

A Longitudinal Study of School Districts' Sustained Improvement

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Abstract

In this longitudinal study of one region in the state of Texas, there was an examination of district leadership and the sustaining of high student achievement for their districts. The results of this study suggest that sustained improvement of student achievement is very difficult. The districts that had sustained improvement had stable district leadership as well as stable campus leadership. Further, some practices were common among the high achieving school districts. District leaders provided strong use of the data and a clear focus on pushing for excellence. The district leaders also encouraged a variety of ways to make the gains, but all ways were closely monitored.

Introduction

Few school districts have student success when their demographics are high poverty and diversity (Boyd, Lankford, Loeb, Rockoff, & Wyckoff, 2008; Foorman, Schatschneider, Eakikn, Fletcher, Moats, & Francis, 2006; Hannaway, 2005; Konstantopoulos, & Borman, 2011; Muller, Riegle-Crumb, Schiller, Wilkinson, & Frank, 2010; Perry, & McConney, 2010). Yet, the demands for higher accountability in student performance are increased because of adequately year progress at the federal level and mandated testing at the state level (Darling-Hammond, 2004; Meier, Cohen, & Rogers, 2000; Ravitch, 2000; Ravitch, 2010). Therefore, school district leaders must understand their student achievement data and use that data if they are to stand any chance for school improvement despite an increase in student demographics of increased poverty and higher diversity (Dessoiff, 2011; Hatchett, 2010; Hyslop, 2011; Marsh, Pane, & Hamilton, 2006). Mastery for student success in this accountability era has been supported as a method for students' mastery of identified state standards (Jennings, 1998; Priddy, 2007; Scheurich & Skrla, 2000).

Literature Review

Standardized testing and evaluation of school reform models have minimally guided research studies of school district improvement over time. The review of literature for this study includes the history of standardized testing in Texas, and Texas student achievement data (Priddy, 2007; Waldrip, 2008). One researcher examined the practices of high school administrators to determine the impact on standardized testing and found two variables that positively correlated with higher student performance. These two administrators' practices were targeted teacher professional development on the test and the use of resources from the regional service centers. Another researcher examined the rating system in Texas for high schools to determine which variables predicted the rating (Waldrip, 2008). He found that high school math remediation was the most predictive of the campus accountability rating. Interestingly, he further determined that

several variables were not predictive of the campus rating at the high school. These variables were student SAT scores, teachers' years of experience, and percentage of student poverty at the campus.

History of Standardized Testing in Texas

In the state of Texas, the Texas Education Agency (TEA) developed and has required for many years the collection and publication of student level data at the campus and school district level. Texas formally began this implementation of accountability tests in 1979 when the state legislators passed a bill that required the testing at three grade levels. This first assessment was called Texas Assessment of Basic Skills (TABS) and tested math, reading and writing. The state test in Texas changed in 1985 to the Texas Educational Assessment of Minimum Skills (TEAMS). This test also included math, reading, and writing, but increased the grades tested from three grades to six grades. According to the TEA website of archived data, data are available for 1988-1990 as the TEAMS test. The state test in Texas was changed again in 1990 and became known as the Texas Assessment of Academic Skills (TAAS). This test continued to test math, reading, and writing, but decreased the grades assessed from six grades to five grades. However, the TAAS test was meant to measure higher order thinking and problem-solving skills. The TAAS test was used in Texas from 1990-2002. During 1980 to 2002, the state used a rating system of exemplary, recognized, acceptable, and low performing for districts. According to the TEA (1999), districts received exemplary if 90 percent of their students passed the state test at the state identified level of passage. Recognized was 80 percent of the students while acceptable was 40 percent of the students. A low performing rating was given to districts with less than 40 percent of their students passing the state tests. The state test in Texas changed in 2002, as well as the standard for passing. The new test was called the Texas Assessment of Knowledge and Skills (TAKS) started in the 2002-2003 school year and continued through the 2008-2009 school year. For example, during the 2003-2004 school year the standard for an exemplary rating was granted when 90 percent of the students scored the passage rate on each subject tested. Recognized status for a district was granted when 70 percent of the students scored the passage rate on each subject tested. The acceptable status was granted when 50 percent of the students scored the passage rate in reading, writing, social studies, 35 percent for math, and 25 percent for science (TEA, 2004). The state of Texas also revised their student grade level objectives and curriculum several times and currently has objectives named, Texas Education Knowledge and Skills (TEKS). Most recently, the state of Texas is in the process of changing its testing again with end of year course examinations (EOC) and a new test, titled, State of Texas Assessments of Academic Readiness (STARR). This assessment will replace the TAKS in the spring of 2012 for grades 3-9 and the end of course assessments will be used at high school.

