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Daniel Williams
Arkansas State University, USA

Joshua Montgomery
Emporia State University, USA

Anthony Burkhammer
University of Arkansas CC Batesville, USA

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Daniel Williams, Joshua Montgomery, Anthony Burkhammer

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Abstract

While research acknowledges the importance of superintendents as instructional leaders, when district leadership falters, a gap persists in the existing literature that does not allow a complete picture of the causes of failed leadership. All too often, we simply blame teachers. The purpose of this study was to better understand how a superintendent's implementation of policies without a communicated vision and teacher support negatively affected student performance as measured on state standardized assessments. When teachers do not see the value of district policies but are still forced to enact those policies, those teachers lose both autonomy and agency. Consequently, student learning suffers. We found through the results of this study that a superintendent was an influential factor in a reduced student performance on standardized assessments.

Introduction

Standardized testing remains an important component of American education. Since the inception of No Child Left Behind in 2001, requirements to increase student performance on standardized testing generated higher expectations of teachers with the understanding that teachers are amongst the most vital factors in student performance (Ingersoll & Collins, 2017). The phenomenon of increased standardized expectations has led to classroom educators becoming targets of blame when student outcomes fail to meet state and national goals. As such, teachers face negative evaluations, reduced salaries, and possible termination based on student performance on state-mandated standardized tests.

Teachers impact student learning; therefore, teachers impact student performances on state standardized testing. However, teachers are not the sole factor determining student learning outcomes. Owing to the complex nature of school districts, other actors must be evaluated as powerful forces of influence, specifically, superintendents. Yet, when student performance decreases, superintendents generally escape scrutiny, allowing teachers to accept the blame for low student performance as measured by standardized testing. In literature, a gap exists in how superintendents affect student performances due to the hierarchical structure in education where those in power are left to determine the success or failure of their policies (Cuban, 1998). Studies that investigate the correlation between superintendents and low student performance are hampered in a system where superintendents self-report or self-percept to assess effectiveness (Dunaway, et. al., 2013; Schechter, 2015). Through a quantified approach, this study focused on how a superintendent's actions decreased student performance, therefore conveying that

district-level administration should be held responsible for student learning.

In this study, a rural school district in the Midwest was evaluated to determine if policies implemented by a school superintendent without teacher support decreased student performances on state standardized tests for third- through eighth-grade students. During the superintendent's tenure, when compared to state averages, the school district's English Language Arts (ELA) average scores decreased by 7.23 points (see Figure 1) and the mathematics average scores decreased by 9.47 points (see Figure 2) in the five years that the superintendent managed the school district. The five years of data from the standardized testing during the superintendent's tenure were compared to data from the previous six years to determine if a statistically significant difference existed between the two time periods.

