A Descriptive Study: The Association Between Transformational Redesign School Improvement, Priority School Principals' Perceptions, and Student Achievement

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A Descriptive Study: The Association Between Transformational Redesign School Improvement, Priority School Principals’ Perceptions, and Student Achievement

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Dissertation submitted to the Faculty of the
College of Education in Transformational Leadership

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Abstract

This descriptive study investigated the transformational redesign method of school improvement as implemented in the 2014 cohort of Michigan Priority schools. In Michigan, schools appear in a top-to-bottom ranking published by the Michigan Department of Education according to their proficiency achievement percentile; each year the schools falling below the fifth percentile are priority and must redesign curricula to improve achievement (Michigan Department of Technology, Management and Budget, 2016c). Priority schools must choose between four redesign methods: closure, restart, turnaround, and transformation (Michigan Department of Technology, Management and Budget, 2016c; U.S. Department of Education, 2009; U.S. Department of Education, 2010b). In 2014, 52 Michigan schools fell below the fifth percentile ranking, and 40 of the schools chose the transformation method. The researcher used archival achievement data and a principal survey to describe the transformational redesign method of the 2014 cohort. The achievement data included the 2014 to 2016 top-to-bottom rankings from pre- and post-implementation of the transformational redesign method and a principal survey grounded in research by Marzano (2003). The researcher employed a Wilcoxon signed rank test, because the achievement data was ranked, and a line graph. A statistically significant association exists between the 2014 to 2016 rankings, which suggests the transformational redesign method increased achievement. Findings demonstrated that there is no association between principals’ perceptions of their self-efficacy and changes in rankings of the schools.

Keywords: school improvement, transformation redesign, priority schools, top-to-bottom rankings, principal perceptions
Dedication

God blessed me with strength and gifted me with the determination to complete this dissertation. He provided me with supportive people through my dissertation journey who motivated and inspired me. I praise the Lord for His gifts, and I wish to dedicate this study to the people who supported my studies. I am humbled and honored to begin this dedication with my daughter, Haley Duran. Haley has been at my side throughout this journey; she never angered when I had to focus, and she exercised patience beyond her years with my determination to study. Thank you, Haley, for being a strong, supportive, and understanding young woman.

Without a doubt, Kristi Wrobel helped me start this dissertation journey with her support and assistance at the beginning of the intense writing. When times were tough for me, she encouraged me by believing I could excel in doctorate-level work. Next is Chris Nerbonne who inspired me with her steadfast dedication to marginalized students and her tireless coaching of reluctant and obstinate teachers. She was relentless in her drive for change and consistently held her focus, even under great pressure, on the expectations of the school improvement plan that challenged the status quo. Finally, Susan Thomas motivated me through her grit to do the right thing even though it was widely unpopular. She grasped the need for change, and like Chris, tenaciously coached hesitant and inflexible teachers through mandated instructional reforms.

I want Haley, Kristi, Chris, and Susan to know the great respect I hold for them, and the immense value their influence provided me. I learned to listen to them, to trust them, and I gained insight from their resilience and professionalism. I wish to dedicate this dissertation to them for the way they helped shape and guide my perceptions and skills through their affirmations in support of my abilities. Thankfully, I was never alone in this journey.
Acknowledgments

It is with the most profound appreciation and the highest of gratitude that I wish to thank my committee chair, Dr. Brandy Kamm, for her steadfast commitment to ensuring my scholarly success and writing excellence. Without her patience, guidance, and continual help, the completion of this dissertation would not have been possible.

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With the help of Dr. Brandy Kamm, Dr. Michael Hollis, Dr. Janice Powell, and Dr. Angela Qwusu-Ansah, I realized my dream of sharpening my understanding of the power of leadership. I plan to utilize my energy and voice as a transformative influence in service to others.
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Chapter 1: Introduction

Introduction to the Problem

Each year, the Michigan Department of Education ranks public schools according to student performance on the state achievement tests. Some schools rank considerably higher on the achievement assessments than others. This ranking is the top-to-bottom school ranking (Michigan Department of Technology, Management and Budget, 2016c); almost all Michigan public schools are ranked by their achieved proficiency level percentile on the state test. Each year, the Michigan Department of Education identifies public schools performing below the fifth percentile of all schools, labels them priority, and mandates they redesign their curricula to raise achievement scores under the control of the School Reform Office (Michigan Department of Technology, Management and Budget, 2016c).

In the spring of 2014, the Michigan Department of Education formed a cohort of 52 public schools that fell below the bottom fifth percentile for student performance (Michigan Department of Technology, Management and Budget, 2016b). Michigan priority schools must redesign curricula due to poor proficiency levels on the state assessment, but there is no procedure in place to determine the association between the redesigned school improvement methods and achievement other than the top-to-bottom ranking. By completing a study to determine achievement pre- and post-implementation of the mandated school improvement methods, the researcher may inform professional practices to help improve achievement in low-performing schools.

Background, Context, History, and Conceptual Framework for the Problem


With this legislation, the federal government launched a series of programs that produced educational reform for low-performing schools. The Comprehensive School Reform Demonstration Program (CSRD) of 1977 established expectations for school program designs to help low-performing schools meet performance standards; the Improving America’s Schools Act of 1994 further shaped accountability for performance standards with the concept of adequate yearly progress (AYP) that required schools to meet achievement testing proficiency levels (Rhim & Redding, 2014; U.S. Department of Education, 2000; U.S. Department of Education, 2008). In 2001, the No Child Left Behind (NCLB) Act increased mandates for achievement outcomes and levied reform models and sanctions against schools for failing to meet proficiency levels (U.S. Department of Education, 2002).

Building on the reform methods initiated with NCLB, the Race to the Top and School Improvement Grant (SIG) programs of 2009 promoted fast school reform with four methods of redesign: (a) closure; (b) restart; (c) turnaround; and (d) transformation. In 2010, the Michigan legislature incorporated the methods into state law (Michigan Department of Technology, Management and Budget, 2016b; Michigan Legislature, 2015; U.S. Department of Education, 2009; U.S. Department of Education, 2010b).

The Michigan legislature and U.S. Department of Education used the word *turnaround* (TRN) in two ways (Michigan Department of Technology, Management and Budget, 2016b; Michigan Legislature, 2015; U.S. Department of Education, 2009; U.S. Department of
First, TRN describes the overall school restructuring mandates; second, turnaround (not TRN) is one of the specific school reform methods (like closure, restart, and transformation). Under control of the School Reform Office, the lowest-performing Michigan schools must redesign following TRN policies created by the U.S. Department of Education in the Race to the Top and SIG programs (Michigan Department of Technology, Management and Budget, 2016c; U.S. Department of Education, 2009; U.S. Department of Education, 2010b). The reform policies significantly redesign schools to quickly improve achievement (Perlman & Redding, 2011; U.S. Department of Education, 2011).

Priority schools in Michigan are directed by the Michigan Department of Education to redesign by choosing one of the four mandated methods (Michigan Department of Technology, Management and Budget, 2016c). With the closure method, a priority school must completely close. Under the restart method, a charter organization takes over the school. For the turnaround method, the principal and more than 50% of the staff are replaced. In the transformation method, the school receives a new principal and a redesign school improvement plan (Michigan Department of Education, 2014; Michigan Department of Technology, Management and Budget, 2016b; U.S. Department of Education, 2009; U.S. Department of Education, 2010b).

Statement of the Problem

The problem is that it was unknown if, and to what extent, the implementation of the transformation redesign methods influenced the achievement rankings of Michigan priority schools, specifically from 2014 to 2016 (Michigan Department of Technology, Management and Budget, 2016c; U.S. Department of Education, 2009; U.S. Department of Education, 2010b). Michigan mandated the use of federal TRN strategies to address low proficiency levels (Michigan Department of Technology, Management and Budget, 2016b; Michigan Legislature,

The federal government and the state of Michigan stress TRN as ideal methods to secure quick academic improvement in low-performing schools, but the lack of research creates a void of evidence regarding the reform interventions (Le Floch, 2015; Lutterloh, Cornier, & Hassell, 2016; The Wing Institute, 2017). The present study investigated the association of the top-to-bottom achievement rankings from pre- and post-implementation of the transformation method for the 2014 priority school cohort (Michigan Department of Technology, Management and Budget, 2016c; U.S. Department of Education, 2009; U.S. Department of Education, 2010b).

The present study was a non-experimental, descriptive examination of archival achievement ranking data and survey data from principals of the 2014 priority schools. The association of archival achievement ranking data from pre- and post-implementation of the transformation redesign method was descriptive. The researcher utilized a survey to describe the association between principals’ perceptions of engagement in the transformation redesign method and the 2016 top-to-bottom priority school ranking data. The researcher adapted the survey from Marzano’s (2003) high-impact strategies that positively associated with achievement.

