Research Article

The Relationship Between Distributive Leadership, School Culture, and Teacher Self-Efficacy at the Middle School Level

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Abstract

The purpose of this correlational, quantitative research study was to examine the extent to which relationships exist between distributed leadership, school culture, and the self-efficacy of teachers within public middle schools in central New Jersey. ThiV VWXG\ ZDV LQIRUPHG E\ 6SLO (OPRUH¶V WKHRUHWLFDO IUDPHZRUNV FRQFHUQLQJ GLVWULE FRQFHUQLQJ VFKRRO FXOWXUH -efficacy. This study identified significant relationships between distributed leadership, school culture, and teacher self-efficacy.

on the establishment of the school-work culture. It is the responsibility of the principal to develop an understanding of the characteristics that define the culture of their school. ³A positive and progressive school culture propagates morale, staff performance D Q G V W X G H Q W H Q U L F K P H Q W ´ 0 F Labat, 2015, p. 155). Fullan (2014) suggests that principals should assume the role of mediators by creating motivating conditions that encourage teachers to learn and optimize their practice.

The desire to establish what Chance, Cummins, and Wood (1996) described as an effective school-work culture implies and necessitates a system for continuous improvement on the part of the school and its members. ³ (S V W H L Q et al. (2011) conclude with the results of their study the suggestion that shared school endeavors, evaluation of student outcome data and shared collaborative leadership in a school will promote an academic and social equity for improved school F X O W X U H (McKinney et al., 2015, p. 154).

Although a model of shared leadership is consistent with the establishment of a positive school culture, the implementation of this model requires a significant initial investment of time and resources.

Unfortunately, society is changing much more quickly than many educators would prefer, and outside political pressures drive school leaders to focus on short-term goals, often tied exclusively to data from standardized assessments, rather than investing in establishing a positive school culture.

There is evidence to suggest that middle school teachers feel less efficacious than elementary or high school teachers (Eccles, Wigfield, Midgley, Reuman, Iver, & Feldlaufer, 1993; Midgley, Anderman, &

Hicks, 1995). Albert Bandura (1998) defined perceived self- H I I L F D F \ ³D V S H R S O H V about their capabilities to produce designated levels of performance that exercise influence R Y H U H Y H Q W V W K D W D I I H F W W K

³6 H-efficacy beliefs determine how people feel, think, motivate themselves and behave´ % D Q G X U D Schwerdtfeger, . R Q H U P D Q Q D Q G 6 F K R Q K R I H Q ¶ V involving German teachers found teacher self-efficacy to have a positive influence on W H D F K H U V ¶ D W W L W X G H V D Q G E

Self-Efficacy Scale (TSES).

Research Questions

Question 1.

What is the relationship between distributive leadership and the self-efficacy of teachers in suburban public middle schools in central New Jersey, as measured by the Distributed Leadership Inventory (DLI) and Teacher Self-Efficacy Scale (TSES)?

Question 2.

What is the relationship between distributed leadership and school culture in suburban public middle schools in central New Jersey, as measured by the Distributed Leadership Inventory (DLI) and School Culture Survey (SCS)?

Question 3.

What is the relationship between school culture and the self-efficacy of teachers in suburban public middle schools in central New Jersey, as measured by the School Culture Survey (SCS) and Teacher Self-Efficacy Scale (TSES)?

Method

The purpose of this correlational research study LV WR UHSOLFDWH 'DYLV¶ aimed to establish whether and to what extent there exists a relationship between distributed leadership, school culture, and teacher self-efficacy. 'DYLV¶ VWXG\ IRFXVHG RQ HOHPHQWDU\ school teachers in southern Arizona. The focus of this study will be on teachers in public middle schools in Central New Jersey.

The study also sought to clarify the ILHOG¶V XQGHUVWDQGLQJ RI through the identification of relationship between identified variables. A quantitative research design was best suited to answer the research questions as prior research has been primarily qualitative in nature based around interviews and observations regarding distributed leadership activities (Leithwood et al., 2007; Smylie et al., 2007; Spillane, 2006). This study is a non-experimental, relational study with a correlational design and a cross-sectional time dimension.

Instrumentation

Primary data were collected through an online survey using SurveyMonkey. The survey included three already existing, validated data collection instruments.

The three surveys measured the variables of distributed leadership, school culture, and teacher self-efficacy. All three surveys included Likert-scale items ranging from 1 = strongly agree to 5 = strongly disagree. Each of the three surveys was structured using an identical Likert scale. The survey consisted of 68 questions (the DLI has 23 questions, the SCS has 35 questions, and the TSES has 10 questions).