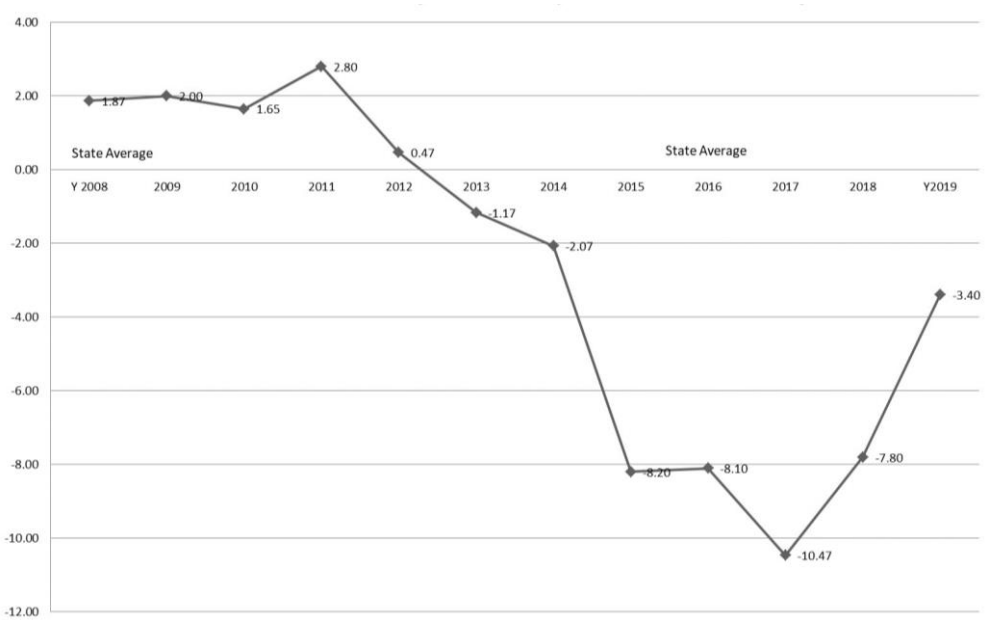

Figure 1. ELA School District Average Compared to State Average

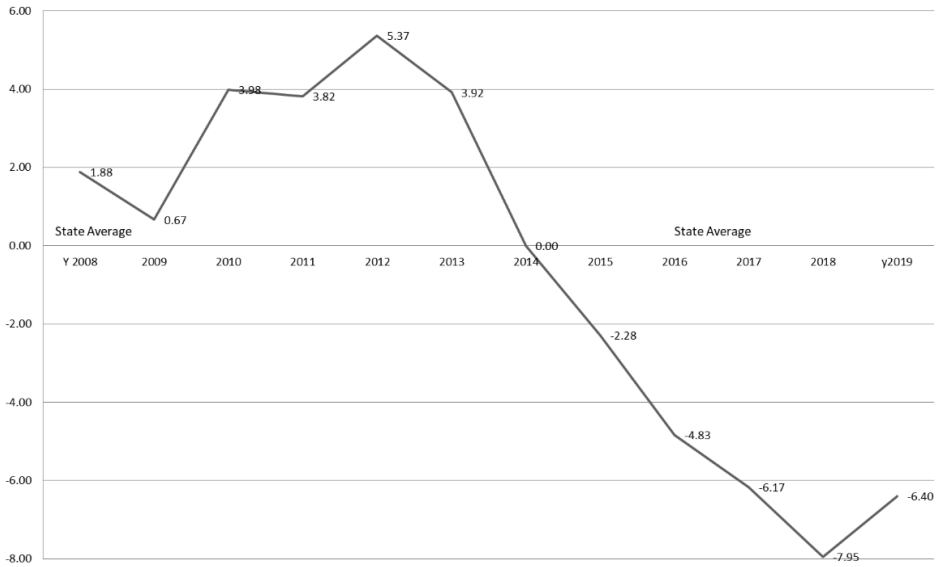

Figure 2. Mathematics School District Average Compared to State Average

To identify which policies initiated by the superintendent did not have teacher support, a survey was sent to 90 teachers within the school district who taught third-grade through eighth-grade mathematics or ELA. The survey included seven questions regarding district-wide policies established by the superintendent within his five years of service. From the survey, a majority of the teachers selected four of those policies as having negative effects on student performances, indicating a majority of teachers did not support four of the superintendent's policies: standards-based grading, 1:1 technology, early-out Fridays, and alternative seating. Statistical procedures were executed to determine if the four policies correlated with the decreased standardized scores.

When teachers are de-professionalized or when curricula and practice decisions are taken away, teacher morale suffers (Paufler, 2018; Lambersky, 2016). When a majority of teachers do not support policies implemented by the superintendent but are still forced to enact those policies, then teachers lose both autonomy and agency. To better understand the relationship between a superintendent's policymaking and the loss of teacher autonomy and the decrease of teacher agency, the literature review examines the relationship and then the discussion expands the concepts explained in the literature review to the findings of this study.

Defining Terms

Standards-Based Grading

Standards-based grading removes traditional grades of A, B, C. D, and F. Instead, teachers create rubrics for each learning standard to determine if a student mastered the content or standard. Students receive a 1, 2, 3, or 4 based on the teachers' interpretation of student learning. Students receiving a 3 have shown mastery of the standard.

Students receiving a 2 have not mastered the standard. Scores of 1 or 4 are extensions of 2 or 3. The school district created practices from works of Ken O'Connor (2011) and Heflebower et. al. (2014). For the school district in this study, in 2016, standards-based grading was implemented in grade levels first through sixth.

1:1 Technology

1:1 technology refers to an educational setting where all students in a classroom, grade-level, or school district are issued with their own laptop, tablet computer, or other mobile computing devices. 1:1 (one-to-one) refers to one computer for every student. For the school district in this study, in 2016, every seventh-grade and eighth-grade student received a Chromebook to utilize in class and to take home.

Early-out Fridays

Early-out Fridays refer to students ending their school day every Friday at 12:20, thus providing teachers and staff an opportunity to collaborate. Early-out Fridays promoted Professional Learning Communities with the expectations that teachers would compare data and alter curriculum according to that data. For the school district in this study, in 2014, the entire school district implemented early-out Fridays.

