New Jersey v. T.L.O.*, 1985, p. 341). Finally, the Court held that the legitimacy of a search by school officials is dependent on the "reasonableness, under all the circumstances, of the search" (*New Jersey v. T.L.O.*, 1985, p. 341).

The court used a two-part test to determine whether the search was legal. First, the search must be “justified at its inception” (*New Jersey v. T.L.O.*, 1985, p. 341, quoting *Terry v. Ohio*, 1968, p. 20). To satisfy this test, a search must be based on reasonable suspicion “that the search will turn up evidence that the student has violated or is violating either the law or the rules of the school” (*New Jersey v. T.L.O.*, 1985, p. 342). Second, it must be determined that the search, as conducted, “was reasonably related in scope to the circumstances which justified the interference in the first place” (*New Jersey v. T.L.O.*, 1985, p. 341, quoting *Terry v. Ohio*, 1968, p. 20). To satisfy this part of the test, the method and extent of the search must be “reasonably related to the objectives of the search and not excessively intrusive in light of the age and sex of the student and the nature of the infraction” (*New Jersey v. T.L.O.*, 1985, p. 342). Based upon these standards, the Court ruled that the search of T.L.O.’s purse was reasonable and did not violate the Fourth Amendment.

Vernonia

In *Vernonia School District 47J v. Acton*, (1995), the Supreme Court addressed a mandatory random drug testing program for student athletes. School officials established the drug testing program based on concerns that student athletes were heavily involved in the drug culture surrounding the school. The expressed purpose of the program was to “prevent student athletes from using drugs, to protect their health and safety, and to provide drug users with assistance programs” (*Vernonia School District 47J v. Acton*, 1995, p. 650). The program applied to all student athletes and required written consent from both the student and a parent/guardian. All athletes were tested at the beginning of their season and then once per week. Ten-percent of the athletes were selected randomly for testing. Procedures and safeguards, including monitors who stood at a respectful distance (for boys) or outside a closed bathroom stall (for girls), were used to avoid tampering. Access to test results was limited to the school administrators. In the fall of 1991, a student (Acton) was denied participation when he and his parents refused to provide the proper written consent. Acton filed suit claiming that the program violated his Fourth Amendment right to be free from unreasonable searches and seizures. The District Court dismissed the claims, but the Ninth Circuit reversed. The U.S. Supreme Court reversed the Ninth Circuit’s ruling.

Since the individual suspicion that justified the search in *T.L.O.* did not apply, the Court developed a new three-part reasonableness test that balanced the governmental interest with the level of intrusion. The factors in the new test included: (1) “the nature of the privacy interest upon which the search...intrudes” (*Vernonia School District 47J v. Acton*, 1995, p. 655), (2) “the character of the intrusion that is complained of” (*Vernonia School District 47J v. Acton*, 1995, p. 659), and (3) “the nature and immediacy of the governmental concern at issue” (*Vernonia School District 47J v. Acton*, 1995, p. 660).

Regarding the first factor, the Court recognized that “the ‘reasonableness’ inquiry cannot disregard the schools’ custodial and tutelary responsibility for children” (*Vernonia School District 47J v. Acton*, 1995, p. 656), and that “students within the school environment have a lesser expectation of privacy than members of the population generally” (*Vernonia School District 47J v. Acton*, 1995, p. 657, quoting *New Jersey v. T.L.O.*, 1969). In addition, the Court held that athletes possessed less privacy and were subject to more regulation than other students. (*Vernonia School District 47J v. Acton*, 1995).

In its analysis of the character of the intrusion, the Court stated that “the degree of intrusion depends upon the manner in which production of the urine sample is monitored” (*Vernonia School District 47J v. Acton*, 1995, p. 658). In *Vernonia*, the conditions students were subjected to as part

of the testing program were similar to those in any public restroom, so the invasion of privacy was slight (*Vernonia School District 47J v. Acton*, 1995). Moreover, “the results of the tests are disclosed only to a limited class of school personnel who have a need to know; and they are not turned over to law enforcement authorities or used for any internal disciplinary function” (*Vernonia School District 47J v. Acton*, 1995, p. 658).

Finally, the Court required that the nature and immediacy of the governmental concern be “an interest that appears *important enough* to justify the particular search at hand, in light of other factors that show the search to be relatively intrusive upon a genuine expectation of privacy” (*Vernonia School District 47J v. Acton*, 1995, p. 661). Citing a series of studies on the negative physiologic effects of drug use and the district court’s conclusions regarding the level of the drug crisis at the school, the Court held that a relatively high degree of governmental concern existed.

Safford

Safford involved a situation in which a student handed an AP a pill that a girl had given him. He told the AP that students were planning to take the pills at lunch. The school’s policies strictly prohibited the nonmedical use, possession, or sale of any drug on school grounds, unless permission had been granted (*Safford v. Redding*, 2009).

The AP called the girl out of class. A search of her belongings and clothes revealed that she had a number of prescription level ibuprofen pills in a day planner. The girl said she got the day planner and the pills from Redding. A search of her bra and underpants revealed no further drugs. The AP did not ask the girl when she got the pills or where Redding might be hiding them (*Safford v. Redding*, 2009).

The AP called Redding into his office and showed her the day planner. Redding admitted that the day planner was hers and that she had lent it to the girl. She said none of the items were hers. The AP showed Redding the pills, but Redding denied knowing anything about them. A female and the AP searched Redding’s backpack, finding nothing. The AP had the female take Redding to the school nurse’s office to search her clothes for pills. The two females asked Redding to remove her clothes and pull her bra out and to the side and shake it, and to pull out the elastic on her underpants, thus exposing her breasts and pelvic area to some degree. No pills were found (*Safford v. Redding*, 2009). Redding sued.

The Supreme Court deemed the search justified at the outset because a number of pieces of evidence linked Redding to the pills, including student statements and pills being found in her day planner. A search of Redding’s backpack and pockets was reasonable in scope because students can be expected to carry drugs in such places (*Safford v. Redding*, 2009). The court held that the search of her undergarments, however, went beyond what was reasonable. Any search of a student’s undergarments is highly intrusive and involves a much greater invasion of privacy than a search of a backpack. In such circumstances, *T.L.O.* (1995) requires a court to weigh the invasiveness of the search, the age and gender of the student, and the nature of the harm in determining whether a search was reasonable. In *Safford*, the school lacked individual suspicion that Redding had drugs in her undergarments. Moreover, the risk of harm from prescription drugs is less than from illegal drugs, which also mitigated against the search being legal (*Safford v. Redding*, 2009).

Safford illustrated that the standards of reasonableness for a highly invasive search differs from the standards for a less invasive search. The level of suspicion and the threat of harm need to be higher to justify a highly invasive search. *Safford* should be an important precedent in cell phone cases due to the invasive nature of such searches, as discussed in *Riley*.

Riley

Riley v. California (2014) involved two separate cell phone search cases that occurred in the criminal context. In one case, Riley was stopped for a traffic violation, which eventually escalated into him being arrested on a weapons charge. An officer searched Riley's cell phone without a warrant and found evidence of gang affiliation.

In the other case, Wurie was arrested for a drug sale. The police searched his cell phone without a warrant and traced a phone number in the cell phone labeled "Home" to an address that was Wurie's residence. The police obtained a warrant, searched the residence, and found drugs and firearms (*Riley v. California, 2014*).

Both defendants moved to suppress the evidence from the cell phone searches, contending that the searches were illegal since they were conducted without a warrant. The court discussed how cell phones are different than other objects of searches because they contain a huge amount of information that can be regarded as a record of a person's entire life. The court ruled that cell phones generally cannot be searched without a warrant, even when the search is conducted incident to an arrest (*Riley v. California, 2014*).

Synthesis of Supreme Court Rulings

The direct holding of *Riley* should not apply to searches in public schools because such searches are considered an exception to the warrant requirement. *T.L.O.*, *Vernonia*, and *Safford* discussed the standards for determining the constitutionality of searches conducted by public school officials in terms of reasonableness. School officials can legally search individual students and their property when reasonable suspicion exists that the search will produce evidence of a violation and the search is conducted in a way that is reasonable in its extent and not excessively intrusive. School officials can conduct legal searches without individualized suspicion when the governmental interest outweighs the level of intrusion (Vorenberg, 2012), as the *Vernonia* court determined that such searches are reasonable.

However, the reasoning underlying *Riley* will be important to schools because the court determined that people have a higher than normal expectation of privacy with regard to the data on their cell phones. Cell phone searches uncover evidence of an enormous number of events about a person's entire life (*Riley v. California, 2014*), many of which are unrelated to the possible violation. The reasoning in *Riley* suggests that the standard that constitutes "reasonableness" would be higher than in most other school searches. In this respect, cell phone searches may be analogous to the search of Redding's underwear in *Safford*, which was deemed illegal because such a search requires a higher standard of reasonableness than a search of a student's pockets. Similarly, the courts should require a higher standard of what constitutes reasonable for a cell phone search than for the search of a backpack, for example.

Mobile Device Cases

This section discusses the application of the Supreme Court precedent described above to cases involving searches of students' mobile devices. Table 1 provides an overview of the cases discussed in the following sections and is organized by the categories described above.

Table 1

Recent Search and Seizure Cases Involving Cell Phones

Case	Date	Ruling	Rationale
<i>Klump v. Nazareth Area School District</i>	3/30/2006	Unconstitutional	Not justified at inception - no reason to suspect the search would turn up evidence of wrongdoing; used search to attempt to catch other students' violations
<i>J.W. v. Desoto County School District</i>	11/1/2010	Constitutional	Justified at inception - student was caught violating cell phone policy; reasonable in scope - search was limited to photos on phone
<i>Mendoza v. Klein Independent School District</i>	3/16/2011	Unconstitutional	Justified at inception – accessed outgoing texts to determine if phone was used in violation of cell phone policy; not reasonable in scope – no reason to search texts further
<i>G.C. Owensboro Public Schools</i>	3/28/2013	Unconstitutional	Not justified at inception – background knowledge of students' past tendencies or wrongdoing does not justify search
<i>Gallimore v. Henrico County</i>	2014	Unconstitutional	Search of cell phone not justified at inception; a cell phone could not possible hold drugs
<i>In re Rafael C.</i>	3/25/2016	Constitutional	Justified at inception - student acting suspiciously near site of questioning of other students; reasonable in scope – reasonable to search cell phone due to suspicious behavior regarding the phone and the involvement of firearms.

Searches of Students' Mobile Devices

In *Klump v. Nazareth Area School District*, (2006) a student (C.K.) had his cell phone confiscated by a teacher when it accidentally fell out of his pocket during class. The school's policy allowed students to carry cell phones but not use or display them during school hours. The teacher and an Assistant Principal called nine other students from the phone's address book, accessed C.K.'s text messages and voicemail, and used the cell phone to engage in an instant messaging conversation with C.K.'s younger brother without identifying themselves. The school officials claimed that their search of the cell phone was prompted by a message they received from C.K.'s girlfriend asking him to get her a "f***in' tampon," which referred to a large marijuana cigarette.

In denying the school system's motion to dismiss, the district court held that because C.K. was in violation of school policy, school officials were justified in initially seizing the cell phone. However, the subsequent search of the cell phone was not justified because it did not satisfy the first prong of T.L.O.'s two-part test – that a search must be justified at its inception. The court stated that "[school officials] had no reason to suspect at the outset that such a search would reveal

that [C.K.] himself was violating another school policy; rather, they hoped to utilize his phone as a tool to catch other students' violations" (*Klump v. Nazareth Area School District*, 2006, p. 640). In addition, the court also stated that "there must be some basis for initiating a search" (*Klump v. Nazareth Area School District*, 2006, p. 641), which it determined school officials did not have.

In *J.W. v. Desoto County School District*, (2010) a middle school student (R.W.) had his cell phone seized when he opened the phone during class to view a text message from his father. The school seized the phone pursuant to its policy prohibiting cell phone possession and use during school hours. Once in possession of the cell phone, school officials accessed and searched the photo library and discovered a photo of one of R.W.'s friends holding a BB gun and other photos that depicted gang-related symbols. R.W. was subsequently expelled from school for the remainder of the year. R.W. filed suit claiming, among other things, that the search of the cell phone violated his Fourth Amendment right to be free from unreasonable searches and seizures.

In dismissing the Fourth Amendment claims against the school officials, the district court relied on *T.L.O.*'s two-part test. The court held that the search was justified at its inception because R.W. was caught using the cell phone in knowing violation of school policy, which diminished his expectation of privacy, and that "upon witnessing a student improperly using a cell phone at school, it strikes this court as being reasonable for a school official to seek to determine to what end the student was improperly using that phone" (*J.W. v. Desoto County School District*, 2010, p. 12). The court also held that the search was "reasonably related in scope to the circumstances which justified the interference in the first place" (*New Jersey*, 1985, p. 341). The court distinguished the search of R.W.'s cell phone from that in *Klump*, stating that "the school officials in *Klump* appeared to use that accident as a pretext to conduct a wholesale fishing expedition into the student's personal life, in such a manner as to clearly raise valid Fourth Amendment concerns" (*J.W. v. Desoto County School District*, 2010, p. 15), whereas "the decision by the school officials in this case to merely look at the photos on R.W.'s cell phone was far more limited, and far more justified" (*J.W. v. Desoto County School District*, 2010, p. 16).

In *Mendoza v. Klein Independent School District*, a student (A.M.) had her cell phone seized and searched by an Associate Principal (AP) when she was observed huddled together with a group of friends in the hallway looking at what appeared to be her cell phone. The AP suspected that A.M. was using her cell phone in violation of school policy and therefore accessed the phone to determine if any text messages had been sent during school. Once the AP determined that messages had been sent during school, she continued her search of the text messages and discovered a nude photo of A.M. When confronted about the photo, A.M. admitted to sending the photo to a male friend in response to a similar photo he had sent to her. A.M. was suspended and ultimately transferred to an alternative school for 30 days for violating school policy prohibiting incorrigible behavior. A.M. filed suit claiming, among other things, that the AP's search of her phone violated her Fourth Amendment right to be free from unreasonable searches and seizures.