**Purpose of the Study**

The purpose of the study was to describe the association between the top-to-bottom rankings and the transformation redesign method pre- and post-implementation between 2014 and 2016. In addition, the study includes perceptions of the 2014 cohort principals on administration efficacy in the implementation of the transformation redesign. Determining the
impact of the transformational method between these two years may inform changes to TRN policy.

**Research Questions**

The present study utilized the following research questions:

**RQ1.** What is the difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method?

**RQ2.** What is the association between principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking?

**Hypotheses**

**H1o.** The difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method is not statistically significant.

**H1a.** The difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method is statistically significant.

**H2o.** The association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking is not statistically significant.

**H2a.** The association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking is statistically significant.
Rationale, Relevance, and Significance of the Study

The Improving America’s Schools Act (United States Congress, 1994) introduced the concept of measuring achievement and defining corrective actions based on low-performance to public schools (Goertz, 2001). Since 1994, the concept of improving low-achieving schools evolved into school TRN. The federal SIG program embedded TRN reform models (i.e., closure, restart, turnaround, and transformation) into public school practices (Perlman & Redding, 2011; U.S. Department of Education, 2011). The rationale for the present study was that as the Michigan legislature chose TRN as the method to raise achievement in low-performing schools; because there is a lack of research on school TRN methods, then the present study may add to the understanding of the association of TRN methods and achievement.

The present study is relevant because it is an investigation of the association of achievement from pre- and post-implementation of state-mandated reform methods and the association of the principals’ perceptions of engagement in the transformation redesign method and achievement. The Michigan Department of Education lacks a procedure to determine the association between the TRN reform methods and achievement other than the top-to-bottom rankings. The present study may add to the understanding of how TRN reform methods are associated with achievement.

The significance of the present study is that the findings may add to the understanding of how mandated reform methods associate with achievement rankings and how principals’ perceptions of their administration efficacy while engaging in the transformation redesign method associate with achievement rankings. Little research is available on the impact of TRN methods (Le Floch, 2015; Lutterloh et al., 2016; The Wing Institute, 2017). By determining the association of achievement pre- and post-implementation of the transformation redesign method
and principals’ perceptions of administration efficacy while using the transformation redesign method and achievement, the present study adds to the body of research on school reform.

**Definition of Terms**

*Bottom fifth percentile:* Michigan law requires the state superintendent of public instruction rank all schools based on the outcomes of mandatory state assessment each year and identify and label the schools below the fifth percentile as *priority* (Michigan Legislature, 2015).

*Closure redesign:* Each Michigan public school scoring below the fifth percentile based on the annual state assessment must redesign. One method is closure (i.e., shutting the school down and sending students to another school) (Michigan Department of Education, 2014; Michigan Department of Technology, Management and Budget, 2016b; Michigan Legislature, 2015).

*Priority schools:* Michigan public schools ranked below the fifth percentile based on the outcomes of the mandatory state test are priority schools that must redesign (Michigan Legislature, 2015).

*Restart redesign:* Each Michigan public school ranked below the fifth percentile based on the annual state test must redesign. One option is restart, which involves turning the school management over to a charter organization (Michigan Department of Education, 2014; Michigan Department of Technology, Management and Budget, 2016b; Michigan Legislature, 2015).

*School reform office:* In 2010, the Michigan legislature created the State Reform Office to manage the oversight of the lowest-performing schools (Michigan Department of Education, 2014; Michigan Department of Technology, Management and Budget, 2016a; Michigan Legislature, 2015).
Top-to-bottom ranking: All Michigan public schools are annually ranked by their percentile on the mandatory state achievement assessment. The state superintendent of public instruction publishes the rank order on the state website (Michigan Legislature, 2015).

Transformation redesign: Each Michigan public school scoring below the fifth percentile based on the annual state assessment must redesign. One option is transformation (i.e., the school replaces the principal and completes a comprehensive state approved reform plan) (Michigan Department of Education, 2014; Michigan Department of Technology, Management and Budget, 2016b; Michigan Legislature, 2015).


Turnaround redesign*: Each Michigan public school scoring below the fifth percentile based on the annual state assessment must to redesign. One option is turnaround in which the school replaces the principal and more than 50% of the staff (Michigan Department of Education, 2014; Michigan Department of Technology, Management and Budget, 2016b; Michigan Legislature, 2015).

(*) The term TRN describes the overall school restructuring mandates; whereas, turnaround is one of the specific school reform methods in addition to closure, restart, and transformation.

Assumptions, Delimitations, and Limitations

Assumptions are aspects of a study that the researcher accepts to be true or clear (Drake, n.d.; Simon, 2011). An assumption of the present study was the state-mandated assessment
achievement data was screened for bias by the Michigan Department of Education (Michigan Department of Education, 2015; Michigan Legislature, 2016) and administered according to prescribed protocols at each assessment site.

Additionally, the researcher assumed that achievement dataset outliers occurred legitimately due to variability and not error. Regarding the survey, assumptions were that the respondents answered truthfully because the researcher assured confidentiality (Simon, 2011). The researcher assumed that respondents met the inclusion criteria of relevant TRN experience to base responses.

Delimitations are limits the researcher purposefully established (Drake, n.d.; Simon, 2011). A delimitation for the present study was to exclusively focus on the Michigan 2014 priority school cohort and disregard cohorts from other states and years. Another delimitation was to only survey principals and exclude other administrators and teachers. The researcher also limited the study to two research questions.

Study limitations are potentially unavoidable weaknesses or restrictions in research (Drake, n.d.; Simon, 2011). The present study was about associations; therefore, the overall limitation was that the findings do not represent causation because the researcher did not manipulate the variables of achievement and survey responses (U.S. Department of Health and Human Service, n.d.). Another limitation was that the researcher calculated the ideal survey response rate to be 37 out of 40 principals, necessitating a 92.5% return. Another limitation was that the validity and reliability of the survey was compromised by adaptation from the original 11 components (Marzano, 2003) to only 5 components. Because the present study specifically addressed the 2014 cohort of priority schools using the transformation method, the findings do not generalize to non-priority schools or other reform methods.
Chapter 1 Summary

In 2010, the state of Michigan adopted federal TRN redesign methods to increase achievement in schools identified as low-performing on state-mandated assessments (Michigan Legislature, 2015). The state mandates TRN redesign methods, but there is no procedure in place, other than the top-to-bottom ranking, to establish the association between the redesign method and achievement. The present study determined the association between the 2014 to 2016 top-to-bottom achievement ranking from pre- and post-implementation of the transformation redesign method and principals’ perceptions of administration efficacy in the implementation of the transformation redesign method.
Chapter 2: Literature Review

This descriptive study examined the association between the 2014 to 2016 top-to-bottom achievement rankings pre- and post-implementation of the transformation redesign method (Michigan Department of Technology, Management and Budget, 2016c; U.S. Department of Education, 2009; U.S. Department of Education, 2010b). The researcher also examined the association between the principals’ perceptions of their administration efficacy in the implementation of the transformation redesign method and the 2016 top-to-bottom achievement rankings at chronically low-performing schools. This literature review provides context for the study by including legislative and scholarly sources that advance the understanding of improving achievement at chronically low-performing schools via TRN reform policies.

By placing the significance of educational reform legislation into context, this chapter provides the background for understanding interrelated policies of the U.S. Congress that supported current U.S. Department of Education reform methods. The literature review provides insight into the historical development of federal and state reform legislation and policies that impact and define TRN school improvement strategies to improve achievement at chronically low-performing schools.

The U.S. Department of Education provides grants to advance TRN methods at the lowest-performing schools by promoting rapid improvements to raise achievement scores through comprehensive school reform (Dragoset et al., 2015; U.S. Department of Education, 2009; U.S. Department of Education, 2015). Stimulated by federal grants, schools adopted reform methods that embed new learning criteria and measurements and create new data methods to assess student progress to guide instruction. With federal funding, states reformed their methods of supporting chronically low-performing schools through fundamental changes in

U.S. Department of Education grants “scale up” innovative, evidence-based programs, practices, and strategies that schools implement and states monitor (U.S. Department of Education, 2010a, p. 36). Innovative, evidence-based programs, practices, and strategies were defined using a three-tiered framework: (a) possessing strong evidence of significantly reducing achievement gaps between groups and significantly raising outcomes for all students; (b) showing moderate evidence of raising achievement; and (c) promising practices showing the potential to raise achievement with some research-support (U.S. Department of Education, 2010a).

The federal government funds reform methods to enhance the quality of education for students in under-performing schools. Initially, funds were designed as an anti-poverty initiative to enhance the education of disadvantaged students that evolved into a program aimed to ensure success for all students by emphasizing three core goals. The core goals of increasing equity and academic excellence for all students, delivering professional learning for teachers and administrators, and promoting opportunity, reasonable cost, and higher education attainment were planned to promote rapid school improvement (U.S. Government Publishing Office, 2015). The federal reform funds steadily increased from the initial $1 billion in 1965 to over $15 billion for the Every Student Succeeds Act of 2015 for the 2017 school year (U.S. Government Publishing Office, 2015; United States Senate, 1965).