Texas Student Achievement Data

A look back eleven years to the 1998-99 school year interestingly showed that 122 school districts in the state were ranked exemplary (11.7%), 383 were recognized (35.8%), 523 were

acceptable (50.2%), and 7 were unacceptable (.7%). The student demographic percentages showed the majority of students were white (44.1%) followed by Hispanic (38.6%) and African American (14.4%). The economic status of students showed the percentage of students designated as low socio-economic status (SES) was 48.5% (TEA Pocket Edition, 1989-99). Further sampling of years showed that the numbers of school districts ranked as exemplary drastically decreased with higher standards in 2003-2004.

The 2003-2004 school year showed that 19 school districts were ranked exemplary (1.5%), 378 were recognized (30.8%), 713 were acceptable (58.1%), and 23 were unacceptable (1.9%). This Texas Assessment of Academic Knowledge and Skills (TAKS) test was first given in the fall of 2003 (TEA Pocketbook Edition, 2003-04). This lower overall numbers of school districts receiving the highest ranking dropped with the increased standards, but as the districts learned the standards, the number of school districts with exemplary rating increased again in the 2008-2009 school year.

The 2008-2009 school year showed that 117 school districts were ranked exemplary (9.5%), 464 were recognized (37.6%), 570 were acceptable (46.2%), and 73 were unacceptable (5.9%). The increase in the number of districts ranked as exemplary showed strong growth in the last several years for the state of Texas, however, an increase in the number of districts rating unacceptable alarmingly also increased over the last eleven years. However, the increase in student passage change is not as dramatic when compared over eleven years. The test has changed to increased skill levels which may attribute to some of the lowered passage rates. Further, there have been changes in the overall demographics in Texas. The race percentages have shifted slightly from a majority Hispanic (43.8%) followed by White (38.7%) to a continued majority of Hispanics (47.9%) followed by White (34%). The economic status of students decreased showing more poverty as noted by low SES at 56.7% as compared to 2003-2004 low SES at 52.8%.

The most recent available data for 2009-2010 in Texas showed 241 school districts were exemplary (19.5%), 607 school districts were recognized (49.1%), 342 school districts were recognized academically acceptable (27.6%), and academically unacceptable 37 school districts (3%) (TEA Pocketbook Edition 2009-10 <http://ritter.tea.state.tx.us/perfreport/pocked/2010/pocked0910.pdf>). Although this data were not part of the current study, it showed that the percentage of districts had increased for exemplary and recognized ratings as well as decreased in the percentage of district that received an unacceptable rating.

This type of data is available from the Texas Education Agency website for every school year back to 1988-1989 school year. The data appear to show limited gains and in some categories such as the rating of unacceptable an increase in the number of school districts. An overview of state data is available on the Texas Education Agency website under “Testing and Accountability”, performance reports, and Pocketbook Editions. The specific districts’ information database is known as the Public Education Information Management System

(PEIMS) which contains the student achievement data across grade levels as well as the student demographics for every school district.