A federal magistrate judge denied the school districts motion for summary judgment as to the Fourth Amendment claim against the AP. The magistrate confirmed that A.M. had an expectation of privacy regarding the contents of her phone and analyzed the search within the framework of *T.L.O.*'s two-part reasonableness test. The magistrate found that based on the AP's observations of A.M., she had a reasonable suspicion that A.M. was in violation of school policy and, therefore, the search was justified at its inception. However, because "the only justification proffered by [the AP] for the search of A.M.'s phone was to determine whether A.M. had used the phone during school hours" (*Mendoza v. Klein Independent School District*, 2011, pp. 25-26), which could be accomplished without opening and reading any individual messages, the magistrate found that the continued search of the text messages went beyond the reasonable scope of the

search. The magistrate concluded that “a continued search must be reasonable and related to the initial reason to search or to any additional ground uncovered during the initial search” (*Mendoza v. Klein Independent School District*, 2011, p. 26).

The differing fact patterns of *Mendoza* and *T.L.O.* illustrates the key lesson from *Mendoza*. The lack of reasonable suspicion to continue past the initial search of A.M.’s phone distinguishes the case from *T.L.O.* Whereas the cigarette rolling papers provided the reasonable suspicion to continue with a more thorough search in *T.L.O.*, the school official in *Mendoza* lacked any compelling evidence to justify the continued search of specific text messages that led to the discovery of the nude photo.

G.C. v. Owensboro Public Schools involved the search and seizure of the phone of an out-of-district student (G.C.) with a history of drug use, anger, depression, and suicidal thoughts. In response to a history of disciplinary issues, the District Superintendent previously decided to give G.C. one last chance for the 2009-2010 school year. The Superintendent revoked G.C.’s out-of-district privilege when he violated his school’s cell phone policy by using his phone to text message during class. G.C.’s phone was seized as a result of the texting incident and searched by one of the school’s Assistant Principals (AP). The AP claimed that she was concerned about G.C.’s wellbeing, considering his history of depression and suicidal thoughts, and therefore read four of G.C.’s recent text messages. G.C. filed suit claiming, among other things, that the search of his cell phone violated his Fourth Amendment rights.

The panel declined to follow *J.W.*, reasoning that schools should not have an overly broad right to search cell phones just because the phone is used at school (*G.C. v. Owensboro Public Schools*, 2013). Instead, the panel held that the search of G.C.’s cell phone was not justified at its inception. In particular, “general background knowledge of drug abuse or depressive tendencies, without more, [does not enable] a school official to search a student’s cell phone when a search would otherwise be unwarranted” (*G.C. v. Owensboro Public Schools*, 2013, p. 25). The court stated that school officials “failed to demonstrate how anything in this sequence of events indicated to them that a search of the phone would reveal evidence of criminal activity, impending contravention of additional school rules, or potential harm to anyone in the school” (*G.C. v. Owensboro Public Schools*, 2013, p. 26).

Gallimore v. Henrico County (2014) was the first school related cell phone search case decided after *Riley*. In *Gallimore*, school officials received a report that a “long haired” student had smoked marijuana on a school bus. The officials conducted a search of several possessions of a long haired student, W.S.G., including his cell phone. No marijuana was found on W.S.G., who was then sent back to class. W.S.G. sued the school officials. The court determined that the search of W.S.G.’s possessions was reasonable, except with regard to the cell phone, which the court opined could not possibly hold drugs. The court notes in dicta that a search of the phone for names of drug dealers, etc. may have been legal.

The most recent cell phone search case was *In re Rafael C.* (2016) (*Rafael C.*). In *Rafael C.*, school officials suspected two boys of placing a gun in a school trash can. The boys were taken to the office for questioning, during which time the gun was found in the trash can. Rafael, with other students, were outside the office during the questioning. School officials asked the students to leave. All complied quickly, except Rafael, who moved away very slowly. A school official then asked Rafael to return, but he kept moving away. Finally, the school official chased down Rafael and escorted him to the office (*In re Rafael C.*, 2016).

When asked why he did not follow instructions, Rafael got fidgety and reached into his pants pocket. Fearing he had a firearm, school officials forcibly seized the cell phone in his pocket. School officials were concerned that Rafael was using the cell phone to communicate about the gun

or possibly other guns with other students. The cell phone was turned on, at which time school officials could access content on the phone, including photos of students holding the gun that had been confiscated (*In re Rafael C.*, 2016).

Rafael was charged in juvenile court with possessing a firearm on a high school campus. He sought to suppress evidence from the cell phone, arguing that the search was not legal. The court denied his motion because the search was justified at its inception and reasonable in its scope. The suspicious behavior of Rafael, coupled with him reaching into his pocket, made it reasonable for school officials to initiate the search. The court determined that the search was reasonable in its scope in large part due to the involvement of the gun making the risk of harm great (*In re Rafael C.*, 2016).

It is instructive to compare the searches in *Safford* and *Rafael* in order to understand the different results in cases that have some similarities. In each case, the student became involved in the investigation after school officials initially focused on other students. School officials had more justification to search Redding than Rafael, since another student indicated that Redding had given pills to her. Both searches were very invasive, though the search of undergarments would be considered the more invasive of the two. The biggest difference between the cases related to the risk of harm. The *Safford* court did not consider the legal drug Ibuprofen to be a significant threat, while the *Rafael* court, of course, considered guns on campus to be a major risk of harm. The different results between the cases illustrates the importance of the risk of harm related to the object of the search.

Synthesis of the Cell Phone Cases

In the limited but growing body of law in this area, courts have applied the standards set by *T.L.O.* to govern cases involving searches of students' mobile devices. School officials must have reasonable suspicion for a search to be justified at inception (*Klump v. Nazareth Area School District*, 2006; *In re Rafael C.*, 2016). Similarly, the court in *G.C.* refused to grant school officials a justification for searching a cell phone that had been used at school (*G.C. v. Owensboro Public Schools*, 2013), though the *J.W.* court granted school officials more leeway (*J.W. v. Desoto County School District*, 2010).

Courts do not look favorably on searches in which the only justification was the seizure of a mobile device in violation of school policy, which is correct in light of *T.L.O.* School officials have no justification to search a cell phone simply because it was brought to school in violation of a school rule barring cell phones on campus because the finding of the phone by itself shows that the student violated the rule. *J.W.* notwithstanding, the same should be true of searches conducted when the only basis for the search is the fact that a student used the phone on campus. Searches can be justified when school officials have reason to think that the use is leading to the violation of another school rule. For example, a search would be justifiable if a student was using the phone during an examination, because school officials could reasonably think that the student was cheating.

Assuming that reasonable suspicion exists to justify a search at its inception, school officials must carefully tailor the search in a way that limits the scope of the search to the circumstances that justified it in the first place (see *Klump v. Nazareth Area School District* and *Mendoza*). For example, school officials attempting to discipline students for using a cell phone in violation of school policy, should limit their searches to determining whether the policy was violated. Such a search should be limited to a log that shows when the phone was used, but does not require reading the content of messages. Only the *J.W.* court permitted a broader search of the

phone in such circumstances. However, school officials should be able to search the content of phones if they have a reasonable suspicion of a violation of policy, such as sexting, that necessitates them determining whether a certain substantive content exists on the phone. School officials will have more leeway to search if the object of the search poses a great risk of harm to the school community.

Guidelines for School Officials

The Supreme Court has yet to provide clear guidance on searches of students' mobile devices. However, the case law discussed above, although limited, does allow for some of the contours of the body of law to take shape. This section provides guidelines for school officials when engaging in searches of students' mobile devices.

Guidelines for Searching Mobile Devices

- Students have a reasonable expectation of privacy in regards to their personal mobile devices and, therefore, are protected by the Fourth Amendment from unreasonable searches and seizures.
- The probable cause standard and the warrant requirement do not apply to searches within the school setting. However, school officials must have reasonable suspicion to initiate a search of a student's personal mobile device. So long as reasonable suspicion of wrongdoing exists, school officials do not need student or parent consent to search a personal mobile device.
- The constitutionality of a search of a student's personal mobile device is based on the "reasonableness" of the search under all circumstances. Reasonableness is determined according to *T.L.O.*'s two-part test where (1) the search must be justified at its inception; and (2) the search must reasonably relate in its scope to the circumstances that initially prompted it. Failure to meet either of these tests would result in a search that violates the Fourth Amendment.
- Recent rulings indicate that school officials who seize a mobile device for a violation of school policy do not have the authority to conduct a search of a student's personal mobile device that goes beyond that violation. Suspicion of wrongdoing, such as cheating via images or text messages, would provide a much more solid basis for initiating a search.
- In *G.C.*, the court held that general background knowledge of a student's past behavior or tendencies was not enough to justify a search. School officials would be wise to base their searches on more substantial suspicion such as first-hand observations or reports of wrongdoing from credible sources.
- Assuming a search is justified, to avoid a constitutional violation, school officials must tailor the search to the specific circumstances that prompted the search. In other words, school officials cannot turn a justified search into a "fishing expedition" to discover evidence of wrongdoing. According to *Mendoza v. Klein Independent School District* (2011), "a continued search must be reasonable and related to the initial reason to search or to any additional ground uncovered during the initial search." (p. 26)
- *Rafael* (2016) shows us that courts will grant school officials more latitude in searches when the object of the search poses a great risk of harm. The courts clearly regard student and staff safety as the most important objective of school officials in such cases.

Summary

Students possess reasonable expectations of privacy and, therefore, Fourth Amendment protections in their personal mobile devices. *T.L.O* governs searches of students' personal mobile devices. Substantive suspicion at the outset and carefully tailored searches will keep school officials from violating students' Fourth Amendment protections. To avoid violating constitutional protections in these types of searches, school officials should carefully weigh the intrusiveness of the search with their interest in "maintaining discipline in the classroom and on school grounds" or "deal[ing] with breaches of public order" (*T.L.O.*, 1985, p.339).

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The Superintendent/Principal: A Position Born in Purgatory

Michael C. Curry
V.I.T. School District, Table Grove, Illinois

Lora L. Wolf
Western Illinois University

The purpose of this quantitative study was to examine the priority level of the roles and responsibilities of the superintendent/principal in Illinois as perceived by board of education presidents, teachers' union presidents, and practicing superintendent/principals in the 102 Illinois school districts utilizing the superintendent/principal model. The findings found agreement in the two roles (chief financial officer and role model) and two responsibilities (financial oversight and build a positive and safe school climate) along with the least important role (politician) and the least important responsibility (oversight/supervision of student activities and extra curricular events).

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School leadership has evolved since the era of the one-room school with no administrative personnel. Today schools and districts are led by individuals trained for specific roles and responsibilities. The two most prevalent educational leadership positions are the district-level superintendent and the building-level principal. Each position serves schools in unique ways.

The roles associated with the modern superintendency include chief executive officer, chief financial officer, public relations director, community liaison, visionary, role model, politician, human resources director, facilities manager, and educational expert. Superintendents' responsibilities include district financial oversight; policy regulation; district personnel management; district facilities management; professional development; networking; personal professional learning; political involvement; board and staff communication; and attending meetings with staff, board members, constituents, and colleagues (Carter & Cunningham, 1997; Hall, 2008; Hesbol, 2005; Houston, 2007; Petersen & Short, 2001).

Today's building principals' roles include instructional leader, change agent, building-level human resource director, building manager, curriculum expert, role model, and communicator. Principals' responsibilities include setting building goals; creating a building's vision; overseeing curriculum; evaluating teachers and support staff; disciplining students; supervising student activities; building relationships; identifying, managing, and participating in professional development; managing building-level personnel issues; meeting with parents, staff, students, and community members; and supervising extra-curricular activities (Fink & Resnick, 2001; Hesbol, 2005; Lortie, 1975).

In districts with declining enrollment, decreased state funding, increased costs, and pressure from community members to keep their schools, superintendents and boards of education look for ways to lower expenditures. Since personnel expenditures make up a significant part of the budget, personnel is often targeted. One cost-saving measure utilized in such districts is reducing administrative costs by combining the positions of superintendent and principal. The dual-role position is referred to as superintendent/principal. This study focused on the roles and the responsibilities of the superintendent/principal.

Statement of the Problem

The superintendent/principal position forces a single administrator to assume two disparate roles. This position poses challenges for the administrator and his or her constituents. Jim Burgett, motivational speaker and former superintendent/principal, described the superintendent/principal as a "position born in purgatory" (Personal Correspondence, 2015) highlighting the torment and often temporary stay of superintendent/principals.

Purpose of the Study

The purpose of this quantitative study was to examine the perceptions of board presidents, teachers' union presidents, and superintendent/principals in regards to the priority of the roles and responsibilities of the dual-role administrator. Additionally, this study examined the differences between the groups' perceptions of what were and what were not essential roles and responsibilities. The findings provide superintendent/principals information as they serve in two demanding leadership roles simultaneously.

Review of the Literature

The superintendent/principal is a complex leadership position that calls upon a single individual to fulfill the responsibilities of two different leadership roles. This review of the literature discusses the roles of superintendent, principal, and superintendent/principal.

The position of superintendent has evolved dramatically since its creation in 1837. Superintendents are no longer merely clerical managers hired to relieve the school board of their day-to-day paperwork. Instead, superintendents are required to demonstrate a variety of skills that necessitate a multi-talented, competent, and inspiring leader (Carter & Cunningham, 1997; Chapman, 1997; Geivett, 2010; Kowalski, 2006). Blumberg and Blumberg (1985) noted the importance of creating positive working relationships with and meeting expectations of boards and found that the most critical relationship in running a school system is between the superintendent and the board of education.

The role of building principal has also evolved from a principal-teacher or a disciplinarian to a more complex middle-management role. Sergiovanni et al. (1999) writes that:

The principal's job is to coordinate, direct, and support the work of others by defining objectives, evaluating performance, providing organizational resources, building a supportive psychological climate, running interference with parents, planning, scheduling, bookkeeping, resolving teacher conflicts, defusing student insurrections, placating the central office, and otherwise helping to make things go. (p. 58)

Hence, the combined position of superintendent/principal requires one individual to focus on the responsibilities associated with the district chief executive officer (superintendent) and the building-level leader (principal). The dynamics of the role require one individual to handle almost every leadership role in the district while attempting to provide students with the most successful learning experiences possible (Geivett, 2010). Dragan (1982) conducted a study of administrative principals, a position similar to superintendent/principals, and found:

The expectations that the school board members and teachers have of the administrative principal [superintendent/principal] are very different from those of the superintendent and building principal. School board members expect the administrative principal to act like a superintendent whereas the teachers expect him or her to act more like a building principal. Intense role conflict exists. (p. 10)

In small districts many employees wear numerous hats and have an overabundance of necessary duties that would normally be handled by others in a larger setting. For example, Copeland (2013) detailed several nontraditional duties rural superintendents performed out of necessity: snow shoveling, bus driving, helping in the cafeteria, substitute teaching, taking out the trash, and sweeping floors. For a person serving in the dual-role of superintendent/principal, donning extra hats constitutes added burden to an already full workload.