Alternative Seating

Alternative seating, also known as flexible seating, removes traditional seating charts and traditional desks and then designs classrooms with seating arrangements that allow the students to sit where they choose. Alternative seating includes, but not limited to, an assortment of stools, couches, bean bag chairs, chairs, inflatable balls, pillows, benches, and just standing. For the school district in this study, in 2016, grade levels first through fourth implemented alternative seating.

Review of Literature

The question of cause when student test scores drop is unanswered in the literature. We present two broad categories of investigation into this phenomenon. First, teachers and the roles they play at a classroom and school level in determining student learning outcomes and second, administration and the role they play as instructional leaders at a district level in determining student outcomes. Thus, the following review of literature will assess concerns at both levels, first through teacher perceptions of efficacy and then administrative decision-making as it affects learning outcomes. We point to a gap in the literature, which this study seeks to address, between district-level administration mandates and how policies impact teacher level decision making and learning outcomes as shown, in this case, on high stakes tests.

Teacher Level

Teachers tend not to be autonomous in the sense of individuals acting in a mode of pure self-government and self-control, instead their autonomy takes on a different form, one that is defined by their perception of efficacy (Meristo & Eisenschmidt, 2014) and how they work in collaborative teams to enhance their craft (Bucelli, 2018). When teachers feel autonomous they can bring effective perspectives to cooperative teams (Bauman, 2015; Vangrieken, et. al., 2017). In contrast to other professions, "teacher agency is centered on the social interactions, contexts, and tools (such as language and discourses) that influence the ability of a person or group to make change over time" (Baker-Doyle & Gustavson, 2016 p. 55). Agency in this context leads to teachers creating meaningful change both within their classroom and their communities through time and can guide the creation of autonomy among students (Bucelli, 2018). Teachers with the space to create and reflect on practice establish the foundations for more durable student learning outcomes (Henderson & Kesson, 2009).

When teachers are de-professionalized or when curricula and practice decisions are taken away, teacher morale suffers (Paufler, 2018; Lambersky, 2016). When teachers lose confidence in their abilities or their institution there are four potential consequences: low retention (Dunn, et. al., 2017), rapprochement, resentment, or resistance (Okeke &, Mtyuda 2017). Perhaps we see that the difference between positive change and departure is determined by feelings of self-efficacy and ownership, support and collegiality (Hong, 2012). We are operating under the supposition that teachers who experience autonomy and agency stick around and improve their schools (Kruse & Johnson, 2017); their retention preventing lower test scores (Ronfeldt, et. al., 2013).

When teachers feel out of sync with the institution of which they are a part-- if a big part of teacher satisfaction is driven by autonomy and agency-- finding themselves in a school district that emphasizes top-down approaches to curriculum development and testing regimens driven by outside forces, they will experience value dissonance (Redman, 2015; Boyd, et. al., 2011). and wrestle with one of the four reactions delineated above. Many reformers return to traditional explanations for low teacher retention: poor student behavior and low pay (Hong, 2012). Yet research shows that teachers are driven out of the profession by factors centered on work conditions (Canrinus, et. al., 2012) or "lack of resources, curricular autonomy, respect for their time, respect for the profession, administrative support, and time free from bureaucratic paperwork" (Dunn, et. al., 2017. p. 34). Districts bogged down with low teacher morale tend to be those that disallow the unique forms teacher agency and autonomy takes. Testing outcomes decrease when poor school climate stifles a perception of teacher efficacy and confirms a lack of voice in the directions taken by the administration- morale suffers, and turnover is high (Meristo & Eisenschmidt, 2014). When teachers fail to understand the motivations behind policies demanded at the district level, they can become increasingly dispirited and ineffective, with students themselves responding to the school culture (Reichert, et. al., 2018).

Administrative Level

Hattie and Zierer (2017) have written, the most powerful indicator of student success is teachers in classrooms, yet those teachers need to feel efficacy and autonomy within the context of collective agency (Donohoo, 2017). When teachers confront poor leadership at the district level, they tend to leave (Urick, 2016). However, when teachers benefit from effective leadership at a district level it impacts positively both teacher morale and student learning outcomes (Leithwood, et. al, 2004; Leithwood & Jantzi, 2008; Leithwood & Azah, 2017). When district leadership, particularly at the superintendent level, is long-lasting (Simpson, 2013), and demonstrates clear communication of vision (Duignan, 2014), outcomes consistently show improvement (Waters & Marzano, 2006).