Purpose of the Study and Research Question

Very few studies examine the variation of school performance over time. The studies that were conducted over several years revealed that the stability of results over time were minimal (Im, 1990). Therefore, the purpose of this study was to examine the collection of archival data from the Texas Education Agency and compare this data cross distinct time periods (Menard, 1991) to determine if there is a stability of results over time with the state of Texas mandated testing, especially considering student demographics in the school districts. The research question that guided this study was 1) What extent has school districts' sustained improvement over time in one region of Texas and what district leaders' actions in high performing districts impacted that sustained improvement?

Theoretical Framework

The literature on student achievement as determined by a school wide system comes from research on comprehensive school reform models as well as earlier research on effective schools. Rosenholtz (1989) and Edmonds (1979) were a few of the early researchers who examined school wide effectiveness of change. Lezotte (2001), and Lezotte and Snyder (2010) followed Edmond's (1979) work and expanded on the original themes of the effective schools' research. They found several common themes in effective schools: 1) strong instructional leadership, 2) a strong sense of mission, 3) effective instructional behaviors, 4) high expectations for all students, 5) frequent monitoring of student achievement, and 6) a safe and orderly environment. This work was completed at the same time that the New American Schools Development Corporation was established in 1991 where a business model was attempted for comprehensive school reform (Berends, Bodilly, & Kirby, 2002; Borman, et, al, 2003). Additionally, researchers had examined and recommended specific suggestions for the focused instruction on note taking, reciprocal teaching, reinforcement of student effort, use of symbolic student recognition, personalization of recognition, homework for secondary students, classroom practices, cooperative learning, heterogeneous ability grouping of students, goal setting, corrective feedback to students, cues, and questioning (Marzano, Pickering, & Pollock, 2001).

Whole School Reform Models Meta-Analysis

Borman, Hewes, Overman, and Brown (2003) completed a meta-analysis on whole school reform models by conducting a search in ERIC from 1966 – 2001. The U. S. Department of Education (2005) listed eleven major components for models to be considered comprehensive school reform models. These eleven components were:

1. Proven methods that were based on scientifically based research
2. Comprehensive design

3. Ongoing and high quality professional development
4. Measurable goals and benchmarks for student achievement
5. Support by teachers, administrators, and staff
6. Support for teachers, administrators, and staff
7. Parent and community involvement in planning
8. High quality external technical support
9. Plans for annual strategies to evaluate
10. Resources identified to sustain
11. Found to have significantly improved academic achievement of students

Borman, et al. found 232 studies that met their criteria of using one of the 29 reform models identified by the U. S. Department of Education (2005), information calculated on effect size, or provision of a standard deviation, or provision of the testing instrument information so a standard deviation could be imputed. Further, the criteria for inclusion in Borman's et al. meta-analysis was that the model had been replicated in at least 10 schools with at least one research study conducted on the model and then dissemination external to the school. The contextual variables in Borman's et al. meta-analysis were subjects tested, grade level of evaluation, years of implementation, and the poverty level of the school. The poverty levels of the schools using comprehensive school reform models tended to be high. Borman et al. showed that the effect size of student achievement was relatively strong during the first year of implementation with a small decline of effect in years two through four. But schools that were in their fifth year of implementation were twice as effective. Three comprehensive school reform models were found to have the strongest evidence of effectiveness with student achievement. These three were Direct Instruction, School Development Program, and Success for All. The Direct Instruction was from the University of Oregon (www.nifdi.org). The School Development Program was initiated with James Comer and Beverly Crowther at Yale University in Connecticut. Success for All was initiated with Robert Slavin at Johns Hopkins University.

Policy Attributes to Evaluate Comprehensive School Reform Models

There are other ways to evaluate the comprehensive school reform models. Desimone (2002) looked at the attributes of policy as one method for evaluation. In this form of evaluation, the policy attributes are examined in the framework of specificity, consistency, authority, power, and stability. The specificity of policy for evaluation is defined as a district having a curriculum that included a framework and guidelines as well as supplemental materials and suggestions for pacing. The consistency of policies means that there is coherence between the policies related to school improvement and curriculum. The authority means that the reform is supported from experts and that the district personnel had the knowledge to support and promote the reform. The power means that there are rewards and sanctions connected with the policies. The stability means that the people, circumstances, and policies remains constant over a length of time. Desimone (2002) found that "specificity was related to the implementation fidelity. That power

was related to immediate effects. And authority, consistency, and stability were the forces of long-lasting change” (p. 433).