In order to wear many hats, a leader must have varied skill sets. Schmuck and Schmuck (1989) noted that “superintendents in small towns must be generalists. Often they are the only educator in the central office and must be a jack of all trades” (p. 6). Because of this, rural districts often seek generalists who have a broad range of knowledge and skills to lead their school systems (Kowalski, 2006).

The literature lacks scholarly research on the dual-role position of superintendent/principal. Two studies (Hesbol, 2005; Mattingly, 1994) explored the topic. Hesbol stated “as a dual-role position with no assistance other than through relationships developed among the board of education, school personnel, and the community, the superintendent/principal serves in ways known only to the individual in this position” (p. 8). According to Mattingly's findings,

superintendent/principals and board presidents have differing opinions on both the importance of and functions of the roles of superintendents and principals. He wrote:

The superintendent/principals understand more the intricacies of the roles since they live both of them. If this hypothesis is correct, the indication would be that the BEPs (board of education presidents) do not fully understand the nature of a combined superintendent/principal role. (p. 122-123)

Carter and Cunningham (1997) noted that superintendents must deal with very different factions including school board members, teachers, and unions. Each group has its own idea of the roles and responsibilities of an effective superintendent. Based on the differing perceptions of the superintendent/principal position, this study extends the previous limited research by examining the perception of board presidents, teachers' union presidents, and superintendent/principals in regard to the priority of the roles and responsibilities of the dual-role administrator.

Methodology

A quantitative methodology was chosen for this study in order to examine the phenomenon of the superintendent/principal position "by collecting numerical data that are analyzed using mathematical based methods" (Aliaga & Gunderson, as cited in Muijis, 2004, p. 1). In this study, survey data was gathered from Illinois practicing superintendent/principals along with their school board presidents and teachers' union presidents.

Research Questions

Four research questions guided this quantitative study:

1. What roles and responsibilities do *board presidents* perceive as essential for superintendent/principals?
2. What roles and responsibilities do *teachers' union presidents* perceive as essential for superintendent/principals?
3. What roles and responsibilities do *superintendent/principals* perceive as essential for superintendent/principals?
4. What differences exist between board presidents, teachers' union presidents, and superintendent/principals in their perception of the essential roles and responsibilities for the superintendent/principal?

The Population and Sample

Population. This study was conducted in the State of Illinois. According to the Illinois State Board of Education (ISBE), 102 Illinois districts employ a superintendent/principal. Of those 102 districts, 28 were urban and 74 were rural. In examining the grade level organization of the study's population, 32 were unit districts (K-12), 65 were elementary districts (K-8), and five were high school districts (9-12).

Three populations comprised this study: currently practicing superintendent principals in the State of Illinois, their board presidents, and their teachers' union presidents. Practicing superintendent/principals were selected for the study because they are employed in the dual-role position and would have first hand knowledge of the phenomenon. This study built upon Hesbol's (2005) research that noted that the superintendent/principal knows the role in "ways only known to

the individual in this position” (p. 8).

Board presidents were selected as a respondent group due to the relationship between a superintendent and board president as an important component in the success or lack thereof of the board-superintendent leadership team. According to Petersen and Short (2001), the school board president’s perception of the superintendent’s abilities is vital to the stability and success of the superintendent.

The final population, teachers’ union presidents, was selected because of the nature of the relationship between the between teachers’ union presidents and the two separate administrative positions: the district-level superintendent and the building-level principal. Union leaders look to superintendents on issues such as contract negotiations, personnel decisions, and program viability (Harris, 1999). On the other hand, teachers and teachers’ union presidents look to building principals for conflict resolution, student behavior management, staff morale, and day-to-day building management (Daresh, 2002). The perceptions of what roles and responsibilities are considered most essential to teachers’ union presidents will assist in better understanding the role of superintendent/principal.

The sample. The sample consisted of the individuals who completed the survey: 31 board presidents (31% of the population), 27 teachers’ union presidents (26% of the population), and 65 superintendent/principals (64% of the population). Demographic information for the sample revealed the type of district (predominantly rural), number of teachers supervised (62% of principals supervised 11-20 teachers), grades for which the administrator was responsible (the majority were elementary districts), number of employees supervised by the administrator (75% of superintendents supervised fewer than 51 employees), and whether administrative assistance was available (18% of superintendent/principals had an assistant principal, dean, or head teacher).

Instrumentation

The instrument used for this study was a self-administered (Bourque and Fielder, 1995), cross-sectional survey that collected data at a single point in time from multiple populations (Scott & Morrison, 2006). Three parallel survey instruments were utilized: 1) practicing superintendent/principals, 2) current presidents of the superintendent/principal’s boards of education, and 3) current presidents of the superintendent/principal’s teachers’ union. The surveys were designed to measure the level of agreement and/or variance on what roles and responsibilities of the superintendent/principals were perceived as essential to each group of respondents. Additionally, electronic distribution via SurveyMonkey was selected “to more easily create assessment instruments, distribute to potential respondents, gather and have access to the resulting data” (Marra & Bogue, 2006, p. 7).

For this study, the researcher elected to design a survey rather than use a pre-existing survey. This was because there was no existing survey on the topic. The researcher-developed questions were based on position-related experiences and role and responsibility expectations found in the literature (Carter & Cunningham, 1997; Cotton, 2003; Marzano et al., 2005; Waters & Marzano, 2006). Fourteen roles and 20 responsibilities were identified.

Demographic questions were used to determine eligibility including whether the respondent was currently a superintendent/principal, board president, or teachers’ union president and whether the district was currently using the dual-role administrator model of superintendent/principal. If participants responded “no” to either question, they were exited from the survey.

The demographic questions were followed by a series of scaled response questions that asked respondents to consider the level of priority of superintendent/principals’ specific

responsibilities and roles. According to Gall et al. (2007), scaled response scores are used to measure an individual's agreement with various statements about attitudes or beliefs. In this study, the responses "not a priority," "low priority," "medium priority," "high priority," and "essential priority" were used to determine and then compare attitudes, beliefs, and perceptions of board presidents, teachers' union presidents, and superintendent/principals about the levels of priority of the roles and responsibilities of superintendent/principals.

At the conclusion of the survey, an automated statement was generated expressing gratitude to the participants. The statement included that study results and conclusions would be shared with all superintendent/principal districts in Illinois.

Data Collection Procedures

Prior to distribution of the survey, the researcher attempted to make personal contact via telephone and voicemail with the entire population of superintendent/principals study in order to notify them of the forthcoming survey-related email. Telephone contact was made with 41 (40%) of the 101 superintendent/principals and an additional 20 voicemail messages were left for those that could not be reached by phone and had voicemail configured.

A web-based survey instrument, utilizing SurveyMonkey, was distributed to the superintendent/principals serving in Illinois via email with addresses supplied by the ISBE as part of their annual district directory. The initial email about the survey included the information about the study including an explanation of the researcher's background as a doctoral student, information about the nature of the study, assurances of confidentiality, directions for accessing the survey, and an outline of the plans for disseminating the survey to appropriate constituents.

Survey distribution for the board presidents and teachers' union presidents occurred in two ways. First, the email to the superintendent/principals included a request for respondents to provide email contact information for their board presidents and teachers' union presidents. Upon receipt of email addresses from superintendent/principals, the researcher sent surveys to board presidents and teachers' union presidents. This email included the superintendent/principal's support of the study, provided additional information about the study, and included hyperlinks to the appropriate survey. However, only two superintendent/principals provided email contact information for their board presidents or teachers' union presidents, so it was untenable for the researcher to exclusively rely on this option. Thus, the researcher provided a letter designated for board presidents and a second letter for teachers' union presidents as an attachment to an email sent to practicing superintendent/principals. The superintendent/principals were asked to forward the proper attachment to their board president and teacher's union president notifying them of the nature of the research and providing them a survey participation request and the appropriate survey link.

Upon initiating the survey, each respondent was required to consent to participate via an initial page that included all the required consent information¹ and a checkbox stating participants had read and understood the consent form and consented to participate in the research.

In the initial email with the survey's instructions, respondents were informed of the timeframe (initially four weeks) to complete the survey. After the second week, the researcher sent a reminder of the four-week timeframe. An additional reminder email was sent five days prior to

¹ Information included on the initial page of the survey included the anticipated length of the survey (10 minutes), that the survey was voluntary, that participants could discontinue at any time, and that there were no foreseeable risks to the participant).

the survey closing date to thank those superintendent/principals who had participated and to request assistance in acquiring responses from board presidents and teachers' union presidents.

Due to a low online survey response rate for board presidents and teachers' union presidents, the survey window was extended another two weeks. Additionally, to increase the response rate, paper copies of the survey and survey reminder links were mailed to districts in care of the board president and teachers' union president. Mailing included information about the electronic survey and self-addressed stamped return envelopes to return the paper version.

Data Analysis Procedures

The survey data was analyzed using Statistical Package for Social Science (SPSS). Demographic data for all three respondent groups was collected and categorized on a nominal scale. A nominal scale produces measures that have no order or quantitative meaning (Gall et al., 2007). Each set of demographic questions was also analyzed to determine frequency and percentage of answer selection.

The first method of analysis determined central tendencies by calculating the mean for perceived levels of priority of superintendent/principals' roles and responsibilities. The first three research questions were analyzed using means and standard deviations to describe the level of priority for each role and responsibility through scaled responses of board of education presidents, teachers' union presidents, and superintendent/principals.

Research question four² was analyzed. In order to compare the variance between the scores of board presidents, teachers' union presidents, and superintendent/principals. The researcher utilized the univariate analysis of variance (ANOVA) test which is "a statistical procedure that compares the amount of between-group variance in individuals' scores with the amount of within-group variance" (Gall et al., 2007, p. 318). Additionally, a Least Significant Difference (LSD) post hoc test was conducted on all survey items to explore pair-wise comparisons of item means with ($<$) .01 considered significant. Due to small sample sizes and the differences in sample sizes, the researcher elected to use Test of Between-Subject Effects level of .01 as significant. A partial Eta²-level of .25 or higher was considered significant.

Key Findings

Based on the data analysis, key findings were identified. Key findings on time allocation and the dual-role position and district's long-term survival along with findings about the roles and responsibilities as identified by all three respondent groups will be presented.

Time Allocation

Participants were asked what percentage of time a superintendent/principal should spend on superintendent responsibilities versus principal responsibilities. All three groups indicated that more time should be spent on superintendent duties than principal duties. Board presidents responded that superintendent/principals should spend an average of 60% of their time on superintendent responsibilities and 40% on principal responsibilities. Teachers' union presidents indicated that superintendent/principals should spend an average of 50.2% of their time on

² What differences exist between board presidents, teachers' union presidents, and current superintendent/principals in their perception of the essential roles and responsibilities for the superintendent/principal?)

superintendent responsibilities and an average of 49.8% on principal responsibilities. Superintendent/principals responded that they should spend an average of 52% of their time on superintendent responsibilities and an average of 48% on principal responsibilities. Notably, time allocation represents a disparity of almost 10% in the allocation of time related to superintendent duties between board presidents and the two other respondent groups.

The Combined Position and District Survival

All three respondent groups overwhelmingly indicated that the combined superintendent/principal role was essential in the long-term survival of their school districts. Eighty percent of board presidents and 69% of teachers' union presidents responded that the combined role was a key factor in the long-term survival of their school district. Eighty-two percent of superintendent/principals responded that the combined role was a key factor in the long-term survival of their school district.

Most Essential Roles According to Board Presidents (RQ1)

While several roles received priority ratings of high and essential, the high frequency of essential ratings for *role model* (M=4.57) and *chief financial officer* (M=4.50) combined with receiving the highest mean scores (see Table 1), indicates that board presidents value a superintendent/principal that serves as an example for others and understands the district's finances. Based on frequency counts, *chief financial officer* was selected as essential more often than any other role. *Role model* received the second most essential ratings. Considering frequency and mean data from board president responses, both *role model* and *chief financial officer* could be regarded as the most essential roles of superintendent/principals.

Least Essential Role According to Board Presidents

The data indicated board presidents view the role of *politician* (M=2.75) as the least essential, as it received, no selections of essential by board presidents. The next lowest mean was one point higher.

Most Essential Responsibilities According to Board Presidents (RQ2)

According to survey data, as demonstrated of Table 2, board presidents believe that the most essential responsibility of superintendent/principals is *oversight of the district's finances and budgeting* (M=4.75) which received the highest mean and the greatest frequency of essential ratings (22).

While district financial oversight/budgeting may be considered the most essential responsibility for superintendent/principals according to board presidents, the fact that data showed three other responsibilities with a mean score of 4.50 or higher indicates that board

Table 1

Side-by Side Mean Scores from all Respondent Groups for Each Role

Role	Board President	Teachers' Union	Superintendent/ Principals
Role Model	4.57	4.46	4.69
Chief Financial Officer	4.50	4.49	4.77
Visionary Leader	4.43	4.08	4.35
Evaluator of Educator Performance	4.39	4.22	4.38
Building-level Communicator	4.21	4.15	4.42
Change Leader	4.19	3.69	4.25
Human Resource Manager	4.18	4.19	4.05
Public Relations/Communication Officer	4.14	4.22	4.11
<i>Instructional Leader</i>	<i>3.93</i>	<i>3.56</i>	<i>4.54</i>
<i>Educational Expert/Instructional Leader</i>	<i>3.82</i>	<i>3.69</i>	<i>4.28</i>
Building Manager	3.79	3.69	4.13
Disciplinarian	3.79	3.85	3.93
Curriculum Expert	3.75	3.41	3.84
Politician	2.75	2.88	3.08

Note: The roles with significant variance between the three respondent groups are indicated with bold italics.

presidents find four responsibilities as essential priorities. Superintendent/principals should be aware that board presidents are looking for a leader who also builds a positive and safe school climate, evaluates teachers and staff and makes building-level personnel recommendations, and builds relationships and establishes trust.