But superintendency is complex, so much so that much of the current literature confronts superintendents' impact on districts takes a business approach (Hough, 2014; Fernandez, 2011). Profits and test scores are likely an imperfect association. When teachers assess district-level leadership they may do so through the lens of distributed authority and transformational practice and how they relate to student learning outcomes (Bowers, et. al., 2017). Good leadership consists of, crucially, building capacity, enabling teachers to grow and become better (Klocko, et. al., 2019). Superintendents accomplish this through the focus of authentic leadership (Duignan, 2014) through openness and the construction of collective purpose (Klocko, et. al., 2019) achieved through the demonstration of faith in the competence of their school staff (Dufour & Marzano, 2011). As one Denver principal puts it, "focus on schools, and not the central office" (Youngquist, 2019).

As superintendents, evincing authentic leadership, engage with building level staff on a regular basis (Baeder, 2018), they build a view of educational guidance as a collaboration, "as a relationship between leaders and followers an alliance where the leader assumes a supportive role and thinks of employees as constituents" (Petersen, 2002. p. 161). Superintendents, as instructional leaders, must balance a clear and concise vision, with the importance of including agentic teachers in the building of policies (Murphy & Hallinger, 1986; Waters &

Mazano, 2006; Abrams, 2019). Through this collaborative process with teachers, superintendents prepare the ground for meaningful change through pre-planning and consistent, open lines of communication. Through this process effective educational leaders assess staff needs and use that knowledge to sustain and nurture positive educational change, without imposing demands or using punitive methods of compliance (Fixson, et. al., 2013; Honig, 2016; Abrams, 2019; Hess, 2019).While the research acknowledges the importance of superintendents as instructional leaders (Trillingham, 1957; Murphy & Hallinger, 1986; Bjork, 1993; Petersen, 2002; Cudeiro, 2005; Edwards, 2017), when district leadership falters, a gap persists in the existing literature that does not allow us to create a complete picture of the causes- particularly those related to decision making- of failed leadership (Holmqvist & Ekström, 2024). Utilizing high stakes testing outcomes (HSTOs) among superintendents at similar districts (Young, et. al., 2014) echo the business model of assessing leadership. HSTOs may provide compelling data about results but we are interested in causes. Many teachers have experienced this at the classroom level, but few studies exist to demonstrate the causes of unsuccessful district leadership. There may be answers in looking at the actions of a superintendent in a specific district. The key to superintendent guidance is, according to the findings explored above, vision and communication of goals.

There is a lack of communication regarding the goals and the vision to achieve those goals when superintendents fail to include teachers in a meaningful way in the construction of the district vision. The absence of a coherent series of instructional goals leads to a mishmash of improvement objectives. Further-- without a system of buffering-- this may lead to policy fatigue (Hurst & Axtell, 2016; O'Quinn, 2018; Spann, 2018; Torres, et. al., 2024) as teachers must embrace new policies imposed by the district office. Fatigue happens when administration does not inform or involve teachers in decision making, instead launching improvement policy after improvement policy with little explanation for how it fits into the overall district mission. We struggle, however, to quantify this effect, relying on corporate comparisons, untrained boards, or on superintendents to self-report or self-percept to assess effectiveness (DiPaola, 2010; Dunaway, et. al., 2013; Holmqvist & Ekström, 2024; Hough, 2014; Schechter, 2015). This reflects a system where those in power are left to determine the success or failure of their own policies (Cuban, 1998).

Much of the work around district-level improvement implementation is done intuitively and in relative in isolation (Dunaway, et. al., 2013; Hart, 2018). Even when the processes are known and proven for engaging in school improvement, many superintendents fail to follow them, instead, implementing their own programs with a small trusted coterie, in lieu of general faculty, supplying input (Dunaway, et. al., 2013; Hart, 2018). When superintendents pursue change separate from staff in buildings it represents a real failure of our understanding of good superintendency: authentic leadership, the ability to effectively ennoble staff to improve student learning (Beard, 2013). The question remains, how do we measure superintendents when districts fail?

Purpose and Research Questions

This study was conducted in order to better understand how a superintendent's implementation of policies without teacher support affected student success on state standardized testing. This research will help educational leaders to better understand how district-level decisions affect state standardized testing.

Research Question 1

Do administrative policies/procedures have a statistically significant impact on student state standardized tests performance?

Research Question 2

Did the following policies initiated by the superintendent without a majority of teacher support impact student test scores: standards-based grading, 1:1 technology, early-out Fridays, and alternative seating?

Method

Setting

In 2018, the participating school district included over 4,500 students, with approximately 60% of those students qualifying for free or reduced lunch. Seventy percent of the students were White, fifteen percent were Hispanic, with other minorities including Pacific Islander, Native American, multiracial, Asian, and Black (Department of Elementary & Secondary Education, 2019). Third-grade through eighth-grade students from the school district completed the mathematics and ELA state standardized tests. A compilation of the state standardized tests scores was collected and analyzed for this study.