**Conceptual Framework**

1965, the Elementary and Secondary Education Act established an agenda to improve the quality of education for disadvantaged children (U.S. Government Publishing Office, n.d.; United States Senate, 1965). The Elementary and Secondary Education Act created Title I, and the federal government significantly expanded into K–12 public education that was formerly the sole responsibility of state and local educational authorities (LEA) (Jennings, 2000; Klein, 2016).

Major federal education reform programs following the Elementary and Secondary Education Act (1965) formed the concepts that support the theoretical framework of the present study. These include:

- Comprehensive School Reform Demonstration Program;
- Improving America’s Schools Act of 1994;
- No Child Left Behind Act of 2001;
- Race to the Top; and

Federal legislation and guidelines shaped state and local educational systems. States follow TRN mandates to receive grants. Federal reform expectations significantly change the way states provide supervision and the way local school systems deliver curricula for chronically low-performing schools (Reform Support Network, 2014).

Federal legislative guidelines form a national framework for consistent TRN reform at state and local levels. Based on federal reform guidelines, states dictate corrective actions, guide the methods schools must use, and set levels of required achievement. The present study
examined the association between the U.S. Department of Education reform method of transformation that the Michigan legislature adopted and achievement.

Review of Research Literature and Methodological Literature

Elementary and Secondary Education Act of 1965

U.S. Department of Education school reform policies derive from multiple reauthorizations of the Elementary and Secondary Education Act, which was meant to improve the life quality of all Americans by enhancing education for disadvantaged children (United States Senate, 1965). President Johnson declared the Elementary and Secondary Education Act was an anti-poverty initiative; it was the first federal step to provide funds for general education at the state and local school district level (United States Senate, 1965).

The Elementary and Secondary Education Act called for every American child to receive the educational opportunity to develop his or her mind and skills to the fullest growth possible with assistance from the states, not the federal government. The Elementary and Secondary Education Act stated that although education is a function of the states, the federal government has a secondary obligation to the citizens to guarantee provisions for basic and essential services (e.g., public education) (United States Senate, 1965).

The Elementary and Secondary Education Act grant disbursement plan significantly expanded the federal role in K–12 education and began nationwide distribution of funds to schools with low-income students (United States Senate, 1965). The Elementary and Secondary Education Act dispersed federal funds to state educational authorities (SEA) that distributed those funds to LEAs (United States Senate, 1965). SEAs were the state agencies accountable for the regulation of elementary and secondary public schools; LEAs were the local public boards of education or other public authorities within the state who maintained control over local
elementary and secondary public schools in the district or other political subdivisions of a state (U.S. Department of Education, 2004).

Through the funding of stipulated programs, the Elementary and Secondary Education Act set the stage for the first significant federal policy to influence general educational practices in state and local jurisdictions. There have been many revisions since 1965. The original plan included six sections. The first section, Title I, provided financial assistance to LEAs to aid education of students from low-income families (United States Senate, 1965). The U.S. Department of Education amended Title I to include provisions for migrant, neglected, and delinquent children, and to update conditions for schoolwide reform methods for schools with 75% or more students at poverty level (Klein, 2016).

In 1988, the program expanded into student testing, accountability, and school improvement planning (Lytle, 1988). The first appropriation of Title I was $1 billion dollars dispersed to the states (United States Senate, 1965), which began a new era of federal mandates. The Elementary and Secondary Education Act challenged states to improve education in schools serving low-income families by allocating funds to supplement general educational programs.

**Comprehensive School Reform Demonstration Program**

In 1977, to stimulate the U.S. Department of Education to improve ways of providing materials, communications, technical support, and the synchronization of national educational programs, the U.S. Congress created the CSRD (Rhim & Redding, 2014; U.S. Department of Education, 2000; U.S. Department of Education, 2008). The CSRD was a program to “catalyze some changes in how states think about and support school improvement” for schools with high poverty (U.S. Department of Education, 2000, p. 79).
Through the program, schools were expected to: (a) clearly state goals and objectives; (b) maintain high expectancies for all students; (c) provide effective and skillful leadership to embed a vision; (d) emphasize academics; (e) use methods for monitoring and assessing student progress linked to instructional objectives; (f) maximize the classroom time allocated to active studying; (g) employ varied instructional approaches and groupings; (h) have a safe and orderly school climate; and (i) promote improved parental involvement (U.S. Department of Education, 2000). The CSRD assisted low-achieving public schools in meeting mandated performance standards.

The CSRD legislation emphasized that school reform should be comprehensive and strengthen the organization of all school functions (e.g., curriculum, instruction, professional learning, and parental involvement) (U.S. Department of Education, 2008). It included scientific research samples that demonstrated effectiveness of school functions in multiple settings (U.S. Department of Education, 2008). The federal perspective on scientifically-based research using instructional methods was through systemic, empirical observation or experimental studies using rigorous data analysis (The National Institute for Literacy, 2006; U.S. Department of Education, 2008). By adding scientifically-based research to the legislation, Congress extended their influence into general education operations at the state and local levels, strengthening the federal vision of how low-achieving schools should operate. Although the CSRD was originally a temporary, demonstration program, it became a permanent program in 2002 as part of NCLB (U.S. Department of Education, 2008).

**Improving America’s Schools Act of 1994**

In 1994, the Elementary and Secondary Education Act was reauthorized with the Improving America’s Schools Act to include standards-based educational reforms and stronger
accountability (U.S. Department of Education, 1995). The Improving America’s Schools Act expanded federal influence with a mandate for state-designed assessments to measure student progress on standards, which ensured federal policy as an integral component of state reform efforts (U.S. Department of Education, 1995). The Improving America’s Schools Act supported outcome-based education through a focus on assessment results (Zavadsky, 2012). The Improving America’s Schools Act included Adequate Yearly Progress (AYP).

AYP became a mainstay of accountability in federal education reform that measures achievement outcomes and defines corrective action methods for schools based on failure to adequately reach prescribed levels (Goertz, 2001; United States Congress, 1994). AYP assured continuous and substantial yearly academic growth for all students the Improving America’s Schools Act legislation serves. Under the legislation, states were responsible for developing one set of challenging curriculum content standards for all students and benchmarks for student performance on high-quality assessments tied to the standards (Goertz, 2001; United States Congress, 1994).

States developed a process to identify students as advanced, proficient, or not proficient according to yearly assessments and reporting of the sub-categories of economically disadvantaged and English language learners (United States Congress, 1994). Schools reported yearly assessment results to the state, indicating the progress of students in all categories. The states reported consolidated findings directly to the U.S. Secretary of Education to present to Congress (United States Congress, 1994).

The goal of the Improving America’s Schools Act was to create seamless state accountability systems for the equitable assessment of all students; it was the first federal mandate of corrective actions for schools failing to meet state-set standards (Goertz, 2001).
Schools failing to meet AYP for two consecutive years received mandates to revise and implement new improvement plans with technical assistance from their LEA, as approved by the state (United States Congress, 1994). Schools that did not achieve AYP for two consecutive years had to apportion 10% of their Title I allocation and apply it to professional learning for teachers (United States Congress, 1994).

Schools failing to make AYP for three successive years received corrective action monitored by the state (United States Congress, 1994). Federal policy included several possibilities: (a) withholding Title I funds; (b) shared efforts between public organizations that provide health, counseling, and other social services to eliminate obstacles to learning; (c) rescinding authority for a school to conduct a schoolwide program; (d) reducing decision-making power at the school level; (e) making different authority arrangements, such as forming a public charter school; (f) changing the school staff; (g) allowing students to transfer and covering transportation to other public schools operated by the local educational agency; and (h) employing opportunity-to-learn principles developed by each state using guideline from the Goals 2000: Educate America Act (United States Congress, 1994). The Improving America’s Schools Act guidelines required states define the management and oversight of schools placed into corrective action (United States Congress, 1994).

No Child Left Behind Act of 2001

Following the Improving America’s Schools Act was another authorization of the Elementary and Secondary Education Act, NCLB, which strengthened federal influence on school accountability for student outcomes by increasing mandates (U.S. Department of Education, 2002). NCLB shifted terminology to describe schools from high needs to low-performing with an intensified focus on accountability (Duke, 2015). With NCLB, schools
receiving federal funds were required to test students on reading and mathematics from 3rd grade to 8th grade and again in high school. It required proficiency reports for English language learners, special education students, and low-income students. States were required to advance all students to the levels of advanced or proficient to avoid improvement requirements or corrective actions (U.S. Department of Education, 2002).