Least Essential Responsibility According to Board Presidents

The responsibility of *oversight and supervision of student activities/extracurricular events* received the lowest mean score (M=3.39) and the lowest frequency of essential selections (five) by board presidents. With these scores, this responsibility can be considered the lowest priority of the 20 responsibilities in this study. However, it is worth noting that the mean score does not indicate that it is considered a low priority or not a priority by board presidents.

Most Essential Roles According to Teachers' Union Presidents (RQ2)

Teachers' union presidents value the roles of *role model* and *chief financial officer* most in a superintendent/principal. With a mean difference of .03 between *chief financial officer* (M=4.49) and *role model* (M=4.46), coupled with the fact that both roles received more essential ratings than any other role, data indicates that these are the top two most essential roles for the superintendent/principal according to the teachers' union presidents who completed the survey.

Least Essential Role According to Teachers' Union Presidents

Teachers' union presidents placed a very low priority level on the role of *politician*. With a mean score of 2.88, four ratings of not a priority, and the only mean score under 3.00, data indicates the role of politician is a significantly lower priority than any other role.

Table 2
Side-by Side Mean Scores from all Respondent Groups for Each Responsibility

Responsibility	Board President	Teachers' Union	Superintendent/ Principals
District Financial Oversight/Budgeting	4.75	4.56	4.79
Build a Positive and Safe School Climate	4.68	4.41	4.59
Evaluate Teachers and Staff and Make Building-level Personnel Recommendations	4.54	4.26	4.35
<i>Relationship Building/ Establishing Trust</i>	<i>4.50</i>	<i>4.07</i>	<i>4.56</i>
District Personnel Manager	4.43	4.04	4.20
Focus on Student Learning	4.36	3.93	4.33
Being Visible and Accessible	4.25	4.30	4.57
Manage Student Discipline and Resolve Parental Concerns	4.25	4.04	4.02
<i>Improve Curriculum and Instruction</i>	<i>4.19</i>	<i>3.74</i>	<i>4.28</i>
Evaluate Educational Programs	4.18	4.63	4.07
Create Vision, Mission, and Goals	4.14	4.00	4.18
District Community Relations	4.14	4.11	4.37
Collaborative Goal Setting	4.11	3.93	3.90
Planning and Scheduling	4.11	3.44	3.90
Provide Staff Professional Development	4.00	3.74	3.90
Professional Learning	3.96	3.81	4.02
District Property Management	3.93	3.93	3.93
Policy Making	3.79	4.04	3.85
Networking/Attending Professional Meetings	3.57	3.78	3.55
Oversight and Supervision of Student Activities/Extracurricular Events	3.39	3.44	3.55

Note: The roles with variance between the three respondent groups are indicated with bold italics.

Most Essential Responsibility According to Teachers' Union Presidents

The most essential responsibility, as perceived by teachers' union presidents, was district *financial oversight/budgeting* (M=4.56) with a mean .15 higher than the next highest mean. Additionally, *financial oversight/budgeting* received the greatest number ratings as essential.

Least Essential Responsibilities According to Teachers' Union Presidents

Two responsibilities received the lowest mean score of 3.44, as well as only three ratings of essential each. Those responsibilities were *planning and scheduling* and *oversight and supervision of student activities/extracurricular events*. It should be noted, with mean scores of 3.44, data indicates that the teachers' union presidents on average do not consider the two roles as low priorities.

Most Essential Roles According to Current Superintendent/Principals (RQ3)

Superintendent/principals rated *chief financial officer* (M=4.77) as the most essential role of the superintendent/principal position. Two additional roles received mean scores over 4.50: *role model* (M=4.69) and *instructional leader* (M=4.54). These two roles could also be considered essential. Each of the three roles was rated as essential or high priority by 95% or more of the superintendent/principals. Notably, 11 of the 14 roles received a mean score over 4.00 from the superintendent/principal respondents.

Least Essential Role According to Current Superintendent/Principals

Superintendent/principals identified *politician* (M=3.08) as the least essential priority. However, frequency data indicated that this does not mean the role is not important. Sixty-two percent of superintendent/principals rated politician as a medium priority or higher.

Most Essential Responsibilities According to Current Superintendent/Principals

According to the mean score data, superintendent/principals consider *district financial oversight/budgeting* (M=4.79) as the most essential responsibility for the superintendent/principal position. Eighty-four percent of superintendent/principals rated district financial oversight/budgeting as essential. In addition to *district financial oversight/budgeting*, three other responsibilities—*building a positive and safe school*, *being visible and accessible*, and *relationship building/establishing trust*—all received means over 4.50. Thus, all the responsibilities mentioned could be considered essential responsibilities.

Least Essential Responsibilities According to Current Superintendent/Principals

The least essential responsibilities according to superintendent/principal mean data are *networking/attending professional meetings* (M=3.55) and *oversight and supervision of student activities/extracurricular events* (M=3.55). These scores were .30 lower than the next lowest score. It should be noted that 78% of superintendent/principals rated *networking and attending professional meetings* as a medium or higher priority and 86% rated *oversight and supervision of student activities/extracurricular events* as a medium priority or higher.

Significant Differences Between Respondent Groups in Their Perceptions of Role and Responsibility Priorities for Superintendent/Principals (RQ4)

Instructional leadership. The data from the one-way ANOVA combined with the frequency and mean data showed significant difference for instructional leadership in the level of priority held by superintendent/principals ($M=4.54$), board presidents ($M=3.93$), and teachers' union presidents ($M=3.56$). The most significant difference was in the .99 mean difference between the superintendent/principal and teachers' union presidents. The difference is even more prominent in the frequency data with 49% of teachers' union presidents rating instructional leadership as a medium or lower priority. On the other hand, 95% of superintendent/principals rated the role as a high or essential priority.

Educational expert/instructional leader. The role of *educational expert/instructional leader* is another area in which there was significant difference in the perceptions between groups. The one-way ANOVA data combined with mean and frequency data showed a significant difference between the teachers' union presidents ($M=3.69$) and superintendent/principals ($M=4.28$). The mean difference of .58 led to a significance level of .002. Frequency data showed that 52% of teachers' union presidents surveyed rated the role as a medium priority or lower, while 92% of superintendent/principals surveyed rated the role as a high or essential priority. While not statistically significant, the post hoc LSD test showed a significance level of .015 for the mean difference (.44) between superintendent/principals and board presidents which could be considered *educationally* significant. Educational or practical significance according to Kirk (1996) "is concerned with whether the result is useful in the real world" (p. 1). Furthermore, nearly 40% of the board presidents rated the role educational expert/instructional leader as a medium or lower priority.

Relationship building/establishing trust. The frequency and mean data combined with the one-way ANOVA for the responsibility *relationship building/establishing trust* showed a significant difference in the perception of the responsibility between teachers' union presidents ($M=4.07$) and superintendent/principals ($M=4.56$). The mean difference of .48 produced a significance level of .001. It should be noted that while there is significant difference in the mean data, frequency data does not reflect a rating of low priority. Eighty-five percent of each group of respondents rated the responsibility as a high or essential responsibility. While not statistically significant, the post hoc LSD test showed a significance level of .011 for the mean difference (.43) between board presidents and teachers' union presidents which could be considered *educationally* significant.

Improving curriculum and instruction. The final responsibility that showed significant difference in the perception of priority was *improving curriculum and instruction*. The one-way ANOVA produced a mean difference of .54 and p -level of .001 between teachers' union presidents ($M=3.74$) and superintendent/principals ($M=4.28$). Again, it should be noted that this level of significance does not indicate that the responsibility is considered a low priority for either group of respondents. Frequency data indicated that 77% of teachers' union presidents and 87% of superintendent/principals rated the responsibility as a high or essential priority.

Discussion

Research Questions One, Two, and Three

The intent of research questions one, two, and three was to determine which roles and responsibilities of the superintendent/principal are considered the most essential to board presidents, teachers' union presidents, and practicing superintendent/principals. Each respondent group was presented with the same set of roles and responsibilities to rate on a continuum from not a priority through an essential priority. Fourteen roles and 20 responsibilities were selected by the researcher based on the review of literature and experience in the position of superintendent/principal.

Most essential roles for the superintendent/principal. The convergence of the data gathered through the use of SPSS presented similar findings for the two most essential roles and responsibilities from all three respondent groups. The two most essential roles for superintendent/principals according to all three respondent groups were *role model* and *chief financial officer*.

Boards appear to desire, above all other roles, leaders who act in a manner that others respect and emulate. Teachers' union presidents and superintendent/principals concur ranking *role model* second. This finding is supported by Glass et al. (2000) who stated "For the superintendency to survive and flourish in the 21st Century, superintendents will need to serve as role models, demonstrating the high degree of professionalism necessary to increase their influence" (p. 6). Preston et al. (2013) added that school leaders are expected to participate in community events, join local civic organizations, serve as role models, operate under the microscope of the community, and try to meet extremely high expectation levels set by the community.

All three groups also appeared to desire a superintendent/principal who is skilled as *chief financial officer*. As chief financial officers, superintendent/principals create and monitor district budgets, expenditures, receipts, and financial trends. The priority of this role by all three groups is congruent with the Illinois School Board Association's Policy 3:10, which guides the expectations of superintendents. Among numerous roles the policy lists as expectations for superintendent, managing the district's fiscal and business activities to ensure financial health. Additionally, this conclusion is supported by Carter and Cunningham's (1997) findings that the superintendent position shifted from master educator to an expert manager out of the need for a skilled leader in school financial matters.

Least essential roles for the superintendent/principal. The data indicated all three respondent groups were in agreement about the least essential superintendent/principal roles. Board presidents, teachers' union presidents, and superintendent/principals each rated *curriculum expert* and *politician* 13th and 14th out of the 14 roles. The low rating for *curriculum expert* could be interpreted as a belief that the role is best filled by classroom teachers or someone that takes a significant amount of time to become a curricular expert. Additionally, superintendent/principals and board presidents often do not have the time necessary to become experts in the curricula of the varied subjects taught in today's public schools.

As *politician*, superintendent/principals meet with legislators, community groups, and local leaders to advocate for or against specific education-related issues and topics. This type of work often requires going to legislators' offices, local meetings, or to the state capitol to meet with multiple leaders and legislators which can be difficult for superintendent/principals given the time constraints and no additional administrators in their districts. Another reason *politician* may have

received the least essential rating is the fact that meeting with legislators may be intimidating to some rural leaders. Finally, in light of the negativity associated with the term *politician*, this role may have had a lower rating.

Most essential responsibilities for the superintendent/principal. A convergence of data again exists between all three respondent groups as it relates to the priorities among responsibilities for superintendent/principals. The responsibility *district financial oversight/budgeting* was rated as the most essential by board presidents, teachers' union presidents, and superintendent/principals. This responsibility correlated to carrying-out the role of chief financial officer which was also rated highly.

The second most essential responsibility for the superintendent/principal as perceived by all three respondent groups was *building a positive and safe school climate*. This responsibility corresponded with fostering shared beliefs and a sense of community and cooperation; creating positive relationships with all stakeholders; and creating and implementing systems to ensure a safe, orderly, and productive environment for students and staff (Cotton, 2003; Hill, 2014; Marzano et al., 2005).

Least essential responsibilities for the superintendent/principal. It is worth noting that the responsibility that received the lowest ratings for all three groups was *oversight of student activities and extracurricular events*. Notably, this rating contrasts with the researcher's personal experience. In the researcher's district, serving in the role of superintendent/principal often includes supervision responsibilities associated with building-level administration including the long hours required being at all the after-hours school events. Additionally, many rural superintendent/principals would acknowledge that if they are absent from an event, people will notice.

The responsibility *networking and attending professional meetings* was the second lowest rated priority by superintendent/principals and board presidents. The location in rural school districts, a lack of time to get away to meetings, a sense of being able to handle the position "on their own," the financial cost, and the lack of another administrator to leave in charge in their absence are possible reasons superintendent/principals rated this responsibility so low. The aforementioned reasons may also explain why the role *politician* was rated so low.

Teachers' union presidents rated *planning and scheduling* as the second lowest priority responsibility. One possible explanation for the low rating for planning and scheduling may be that teachers appreciate administrators who support their autonomy and decision making to create their own schedules (Cotton, 2003; Lortie, 1975; Marzano et al., 2005).

Research Question Four

Data analysis revealed that significant differences existed between respondent groups for two roles and two responsibilities. The two roles with significant differences were *instructional leader* and *educational expert/instructional leader*. Additionally, significant discrepancy occurred in the responsibilities of *relationship building/establishing trust* and *improving curriculum and instruction*.

Data showed that significant differences existed in the priority levels assigned to *instructional leader* when comparing board presidents and superintendent/principals as well as between teachers' union presidents and superintendent/principals. Superintendent/principals rated instructional leader as the third most essential role they play in their districts. On the other hand, board presidents and teachers' union presidents rated the role ninth and 11th respectively. In a review of literature, the role of instructional leader was a common expectation for superintendents

and principals. In fact, Illinois School Code states that principals assume administrative responsibilities and instructional leadership under the supervision of the superintendent. Educational administrators are taught from the beginning of their administrative licensure coursework that they are required to be instructional leaders and the primary responsibility of principals is the improvement of instruction. This discrepancy suggests board presidents and teachers' union presidents are not fully informed about what the state-mandated expectations for superintendent/principals are.

Additional disagreement exists between teachers' union presidents and superintendent/principals on the role of *educational expert/instructional leader*. This role is similar to that of instructional leader. Unfortunately, the researcher and expert panel overlooked the similarity in roles during the pilot process. In retrospect, one of the two roles could have been eliminated. On the other hand, the disagreement between the superintendent/principals and teachers' union presidents strengthens the findings regarding the role of instructional leader. Superintendent/principals rated *educational expert/instructional leader* with a mean score of 4.28 while both board presidents and teachers' union presidents rated the role under 4.00.

Disagreement also existed between superintendent/principals and teachers' union presidents on the responsibility *relationship building/establishing trust*. Superintendent/principals rated the responsibility as the fourth most essential responsibility of their job with a mean score over 4.50, while teachers' union presidents rated the responsibility sixth with a mean score just over 4.00. The importance of *relationship building/establishing trust with others* within the district and community was not in question when considering the fact that both groups rated the responsibility as a high or essential priority. Harris (1999) noted "superintendents and union leaders preside over organizations that shape the educational destinies of the children who attend public school districts" (p. 115). With priority levels representing a significant difference between superintendent/principals' and teachers' union presidents' perception of the responsibility, it is important that neither group lose sight of the responsibility. Research shows that *relationship-building/establishing trust* with boards and staff is a vital responsibility for superintendents (Blumberg & Blumberg, 1985; Carter & Cunningham, 1997).