Participants

After communicating with the school district, the central office provided contact information for classroom teachers whose students completed state standardized tests between third grade and eighth grade. A survey was sent via email to 90 classroom educators in the school district. 70 teachers responded by filling out the survey.

Standardized Testing

Every public school district within the state administered the state standardized assessments which included ELA, mathematics, and science. The ELA and mathematics state standardized tests were administered to students in grade levels three through eight, along with science assessments to students in grades five and eight (Data Recognition Corporation, 2018).

Starting with 2008 and ending with 2018 state standardized tests data, this study averaged the district's ELA state standardized tests scores and compared the averaged district scores to the state average of the summation of the six grade levels (third-grade through eighth grade) to create an annual district average. The same procedures were conducted for the mathematics state standardized tests scores. The district average provided data to compare the annual growth of student learning across the school district for grade levels third through eighth.

The 2008 through 2018 school district ELA state standardized tests scores were compared to the state average by

grade level (see Figure 1). The same process was applied to the mathematics state standardized tests (see Figure 2). The school district state standardized tests score data were entered into SPSS for statistical analysis.

Teacher Survey

To understand which district policies did not have the support of a majority of teachers, a teacher survey was sent to all third-grade through eighth-grade math or ELA teachers in the school district. The survey was a Google Form and sent via email to 90 teachers. Of the educators receiving the survey, 70 chose to participate in the study.

Survey Questions

Seven questions were based on a Likert scale: Strongly Disagree, Disagree, Agree, and Strongly Agree. Each of the Likert scale questions pertained to state standardized tests: Question one: 1:1 technology increases student success on state standardized tests. Question two: Alternative seating increases student success on state standardized tests. Question three: The Partnership in Comprehensive Literacy (PCL) Model increases student success on state standardized tests. Question four: Early-out Fridays increase student success on state standardized tests. Question five: Standards-Based Grading increases student success on state standardized tests. Question six: Evaluate Testing increases student success on state standardized tests. Question seven: Project-Based Learning (PBL) increases student success on state standardized tests.

Results

Teacher Survey

Ninety teachers were sent the survey with seventy teachers completing the survey. A majority of teachers stated that four district-level policies had a negative effect on student performance: 1:1 technology, alternative seating, early-out Fridays, and standards-based grading.

Seventy teachers responded to the statement, “1:1 technology increases student success on state standardized tests.” This resulted in 53% (N=37) of the teachers disagreeing with the statement. At the elementary level, 36% of teachers disagreed with the statement; at the middle school (5th-grade and 6th-grade), 50% of teachers disagreed with the statement; and at the junior high (7th-grade and 8th-grade), 67% of teachers disagreed with the statement.

Seventy teachers responded to the statement, “Alternative seating increases student success on state standardized tests.” This resulted in 66% (N=46) of teachers disagreeing with the statement. At the elementary level, 73% of teachers disagreed with the statement; at the middle school (5th-grade and 6th-grade), 39% of teachers disagreed with the statement; and at the junior high (7th-grade and 8th-grade), 77% of teachers disagreed with the statement.

Seventy teachers responded to the statement, “Early-out Fridays increase student success on state standardized tests.” This resulted in 83% (N=58) of teachers disagreeing with the statement. At the elementary level, 82% of

teachers disagreed with the statement; at the middle school (5th-grade and 6th-grade), 83% of teachers disagreed with the statement; and at the junior high (7th-grade and 8th-grade), 83% of teachers disagreed with the statement.

Seventy teachers responded to the statement, "Standards-Based Grading increases student success on state standardized tests." This resulted in 62% (N=43) of teachers disagreeing with the statement. At the elementary level, 55% of teachers disagreed with the statement; at the middle school (5th-grade and 6th-grade), 56% of teachers disagreed with the statement; and at the junior high (7th-grade and 8th-grade), 72% of teachers disagreed with the statement.

Research Questions

Do administrative policies/procedures have a statistically significant impact on student state standardized tests performance?

Examining the impact of administrative policies, this research question compared student ELA and mathematics state standardized tests scores for two administrative periods. Administrative period 1 was comprised of state standardized tests data from 2008 through 2013 while administrative period 2 consisted of state standardized tests data from 2014 through 2018. Compared to the state average, mathematics scores differed by 7.95 combined points and ELA scores varied by 6.63 between the administrative periods. A Sidak multiple comparison indicated that a statistically significant difference exists somewhere between the examined state standardized tests scores ($p < .001$, $\alpha = .05$), (see Table 1).