Objectives of NCLB were to improve and strengthen accountability and promote school-wide reform using scientifically researched instructional strategies to significantly raise the quality of instruction and provide substantial professional learning opportunities for teachers (U.S. Department of Education, 2002). According to NCLB, if a school missed AYP for two consecutive years, the state applied accountability sanctions, students could transfer to better performing schools within the same district, and the schools revised their plan for improvement (U.S. Department of Education, 2002). If schools missed AYP for three consecutive, the schools offered free tutoring and either replaced staff, provided professional learning, or appointed an outside expert to help reorganize practices (U.S. Department of Education, 2002).

Under NCLB, schools not achieving AYP after four years received a corrective action plan to redesign (U.S. Department of Education, 2002; Zavadsky, 2012). The corrective action reform models for schools not achieving AYP included: (a) reorganize as a public charter; (b) change all or most of the staff, which might include the principal; (c) employ a private management company with proven success in public school improvement; (d) let the state educational authority run the school; or (e) restructure by making significant changes in staffing and governance to improve AYP (U.S. Department of Education, 2002).

NCLB reform firmly embedded federal accountability practices into state and local schools via requirement of specific annual goals and substantial corrective action requirements
for schools failing to meet assessment targets. NCLB placed the responsibility of raising AYP on the schools and crafted corrective actions targeted at teachers and principals (U.S. Department of Education, 2002). NCLB set standards for acceptable assessment benchmarks and federally defined reform methods. It also established the use of a common reform vocabulary (e.g., AYP, charter schools, corrective actions, disaggregated data, public choice, and accountability) at state and local levels (U.S. Department of Education, 2004).

**Race to the Top Program**

In 2009, the federal American Recovery and Reinvestment Act became law; it contained the Race to the Top educational grant plan (Drago et al., 2015; U.S. Department of Education, 2009; U.S. Department of Education, 2015). This was not a reauthorization of the Elementary and Secondary Education Act but did substantially encourage states to intensify accountability and reform methods to improve achievement through a series of grant opportunities (Drago et al., 2015; U.S. Department of Education, 2009; U.S. Department of Education, 2015). Building on NCLB policies, Race to the Top strengthened federal reform methods and common reform vocabulary.

The federal government appropriated $4.35 billion to Race to the Top for the improvement of academic outcomes in six areas: (a) furthering the state capacity to improve school reform practices; (b) implementing practices that prepare students to achieve in college or at work; (c) creating state data systems to measure student achievement and inform educators about ways to enhance instruction; (d) recruiting, improving, rewarding, and retaining successful teachers and principals; and (e) supporting a climate to establish charter schools (Drago et al., 2015; U.S. Department of Education, 2009). In 2010, of the 46 that submitted grants, 11 states
and the District of Columbia received Race to the Top funds to break existing patterns of ineffectual reform (U.S. Department of Education, 2015).

Race to the Top grant guidelines changed SEAs from compliance monitors to teaching and learning improvement partners (U.S. Department of Education, 2015). Through the newly envisioned role, SEAs suggested state change systems and challenged ineffectual reform methods (U.S. Department of Education, 2015). To drive change to disrupt the status quo, Race to the Top states passed new laws and changed policies to facilitate innovative practices, which further embedded federal reform accountability practices at state and local levels.

**School Improvement Grants**

In addition to the $4.35 billion for Race to the Top (2009), the allocation for the 2007 federal SIG program increased from $500 million to over $3 billion; additional funds assisted low-achieving schools in rapid TRN projects to increase achievement (Perlman & Redding, 2011; Yatsko, Lake, Bowen, & Cooley Nelson, 2015). SEAs received SIG funds to provide subgrants to LEAs as aid for the lowest-performing schools to increase student performance on state achievement tests (Perlman & Redding, 2011; U.S. Department of Education, 2010b; Yatsko et al., 2015).

The Elementary and Secondary Education Act included SIGs; therefore, schools receiving grants had to use TRN reform to completely redesign their educational program (Perlman & Redding, 2011; U.S. Department of Education, 2010b; Yatsko et al., 2015). The four mandated reform methods were rewordings of NCLB legislation that also appeared in Race to the Top (U.S. Department of Education, 2002; U.S. Department of Education, 2009; U.S. Department of Education, 2011). The four reform methods were: (a) turnaround, requiring changing the principal and more than 50% of the staff; (b) restart, reopening the school as a
charter; (c) closure, in which the school shut down and students registered at other schools; or (d) transformation, changing the principal and completing a detailed staff evaluation and growth system approved by the SEA (Perlm & Redding, 2011; U.S. Department of Education, 2009; U.S. Department of Education, 2010b; Yatsko et al., 2015). SIGs intensified school restructuring and reforms to ensure rapid improvements in assessment results (Perlm & Redding, 2011; U.S. Department of Education, 2011).

Since the Elementary and Secondary Education Act, the role of the federal government in public school reform increased in intensity and scope. The Elementary and Secondary Education Act began by providing support for high poverty, high-needs students. Reauthorizations and new programs shifted the emphasis to mandated accountability and corrective actions. The language of mandated accountability evolved from alternative governance in NCLB (U.S. Department of Education, 2002) to school TRN in Race to the Top and SIGs (U.S. Department of Education, 2009; U.S. Department of Education, 2010b). The significance of the federal language evolution to the present study is that it is essential to the context of TRN reform policies that restructures schools to improve achievement with focus on accountability and corrective actions.

**State-Level Reform**

All 50 States, the District of Columbia, and the territory of Puerto Rico participate in the Elementary and Secondary Education Act programs to help disadvantaged students progress academically (U.S. Department of Education, 2015). In 2010, the Michigan legislature passed a law that followed Elementary and Secondary Education Act provisions and created the School Reform Office and a method to identify and manage the lowest achieving fifth percentile of schools (Michigan Department of Education, 2014; Michigan Department of Technology,
Management and Budget, 2016a; Michigan Legislature, 2015). The law requires the state superintendent of public instruction to list all public schools on a top-to-bottom ranking (Michigan Department of Technology, Management and Budget, 2016c) and identify and label schools below the fifth percentile as priority (Michigan Legislature, 2015). Per Michigan law, the Elementary and Secondary Education Act, Race to the Top, and the SIG program, priority schools must submit a redesign plan that corresponds with federal specifications for either closure, restart, turnaround, or transformation (Michigan Department of Education, 2014; Michigan Department of Technology, Management and Budget, 2016b; Michigan Legislature, 2015; U.S. Department of Education, 2009; U.S. Department of Education, 2010b).

Each priority school must choose between closing and sending students to another school, turning the management of the school over to a charter organization, replacing the principal and more than 50% of the staff, or replacing the principal and establishing a comprehensive redesign plan (Michigan Department of Education, 2014; Michigan Department of Technology, Management and Budget, 2016b; Michigan Department of Technology, Management and Budget, 2016d; U.S. Department of Education, 2009; U.S. Department of Education, 2010b). Priority schools must stay under School Reform Office authority for the first planning year and for an additional three years of plan implementation before release from oversight (Michigan Department of Technology, Management and Budget, 2016a).

The top-to-bottom ranking establishes how well schools perform on the state assessment and identifies schools below the bottom fifth percentile that become priority schools (Michigan Department of Technology, Management and Budget, 2016c). This concept is important to the present study because it was the single measure that the School Reform Office used to define how well the 2014 cohort of priority schools performed (Michigan Department of Technology,
The School Reform Office uses the top-to-bottom ranking to evaluate the achievement of each priority school. The top-to-bottom ranking the researcher utilized for the present study was a comparison between the 2014 and 2016 state assessment.

**Review of Methodological Issues**

There is a lack of rigorous research examining the impact of federal reform TRN policies on achievement in chronically low-performing schools (Le Floch, 2015; Lutterloh et al., 2016; The Wing Institute, 2017). Federal mandates call for schools below the fifth percentile to engage in TRN reform methods, but there is little evidence that mandated reform practices increase achievement (Le Floch, 2015; Lutterloh et al., 2016; The Wing Institute, 2017). Much research focuses on small samples of chronically low-performing schools that made significant test gains or focuses on the implementation of federal TRN practices and policies rather than achievement outcomes (Dragoset et al., 2015; Le Floch, 2015).

Understanding the impact of the implementation of federal TRN reform policies and practices for chronically low-performing schools is important, but it is equally important to rigorously investigate the achievements associated with reform practices. Most past research methodologies to study federal reform effectiveness have limitations because they rely on “small, skewed samples” of convenience (Trujillo & Renee, 2015, p. 9). The methodological limitations of small sample sizes do not ensure significance levels to generalize to larger populations. Convenience samples may evoke criticisms of bias and do not ensure the significance levels that assure generalization to support reform practices to raise achievement.

As reported by Dragoset et al. (2015), no experimental studies examined the association between Race to the Top guidelines and achievement and non-experimental studies returned mixed results. Because the results were mixed, the studies produced no decisive conclusions.
There was a 2012 U.S. Department of Education study that reported the impact of the federal Title I program using a non-experimental regression continuity design (Deke, Dragoset, Bogen, & Gill, 2012). The 2012 U.S. Department of Education study used data from six of 52 possible states for the study (Deke et al., 2012).