The final area of statistically significant differences in priority for responsibilities was *improving curriculum and instruction*. In the set of 20 responsibilities, teachers' union presidents rated improving curriculum and instruction as the 18th most essential responsibility and in the medium to high priority range, while superintendent/principals rated it eighth and as a high to essential priority. This responsibility correlates to the responsibilities associated with the role of instructional leader which showed a significant difference between groups. The teachers' union presidents' levels of priority for *instructional leader* and *improving curriculum and instruction* indicated that they do not believe that these roles are essential for superintendent/principals. This belief calls into question teachers' union presidents' knowledge of the statutory requirement that superintendents and principals spend a majority of their time improving curriculum and instruction (105 ILCS 5/10-21.4a).

Concluding Thoughts

Due to the many of roles and responsibilities associated with the position of superintendent/principal, a study of the priority level of the roles and responsibilities of superintendent/principals was appropriate. Gaining the perspectives of board presidents and teachers' union presidents on the dual-role position assisted in the examination of the agreement and disagreement in priority levels of specific roles and responsibilities.

The results of this study can assist current and future superintendent/principals as they navigate the essential roles and responsibilities associated with their dual-role leadership position. Additionally, it is hoped that the results of this study will provide insight to boards of education and teacher unions concerning the challenges superintendent/principals face each day.

The position of superintendent/principal asks a single individual to fulfill the demanding roles and responsibilities of both the district-level superintendent and building-level principal. The inner-workings of the position are often only known to those who have served in the role. The aspects of these roles and responsibilities are varied and time consuming, which can lead to the inability to be fully engaged in either role. Geivett (2010) described the position and individuals who serve as superintendent/principals as "not superhuman. They are not able to do twice the work of their counterparts . . . Superintendent/principals are forced to prioritize their responsibilities, thus oftentimes leaving many important duties undone" (p. 10).

The findings from this study are clear: board presidents and teachers' union presidents consider the roles and responsibilities associated with managing district finances, positive role modeling, and building a safe and positive school climate to be the most essential priorities for their superintendent/principals.

By examining the priority level data of specific roles and responsibilities, this study provides information to the assist superintendent/principals in determining where to focus their attention for effective school and district leadership and to survive what some have called "a position born in purgatory."

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The Relationship Between Building Teacher Leadership Capacity and Campus Culture

Dawn R. Harris
Gilmer Independent School District

Kriss Y. Kemp-Graham
Texas AM University- Commerce

The purpose of this explanatory sequential mixed methods research study was to explore the relationship between building teacher leadership capacity and campus culture in a suburban East Texas school district. Developing teacher leaders by building leadership capacity depends on administrators' abilities to develop leaders from within the existing staff and to shape campus culture. Results of this mixed methods study yielded findings that identified a statistically significant relationship between teacher leadership capacity and campus culture. Leaders play a role in the culture of corporate and academic organizations, and culture is at the forefront of exemplary performance of both entities. Therefore, administrator and teacher leaders must view culture as a priority and understand that culture is a product of school leadership.

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Transforming good corporate organizations to great ones, requires strong, solid cultures that solicit the engagement of many organizational actors rather than relying solely on one leader for success (Louis & Wahlstrom, 2011). This same transformation can be applied to schools. A common, shared purpose between campus administrators and staff can contribute to establishing a positive organizational culture that is built on collaborative problem solving and shared decision making to improve the school (Marzano, R., Waters, T., & McNulty, B., 2005). Cultural patterns shape and affect all aspects of a school (Bolman & Deal, 2008); therefore, administrators and teacher leaders should view culture as a priority in the school and understand it is a product of leadership (Schein, 2010).

Indicators of school culture include teacher collaboration, school vision, and an unified effort of fulfilling short and long-term goals; however, the most predictive element in developing school culture is its leadership (Kelley, Thornton, & Daugherty, 2005; Leithwood, Louis, Anderson, & Wahlstrom, 2004; MacNeil, Prater, & Busch, 2009; Sahin, 2011). According to Fullan (2011), building teachers' leadership capacity is a precursor for collective leadership responsibility, specifically during times of organizational change or reform. A shared vision between teachers and administrators should center on the purpose of crafting positive change in the school system by building teacher leadership capacity (Eyal & Roth, 2011).

Various researchers have cited the concept of teacher leadership capacity as a major contributor to school improvement (Aladjem, D. K., Birman, B. F., Orland, M., Harr-Robins, J., Heredia, A., Parrish, T. B., & Ruffini, S. J., 2010, 2010; Bassi & McMurrer, 2007; Lambert, 1998, 2003, 2006; Murphy, 2011; Senge, 1990). To ensure effective systematic changes in a school organization, school leaders should adhere to best practices for school improvement that allows for and supports collaboration among all actors in an organization. One such model that supports this type of collaboration is the S.M.A.R.T goal school improvement model. The S.M.A.R.T. (S = specific, M = measurable, A = attainable, R = results-based, T = time bound) goal school improvement model integrates research-based components to build teacher leadership capacity through focus, reflection, and collaboration (Conzemius & Morganti-Fisher, 2012; O'Neill & Conzemius, 2006; Schmoker, 2006).

Statement of the Problem

For several decades, there has been little debate over the role leaders play in the culture of successful organizations (Bolman & Deal, 1997; Fullan, 2011, 2014; Schein, 2010). Conversely, an ongoing debate among educational researchers and practitioners questions whether leaders affect culture or whether they are affected by culture. Notwithstanding the merits of this debate, a fact that has been well substantiated in the empirical research is that school leaders' influence on school culture is considered a major contributing factor in school performance (Aladjem et al., 2010; Fullan, 2001, 2014; Marzano, Waters, & McNulty, 2005; Roby, 2011). Researchers have also noted that both teacher leadership and positive campus cultures are indicators of successful schools (Bolman & Deal, 2008; MacNeil et al., 2009; Marzano et al., 2005; Turan & Bektas, 2013; Wilhelm, 2013).

Even though evidence exists of factors leading to school improvement, a gap remains in understanding the relationship between teacher leadership capacity and campus culture within a school organization. More specifically, gaps exist in the current literature as to how schools build teacher leadership capacity in daily routines and how administrators create conditions to improve

cultural aspects related to teacher capacity building efforts (Bain, Walker, & Chan, 2011; Berry, 2014; Conzemius & Morganti-Fisher, 2012; Lambert, 1998, 2003, 2006). Additionally, minimal research exists that has explored teacher leadership in schools and campus cultures that support building teacher leadership capacity to maintain school improvement efforts (Angelle & DeHart, 2011; Bain et al., 2011; Berry, 2014; Blankstein, 2004; Collins, 2001; Fullan, 2005; Katzenmeyer & Moller, 2009; Marzano et al., 2005; Muijs & Harris, 2007; Preskill & Torres, 1999; Schein, 2010; Short, Greer, & Melvin, 1997).

Developing teacher leaders by building leadership capacity depends on administrators' abilities to develop leaders from existing school-level staff (Bell, Thacker, & Schargel, 2011) and to shape campus culture (Louis & Wahlstrom, 2011; Yost, Vogel, & Rosenberg, 2009). Neither the effects of teacher leadership capacity on campus culture nor the relationship between the two is explicitly documented in empirical research. However, it is evident that many returns exist in adopting the teacher leadership development mindset in school organizations despite teachers' experience levels (Jackson et al., 2010). For example, Harris and Muijs (2004) noted that teacher leadership correlates with both overall school improvement and the total effectiveness of teachers themselves. It has been noted in numerous empirical research studies that teachers desire opportunities to take on leadership roles, even novice teachers, particularly when they are provided with ongoing support (Harris & Muijs, 2004).

The purpose of this explanatory sequential mixed methods research study was to explore the relationship between building teacher leadership capacity and campus culture. Research for this study was guided by the following questions:

1. Does a statistically significant relationship exist between the dimensions of teacher leadership capacity and the dimensions of campus culture for teachers and administrators with varying levels of experience? 1-5 years of experience (a); 6-16 years of experience (b) and 17+ years of experience (c) respectively?
2. What are teachers' and administrators' perceptions of campus culture?
3. What are teachers' and administrators' perceptions of building teacher leadership capacity?

Methods

This study was conducted in two phases to explore the relationship between building teacher leadership capacity and campus culture. Phase I of this study aimed to address Research Question 1 using the Leadership Capacity School Survey (LCSS) and School Climate Assessment Instrument (SCAI) surveys. The LCSS is a self-assessment instrument of leadership dispositions, knowledge, and skills necessary to build teacher leadership capacity in school organizations (Lambert, 1998). The LCSS contains 30 questions clustered into six dimensions that are rated on a 5-point Likert scale. The six dimensions are (1) broad-based skillful participation in the work of leadership; (2) shared vision results in program coherence; (3) inquiry-based use of information to inform decisions and practice; (4) roles and actions reflect broad involvement, collaboration, and collective responsibility; (5) reflective practice consistently leads to innovation; and (6) high or steadily improving student achievement and development. The reliability of the LCSS yielded a Cronbach's Alpha of 0.97 (Pierce, 2007).

The SCAI was designed to measure school climate, including its health, function, and performance (Shindler, J., Jones, A., Williams, A. D., Taylor, C., & Cardenas, H., 2009). The SCAI includes eight dimensions: (1) appearance and physical plant, (2) faculty relations, (3) student interactions, (4) leadership/decision making, (5) learning environment, (6) discipline

environment, (7) attitude and culture, and (8) school-community relations. Only three dimensions of the SCAI were used for this research: faculty relations, leadership/decision-making, attitude and culture. The three chosen SCAI dimensions were a better fit to address the research questions and were more aligned to the constructs of the S.M.A.R.T. goal school framework. The questions on the selected SCAI dimensions were rated on a 5-point Likert scale. The SCAI reliability, as measured by the Cronbach's Alpha, was 0.97 (Alliance for the Study of School Climate, 2011).

In Phase II, qualitative data were collected from two focus group interviews to address Research Questions 2 and 3. A semi-structured interview design for the teacher and administrator focus groups was used to gather participants' perceptions of teacher leadership capacity, campus culture, and the relationship between teacher leadership capacity and campus culture. Sixteen open-ended focus group questions were developed for use with teachers and administrators to elicit their perceptions of teacher leadership capacity and campus culture based on the overarching concepts found on the LCSS and SCAI survey dimensions, S.M.A.R.T. goal school improvement model, and the literature. Questions were grounded in the two theoretical frameworks of teacher leadership capacity and campus culture that allowed participants to draw on their personal experiences and share their perceptions of the two phenomena.

The qualitative data provided a greater depth of knowledge related to participants' perceptions and opinions of teacher leadership capacity and campus culture that could not be ascertained from closed ended responses asked on the quantitative surveys. Focus groups with teachers and administrators were conducted separately to understand, compare, and contrast the perceptions of teachers and administrators. The teachers were not included in the focus group with the administrators and vice versa. This design allowed teachers and administrators an opportunity to feel comfortable among their own peer groups to share more authentic detailed responses without fear of retribution or alienation.

The insights obtained from the focus group interviews produced a comprehensive narrative of teachers' and administrators' perceptions of teacher leadership capacity and campus culture in this district. Axial coding was used to disaggregate core themes from the focus group transcriptions (Miles & Huberman, 1994). Observed patterns, similarities, and differences in participants' responses were noted, categorized and grouped into interrelated and subordinate themes (Glaser & Strauss, 1967; Leech & Onwuegbuzie, 2008; Shank, 2006; Yin, 2009). Codes were developed that included teacher leadership capacity and campus culture. These codes were assigned to chunks of transcribed focus group data that included words, phrases, and sentences extracted from the transcripts. All codes were relative to the theoretical frameworks of culture and teacher leadership capacity.

Coded data were then recorded on a matrix developed by the researchers. The matrix design was created from the S.M.A.R.T. goal framework components and the dimensions of the SCAI and LCSS. The matrix bin labels for the rows and columns gave the researchers a visual representation of the coded themes to help better understand the data to answer Research Questions 2 and 3. The themes that emerged from participants' responses provided rich textual insight that helped to explain the quantitative results of the LCSS and SCAI data. Figure 1 provides a visual map of the methodological design of this mixed methods study.

measurable, A = attainable, R = results-based, T = time bound) goal school framework, is a valuable tool to develop and sustain teacher leaders and to promote a positive school culture (Lambert, 2002; O'Neill & Conzemius, 2006).

S.M.A.R.T. Goal Framework for Building Teacher Leadership Capacity

The concept of S.M.A.R.T. goals was first identified in the management of business organizations (Doran, 1981) and was subsequently refined to meet the needs of school organizations. This school improvement model is a comprehensive and practical educational model for continuous improvement to compel change within the school system (Conzemius & Morganti-Fisher, 2012; O'Neill & Conzemius, 2006; Schmoker, 2006). The S.M.A.R.T. goal framework plays a significant role in shaping teacher leadership capacity.

Within the S.M.A.R.T. goal framework, teacher leaders emerge through their participation in organized professional learning designs. Principals use the S.M.A.R.T. goal framework to support and implement professional learning and shared decision making. Further, teachers become leaders by actively participating in decision-making processes. Through teacher empowerment, natural and nurtured leaders rise to the surface (Conzemius & Morganti-Fisher, 2012; O'Neill & Conzemius, 2006). Teacher leadership capacity in the sense of the S.M.A.R.T. goals framework focuses on skill development that empowers teachers to be purposeful and operative during the school day. Roby (2011) noted that teachers who are leaders become advocates of the school organization and, in turn, their own efficacy increases. A safe environment dedicated to developing teacher leaders is part of the S.M.A.R.T. goal school improvement process.

School Culture

School culture can be a roadblock or a catalyst in the evolution of building teacher leadership capacity (Mullen & Jones, 2008). Organizational change agents have recognized that leaders influence culture, whether in a business or school setting. In fact, Fullan (2001) identified a correlation between school leaders and the culture of the schools they led.