Characteristics Studies

Other researchers identified characteristics specific to the challenges in urban schools (Cuban, 2004; Miron, Jones, & Kelaher-Young, 2011). These characteristics were very similar to the effective schools’ characteristics. Cuban (2004) identified successes as having the following characteristics: 1) high expectations, 2) a challenging curriculum, 3) a focus on instructional excellence, 4) broad support, 5) led by those who understood authority with instruction, management, and politics, 6) an emphasis on instruction to raise academic achievement, 7) the management role for established rules, and 8) the political role of deciding what is important, how to achieve organizational goals and ways to achieve stated priorities. Miron, Jones, and Kelaher-Young (2011) examined the internal initiative of reform with changes made in climate, teacher expectations, focused instructional activities and support or students, and optimism for students with self responsibility and scholarships. Other researchers studied school reform based on the size of schools (Oxley & Luers, 2011). These researchers found also the focus on instruction, shifting resources, small school structures, and district stewardship of the reforms.

The research on the comprehensive school reform models was not without controversy. Cook and Payne (2002) stated that higher quality evaluations were needed so that practices would not be a waste of time or worse be harmful to the teachers and students. Further, Cook and Payne (2002) determined that the evaluation and improvement of education were dominated by a large variety in the context of districts, schools and classrooms and therefore, were too specifically tied to that site. Many of the originators of the successful school reform models responded to criticism. Slavin (2001) countered that Success for All had continued in over 200 schools for many years. Further, Slavin stated that more than 92 percent of all schools that ever used Success for All are still using it.

Other researchers continued the examination of school districts using different reforms and especially in schools with disadvantaged youth (Cawelti, 2000; Toch, 2005). Toch examined three urban school districts that had large populations of disadvantaged students of color. He found that students in schools using the American Choice School Design outperformed their counterparts in the same city by an average of 17 percentage points in reading and 26 percentage points in math. This was accomplished by district administrators having a strong working knowledge of the model and hard work to build commitment for the model. This building of commitment was also found to be important for sustaining improvements (Scherer, 2000).

There are numerous studies on school district level reform, however there continued research has limited data for the measurement over time. Despite statewide efforts to conduct mandated testing, little information is analyzed pertaining to school districts’ stability of performance as it

relates to the district ability to sustain stability in exemplary status, or increase from other levels of state accountability ratings in the state of Texas.

It has been well documented by educational researchers for the importance of family income and involvement with their children's education to success on student achievement indicators. Barker (2007) found that children's background and their own characteristics were the largest determinant of student success. Despite the challenges faced by school districts composed of families with backgrounds of poverty or limited opportunities, some school district have been very successful in meeting these challenges and have continuously been able to obtain higher levels of student achievement. The role of campus administrators has been well documented, by previous research, as an important indicator for increasing student achievement. (Murphy, Elliot, Goldring, & Porter, 2007; Nettles & Herrington, 2007). There have been limited studies on the impact of district level leadership towards increased student achievement. However, Waters & Marzano (2007) completed a meta-analysis of 27 studies on the relationship of district leadership toward student achievement. Their four major findings from their analysis were (1) district leadership does impact student achievement, (2) the leaders of successful districts set goal oriented climates, (3) there is a positive correlation between superintendent tenure and high district student achievement, and (4) superintendents in successful districts empower their principals with "defined autonomy".