In the 2012 U.S. Department of Education Title I study, researchers applied longitudinal, non-experimental methods to examine the association between Title I practices and achievement; the largest study involved seven large urban school districts (Deke et al., 2012). The 2012 Title I study explored schools failing to make AYP for three successive years. The study was the first direct investigation of the selection process for student placement into Title I supplemental support services (Deke et al., 2012). Using a regression-discontinuity design, the study found no statistically significant impact of Title I services on either reading or mathematics achievement (Deke et al., 2012).

A National Center of Educational Evaluation study in 2017 investigated the $3 billion federal SIG issued during the American Recovery and Reinvestment Act of 2009 and found no impact on achievement (U.S. Department of Education, 2017). The study compared achievement at 190 SIG schools and 290 non-SIG schools. Researchers applied correlational analyses and a regression-discontinuity design to examine the achievement data. Also in 2017, the Ohio Education Research Center (2017) evaluated TRN redesigns in SIG schools and priority schools using regression discontinuity analyses and found positive impacts on achievement for SIG recipients, but not for priority schools.

A study of California SIG TRN reform practices utilized achievement data from 2,892 schools and examined a persistently low-achieving group and a lack of progress group during the 2010 to 2011 academic year (U.S. Department of Education, Institute of Education Services,
What Works Clearinghouse, 2013). The study utilized a regression-discontinuity design to analyze the California Academic Performance Index assessment scores and found statistically significant impact for the low-achieving groups; however, the researchers found no statistically significant impact for the lack of progress groups (U.S. Department of Education, Institute of Education Services, What Works Clearinghouse, 2013). The findings did not generalize to all SIG schools based on recognized standards for baseline equivalency (U.S. Department of Education, Institute of Education Services, What Works Clearinghouse, 2013).

In 2008, the U.S. Department of Education released a 3–year evaluation of CSRD implementation and achievement results. The study included schools receiving the CSRD grants throughout the nation in 2002 and explored outcomes of externally adopted whole-school reform models and achievement (U.S. Department of Education, 2008). The researchers utilized both multivariate statistical analyses and quantitative descriptive analyses that returned no systematic association with achievement gains (U.S. Department of Education, 2008).

Problems in the 2008 study included the use of achievement scores from the school-level as an aggregate measure of individual student performance, which did not account for variations of performance between students within the group (U.S. Department of Education, 2008). In addition, many nonresponses may have affected the study outcomes because schools implementing the grant components were more likely to return surveys than schools not implementing grant components (U.S. Department of Education, 2008). Furthermore, evaluations of demonstration programs often yield consistently different results and return larger effects than practice programs (U.S. Department of Education, 2008).

The Massachusetts Office of District and School Turnaround published study results to provide data on the association between schools receiving SIG funds for school redesign and
achievement (LiCalsi, Citkowicz, Friedman & Brown, 2015). The study included data from the 2010 to 2013 academic years and was a quasi-experimental impact analysis using a comparative interrupted time series to examine the degree of achievement outcomes associated with school TRN methods (LiCalsi et al., 2015). To reveal the effects of school redesign on student progress, LiCalsi et al. (2015) reported before and after results with multilevel regression models as controls for factors such as student characteristics, which established baseline data between schools. When contrasted with comparison schools, the redesign schools indicated statistically significant achievement increases in both English/language arts and mathematics (LiCalsi et al., 2015). This study provided new information directly related to the association between school TRN reform methods and achievement.

Five studies included regression continuity designs that were quasi-experimental models (i.e., there was no random assignment) (Lee & Munk, 2008; Schochet et al., 2010). Researchers designed these studies to detect the effects of interventions by assigning subjects to a cut-off point above or below a threshold level and then comparing observations on either side of the threshold (Lee & Munk, 2008; Schochet et al., 2010). Regression continuity designs require the assumption that a sharp cut-off point exists and their statistical power is lower than a randomized study (Lee & Muck, 2008; Schochet et al., 2010). In addition to utilizing regression methods, one study also utilized correlational analyses to determine achievement associations (U.S. Department of Education, 2017).

Fife-Schaw (2006) used a comparative interrupted time series that was a nonrandomized, pre- and post-intervention model utilizing longitudinal assessment data from a 3-year period. Comparative interrupted time series studies are subject to internal validity issues because assignments are not random. However, in this case, the use of comparison schools from the
same districts and the utilization of multiple years of data minimized study weaknesses (Fife-Schaw, 2006).

Synthesis of Research Findings

There is little research on the effects of federal school TRN reform practices on achievement (Le Floch, 2015; Lutterloh et al., 2016; The Wing Institute, 2017). The U.S. Department of Education is developing a new generation of rigorous federal program evaluation methodologies by contracting with the National Center for Education Evaluation to organize research into three categories to determine the effectiveness of federal educational programs. These categories will explore the following questions: (a) what is the impact of the federal program on the intended outcomes; (b) is the program model effective; and (c) is a specific intervention or group of interventions effective (U.S. Department of Education, n.d.).

The National Center for Education Evaluation reported the intent to focus on the implementation of scientifically-based, rigorous evaluation studies of both federally and non-federally funded education programs to provide feedback on effective and ineffective initiatives (U.S. Department of Education, n.d.). The Regional Educational Laboratory Program, the What Works Clearinghouse, the Educational Resources Information Center (ERIC), and the National Library of Education will publish the next generation of federal educational research (U.S. Department of Education, n.d.).

In January 2017, the National Center of Educational Evaluation released an evaluation of SIGs from 2010 to 2013 (U.S. Department of Education, 2017). Low-performing schools reported increased use of reform practices, but there were no significant effects on either mathematics or reading achievement scores (U.S. Department of Education, 2017). In addition to this report, evaluation of the causal impacts of SIG TRN interventions on student achievement
in Ohio schools identified as low-performing had mixed results (Ohio Education Research Center, 2017). The Ohio Education Research Center (2017) reported positive achievement impacts for schools receiving SIG funds; however, those schools labeled as priority had “less impactful results” and no statistically significant results (p. 7).

Research regarding school TRN reform methods is emerging, and there are several studies of the impact of implementation of federal programs on achievement. Two federal program studies used school-level data to evaluate impact on achievement and found no statistically significant impacts on either reading or mathematics (Deke et al., 2012; U.S. Department of Education, 2008). Two research projects on the SIG program produced mixed results. The California SIG research study evaluated evidence from the 2010 to 2011 academic year and found statistically significant impacts on achievement in schools labeled low-achieving but not for schools labeled as lack of progress (U.S. Department of Education, Institute of Education Services, What Works Clearing House, 2013). Massachusetts released a SIG impact study for the 2010 to 2013 academic years that revealed consistently positive effects on academic achievement outcomes at robust levels across districts and school levels with particularly strong outcomes for English learning students (LiCalsi et al., 2015).

**Critique of Previous Research**

In 2008, the U.S. Department of Education (2008) published an assessment of the CSRD. The researchers utilized four methodological approaches: (a) multivariate statistical analyses between award and non-award schools; (b) qualitative case study analyses of 15 award and 15 non-award schools; (c) quantitative descriptive analyses of random samples from 500 award and 500 non-award school principals; and (d) multivariate statistical analyses of the 2002 award schools and the associative relationship between adoption of the research model and achievement
(U.S. Department of Education, 2008). The study included a comprehensive summary of findings concluding that the reform program was not associated with achievement gains in mathematics or reading in the first three years, that schools implemented on average fewer than four of the grant components in 2003 and fewer than five in 2005, and that implementation of the program components was not related to mathematics and reading achievement gains (U.S. Department of Education, 2008).

The U.S. Department of Education published an impact study on Title I supplemental services and achievement from the 2008–2009 academic year (Deke et al., 2012). The study used the data from three states, six school districts, and 16,954 to examine the average impact of offering Title I supplemental services to eligible students on the border of accessing services in school districts where assistance was oversubscribed. The study examined the correlation between Title I supplemental service provider impacts and achievement (Deke et al., 2012).

The theoretical framework for the study was federal school reform using the method of quantitative regression continuity to estimate the impact of supplemental services on academic achievement (Deke et al., 2012). The regression continuity design met federal compliance standards set by the What Works Clearing House (Schochet et al., 2010). The design was a fixed-effects, meta-analytic benchmark approach using data from 42 mini-studies; the researcher calculated the overall estimated impact of supplemental services as a weighted average (Deke et al., 2012). The results indicated no evidence of effects from Title I supplemental supports on academic achievement (Deke et al., 2012).