Culture is the nucleus of the school for all staff members, students, and parents, and the school leaders are responsible for the culture being positive or negative (Fullan, 2014). While leaders play a role in shaping school culture, school culture also shapes the staff (DuFour et al., 2008). Schools leaders, whether established or emerging, influence the culture of learning and the commitment of ongoing professional growth (Giancola & Hutchinson, 2005; Harris, 2011). Every school has a culture, and leaders must often drive cultural shifts. DuFour et al. (2008) suggested that meaningful, productive, and sustainable change would only come to fruition if it were fortified in the school culture.

Building Teacher Leadership Capacity

The act of building leadership capacity is not a new idea even though its implementation in schools is only beginning to emerge (Dinham & Crowther, 2011). The benefits of building teacher leadership capacity is noted in empirical research (Conzemius & O'Neill, 2006; Gray & Bishop, 2009; Lambert, 1998, 2002, 2003, 2006; Mullen & Jones, 2008; Schein, 2010; Wilhelm, 2010). The thoughtful support and pre-determined training a principal offers teachers with the potential to become leaders strengthens the entire campus and leads to meaningful organizational change. Recently, the campus principal has assumed the role of instructional leader; however, it is

recommended that the principal become a leadership developer as well to build teacher leadership capacity (Kurtz, 2009).

Teacher leadership capacity is defined as an opportunity for teachers to solve problems through observation and active participation (Gray & Bishop, 2009). Principals lead their campuses by assuming many roles. Thus, investing in the development of teacher leaders on a campus translates into principals' relinquishment of some control and trusting the skills and knowledge of their teachers. Principals can create systems that build teacher leader capacity, and principals can make conscious efforts to ensure that professional development is purposeful and intentional in building teacher leaders. As such, the principal's role in school leadership has evolved and changed to include building leaders. These new responsibilities require principals to implement diverse methods to groom teacher leaders (Slater, 2008).

Classroom teachers typically are not trained to lead unless an intentional focus is placed on building leadership capacity. Mullen and Jones (2008) confirmed in a qualitative case study that building leadership capacity contributes to the growth of teachers as leaders and affords them a sense of empowerment. Teachers do not normally take on leadership roles without the support and encouragement of their principals. Williams (2009) noted that both administrators and teachers must commit to sustain meaningful change. Thus, a teacher's acceptance and the principal's relinquishment of leadership responsibility is a transformation of traditional school practice. The educational literature points to the importance of dedication and commitment to the teacher leadership building process as a vital component of capacity building (Lambert, 1998, 2002, 2003, 2006; Louis et al., 2010; Schein, 2010; Wilhelm, 2010).

In general, education is an enterprise that centers on human dimensions and the expansion of human capacity, specifically leadership capacity. Teacher leadership is one facet that principals should place as a priority. According to Hallinger and Murphy (2013), "It has been increasingly clear that leadership at all levels of the system is the key lever for reform, especially for a leader who focuses on capacity building and the developing of other leaders who can carry on" (p. 16). A campus leader's devotion to building teacher leadership capacity among the staff is a means to achieve higher student performance and enable others to grow professionally through teacher leadership roles (Mullen & Jones, 2008).

Leadership involves many things, but ultimately, leadership is about learning (Lambert 1998, 2003). Through carefully designed professional development, the principal can refine teacher leaders' skills and increase the knowledge base of emerging leaders. Leadership skills demonstrated in PLCs, such as leading others, learning, and sharing alongside other professionals are critical components of building and sustaining teacher leadership capacity (Rezaei, Salehi, Shfie, & Sabet, 2012).

To build teacher leadership capacity that supports continual school improvement efforts, dynamic dialogue, and even uncomfortable discourse among professional leaders is inevitable. The social workings of professional development to build teacher leadership capacity must be done together, not in isolation. Professional learning capitalizes on the social components of learning for teacher leaders and the transformational leadership behaviors of principals, which amplify the development of teacher leadership capacity.

Sustaining Teacher Leadership Capacity Building

An administrator's approach to sustain teacher leadership capacity depends on the specific leadership opportunities granted to teachers, such as grade-level leader or department chair, which

are appointed roles in school districts. In addition, administrators must acknowledge the contribution of teachers who create leadership opportunities and lead without official titles to accompany their leadership acts (Lambert, 2000; Mullen & Jones, 2008). Informal teacher leadership opportunities stray from the traditional top-down hierarchy of leadership and build collective responsibility (Lambert, 2000). These informal teacher leadership opportunities can also serve to build sustainable leadership capacity within the school. Once systems and processes are in place, teacher leadership capacity becomes institutionalized in the culture (Abplanalp, 2007).

The teacher leader building commitment should put the needs of the school, students, and teachers at the forefront. School district leaders and campus principals should strategically emphasize the leadership capacities of individuals within established teams and the development of leadership skills during PLCs with teams of leaders. Gray and Bishop (2009) noted, "Teachers in leadership teams can create opportunities to engage a broader constituency in the work of improving a school" (p. 29). The collective efforts of administrators and teachers in the school improvement process will enhance the cycle of building and sustaining teacher leadership capacity.

Dinham and Crowther (2011) supports building teacher leadership capacity. The researchers recommend that administrators and teachers commit and participate in building, implementing, and sustaining leadership capacity so that meaningful change can occur. Developing teacher leadership capacity benefits everyone in the school system and does not exclusively lay in the hands of the principal to develop, implement, and sustain (Williams, 2009). Dinham and Crowther defined the core business of developing teacher leadership capacity as relating to the teacher's direct teaching and learning that results not only in an investment to building leadership capacity, but also in sustaining that capacity within the school.

School leaders can create a platform in their respective schools where professional learning is supported and where a multitude of skill sets (e.g., leading change, focusing interventions, managing resources, improving instruction, and analyzing results) are developed and mastered (Gray & Bishop, 2009). The S.M.A.R.T. goal school improvement model outlines sustaining teacher leadership capacity and focusing on the skill development to empower teachers to be purposeful and operative in their leading. Teacher leaders focus on goals by participating in PLCs, supporting the school mission and beliefs, collaborating by sharing ideas, and reflecting on the goals that have been developed collaboratively. The communal vision held by all administrators and teacher leaders enhances the sustainment of teacher leadership capacity.

Conzemius and Morganti-Fisher (2012) identified five critical attributes that have a prevalent bearing on forming successful teams of teachers and administrators. First, team members must acknowledge that they share accountability equally for the success or failures they may encounter. Next, members commit to the agreed upon vision and hold that vision as the focus of all decision-making. Then, teachers and administrators build trust in each other. Administrators must share leadership with teachers, and teachers must accept leadership opportunities. Finally, professional learning must be a priority, and administrators and teachers must commit to learn continually through the S.M.A.R.T. goal process to build teacher leadership capacity.

Teacher Leaders

Teacher leaders lead within the realm of their classrooms and contribute to their school PLCs with the goal of continual school improvement at the forefront of their actions (Katzenmeyer & Moller, 2009). Scholars have noted in the empirical research that teacher leadership enhances quality and teacher retention (Jackson, Burrus, Bassett, & Roberts, 2010). Teacher leaders who feel as though their voices are heard and who share in decision making will remain in their district.

Within the school improvement process, leaders need to be cognizant of the influence that initiatives, programs, and goals have on the school culture. Teacher leaders affect school culture; therefore, they should be engaged in the cultural shifts of their schools, and their contribution to the school culture should not be underestimated in comparison to the influence they have on instruction and student achievement (Roby, 2011).

Developing Teacher Leaders

Developing teacher leaders has emerged in the educational debates as a possible solution to support school improvement (Jackson et al., 2010). The National Commission on Teaching and America's Future (NCTAF) and the Council for State School Officials recommended that teachers should be granted more leadership opportunities. Sharing responsibility requires leaders to include multiple leaders on a campus; however, teacher leaders must be supported and trained to lead and drive school improvement.

In 2008, an assembly of educators with the Center for Teacher Quality discussed strategies to recognize and promote teacher leadership. This gathering of teachers, administrators, policy organizations, higher education, and teacher unions resulted in the articulation of a philosophy that guided the development of standards for the Teacher Leader Model. These standards are comprised of broad domains that centralize the overarching dimensions of teacher leadership and describe the knowledge and skills that identify the characteristics of teacher leaders (Learning Forward, 2011).

To support the growth and advancement of teacher leaders, it is essential that administrators design, assign, and implement professional learning to allow teacher leaders to reflect on their respective leadership qualities (Conzemius & Morganti-Fisher, 2012). Desired professional learning should exist in job-embedded professional development arenas. According to Webster-Wright (2009), "To gain further insights to enhance support for professionals as they learn, there is a need to understand more about how professionals continue to learn through their working lives" (p. 75). Administrators and district officials can adopt the PLC philosophy and mold it to support teacher leadership development.

The paradigm shift of administrators accepting responsibility for creating more teacher leaders is becoming more commonplace. This shift encourages administrators to capitalize on teachers' strengths and rewards teachers for taking a proactive role in problem solving without being directed by their administrator (Kamarazuman, Kareem, Khuan, Awang, & Yunus, 2011). Furthermore, this shift in mindset and administrator practice supports a culture that values teachers' talents and recognizes the leadership potential in all teachers (Katzenmeyer & Moller, 2009, p. 3). The progressive mind shift and change of philosophy that administrators assume will help to solidify a partnership built on mutual respect (Blanchard, 2008).

Refining teacher leadership development will allow teachers to commit to the never-ending learning of leadership with the total school improvement process in mind (Fullan, 1994). As a result, the convention of developing teacher leaders requires a deeper understanding of the change process, greater responsibility of ownership of the decisions made, and confidence to challenge colleagues to take part in the same professional transformation. Similarly, as teachers evolve into leaders, they see a larger picture of the school improvement process and view outcomes differently because of the collaborative decision making process (Katzenmeyer & Moller, 2009).

Principals can embrace the notion of building teacher leadership capacity by providing teachers who exhibit leadership potential with leadership opportunities (Senge, 2006).

Empowering teacher leaders enables principals to lead in a multi-dimensional fashion and positively affect continuous school-wide improvement (Byrne-Jimenez & Orr, 2012). Further, sharing leadership with teachers can result in school cultures that thrive as teachers are groomed to be leaders, afforded opportunities to build their own capacities and where principals foster safe environments for teacher capacity building (DuFour & Fullan, 2013; Wilhelm, 2013). To accomplish a school mission and meet school improvement goals, a teacher leadership culture must include the joint efforts of teachers and administrators.

Building teacher leadership capacity can be accomplished through several means, including structural, cultural, or relational approaches. Current literature lacks details on how school leaders build teacher leadership capacity and how they recognize the relationship of such leadership on campus culture (Bain et al., 2011; Berry, 2014; Conzemius & Morganti-Fisher, 2012; Lambert 1998, 2003, 2006). This lack of knowledge may be an indication of why teacher leadership opportunities are not prevalent in many school organizations (Berry, 2014) and why campus culture is often misunderstood.

Research Findings

The purpose of this explanatory sequential mixed methods research study was to explore the relationship between building teacher leadership capacity and campus culture in a suburban Texas school district. This purpose was achieved by analyzing quantitative and qualitative data obtained sequentially in two phases from certified teachers and administrators in a suburban Texas school district. The school district adopted the S.M.A.R.T. (S = specific, M = measurable, A = attainable, R = results-based, T = time bound) goal school improvement model to build teacher leadership capacity and to promote a positive culture. One quantitative research question and two qualitative research questions guided this research.

Quantitative Phase I Findings

Mean scores and standard deviations for each of the three dimensions of the SCAI were calculated for both teachers and administrators. The SCAI consisted of 10 questions on faculty relations, 11 questions on leadership/decisions, and 10 questions on attitude and culture. All questions were answered using a Likert scale; anchors included 1 = *accidental actions*; 3 = *semi-intentional actions*; 5 = *intentional actions*.

SCAI

The faculty relations dimension yielded the highest mean score of 4.07 ($SD = .55$) for teachers and administrators combined and the highest mean score of 4.09 for teachers ($SD = 0.54$), but the lowest for administrators ($M = 3.80$; $SD = 0.73$). The highest mean score for administrators was attitude/culture ($M = 4.0$; $SD = 0.61$); however, this dimension was the lowest for teachers ($M = 3.59$; $SD = .51$). For teachers and administrators combined, the attitude/culture dimensions had a mean score of 3.61 ($SD = .53$). The leadership/decisions dimension for teachers was 3.98 ($SD = .57$), and the mean score for administrators was 3.97 ($SD = .67$). The combined mean score for teachers and administrators in the leadership/decision dimension was 3.98 ($SD = .57$).

LCSS

The LCSS uses a Likert scale of 1 = *We do not do this at our school*; 2 = *We are starting to move this direction*; 3 = *We are making good progress here*; 4 = *We have this condition well*

established; 5 = *We are refining our practice in this area*. The highest mean score for teachers on the six LCSS dimensions was 3.83 ($SD = .69$) for the inquiry-based use of information to inform decisions and practice dimension. The lowest mean score for teachers was 3.47 ($SD = .70$) for reflective practices that consistently lead to innovation dimension. Teachers' scores on the LCSS reflected different perceptions from the administrators. Two different dimensions received the highest and the lowest mean scores for administrators' perceptions of building leadership capacity. Specifically, the highest mean score for administrators was 3.91 ($SD = .89$) for the broad based, which included skillful participation in the leadership dimension. The lowest mean score for administrators was 3.54 ($SD = .87$) in the dimension of shared vision resulting in program coherence.

RQ1. Does a statistically significant relationship exist between the dimensions of teacher leadership capacity and the dimensions of campus culture?

The relationship between the dimensions of teacher leadership capacity and the dimensions of campus culture was statistically significant. A canonical correlation analysis (CAA) was conducted using the six leadership capacity variables as predictors of the three campus culture variables to evaluate the multivariate shared relationship between the two variable sets (i.e., leadership capacity and campus culture). The analysis yielded three functions with squared canonical correlations (R^2_c) of .522, .060, and .022 for each successive function.

The full model across all functions was statistically significant using the Wilks's lambda (λ) = .439 criterion, $F(18, 269.2) = 5.05, p < .001$; 56% of the variance is shared between the two variable sets across all functions, which is a large effect size. The variables of shared vision, inquiry-based, and roles and actions were the primary contributors to the leadership capacity predictor synthetic variable. Leadership/decisions was determined to be the primary contributor to the campus culture synthetic variable. A significant relationship existed between the synthetic variables of teacher leadership capacity and campus culture as 56% of variance was captured by the first function of the CCA. Figure 2 illustrates the canonical solution for the synthetic variables for this research question.