Table 1. ANOVA Test Research Question 1

		Sum of Squares	df	Mean Square	F	Sig.
Deviation of student Math	Between Groups	3805.132	1	3805.132	28.583	.000
scores from State Average	Within Groups	23249.814	176	133.124		
	Total	27234.946	177			
Deviation of student ELA	Between Groups	2220.130	1	2220.130	25.784	.000
scores from State Average	Within Groups	15154.407	176	86.105		
	Total	17374.537	177			

One such statistical difference was found in student mathematics state standardized tests scores between administrative period 1 and administrative period 2. The average mathematics state standardized tests score for administrative period 1 (M = 2.60) was found to be significantly higher than those from administrative period 2 (M = -6.87). A similar difference was found to exist between student ELA state standardized tests scores for the two time periods.

ANOVA analysis indicated that student ELA state standardized tests scores for administrative period 1 (M = 0.70) were significantly higher than those from administrative period 2 (M = -6.53). Further, it was found that administrative policy had a large impact on both student mathematics state standardized tests scores (d = 0.76) and student ELA state standardized tests scores (d = 0.73), (see Table 2).

Table 2. Independent Samples Test Research Question 1

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Zscore: Deviation of student	Equal variances assumed	.006	.939	5.346	176	.000	.763057	.142725	.481384	1.044773
Math scores from State Averages	Equal variances not assumed			5.417	153.892	.000	.763057	.140858	.484791	1.041323
Zscore: Deviation of student	Equal variances assumed	.004	.948	5.078	176	.000	.729740	.143711	.446120	1.013360
ELA scores from State Averages	Equal variances not assumed			5.091	148.735	.000	.729740	.143346	.446481	1.012999

Did the following policies initiated by the superintendent without a majority of teacher support impact student test scores: standards-based grading, 1:1 technology, early-out Fridays, and alternative seating?

From the seven Likert questions on the teacher survey, four questions were identified by a majority of teachers as creating a negative impact on student achievement on state standardized tests: standards-based grading, 1:1 technology, early-out Fridays, and alternative seating. An ANOVA test was performed to compare the deviation from the state average for mathematics and ELA state standardized tests scores for the time period prior to the implementation of each of the four policies and the period subsequent to each of the four policies.

To determine the effect of standards-based grading on student state standardized tests performance, a Sidak multiple comparison indicated a statistically significant difference for the deviations from state averages for student mathematics state standardized tests scores ($p < .001$, $\alpha = .05$) and student ELA state standardized tests scores ($p = .001$, $\alpha = .05$) prior and subsequent to the implementation of standards-based grading (see Table 3). Student mathematics state standardized tests scores prior to the implementation of standards-based grading ($M = 0.26$) were found to be significantly higher than those subsequent to the standards-based grading program ($M = -12.4$). Similarly, a difference was discovered between the ELA state standardized tests score deviations from state averages for the same two periods. Analysis indicated that student ELA state standardized tests scores prior to the implementation of standards-based grading ($M = -1.23$) were significantly higher than those after the standards-based grading program began ($M = -8.71$). Further analysis suggests that standards-based grading had

a large influence on student performance on the ELA portion of the state standardized tests (d = 0.76). However, the policy's influence on mathematics state standardized tests scores was found to be much larger (d = 1.02), (see Table 4).

Table 3. ANOVA Test Research: Standards-based Grading

		Sum of Squares	df	Mean Square	F	Sig.
Deviation of student Math scores from State Average	Between Groups	3215.391	1	3215.391	21.220	.000
	Within Groups	22729.317	150	151.529		
	Total	25944.708	151			
Deviation of student ELA scores from State Average	Between Groups	1131.323	1	1131.323	11.634	.001
	Within Groups	14586.248	150	97.242		
	Total	15717.571	151			

Table 4. Independent Samples Test: Standards-based Grading

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Zscore: Deviation of student Math scores from State Averages	Equal variances assumed	.010	.921	4.606	150	.000	1.016837	.220740	.580674	1.452999
	Equal variances not assumed			4.469	31.411	.000	1.016837	.227508	.553076	1.480598
Zscore: Deviation of student ELA scores from State Averages	Equal variances assumed	.045	.833	3.411	150	.000	.755152	.221394	.317696	1.192607
	Equal variances not assumed			3.099	29.878	.004	.7550152	.243676	.257413	1.252890

To determine the effect of 1:1 technology on student state standardized tests performance, a Kruskal-Wallis test indicated a statistically significant difference for the deviations from state averages for student ELA state standardized tests scores ($p = .045$, $\alpha = .05$). No statistically significant difference was found for the deviations from state averages and mathematics state standardized tests scores ($p = .423$, $\alpha = .05$) prior and subsequent to the

1:1 technology program (see Table 5). Under more preferable conditions, namely the acquisition of more data for subsequent 1:1 technology state standardized tests scores, the data analysis would be more conclusive. However, even with limited data, a significant difference was found to exist for one portion of the standardized assessment.