A 2012 study examining SIG eligibility and grant receipt in California used a regression-discontinuity design (Dee, 2012). The analyses did not pass the baseline equivalence standard because the researchers divided schools into two categories that did not have equivalent variables
related to the achievement assessment (U.S. Department of Education, Institute of Education Services, What Works Clearinghouse, 2013). The study included a sample of 2,892 schools (168 were eligible for SIGs in the 2010–2011 academic year and 82 received the grant) to estimate the average impact of being eligible and the impact of receiving the grant (Dee, 2012; U.S. Department of Education, Institute of Education Services, What Works Clearinghouse, 2013). Researchers applied the method of regression-discontinuity to establish the effect of SIGs on school-wide achievement, returning statistically significant academic impacts for low-achieving schools (Dee, 2012; U.S. Department of Education, Institute of Education Services, What Works Clearinghouse, 2013).

Dee (2012) stated that there were no known studies indicating evidence with accepted standards of internal validity that TRN reform efforts stipulated in SIGs were effective. The evidence that underperforming schools can rapidly improve is “largely anecdotal” (Dee, 2012, p. 9). The findings had a strong causal warrant, characteristically associated with effective regression discontinuity designs. Dee (2012) described the results as statistically significant in the reform of underperforming schools should be encouraged.

In 2015, a Massachusetts SIG study utilized a comparative interrupted time series design to determine the impact of grants on achievement outcomes (LiCalsi et al., 2015). The study included all students in low-performing schools from 2010 to 2013 compared to non-identified schools within the same district (LiCalsi et al., 2015). The method of comparative interrupted time series established the difference in baseline developments between the treatment and comparison groups. When considering prior achievement trends, LiCalsi et al. (2015) argued that students in SIG schools performed better in English/language arts and mathematics assessments than students in comparison schools.
In January 2017, another SIG study utilized a correlational analysis to determine achievement associations. Researchers analyzed achievement data 2010 to 2013 and noted no significant effects on achievement levels (U.S. Department of Education, 2017). For 2nd grade to 5th grade students, there was no difference between the TRN methods; however, for 6th to 12th grade students, the turnaround method associated with higher mathematics achievement than the transformation method (U.S. Department of Education, 2017).
Chapter 2 Summary

The federal legislative influence on state and local educational matters steadily increased since 1965 with the enactment of the Elementary and Secondary Education Act and other Congressional programs. Federal interest in state and local education began with an agenda to improve the quality of education for high poverty, economically disadvantaged children and progressed into mandated reform and corrective actions for schools failing to meet state-prescribed levels of achievement.

In 2010, Michigan legislature passed a law bolstering federal reform guidelines by creating the State Reform Office and identified methods to manage the oversight of the lowest-performing schools (Michigan Department of Technology, Management and Budget, 2016a; Michigan Legislature, 2015). Targeted schools have four years to reorganize and elevate their top-to-bottom rank higher than the fifth percentile (Michigan Department of Technology, Management and Budget, 2016b).

Reviews of school reform initiatives from Title I, SIGs, comprehensive school reform, and state-level reform returned mixed results. A 2008 comprehensive school reform study found the initiative was not associated with achievement gains (U.S. Department of Education, 2008). A Title I investigation (Deke et al., 2012) and a SIG study (U.S. Department of Education, 2017) both reported no evidence of effects on achievement. However, a SIG study containing a review of prior research and a Massachusetts study reported positive associations with achievement outcomes (Dee, 2012; LiCalsi et al., 2015; U.S. Department of Education, Institute of Education Services, What Works Clearinghouse, 2013). Additionally, a study of Ohio TRN redesign for SIG schools and priority schools returned mixed results on achievement outcomes (Ohio Education Research Center, 2017). Because research is mixed regarding federal reform policies,
the present study adds to an existing and emergent body of knowledge on the effect of TRN methods on achievement in chronically low-performing schools.
Chapter 3: Methodology

The present study described the association between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign method from the 2014 cohort of Michigan priority schools (Michigan Department of Technology, Management and Budget, 2016c). Additionally, the researcher described the association between the 2014 cohort principals’ perceptions of their administration efficacy in the implementation of the transformation redesign method (Michigan Department of Technology, Management and Budget, 2016c) and the 2016 top-to-bottom rankings using an adaption of the data-informed decision-making on high-impact strategies measurement tool for school principals rating scale (Shen et al., 2012).

Purpose of the Study

The purpose of the present study was to describe the association between top-to-bottom rankings and transformation redesign pre- and post-implementation from 2014 to 2016. In addition, the present study described the administrative efficacy perceptions of the 2014 cohort principals on the implementation of the transformation redesign method.

Research Questions

The present study utilized the following research questions:

**RQ1.** What is the difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method?

**RQ2.** What is the association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking?
Hypotheses

H1\(_0\). The difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method is not statistically significant.

H1\(_a\). The difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method is statistically significant.

H2\(_0\). The association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking is not statistically significant.

H2\(_a\). The association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking is statistically significant.

Research Design

The design for the present study was a descriptive, non-experimental examination to describe achievement associations from the 2014 cohort of Michigan priority schools using transformation redesign methods. In this descriptive study, the researcher investigated the statistical significance of the variables. To describe the associations, the researcher constructed two researcher questions and posed hypotheses. This descriptive study only described the associations and did not determine causation (U. S. Department of Health and Human Services, n.d.). The study did not eliminate all possible alternative explanations for the differences in the achievement rankings or seek to control variables, that is, it was implicit that the present study
would not determine the cause of changes. Rather, the researcher described the associations between the variables.

The descriptive design was utilized, rather than a quasi-experimental or experimental design, because the researcher used archival data from Michigan assessments from 2014 to 2016 testing cycles. Because of the use archival data, it was not possible to control the variables. In an experimental design, researchers manipulate variables; such studies are possible when it is ethical and reasonable to control study factors. The researcher selected a descriptive design to provide explication and description of the variables (Creswell, 2013).

**Target Population and Sampling Method**

**Target Population**

In 2014, the Michigan Department of Education placed 52 schools into priority status because they fell below the fifth percentile on the state assessment (Michigan Department of Technology, Management and Budget, 2016b). Of the 52 schools, 44 were traditional public schools and 8 were public charter schools (Michigan Department of Technology, Management and Budget, 2016b). Under Michigan law, schools chartered as public schools are held to identical achievement accountability as conventional public schools; state mandates required all 52 schools to reorganize (Michigan Legislature, 2015). Forty of the schools selected the transformation approach, 8 chose turnaround, 1 did not have a plan, and 3 did not have top-to-bottom data listed for both the 2014 and 2016 assessment cycles (Michigan Department of Technology, Management and Budget, 2016b).

The schools of the 2014 priority cohort constituted 11 different grade combinations from prekindergarten to 12th grade (see Table 1). Twenty-eight of the 2014 cohort was prekindergarten to 5th grade schools; the next highest cohort was 9 high schools.
Table 1

*Grade Configurations and Number of Schools*

<table>
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<th>Grade Types</th>
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<tr>
<td>Prekindergarten to 12th grade</td>
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<tr>
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<td>High School</td>
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</tbody>
</table>

Using the standard geographical definitions from the United States Census Bureau (2015), 38 of the schools were in urbanized areas of more than 50,000 people, 13 were in urban clusters with 2,500 to 50,000 people, and one school was from a rural area. Rural areas have less than 2,500 people (United States Census Bureau, 2015). Therefore, 73% of the schools were in urbanized areas, 25% were in urban clusters, and 2% were in a rural area.

**Sampling Method**

The study included data from the entire 2014 priority cohort of schools, except for 12. There were 52 schools in the 2014 priority cohort, and data from 40 appear in this study. Eight schools selected the turnaround rather than the transformation method, one school did not report
a plan, and three schools did not have top-to-bottom ranking data represented for both 2014 and 2016 assessments. The 40 priority schools represented a large sample; the lowest number representing a large sample is 30 (Adams & Lawrence, 2015; Waters, 2017).

**Instrumentation**

The instrumentation for the present study was a survey and the mandated, standardized assessments in Michigan that informs the top-to-bottom rankings. The researcher adapted the survey from the data-informed decision-making on high-impact strategies tool developed by Shen et al. (2012) for school principals. The 11-component survey aids principals in examining and measuring school improvement efforts to raise achievement; the researcher used five components in the present study. The standardized assessments in Michigan that informed the top-to-bottom rankings for the 2014 cohort of priority schools were the Michigan Education Assessment Program (MEAP) and the Michigan Merit Exam (MME). The 3rd to 9th grade students completed the MEAP and 11th grade students completed the MME.

The survey focused on the principals’ leadership behaviors that align with achievement (Shen et al., 2012). Shen et al. (2012) based the instrument on factors related to higher achievement and constructed factor descriptors based on Marzano’s (2003) 11-component framework to produce the Likert-style survey. The researcher chose this survey because it was grounded on a meta-analysis of 35 years of data in which the components were empirically linked to higher achievement (Shen et al., 2012). Marzano (2003) constructed the framework in the areas of school-level, teacher-level, and student-level factors associated with successful strategies with strong effect sizes that increase achievement. The 11 components were:

- Guaranteed and viable curriculum;
- Challenging goals and effective feedback;
• Parent and community involvement;
• Safe and orderly environment;
• Collegiality and professionalism;
• Instructional strategies;
• Classroom management;
• Classroom curriculum design;
• Home environment;
• Learned intelligence; and
• Student motivation (Shen et al., 2012, p. 9).