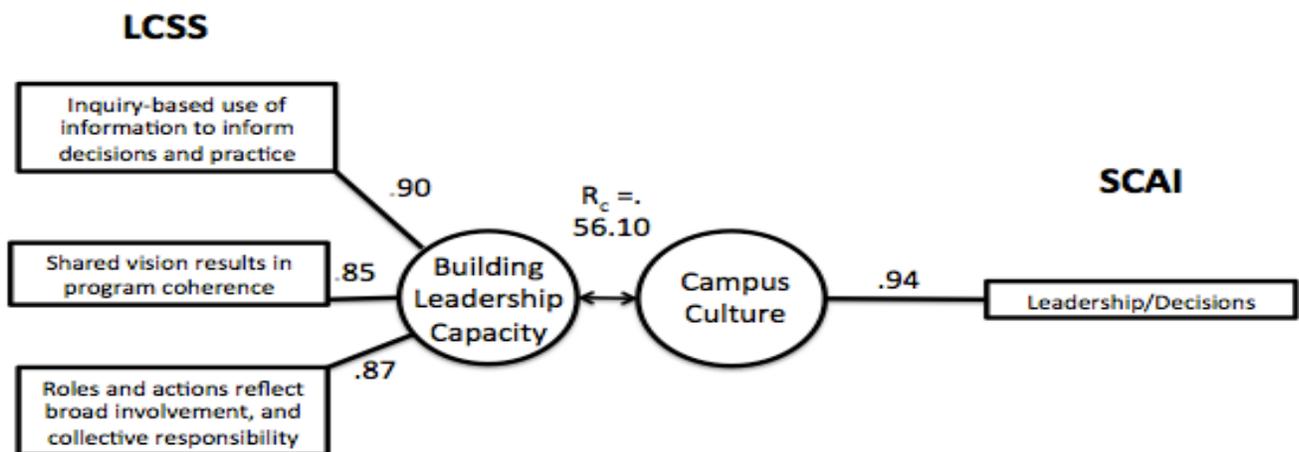


Figure 2. Canonical solution for building leadership capacity predicting campus culture.

RQ1a. Does a statistically significant relationship exist between the dimensions of teacher leadership capacity and the dimensions of campus culture for teachers and administrators with 1-5 years of experience?

The relationship between the dimensions of teacher leadership capacity and the dimensions for campus culture for teachers with 1-5 years of teaching experience was statistically significant. The analysis for Group 1 (1-5 years of teaching experience) yielded three functions with squared canonical correlations (R^2_c) of .488, .277, and .172 for each successive function. Collectively, the full model across all functions was statistically significant using the Wilks's lambda (λ) = .307, $F(18, 65.54) = 1.88, p = .033$. For the set of three canonical functions, the effect size was $1 - .307 = .693$; 69% of the variance in the two variable sets was shared across all functions, and the effect size was large (Cohen, 1988). The leadership/decisions variable was a primary contributor to the campus culture synthetic variable. A statistically significant relationship existed between the synthetic variables of leadership capacity and campus culture, as 69% of the variance was captured by the first function of the canonical correlation analysis (see Figure 3).

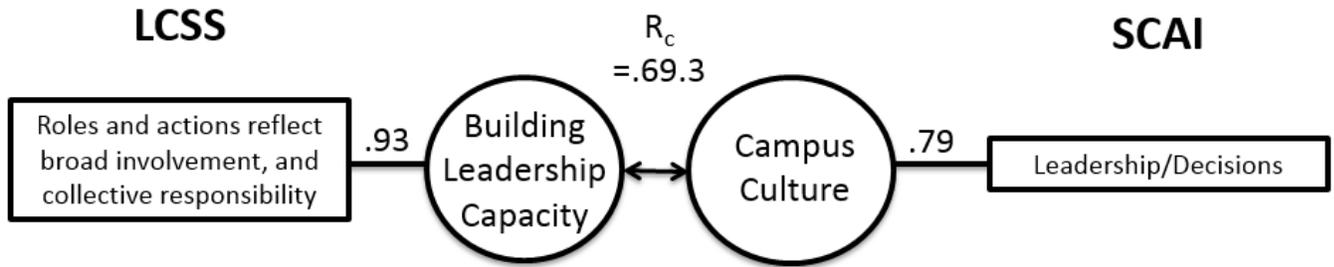


Figure 3. Canonical solution for building leadership capacity predicting campus culture for Group 1 = 1-5 years of teaching experience.

RQ1b. Does a statistically significant relationship exist between the dimensions of teacher leadership capacity and the dimensions of campus culture for teachers and administrators with 6-16 years of experience?

The relationship between the dimensions of teacher leadership capacity and the dimensions of campus culture for teachers with 6-16 years of teaching experience was statistically significant. The analysis for Group 2 (6-16 years of teaching experience) yielded three functions with squared canonical correlations (R^2_c) of .750, .268, and .065 for each successive function. Collectively, the full model was statistically significant across all functions using the Wilks's lambda (λ) = .171, $F(18, 88.17) = 4.24, p < .001$. For the set of three canonical functions, the effect size was $1 - .171 = .829$; 83% of the variance in the two variable sets was shared across all functions and yielded a large effect size (Cohen, 1988). The leadership/decisions variable was the primary contributor to the campus culture synthetic variable. A statistically significant relationship existed between the synthetic variables of leadership capacity and campus culture as 83% of the variance was captured by the first function of the canonical correlation analysis (see Figure 4).

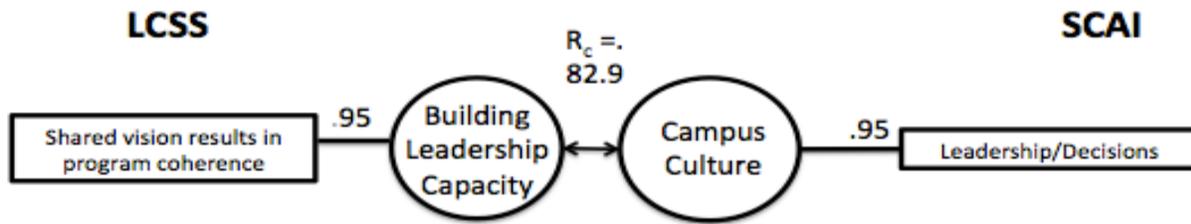


Figure 4. The canonical solution for building leadership capacity predicting campus culture for Group 2 = 6-16 years of teaching experience.

RQ1c. Does a statistically significant relationship exist between the dimensions of teacher leadership capacity and the dimensions of campus culture for teachers and administrators with 17+ years of experience?

The relationship between the dimensions of teacher leadership capacity and the dimensions of campus culture for teachers with 17+ years of teaching experience was statistically significant. The analysis for Group 3 (17+ years of teaching experience) yielded three functions with squared canonical correlations (R^2_c) of .644, .076, and .032 for each successive function. Collectively, the full model across all functions was statistically significant using the Wilks's lambda (λ) = .318, $F(18, 65.54) = 1.49, p = .1.81$. For the set of three canonical functions, the effect size was $1 - .318 = .682$; 68% of the variance in the two variable sets was shared across all functions and yielded a large effect size (Cohen, 1988). The full model (Functions 1 to 3) was statistically significant. Function 2 to 3, $F(10, 48) = 0.273, p = .984$, was not statistically significant. Function 3, which is the only function tested in isolation, did not explain a statistically significant amount of shared variance between the variable sets, $F(4, 25) = .205, p = .684$. The variables of roles/actions and broad-based were the primary contributors to the leadership capacity predictor synthetic variable. All three variables of leadership/decisions, faculty relations, and attitude and culture met the rule of thumb of $|.45|$ to be considered significant (Stevens, 2009). A statistically significant relationship existed between the synthetic variables of leadership capacity and campus culture for teachers and administrators with 17+ years of experience as 68% of the variance was captured by the first function of the CCA (see Figure 5).

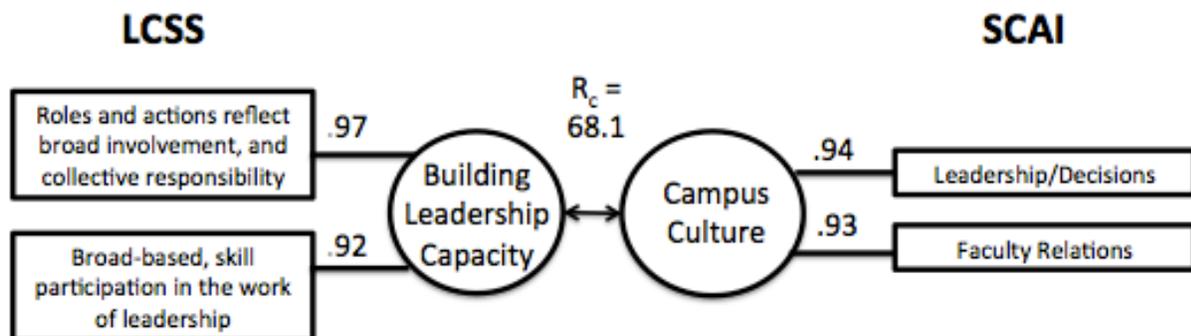


Figure 5. The canonical solution for building leadership capacity predicting campus culture for Group 3 = 17+ years of teaching experience.

Significant statistical relationships were found between the synthetic variables for leadership capacity and campus culture for each experience group. Table 1 details the LCSS and SCAI commonalities and differences in the squared structure coefficients (r_s^2) of the separate experience groups based on the statistical analyses for Research Questions 1(a-c).

Table 1
Significant Leadership Capacity and School Culture Variables for Experience: Groups 1-3

Instrument	Group 1: 1-5 Years	Group 2: 6-16 Years	Group 3: 17+Years
LCSS	Roles/Actions ($r_s^2 = 59.8\%$)	Shared Vision ($r_s^2 = 90.3\%$)	Roles/Actions ($r_s^2 = 93.7\%$) Broad-based ($r_s^2 = 85.0\%$)
SCAI	Leadership/Decisions ($r_s^2 = 61.9\%$)	Leadership/Decisions ($r_s^2 = 90.6\%$)	Leadership/Decisions ($r_s^2 = 88.7.6\%$) Faculty Relations ($r_s^2 = 85.5\%$)

Note. r_s^2 = squared structure coefficient.

Qualitative Phase II Findings

Common and subordinate themes were identified from the teacher and administrator focus group interviews that enriched and explained the quantitative data from the SCAI and LCSS surveys. Both the S.M.A.R.T. goal framework and participants' responses included shared vocabulary such as focus, collaboration, and reflection. These actions are specific to the goal of building teacher leadership capacity and improving the culture of the school organization.

Focus group responses from both teachers and administrators included the same vocabulary that is embedded in the SCAI and LCSS instruments. For example, focus, collaboration, trust, modeling, time, and voice resonated in participants' responses. In addition, participants' responses were aligned to the specific components of the school improvement model adopted by the district.

RQ2. What are teachers' and administrators' perceptions of their own campus culture?

The analysis of data from the focus group interviews resulted in the identification of two themes and five subordinate themes directly related to Research Question 2. The themes are reported in (see Table 2).

Table 1
Research Question 2 Themes and Subordinate Themes

Themes	Subordinate Themes
Administrative Leadership	Empowerment Modeling
Time	Collaboration Shared Focus Reflection

Administrative leadership. Data on teacher’s perceptions obtained from the SCAI revealed that different leadership styles fostered positive campus cultures. Participants’ were asked to expound on their beliefs about their administrators’ influence of campus culture. For example, one respondent stated:

The environment you walk into. You can feel the different cultures on campuses. It is because of who the leader is in charge and how they set the culture and the tone for that campus, but they all work and it is very interesting to see that.

Another respondent shared, “Each campus is different. You can feel the different cultures on each campus within the district.”

Administrative leadership emerged as a theme for both focus groups. All six teachers agreed that campus leadership contributed to campus culture. Each campus in the district has formal teacher leadership roles such as grade level facilitator, grade level leader, team leader, or department head appointed by the campus principal. According to one respondent, “Teacher leaders make a huge impact on campus culture.” Another respondent added, “I think by having teachers see other teachers as leaders, it helps build a culture, a positive culture.”

Subordinate: Empowerment and modeling. Participants were asked to think back over the past year that they had been employed by their district, and to share from their perspective how culture had been impacted by the empowerment of teacher leaders. One respondent referred to colleagues enabling new teachers to lead and stated, “Other teachers empowered a teacher to be that leader.” Another respondent mentioned the importance of modeling by administrators in the district, which empowers teacher leaders to assume leadership capacity roles on campus. According to these participants, the notion of empowerment affected the campus culture positively. All teachers agreed that administrative leadership, modeling, and empowering teachers to be leaders influenced the culture.

Time. Time gave rise to both subordinate themes. Both teachers and administrators indicated that without time, collaboration and focus would not have been as deliberate. Providing teachers and administrators time during the school day added to the campus culture and provided a purposeful opportunity to build teacher leaders.

Subordinate: Collaboration, focus, reflection. Teachers discussed the subordinate themes of collaboration and focus, while administrators discussed collaboration, focus, and reflection on a deeper level. During the administrator focus group interview, dedicating time for teachers was mentioned as it related to the chosen district. Every teacher was given a 50-minute block of time each day dedicated to collaboration and planning in addition to their conference period. An administrator acknowledged that reflection and collaboration would happen, but it

would not be as intentional if it were not for the built-in time during the school day. Reflection was associated with the time the district designated for collaboration. Reflection time for teachers promoted a culture supportive of their need to examine past mistakes to avoid repeating them or to celebrate successes so that they may be repeated in the school improvement process. Participants referred to a shared focus between all campuses in the district in relation to the S.M.A.R.T. goals school improvement model. A common focus was conducive to a positive culture and ensured everyone was committed to the goals set forth by the district. Administrators and teacher leaders who collaborated to develop the vision of both the campus and district took ownership and pride in the work required to accomplish the established goals.

RQ3. What are teachers' and administrators' perceptions of building teacher leadership capacity within their own district?

Main and subordinate themes resonated in the teacher and administrator focus group interviews that enriched and illuminated the quantitative data from the LCSS survey (see Table 3). The theme of leadership opportunities led to more specificity in the subordinate themes, which pinpointed the differences between formal and informal opportunities and the level of teacher experience regarding leadership roles. The subthemes of trust and relationships evolved from the theme of voice.