Table 5. Kruskal-Wallis Test: 1:1 Technology

	Deviation of student Math scores from State Averages	Deviation of student ELA scores from State Averages
Chi-Square	.643	4.021
df	1	1
Asymp. Sig.	.423	.045

To determine the effect of early-out Fridays on student state standardized tests performance, a Sidak multiple comparison indicated a statistically significant difference for the deviations from state averages for both student mathematics state standardized tests scores ($p < .001$, $\alpha = .05$) and student ELA state standardized tests scores ($p < .001$, $\alpha = .05$) with respect to the two time periods (see Table 6). Student mathematics state standardized tests scores prior to the implementation of early-out Fridays ($M = 1.97$) were found to be significantly higher than those subsequent to the implementation of the program ($M = -7.86$). Similarly, the analysis indicated that student ELA state standardized tests scores proceeding the implementation of the early-out program ($M = 0.10$) were also significantly higher than those after the program began ($M = -7.03$). Further analysis suggests that the early-out Friday program had a medium influence on both student mathematics state standardized tests performance ($d = 0.79$) and ELA state standardized tests performance ($d = 0.72$), (see Table 7).

Table 6. ANOVA Test Research: Early-out Fridays

		Sum of Squares	df	Mean Square	F	Sig.
Deviation of student Math scores from State Average	Between Groups	3703.937	1	3703.937	27.704	.000
	Within Groups	23531.009	176	133.699		
	Total	27234.946	177			
Deviation of student ELA scores from State Average	Between Groups	1949.993	1	1949.993	22.250	.000
	Within Groups	15424.544	176	87.639		
	Total	17374.537	177			

In an effort to determine the effect of alternative seating on student state standardized tests performance, a Sidak multiple comparison indicated a statistically significant difference for the deviations from state averages for student mathematics state standardized tests scores ($p < .001$, $\alpha = .05$) and student ELA state standardized tests scores ($p = .002$, $\alpha = .05$) prior and subsequent to alternative seating (see Table 8).

able 7. Independent Samples Test: Early-out Fridays

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Zscore: Deviation of student	Equal variances assumed	.099	.753	5.263	176	.000	.791938	.150460	.494998	1.088877
Math scores from State Averages	Equal variances not assumed			5.289	108.103	.000	.791938	.149743	.495123	1.088752
Zscore: Deviation of student	Equal variances assumed	.019	.891	4.717	176	.000	.719420	.152516	.418424	1.020416
ELA scores from State Averages	Equal variances not assumed			4.656	103.560	.000	.719420	.154502	.413020	1.025819

Averaged student mathematics state standardized tests scores prior to the implementation of alternative seating (M = 0.82) were found to be significantly higher than those after the program (M = -12.5). Similarly, the analysis indicated that student ELA state standardized tests scores prior to the implementation of alternative seating (M = -0.31) were also significantly higher than those after the initiation of the program (M = -8.50). Further analysis suggests that alternative seating had a medium influence on student performance for the ELA portion of the state standardized tests (d = 0.76). However, the policy's influence on mathematics state standardized tests scores was found to be much larger (d = 0.95), (see Table 9).

Table 8. ANOVA Test Research: Alternative Seating

		Sum of Squares	df	Mean Square	F	Sig.
Deviation of student Math scores from State Average	Between Groups	2986.936	1	2986.936	17.106	.000
	Within Groups	21651.912	124	174.612		
	Total	24638.848	125			
Deviation of student ELA scores from State Average	Between Groups	1128.218	1	1128.218	10.494	.002
	Within Groups	13331.206	124	107.510		
	Total	14459.424	125			

Table 9. Independent Samples Test: Alternative Seating

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Zscore: Deviation of student	Equal variances assumed	.241	.624	4.136	124	.000	.949019	.229456	.49486	1.40317
Math scores from State Averages	Equal variances not assumed			3.941	25.615	.001	.949019	.240825	.45363	1.44440
Zscore: Deviation of student	Equal variances assumed	.069	.793	3.239	124	.002	.761365	.235028	.29617	1.22655
ELA scores from State Averages	Equal variances not assumed			2.895	24.433	.008	.761365	.263005	.21905	1.30367