Methodology

Data Collection

On a very minimal level, longitudinal research is the collection of data on multiple points. A pseudo longitudinal design was used for this study because there were repeated measures on school district data and not on individual students within the schools. A benefit of a longitudinal study is that the analysis can show the stability over time so that any increases are not just an aberration in one year. Some aberrations might be an unusually high functioning group of students in one year or a natural disaster such as hurricanes that closed a school district for several weeks and thus impacted teaching time and consequently lower student achievement scores. This longitudinal study was an extraction of AEIS data and then a comparison of that data across distinct periods (Menard, 1991). There was no intervention made by a researcher with this type of longitudinal study. The researcher's role for the longitudinal data was collector of the data for analysis. A secondary component of this mixed method study was a case study with an analysis of district leaders' actions related to sustained student achievement.

Data Analysis

The analysis used in this study focused on three data points over the last eleven years. The analysis was descriptive statistics for the data. The problem that guided this study was that very few studies examine the year-to-year variation in school performance. The studies that have been conducted reveal that the stability of results over time is minimal (Im, 1990). Therefore, the

purpose of this longitudinal study was to determine if school districts' had sustained high levels of student achievement over time. Singer and Willett (1996) pointed out, three points of data is the minimum number for a longitudinal study (p. 267). Therefore, three years were used in this study.

Rowan (1983) listed four ways to study the indicators of school effectiveness. The first way was to use an "absolute measure of student outcomes such as the proportion of students within the school that are above the state median in achievement. A second type of analysis was to use a trend analysis in test scores. A third type of analysis was to examine "gain scores for students in a cohort. A fourth type of analysis is a regression technique such as whether the average achievement in a school is above or below what is predicted on the basis of its demographic composition. The method of school effectiveness used in this study was to examine the student outcomes within a region of Texas and an examination of the school districts who received an "exemplary rating" with a comparison to the student demographics as a trend analysis.

Im (1990) pointed to different types of longitudinal research models as growth curve approach, stability approach, and the school effect approach. The growth curve model is most appropriate for longitudinal data such as individual student achievement growth over time. The stability model is most appropriate for the stability in growth over time of some school strategy for change. The school effect model is most appropriate for the variability of a cross section school effect over time. This study used a cross-section school effect over time since the data of school district's AEIS performance reports were examined over several years.

The performance data for all school districts in one region were analyzed over the eleven year period. The following means were used for the region: the district's size, the percentage of economically disadvantaged students, the percentage of African American students, the percentage of White students, and the percentage of Hispanic students. These are important variables because research has found these factors to predict student achievement. For example, lower numbers of economically disadvantaged students were associated with a school's higher level of student achievement (Skrondal & Abe-Hesketh, 2007) and socioeconomic status was the largest predictor of the student achievement (Leithwood & Jantzi, 2000). Further, other researchers have found that small school size (high schools of 600 – 900 students) had a positive correlation with high student achievement (Lee & Smith, 1997; Ornstein & Levine, 2000; Patterson, Beltyukova, Berman, & Francis, 2007).

Case Study

Case study is used to gain an understanding of a phenomenon as it is perceived by the group of leaders in an effort to examine reasons for success in student achievement. The narratives are descriptive generalizations bound to the context of the districts and student achievement as measured by standardized tests in Texas. The procedures included finding the successful school districts and then contacting the superintendents from those districts. Broad interview questions

were used in semi-structured interviews to analyze the superintendents’ stories and experiences of sustained student achievement. (Yin, 1994).

Findings

The region chosen for this study was used because of its central location to the regional university of the researcher. The total number of students for this one region in the state of Texas compared to the state population of students is shown in Table one. Overall there was an increase in the region population of students as well as the state. However, the state had a higher percentage of increase in students than the region. This region had four percent of the state student population in 1989-1999 and this decreased to three percent of the state’s population of students in 2008-2009.