Shen et al. (2012) used a confirmatory factor analysis to assess how closely the 42 questions fit into the 11-factor framework of strategies. The null model and the one-factor model were not good fits to the data; the three-factor model did not meet the expected standards (Shen et al., 2012). The 11-factor model indicated a very good fit across all indicators, had the smallest $X^2$ statistic, both a comparative fit index (CFI) and a Tucker-Lewis index (TLI) greater than 0.90, and a standardized root mean square residual (SRMR) value under 0.08. The 11-factor model indicated that all items loaded significantly on the appropriate strategy factor, indicating the instrument had a high level of validity (see Table 2) (Shen et al., 2012).
Table 2

**Confirmatory Factor Analysis**

<table>
<thead>
<tr>
<th>Model</th>
<th>$X^2$</th>
<th>CFI</th>
<th>TLI</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>9505.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One-factor</td>
<td>4088.35</td>
<td>0.62</td>
<td>0.60</td>
<td>0.10</td>
</tr>
<tr>
<td>Three-factor</td>
<td>3253.14</td>
<td>0.72</td>
<td>0.70</td>
<td>0.08</td>
</tr>
<tr>
<td>Eleven-factor</td>
<td>1519.68</td>
<td>0.91</td>
<td>0.90</td>
<td>0.05</td>
</tr>
</tbody>
</table>

To analyze reliability, Shen et al. (2012) assessed the internal consistency of each scale and the overall survey using Cronbach’s alpha. They found all scales to be internally reliable with alpha coefficients ranging from 0.90 to 0.96; the instrument had an overall alpha coefficient of 0.98 (see Appendix A). Shen et al. (2012) reported that the alpha coefficients indicated a high level of reliability for the instrument.

The survey instrument was a series of questions regarding the engagement of principals in making data-informed decisions that aligned with the 11 high-impact strategies synthesized by Marzano (2003) that positively associated with achievement (Shen et al., 2012). The instrument has a Likert-style design based on an ordinal rating scale. Shen et al. (2012) vetted each sub-section of the scale for validity and reliability and the researcher applied only five components: (a) guaranteed and viable curriculum; (b) challenging goals and effective feedback; (c) collegiality and professionalism; (d) instructional strategies; and (e) classroom curriculum design (Shen et al., 2012).

For the present study, the researcher called the five components the Data-Informed Decision-Making on High-Impact Strategies: A Measurement Tool for School Principals (Shen et al., 2012); the five components consisted of 19 questions with four possible choices for
respondents to indicate the extent they engage in the school improvement method. The response choices for each question were 1. Not at all, 2. Very little, 3. Somewhat, and 4. To a great extent (see Appendix B). The researcher administered surveys electronically via Qualtrics emails.

The MEAP assessed 3rd to 9th grade students’ knowledge of reading, writing, mathematics, science, and social studies (Michigan Department of Education, 2013). The MME assessed 11th grade knowledge of the same subjects (Michigan Department of Education, 2014). For the MEAP assessments, estimates of reliability using internal consistency and empirical item response theory (IRT) reliability were computed.

To analyze internal consistency, Cronbach’s alpha was used and all scales were found to be internally reliable with alpha coefficients ranging from 0.82 to 0.91 (see Appendix C). To compute empirical IRT reliability estimates from Classical test theory, theta and standard error estimates from IRT were employed. The empirical IRT reliability results were internally reliable and comparable to the alpha coefficients ranging from 0.79 to 0.91 (see Appendix D).

For content validity, MEAP assessments were aligned with content standards. Expert content reviewers provided the alignment between the assessments and the content standards (Michigan Department of Education, 2012). Also, master teachers from each content area established the standard. By including teachers during the assessment review process, the data had a measure of content validity (Michigan Department of Education, 2012).

For the MME, the Scholastic Aptitude Test (SAT) and the American College Testing (ACT) WorkKeys assessments were used. For the SAT, the overall reliability was about $r = 0.90$ (The College Board, 2017). Specifically, for SAT critical reading, the correlation coefficients ranged from 0.91 to 0.92, the mathematics range was from 0.92 to 0.94, the multiple-choice writing assessments ranged from 0.92 to 0.94, the writing composition ranged
from 0.89 to 0.91, and the writing essay ranged from 0.98 to 1.0 (The College Board, 2014). For validity, the relationship between SAT scores and the first-year college grade point averages were assessed at a correlation coefficient of $r = 0.61$ (Beard & Marine, 2015).

The reliability of the ACT WorkKeys assessments was high and moderately high. For the two forms of WorkKeys reading for information assessments, the coefficients were 0.87 and 0.90; for applied mathematics, the coefficients for both assessments were 0.90 (ACT, n.d.). The reliability coefficients for the three forms of locating information assessments were 0.79, 0.83, and 0.79 (ACT, n.d.). The ACT WorkKeys (ACT, n.d.) tested construct and criterion validity. For content validity, crosswalk alignment studies ensured the assessment content was relevant to secondary education standards and business competency models (ACT, n.d.).

For construct validity, the ACT WorkKeys (ACT, n.d.) used subject experts (e.g., labor developers, employers, educators) to design the assessments. To ensure relevancy and association to workplace skills, they aligned the WorkKeys assessment with the National Network of Business and Industry Association (NNBIS) Blueprint test (ACT, n.d.). The WorkKeys assessment aligned with the NNBIS Blueprint test on 70 of 79 basic employability skills (ACT, n.d.). For criterion validity, both the reading for information and applied mathematics assessments had a modest relationship with workplace supervisor ratings and a positive relationship with both grade point averages and coursework grades (ACT, n.d.).

**Data Collection**

Information on the Priority School List and the Priority School Plans included the top-to-bottom rankings and the type of redesign method (Michigan Department of Technology, Management and Budget, 2016b, 2016c, 2016d). The top-to-bottom rankings were the sole measure that the School Reform Office used to define priority school performance (Michigan
Department of Technology, Management and Budget, 2016b). The School Reform Office evaluated each priority school’s efforts to improve student achievement based only on the top-to-bottom ranking result. The researcher collected data from principals via an online survey tool. The priority school principals completed 19 questions from five components: (a) guaranteed and viable curriculum; (b) challenging goals and effective feedback; (c) collegiality and professionalism; (d) instructional strategies; and (e) classroom curriculum design (Shen et al., 2012).

**Operationalization of Variables**

The variables for the present study were *achievement* and *principal perceptions* of their administration efficacy in the implementation of the transformation redesign method. The researcher operationalized the variable of achievement as the top-to-bottom rankings (see Appendix E). The researcher operationalized the variable of principal perceptions into the five constructs (i.e., guaranteed and viable curriculum, challenging goals and effective feedback, collegiality and professionalism, instructional strategies, and classroom curriculum design) (Shen et al., 2012).

**Data Analysis Procedures**

The researcher used two data analysis procedures in the present study. For the first question, the researcher analyzed data from the 2014 to 2016 top-to-bottom achievement rankings using the Wilcoxon signed rank test to calculate the median differences between the data sets to determine if a statistical significance was present. The median differences determined the direction and the ranks of change between the data sets. For the second question, the researcher used a line graph to depict the association between the 2016 top-to-bottom rankings, ranking gains, and principal perceptions of administrative efficacy. The researcher
used the Statistical Package for the Social Sciences (SPSS) 24 program to compute the Wilcoxon calculations and generated the line graph in Excel.

Limitations and Delimitations of the Research Design

Limitations of the Research Design

Overall, a limitation of any descriptive study is that the findings do not represent causation because the researcher does not manipulate variables to eliminate all possible alternative explanations (U.S. Department of Health and Human Service, n.d.). It is possible that an association between the variables existed without a causal relationship. Furthermore, because the present study was specific to the 2014 cohort of priority schools using the transformation method, the findings will not generalize to non-priority schools or other reform methods. A limitation of the Wilcoxon signed rank test is that it provided no estimate of the magnitude of the effect, which may reduce the statistical power (Ball & Whitley, 2002).