Table 2
Research Question 3 Themes and Subordinate Themes

Themes	Subordinate Themes
Leadership Opportunities	Formal Leadership Opportunities Informal Leadership Opportunities Experience of Teacher
Voice	Trust Relationships

Leadership opportunities. Leadership opportunities included the subordinate themes of formal leadership, informal leadership, and experience of teachers. Administrators and teachers had differing perceptions of leadership opportunities provided to teachers in the district. The teachers unanimously agreed that they did not feel the district provided many opportunities for teachers to lead in formal roles. They felt the district did not provide many opportunities for teachers to assume formal leadership roles, but there were an abundance of informal opportunities available. Participants identified formal roles as those roles with a title; however, they pointed out that those in informal leadership roles assumed just as much responsibility without the formal assignment. Teachers also discussed years of experience and the role of the administrator in developing leadership. Teachers believed that years of teaching experience should not be a deciding factor for an administrator when making decisions about leadership development and assigning a teacher as a formal leader.

Administrators discussed the themes of leadership opportunities and the subordinate themes of formal leadership opportunities, informal leadership opportunities, and the experience level of the teacher. These administrators conveyed differing perceptions about leadership opportunities compared to the teachers. All five administrators agreed that the district provided teachers

abundant opportunities to take on leadership roles, which was in sharp contrast to teachers' perceptions. All administrators agreed that teachers must be given opportunities, but they have to be accompanied by other things. Administrators distinguished between formal and informal leadership roles, and four of the five administrators mentioned these roles specifically.

Only one administrator mentioned formal leadership in terms of teacher experience, while years of experience was a focal point during the teacher focus group interview. Teachers believed that if teachers were on a term contract (3 years employed in the district or taught 5 of the last 8 years in a public school) that it made a difference in whether one was chosen to be in a leadership role, whereas administrators expressed that they did not exclude teachers with fewer years of experience.

Voice. The final theme was voice with subordinate themes of trust and relationships. During the administrator focus group discussion, the theme of voice morphed into the subordinate themes of trust and relationships for the remainder of the administrator focus group interview. Several administrators referenced the subordinate theme of relationships between teacher leaders and administrators. The relationship between the teacher leader and administrator cannot be empty, and conversations must be full of trust. Fostering a positive, supportive relationship may be a tool administrators use to overcome the difficulty of building teacher leadership capacity. Similarly, the theme of voice was brought to light early in the teacher focus group interview and it resonated throughout the focus group interview.

Discussion

Research Question 1 indicated a statistically significant relationship between the dimension of roles and actions that reflect the collective responsibility within the building leadership capacity variable in relation to the dimension of leadership and decision-making processes within the campus culture variable. Focus group responses from teachers and administrators validated these variables. Building teacher leadership capacity yielded a significant statistical relationship with campus culture, however this relationship fluctuated when examined through the various experience levels of teachers.

Teachers in the district who had the least amount of experience (Group 1: 1-5 Years) and those with the most experience (Group 3: 17+ Years) indicated the importance of having a cycle of information to support their decisions and reflecting and collaborating with others during a time devoted to dialogue. These two groups also indicated their need for collective responsibility, broad involvement of everyone, and plans that outlined the school vision. The shared priorities of these two experience groups indicated that, despite their difference in years of experience, they valued and desired to be a part of decision-making leadership teams. These groups of teachers did not require or request official leadership titles, but rather would serve as leaders alongside every teacher on the campus and accept responsibility together for successes or failures. Implementation of the school improvement framework (S.M.A.R.T. goals) indicated that teachers with the least and most teaching experience embraced the framework components of collaboration, focus, and reflection. District capacity building efforts for teachers who were new to the profession and those who are experienced offered evidence of the power of establishing teacher leaders regardless of teaching experience.

Teachers in Group 2 (6-16 years of experience) focused on the shared vision of not only the campus, but of the entire district. Establishing the campus vision, collective development of goals, and aligning standards outweighed the other dimensions of leadership capacity. Group 2 accounted for the largest participation group ($n = 40$), and their responses regarding teacher leadership

capacity and campus culture were clearly expressed in both the surveys and the focus group interviews. Four of the six teachers in the focus group interview had between 6-16 years of teaching experience. The priorities of Group 2 were detail-oriented and required modeling leadership from the top-down as well as empowering their own voices in decision making on the campus and within the district.

The perceptions of Groups 1, 2, and 3 were similar regarding the leadership/decisions dimension of campus culture. All three groups expressed their value of the campus leader, specifically the principal. These groups, despite their range of experience, looked upon the leader to model, empower, collaborate, and provide opportunities for growth of all teachers. Campus leadership is an indicator of campus culture. This shared perception was grounded in the capacity building efforts adopted by the district through its school improvement model.

Group 3 (17+ years of experience) indicated that faculty relations were important in establishing and sustaining a positive campus culture. This experience group had years of interactions with a sundry of diverse colleagues, teacher leaders, and administrators. Their perceptions of school culture were also fueled by relationships between teachers, collaboration between teachers and administrators, a high level of respect for each other and the profession, and an appreciation of a collective problem-solving approach.

For example, the first statement on the SCAI survey highlighted collaboration among faculty on a campus and the relationships they had with each other. Over half (51%) of all participants (teachers and administrators) ranked this statement as high. This positive acknowledgment of collaboration was also echoed in the subordinate theme of collaboration that emerged during the focus groups. The administrators also elaborated on the collaboration topic. One administrator pointed out that every campus had a schedule designed to support collaboration during the school day. An elementary administrator specifically referred to the collaboration component of the S.M.A.R.T. goal school improvement model. Time was also a major theme that emerged in both focus group interviews. A secondary administrator pointed out the intentionality of the use of time, while an elementary teacher stressed how time was valuable for collaboration to occur with colleagues and administrators.

Differences on the LCSS survey were confirmed during the focus group interviews. Teachers' and administrators' perceptions of leadership roles were vastly dissimilar as indicated by their responses: "How is leadership outside of an assigned leadership role encouraged?" One elementary teacher, who had the least amount of teaching experience, stated, "If given the opportunity for everyone to lead, maybe there wouldn't be a need for all the titles because we would all share the responsibility." The teachers felt as though formal leadership roles were limited in the district, but informal leadership roles provided more opportunities for them to lead. A secondary teacher noted that when one person is assigned the formal leadership role, others are then excluded from the opportunity to be teacher leaders. Administrators' perceptions did not align with the teachers regarding leadership opportunities within the district. Several administrators gave examples of how teachers were afforded opportunities to be teacher leaders within the district. One administrator said, "The one thing we have had is consistent leadership opportunities." Both focus groups drew attention to formal and informal leadership roles, and both groups agreed that they contributed to building leadership capacity on their campuses. These opposing perceptions and beliefs gave rise to the leadership opportunity theme and the subordinate themes of formal and informal leadership opportunities.

Conclusions

One quarter of U.S. school administrators resign their campus leadership positions each year. This temporary absence in leadership results in a hiatus of the school improvement process and culture changing schemas propelled by the departing administrators (School Leaders Network, 2014). The negative impact of this leadership void can be minimized by administrators embracing practices that build teacher leadership capacity. Findings from this research study yielded a statistically significant relationship between all teacher and administrator groups, regardless of experience levels, participants had different perceptions of experience regarding the relationship between teacher leadership capacity and campus culture. Specifically, teachers and administrators who had the most and least amount of experience (1-5 years and 17+ years) indicated a desire for leadership to be shared between all teachers and administrators on campus as well as a cycle of information to be communicated between all stakeholders to support understanding and decision making. Additionally, leader titles were not needed for teachers to perceive themselves as leaders on campus. Teachers and administrators also celebrated successes and found solutions to problems side-by-side. This collective acceptance of responsibility created cultures that valued all leadership and included everyone as a leader.

Teachers and administrators who had 6-16 years of experience focused on establishing a shared vision to include shared decision making. These participants wanted leadership roles, whether informal or formal, and they felt that modeling leadership skills was a vital component of building teacher leadership capacity. Those in the 6-16 years of experience group also wanted everyone's voice to be heard, and strong relationships forged among all administrators and teachers to promote positive campus cultures. Collectively, the school organizational structure, specifically, the master teaching schedule, substantiated the importance of building teacher leaders and contributed to the positive culture consisting of collaborative actions among all teachers and administrators. The master schedule on each campus includes a 50 minute collaboration period for every teacher. In addition, the data revealed that teachers valued opportunities to become leaders; however, teachers and administrators perceived the number of opportunities provided by the district differently.

Evidence from this study suggests that teachers and administrators value the same characteristics regarding leadership capacity and campus culture. Specifically, both stakeholders connect positive campus culture with campuses that value building teachers' leadership capacity. Developing teacher leaders and cultivating a positive school culture should be rooted in the school community and stated in the district mission (Lambert, 2002). The results of this research further support the idea that administrators can either be catalysts or obstacles to developing teacher leaders, as they are the key factors to establishing the campus culture (Kelley et al., 2005; Leithwood et al., 2004; MacNeil et al., 2009; Sahin, 2011).

Implications for Practice

This research study was designed to explore the relationship between building teacher leadership capacity and campus culture. The results of this mixed methods study led to several essential implications. School administrators, school board members, and teachers interested in the relationship between teacher leadership capacity and campus culture will find foundational information in this study.

The first implication from this research lies in sharing responsibility among all staff and administrators to intentionally create a collaborative team mindset and to include all teachers

without hierarchal barriers to overcome. The redistribution of responsibility supports the literature that has noted the required commitment of both administrators and teachers in the change process (Fullan, 2011). Further, the written vision of the district must match its practice. A school improvement model, such as the S.M.A.R.T. goal framework, to build teacher leadership capacity must be met with commitment, not compliance, of every stakeholder. As leadership multiplies, school culture evolves and becomes more unified toward a shared vision (Conzemius & Morganti-Fisher, 2012; O'Neill & Conzemius, 2006). This commitment demands the involvement of all teachers and administrators to improve campus culture.

The findings of this study further suggest that administrators should strive to understand the different leadership desires of teachers according to years of teaching experience. When building leadership capacity, administrators should be mindful of the leadership potential of all teachers, despite their years of experience (Quinn, C. L., Haggard, C. S., & Ford, B. A., 2006). This finding implies that administrators should hear the voice of all teachers, regardless of years of experience, and leadership roles should be based on teachers' leadership qualities. Administrators can enhance or stunt the professional growth of potential leaders by allocating leadership assignments based only on tenure (Balkar, 2015). Administrators should also understand that teacher leadership does not require a title; rather, administrators should recognize that leaders with titles are not the only opinions that should be considered in the decision-making process (Jackson, et al., 2010; Muijs & Harris, 2007).

In general, teachers' professional growth may occur in PLCs structured to protect and foster teacher learning. The PLC should be empowering and collaborative; therefore, the transformational leadership style could be conducive to administrators in developing teacher leaders (DuFour, 2014; Savage, 2009; Sosik & Dionne, 1997; Van Eden, R., Ciller, F., & van Deventer, V., 2008). This implication is nested in changing administrators' mindsets from only experienced teachers serving in leadership roles to all teachers, regardless of years of experience, becoming teacher leaders, which will influence campus culture.

The results of this research support the idea that school culture is the nucleus of the school for all staff members (Fullan, 2014). Taken together and in close connection to intentional PLC learning environments, the current findings implicate the justification and importance of a designated time for both teachers and administrators to collaborate, establish and sustain a shared focus, and reflect on the past. This protected time can promote a positive campus culture. Teacher empowerment that arises from new leadership opportunities can also promote a positive culture of collective responsibility and accountability (Balkar, 2015; Fullan, 2014; Kelley et al., 2005; Louis & Wahlstrom, 2011; MacNeil et al., 2009; Sahin, 2011).

This research revealed that actions to build leadership capacity are communicated through the adopted S.M.A.R.T. goal school improvement model. Another implication of this research is the possibility that school districts that adopt a school improvement model concentrated on shared responsibility and capacity building of teacher leaders can change the campus culture. A district that is committed to implementing such a framework can create a unified vision that is not only documented in policy, but also witnessed in teacher and administrator practices. Business models that emphasize building capacity can be adapted to fit the school organization to build teacher leadership capacity (O'Neill & Conzemius, 2006). The world's most admired companies that build leaders from within ensure both the individual growth of the employee and the collective growth of the company (Dinham & Crowther, 2011; Murphy, 2011). Thus, such models can be transferred into the success of teachers and school organizations.

Recommendations for Further Study

Based on the findings from this research, further research is needed to clarify the relationship between teacher leadership capacity and campus culture of schools that have adopted the S.M.A.R.T. goal school improvement model. For example, this study could be replicated in urban or rural school districts that employ the S.M.A.R.T. goal school improvement model to encompass a larger sample with various demographics.

Another recommendation for future research would be the coupling of teachers' and administrators' perceptions of building leadership capacity after a full year of the new teacher evaluation instrument, Texas Teacher Evaluation Support System (T-TESS). T-TESS is a growth model evaluation instrument designed to provide ongoing feedback to teachers to ensure continuous professional growth. Building teacher leadership capacity requires a partnership between teachers and principals. This growth model aims to cultivate teacher leadership capacity (Texas Education Agency, 2014). Further, principals have to shape opportunities for teachers to act as teacher leaders within and outside of their schools. As such, teachers have to embrace leadership opportunities to be rated at the highest distinguished evaluative indicator on the T-TESS instrument. This format will be a new norm for both principals and teachers to share the goal of building teacher leadership, regardless of years of experience or current leadership role. Additionally, this teacher leadership indicator requires a mutual understanding of teacher leadership as defined in the T-TESS rubric. This level of teacher and administrator understanding could be assessed by replicating this study to gain a better understanding of the changed relationships between teacher leadership capacity and campus culture after T-TESS implementation.

The third recommendation would be to assess teachers' perceptions of campus culture before and one year after the T-TESS is implemented to explore the relationship between building teacher leadership and campus culture. These data could serve as the foundation for a collection of longitudinal data regarding the teacher leadership requirement of the T-TESS and its relationship to campus culture.

Lastly, separate bodies of research exist for building leadership capacity and campus culture in schools. A dire need exists for researchers to investigate the relationship between building teacher leadership and campus culture.

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