Discussion

Findings from data analysis emphasized how the superintendent was responsible for decreased student performance on mandated standardized tests ($p < .001$, $\alpha = .05$). From 2008 through 2013, the school district's average mathematics state standardized tests score was 2.6 points above the state average. During the superintendent's tenure at the school district from 2014 through 2018, the average mathematics state standardized tests score fell to an average of 6.87 points below the state average; a drop of 9.47 points compared to the state average. From 2008 through 2013, the school district's average ELA state standardized tests score was 0.7 points above the state average. During the superintendent's tenure at the school district from 2014 through 2018, the average ELA state standardized tests score fell to an average of 6.53 points below the state average; a drop of 7.23 points compared to the state average. In both mathematics ($d = 0.76$) and ELA ($d = 0.73$), the superintendent's tenure experienced a significant decrease in student performance on the state standardized tests.

The findings from the study discovered evidence of decreased student performance due to the implementation of four district-level policies without a majority of teacher support. This study did not find individual district policies as having negative effects on student learning, but rather district policies without a majority of teacher support as having a negative effect on student learning. As an example, standards-based grading was not the cause of decreased student performances. Rather, this study found policies that did not have a majority of teacher support as having negative effects. When teachers do not support policies established by the superintendent but are still

required to enact those policies, teachers feel a loss of autonomy and decreased agency. The loss of teacher autonomy and decreased agency leads to value dissonance. At this state of value dissonance, teacher motivation to implement those policies diminishes, therefore, decreasing the effectiveness of those policies.

Still reflecting on the teacher survey, the low teacher support of the superintendent's policies suggested the superintendent did not clearly communicate a vision. The implementation of various policies without a clearly stated vision could never lead to a coherent plan for increasing student learning. The superintendent's lack of teacher support insinuates that the superintendent either implemented policies without a plan or the superintendent implemented policies with a vision which he never clearly communicated to the teachers. In either case, we posit, the lack of a clearly communicated vision would decrease teacher support for the policies, resulting in decreased student performance.

Delimitations and Limitations

We delimited this study through a focus on one school district and one superintendent. We also determined early on to seek participation from elementary through middle grades as early district level procedural changes were implemented among these grades first. Also, the policy of 1:1 technology was implemented later into the superintendent's tenure providing limited data causing the data from the analysis of 1:1 technology to be weak. Further, the teacher survey was limited to only seven district-level policies. We also acknowledge the limitations imposed by the complexities inherent in educational research. We were cognizant as we carried out data collection and analysis that eliminating independent variables was impossible. However, we found convincing warrants to support the conclusion that, despite other potential factors, the actions of district level administration contributed to falling test scores.

Conclusion

We sought to address the gap that persists in the existing literature that prevents a complete picture of the causes of failed superintendent leadership. To help fill this gap, our interpretation of solicited surveys, districts testing data, and archival information found that a superintendent's implementation of myriad policies without teacher involvement and without a clearly communicated vision resulted in an undeniable decline in student performance on state standardized tests. The neglect of teacher involvement in district-level policymaking, along with neglect of the superintendent to clearly communicate a vision, resulted in teachers' loss of autonomy and agency. The end product of demoralized teachers caused a decrease in student performance on state standardized tests.

Recommendations

This research continues to provide an opportunity for a qualitative study of how superintendents' policies can affect student learning. A qualitative study from teacher surveys and interviews regarding superintendents' influence of student performance on state standardized tests would provide a fuller viewpoint. The close proximity of teachers to student learning creates opportunities to discover the effects of district-level policy on student

learning and student performances. Interviews and surveys of teachers may produce more accurate, or more intimate, causes of how superintendents' policy changes affect student performances. Although this study included a teacher survey, a quantitative approach was utilized in the findings.

Notes

The authors did not use AI to assist in the writing of this work beyond SPSS software for data analysis.

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Author Information

Daniel Williams

https://orcid.org/0000-0002-4970-9892

Arkansas State University

P.O. Box 2520, State University, AR 72467

USA

Contact e-mail: *daniel.williams2@smail.astate.edu*

Joshua Montgomery

https://orcid.org/0000-0001-6311-5647

The Teachers College, Emporia State University

1331 Market St, Emporia, KS 66801

USA

Anthony Burkhammer

https://orcid.org/0009-0003-4534-2960

University of Arkansas CC Batesville

2005 White Drive, Batesville, AR. 72501

USA