Table 1: Number of students compared to the state

School Year	1998-1999	1998-1999	2003-2004	2003-2004	2008-2009	2008-2009
	Region	State	Region	State	Region	State
Total # Students	158,853	3,945,367	160,617	4,311,502	164,625	4,728,204

The demographic data for the region and state are shown in Table two. There was an increase in the percentage of Hispanic students in the state as well as the region from 1998-1999. Further, this change was primarily from a decrease in the White students. As the change in the White students in the region were a decrease of 7.9 percents and from the African American students was a decrease of 1.6 percent of the students. The decrease at the state level was also primarily observed in the White students with a decrease of 10.1 percent and a decrease of the African American students of .2 percent. The region had the following demographics of students in 1998-1999: Hispanic (11.4%), White (65.2%), African American (21.5%) and economically disadvantaged (44.4%). While the state had the following demographics of students in 1998-1999: Hispanic (38.6%), White (44.1%), African American (14.4%) and economically disadvantaged (48.5%). The demographics showed an increase in students who are economically disadvantage at the state and region level since 1998-1999. However, the region actually had a larger increase in economically disadvantaged students with an 11.6 percent increase compared to the state increase of 8.2 percent.

Table 2: 2008-2009 Region students by ethnicity and economic disadvantaged status compared to the state at the data points

Ethnicity/SES	% Total Region 2008-2009	% Total State 2008-2009	% Total Region 2003-2004	% Total State 2003-2004	% Total Region 1998-1999	% Total State 1998-1999
Hispanic	21.6	47.9	16.9	43.8	11.4	38.6
White	57.3	34	61.4	38.7	65.2	44.1
African American	19.9	14.2	20.8	14.3	21.5	14.4
Low SES	56	56.7	50.9	52.8	44.4	48.5

An examination of the student achievement data in 1998-1999 showed that White students had the highest percentage of students passing all three tests (86%), followed by Hispanic students (67%) and then African American students (63%) in the region. Overall the region percentage passing rate (80%) was higher than the state (78%). There was a difference of the performance based on gender. Female students had a higher passing rate (82%) than the male students (78%). Economically disadvantaged students in the region had a passing rate of 69 percent.

Table 3: Academic Passing Rate for TAAS test at the Region and the State (1998-1999)

TAAS	State	Region	AA Region	Hispanic Region	White Region	Male Region	Female Region	SES Region
1999								
Reading	86.5%	88%	77%	76%	93%	86%	90%	80%
Mathematics	86%	87%	74%	81%	92%	87%	87%	80%
Writing	88%	88%	79%	77.5%	91%	84%	91%	80%
All Tests	78%	80%	63%	67%	86%	78%	82%	69%

An examination of the student achievement data in 2003-2004 showed that White students had the highest percentage of students passing all five tests (66%), followed by Hispanic students (45%) and then African American students (37%) in the region. Overall the region percentage passing rate (58%) was slightly higher than the state (58%). There was a difference of the

performance based on gender. Female students had a lower passing rate (57%) than the male students (58%). Economically disadvantaged students in the region had a passing rate of 46 percent.

Table 4: Academic Passing Rate for TAKS test at the Region and the State (2003-2004)

TAKS	State	Region	AA Region	Hispanic Region	White Region	Male Region	Female Region	SES Region
2004								
Reading	80%	81%	68%	69%	87%	78%	83%	72%
Mathematics	66%	67%	48%	58%	74%	68%	66%	57%
Writing	89%	89%	84%	84%	92%	86%	93%	85%
Science	56%	56%	31%	37%	67%	60%	51%	40%
Social Studies	84%	84%	72%	73%	90%	86%	83%	75%
All Tests	57%	58%	37%	45%	66%	58%	57%	46%

An examination of the student achievement data in 2008-2009 showed that White students had the highest percentage of students passing all five tests (82%), followed by Hispanic students (66%) and then African American students (56%) in the region. Overall the region percentage passing rate (74%) was the same as the state (74%). There was no difference of the performance based on gender. Female and male student had the same passing rate (74%). Economically disadvantaged students in the region had a passing rate of 66 percent.