Additionally, questions were posed to respondents to obtain demographic descriptors including school, grade, role within the school, years of teaching, and gender.

V The validated surveys ZKLFK include questions that focus on the factors of school culture, teacher self-efficacy, and distributed leadership. The Distributed Leadership Inventory (DLI) was used to measure teacher perceptions of distributed leadership; the School Culture Survey (SCS) was used to measure the variable of school culture; and the Teacher Self-Efficacy Scale (TSES) was used to measure the variable of teacher self-efficacy. Approval was granted to use each of these survey instruments.

Data Analysis

Research Question 1 focused on the relationship between distributed leadership and the self-efficacy of teachers. To determine an

the .01 level of significance. The correlation between the supervision dimension of DLI and the TSES was .200 (r=.200, N=162, p=.011). This represents little if any degree of teacher. The correlation between the DLI and the SCS for the female subgroup was .771 (r=.771, N=124, p=.000). This represents a high positive correlation and was statistically significant at the .01 level of significance.

The correlation between the DLI and the SCS for the male subgroup was .781 (r=.781, N=38, p=.000). This represents a high positive correlation and was statistically significant at the .01 level of significance.

The correlation between the DLI and the SCS for the more than 20 years teaching subgroup was .715 (r=.715, N=43, p=.000). This represents a high positive correlation and was statistically significant at the .01 level of significance. The correlation between the DLI and the SCS for the special education/support teacher subgroup was .732 (r=.732, N=32, p=.000). This represents a high positive correlation and was statistically significant at the .01 level of significance.

Research Question 3 focused on the relationship between school culture and the self-efficacy of middle school teachers. The results of the correlational analysis indicate that there was a statistically significant relationship between the two variables. The correlation between the SCS and the TSES was .434 (r=.434, N=162, p=.000). This represents a moderate/low positive correlation and was statistically significant at the .01 level of significance.

Further analysis was conducted using Pearson's correlation to determine the relationship between school culture and teacher self-efficacy within the following subgroups: female, male, more than 20 years teaching experience, and special education/support teacher. The correlation between the SCS and the TSES for the female subgroup was .483 (r=.483, N=124, p=.000). This represents a moderate positive correlation and was statistically significant at the .01 level of significance. The results of the analysis of the male subgroup for the relationship between the SCS and the TSES were not statistically significant.

The correlation between the SCS and the TSES for the more than 20 years teaching subgroup was .433 (r=.433, N=43, p=.004). This represents a low-moderate positive correlation and was statistically significant at the .01 level of significance. The correlation between the SCS and the TSES for the special education/support teacher subgroup was .548 (r=.548, N=32, p=.001).

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Table 1, the correlation between the DLI and TSES was .405 (r = .405, N=162, p = .000). This represents a moderate/low and positive degree of correlation and was statistically significant at the .01 level of significance.

Table1

Between DLI and TSES

		DLI	TSES
DLI	Pearson Correlation	1	.405**
	Sig. (2-tailed)		

In terms of the relationship between school culture and the self-efficacy of middle school teachers the results of the correlational analysis indicate that there was a significant statistical relationship between the two variables. As displayed on Table 3, the correlation between the SCS and TSES was .434 ($r = .434$, $N=162$, $p = .000$). This represents a moderate/low and positive degree of correlation and was statistically significant at the .01 level of significance.

Table 3

Between SCS and TSES

		SCS	TSES
SCS	Pearson Correlation	1	.434**
	Sig. (2-tailed)		.000
	N	162	162
TSES	Pearson Correlation	.434**	1
	Sig. (2-tailed)	.000	
	N	162	162

** Correlation is significant at the .01 level (2-tailed).

Several additional results emerged from the study. First, the correlation between distributed leadership and school culture was much stronger than any of the other relationships (which were moderate/low). Second, when examining the specific dimensions of distributed leadership, each dimension had a statistically significant relationship to both school culture and teacher self-efficacy, but the supervision dimension had a relationship to school culture and teacher self-efficacy that was of a lesser strength than the other dimensions.

Finally, of the correlational analyses of the subgroups that were statistically significant, each of the subgroups performed within +/- .1 on the size or correlation ordinal scale, with the exception of the special education/support teacher subgroup for question 13. This subgroup had a correlation coefficient .114 greater than the total population resulting in a moderate, positive relationship between school culture and teacher self-efficacy. The minimal differences in correlation across the sample (n=162) and subgroup samples for each research question confirms that no subgroup led to an inflated correlation coefficient.

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