Table 5: Academic Passing Rate for TAKS test at the Region and the State (2008-2009)

TAKS	State	Region	AA Region	Hispanic Region	White Region	Male Region	Female Region	SES Region
2009								
Reading	91%	92%	85%	86%	96%	91%	93%	88%
Mathematics	82%	82%	68%	78%	88%	82%	82%	76%
Writing	93%	93%	91%	92%	95%	91%	96%	91%
Science	78%	77%	58%	67%	86%	80%	74%	68%
Social Studies	93%	93%	87%	88%	96%	93%	93%	88%
All Tests	74%	74%	56%	66%	82%	74%	74%	66%

The combination of all tests showed that the passing rate of the state (78%) was slightly lower than the region passing rate (80%) in 1998-1999. After eleven years there is no gap between the state and region passing rate. Both the state and the region had a passing rate of 74 percent.

Table 6: All tests for Region and State

	State	Region
All Test 1999	78%	80%
All Tests 2004	57%	58%
All Tests 2009	74%	74%

The specific subject areas showed that writing and reading had the largest passing rate both at the state and the region. Table 7 showed that the passing rate for reading increased to 91 percent at the state and 92 percent for the region. This was an increase from the 1998-1999 passing rate in reading at the state of 86.5 percent and the region of 88 percent. There was a decline in passing rate for reading in the 2003-2004 passing rate both at the state and the region. The ethnicity data for the region noted that the population of white student scored the highest all three years. However, there was a larger increase for the Hispanic and African American students with a ten percent increase for the Hispanic students and an eight percent increase of African American students passing the reading test between the eleven years. Again, there were lower passing rates in all ethnic groups during the 2003-2004 school year. The females had a higher passing rate (93%) than the males (91%) in reading. There was also an increase in the passing rate of economically disadvantaged students from 1998-1999 (80%) to 2008-2009 (88%), with a decrease during the 2003-2004 school year (72%).

Table 7: Reading Passing Rate for the State and Region

	State	Region	AA	Hispanic	White	Male	Female	SES
Reading 1999	86.5%	88%	77%	76%	93%	86%	90%	80%
Reading 2004	80%	81%	68%	69%	87%	78%	83%	72%
Reading 2009	91%	92%	85%	86%	96%	91%	93%	88%

Table 8 showed that the passing rate for writing increased to 913 percent at the state and the region. This was an increase from the 1998-1999 passing rate in reading at the state and the region of 88 percent. There was a slight increase of the rate for writing in the 2003-2004 passing rate both at the state and the region (89%). The ethnicity data for the region noted that the population of white student scored the highest all three years. However, there was a larger increase for the Hispanic and African American students with a 14.5 percent increase for the Hispanic students and a twelve percent increase for African American students passing the reading test between the eleven years. The females had a higher passing rate (96%) than the males (91%) in writing. There was also an increase in the passing rate of economically disadvantaged students from 1998-1999 (80%) to 2003-2004 (85%) and another increase in 2008-2009 (91%).

Table 8: Writing Passing Rate for the State and Region

	State	Region	AA	Hispanic	White	Male	Female	SES
Writing 1999	88%	88%	79%	77.5%	91%	84%	91%	80%
Writing 2004	89%	89%	84%	84%	92%	86%	93%	85%
Writing 2009	93%	93%	91%	92%	95%	91%	96%	91%

Table 9 showed that the passing rate for mathematics decreased to 82 percent at the state and the region. This was a decrease from the 1998-1999 passing rate in mathematics at the state of 86 percent and the region of 87 percent. There was a decline in passing rate for mathematics in the 2003-2004 passing rate both at the state and the region. The ethnicity data for the region noted that the population of white student scored the highest all three years. However, there was a larger decrease for the African American students with a six percent decrease and four percent decrease for White students. The Hispanic students had the least decrease of three percent over

the eleven years. Again, there were lower passing rates in all ethnic groups during the 2003-2004 school year. The females had the same passage rate (82%) as the males. There was also a decrease in the passing rate of economically disadvantaged students from 1998-1999 (80%) to 2008-2009 (76%), with a dramatic decrease during the 2003-2004 school year (57%).

Table 9: Mathematics Passing Rate for the State and Region

	State	Region	AA	Hispanic	White	Male	Female	SES
Mathematic 1999	86%	87%	74%	81%	92%	87%	87%	80%
Mathematic 2004	66%	67%	48%	58%	74%	68%	66%	57%
Mathematic 2009	82%	82%	68%	78%	88%	82%	82%	76%

Case Study of Districts with High Student Achievement Diversity and Lowe Socio-economic Student Demographics

Three diverse and low SES school districts with sustained improvement in all subject areas were part of the case study. There were several common themes among the three school districts. The first of these indentified in the study within all three school districts dealt with concepts of how all students were viewed by school board members, administrators, and teachers within the district. “Children First” would be a good way to describe how board members, district leaders, and teachers viewed their primary mission for the district. This premise of students first was not just viewing the students as one entire group, but also the individual needs of each student.

The second common theme among all three school district was “Good Communication” among the school board, administrators, and teachers to assure that individual student needs were tracked between campuses and to find ways to assure that this type of communication was regular and consistent. It was apparent in all three districts that there was regular formal and informal communications among board members, district administrators, campus administrators, and teachers. Teachers were encouraged to attend meetings of the board of education to present their thoughts on curricular improvements and to report to the board the progress of success for new programs to meet their common goals related to increasing student achievement.

An emphasis by the board of education to hire and then lend support to a strong administrative and teaching staff was a third major theme identified in all three school districts. This support was shown through the board working hard to gain increased financial resources from the community to fund new programs and also through recognition programs designed to recognize excellent work done by individual staff. It was also identified by both board members and the superintendents in these districts that a positive working relationship existed between the board

of education and the superintendent. All three superintendents commented on the great support they felt from their boards of education.

The final and most dominate theme identified in all three school districts within this study was the board of education setting and supporting efforts to reach high levels of achievement goals for all students. As discussed earlier, this included finding financial supports for new programs and recognizing staff efforts to improve student achievement. However, even more important in this area appeared to be the regular monitoring by the board and superintendent of these efforts to improve student achievement and then holding staff responsible for their students' actual achievement.

Discussion and Conclusions

Previous literature and research showed mixed results on sustained school improvement at the district level. Several researchers examined reform models suggesting limited sustained results (Borman, et. al 2003; Im, 1990). While other researchers suggested that leadership stability and commitment focused on a culture of student success were important for the sustainability of school improvement (Cawelti, 2000; Cuban, 2004; Desimone, 2002; Edmonds, 1979; Lezotte, 2001; Rosenholtz, 1989; Scherer, 2000; Toch, 2005). The results of this longitudinal study showed an increase in the percentage passage rate in reading and writing for one region in Texas; however, a decrease in mathematics. The increase in reading and writing was further significant since the later test purportedly increased the level of skills needed to pass. According to this research, the districts in this region and the state sustained improved passing rate in reading and writing. The only school reform efforts examined in the study was the percentage of students passing the state mandated tests and district leaders' actions to sustain improvement. Surprisingly, the percentage passage rate increased in two subject areas, and yet decreased in mathematics. This research implies that school districts in one region of Texas were able to sustain improvement at least in language arts of reading and writing. The variation in tests from the Texas Assessment of Academic Skills (TAAS) to the Texas Assessment of Knowledge and Skills (TAKS) is a limitation in this study. Other limitations are that only percent passing rate was examined in this study.

Recommendations

There are several recommendations suggested for further research. A further examination of additional years of data could include other indicators such as school size and other regions in Texas. Additionally, indicators such as attendance rate, mobility, ACT scores, and teacher's years experience could be included for a future study. A study of other regions of the states might lead a clearer understanding for possible regional differences on performance. Another study could use data from the lowest and highest performing regions to explore case studies on reasons for performances. A qualitative study could explore the potential leadership policies and practices that contributed to high performing regions and school districts.

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