Additionally, because the researcher adapted the perception survey from Shen et al. (2012) by only using five components, the reliability and validity of the instrument was compromised. The researcher determined the survey had high credibility because it was developed with a robust process but that only five of the components were appropriate for the present study. The researcher determined the five components of: (a) guaranteed and viable curriculum; (b) challenging goals and effective feedback; (c) collegiality and professionalism; (d) instructional strategies; and (e) classroom curriculum design (Shen et al., 2012) were applicable for the intended use of gathering the perceptions of principals engaged in TRN school improvement efforts to raise student achievement. Because the survey instrument was reduced to five components the modifications may potentially alter reliability and validity (Sauro, 2016).
Delimitations of the Research Design

A delimitation was to exclude other cohorts from previous years and other states because the 2014 Michigan cohort represented a sample size of over 30 and was large enough to validly generalize findings to other transformation reform examples (Adams & Lawrence, 2015; Waters, 2017). The researcher excluded eight schools from the 2014 cohort because they chose the turnaround rather than transformation method, and only eight schools did not constitute a reasonable sample size. Other delimitations were to only survey principals and exclude other administrators and teachers. The researcher limited the study to two research questions.

Internal and External Validity

Adams and Lawrence (2015) asserted that researchers must consider the balance between external and internal validity. Validity is the accuracy of the research study (i.e., internal validity expresses the accuracy of the association between variables; external validity conveys the accuracy that the findings can generalize to other settings). The present study has high external validity because the researcher utilized variables as they naturally occurred without artificial controls; therefore, the findings are more generalizable (Adams & Lawrence, 2015; Wright & Lake, n.d.-a).

The present study had less internal validity than experimental or quasi-experimental studies because they involve manipulating variables (Adams & Lawrence, 2015). Experiments and quasi-experiments control or eliminate additional variables to reveal differences attributable to the independent variable (Adams & Lawrence, 2015; Wright & Lake, n.d.-b). The present study did not control variables and had low internal validity.
Expected Findings

The researcher in this descriptive study investigated and described the association between the variables via two research questions. The researcher expected to determine and describe the association between the 2014 and 2016 top-to-bottom rankings from pre- and post-implementation of the transformation redesign method (Michigan Department of Technology, Management and Budget, 2016c). The researcher also expected to determine and describe the association between the results from the modified Data-Informed Decision Making on High-Impact Strategies: A Measurement Tool for School Principals survey (Shen et al., 2012) and the 2016 top-to-bottom achievement rankings.

Ethical Issues in the Study

Ethical considerations form the basis for the truthful and error-free representation of study results. The establishment of ethical research principles helps researchers avoid improper and hurtful research as previously practiced with negative results on participants (Adams & Lawrence, 2015; Wiley, 2002). Ethical principles are guidelines for making decisions that enhance research planning, study administration, and reporting practices. The American Educational Research Association (2011) listed the following as the core ethical principles of professional responsibility and conduct for educational researchers:

- Professional competence;
- Integrity;
- Professional scientific and scholarly responsibility;
- Respect for people’s rights, dignity, and diversity; and
- Social responsibility (p. 145).
For the present study, the researcher addressed professional competence and scientific/scholarly responsibility through use of appropriate scientific and scholarly resources (e.g., standard statistical tests and a specific conceptual framework). Concerning integrity, the design included valid and reliable measures appropriate for a descriptive study. Regarding bias, the researcher derived data from a bias-screened, state-mandated test (Michigan Department of Education, 2015; Michigan Legislature, 2016). Finally, regarding social responsibility, the researcher intended to add new knowledge by describing how TRN methods relate to achievement.

Other considerations include gaining permission from the Institutional Review Board (IRB) before the collection of data (U.S. Department of Health and Human Services, 2009); the researcher collected no data for the present study before receiving permission from the IRB. The researcher employed electronic implied consent for survey participants (see Appendix F). Researchers must adhere to federal regulations to protect human subjects and properly meet the requirements of the IRB according to the following criteria:

- Minimum risk to subjects;
- Risks are considered reasonable;
- Equitable subject selection;
- Informed consent; and
- Subject right to privacy (U.S. Department of Health and Human Services, 2009).

Regarding minimized and reasonable risk, equitable subject selection, informed consent, and the right to privacy, the present study received an exemption from the IRB because it utilized archival, publicly available, commonly accepted education data. In addition, the researcher received a waiver of written documented informed consent for the principal survey by meeting
the criteria for federal exemption as a minimal risk study utilizing voluntary responses with implied participant consent.

Chapter 3 Summary

The researcher designed the present study to determine and describe the association between the 2014 to 2016 top-to-bottom rankings from pre- and post-implementation of the state-mandated transformation redesign method (Michigan Department of Technology, Management and Budget, 2016c) and the association between the results from the modified Data-Informed Decision Making on High-Impact Strategies: A Measurement Tool for School Principals survey (Shen et al., 2012) and the 2016 top-to-bottom achievement rankings. Both the federal government and the state of Michigan stressed TRN redesign for quick academic improvement for low-performing schools, but the lack of research creates a void of evidence regarding the reform methods (Le Floch, 2015; Lutterloh et al., 2016; The Wing Institute, 2017).

There is no procedure in Michigan to determine the association of the redesign method and achievement; therefore, this study may prove beneficial in guiding professional practices in the reform of low-performing schools. To describe the association of achievement rankings pre- and post-implementation of the redesign method and the association of the survey and achievement rankings, the researcher performed statistical calculations to examine the two research questions. The researcher used a standard statistical test and followed IRB criteria. The present study adhered to the IRB criteria as an exempted, minimal risk study using publicly available achievement data and an implied consent survey.
Chapter 4: Data Analysis and Results

The purpose of Chapter 4 is to present the results of this two-part descriptive study. Included in this chapter is a description of the 2014 cohort top-to-bottom ranking data from the 2014 and 2016 assessment years (Michigan Department of Technology, Management and Budget, 2016b) from pre- and post-implementation of the transformation redesign method. This chapter also includes a description of the data from the principal perception survey rating scale (Shen at el., 2012). Tables and a figure provide data descriptions for both the archival top-to-bottom ranking data and the data from the research survey.

Research Questions

The present study utilized the following research questions:

RQ1. What is the difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method?

RQ2. What is the association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking?

Hypotheses

H10. The difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method is not statistically significant.

H1a. The difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method is statistically significant.
**H2a.** The association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking is not statistically significant.

**H2a.** The association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking is statistically significant.

**Description of the Sample**

The researcher obtained data from two sources and used SPSS 24 and Excel as analysis tools. The first data source was the archival, top-to-bottom rankings from 2014 to 2016 assessment years (see Appendix D) that was publicly available on the Michigan Department of Education (2016b) website with a sample size of \(N = 40\). The second data source was the adapted Data-Informed Decision-Making on High-Impact Strategies: A Measurement Tool for School Principals Survey (Shen et al., 2012) rating scale survey that principals from the 2014 cohort of Michigan priority schools completed online. As shown in Table 3, the principal perception survey included five sections (mean \((M) = 3.56\)).
The researcher modified a survey Shen et al. (2012) based on Marzano’s (2003) meta-analysis data to align with the transformation redesign school improvement method. Shen et al. (2012) developed the survey instrument in the areas of school-level, teacher-level, and student-level factors with strong effect sizes associated with increased achievement. Marzano (2003) developed an 11-component framework based on the meta-analysis. The 11 components were:

- Guaranteed and viable curriculum;
- Challenging goals and effective feedback;
- Parent and community involvement;
- Safe and orderly environment;
- Collegiality and professionalism;
- Instructional strategies;
- Classroom management;
- Classroom curriculum design;
• Home environment;
• Learned intelligence; and
• Student motivation (Shen et al., 2012, p. 9).

For the present study, the researcher used five components to survey the 2014 priority school principals. The five components were a guaranteed and viable curriculum, challenging goals and effective feedback, collegiality and professionalism, instructional strategies, and classroom curriculum design (Shen et al., 2012). The researcher identified principals from the 2014 cohort of priority schools from the Michigan School Reform Office website and invited them via Qualtrics emails to complete the self-administered survey. The researcher utilized the implied consent method and electronically administered the survey via Qualtrics 13 times between April 10, 2017 and July 12, 2017. To determine the best sample size, the researcher used the Qualtrics sample size calculator.

With a study population of $N = 40$, a confidence interval of 95%, and a margin of error of 5%, the calculator estimated the ideal return rate to be 37 (i.e., 92.5%). Although the researcher collected data online for 40 schools, only 17 of the principals who led their schools during the implementation of the transformation redesign school improvement method responded to the survey. The principal return rate for the survey was 42.5%.

**Summary of the Results**

**Findings Associated with Hypothesis 1**

There is a statistically significant difference between the 2014 to 2016 top-to-bottom rankings from pre- and post-implementation of the transformation redesign school improvement method. The researcher computed a Wilcoxon signed rank test to analyze the first research question because the present study compared rankings. The Wilcoxon signed rank test (see
Table 4) indicated that a statistically significant association existed between the 2014 to 2016 top-to-bottom rankings, $Z = -5.38$, $p < .001$. The mean of the ranks for 2014 was 0; the mean of the ranks for 2016 was 19.50. The null hypothesis was rejected.

Table 4

*Wilcoxon Signed Rank Test: 2014 and 2016 Top-To-Bottom Test Statistics*

<table>
<thead>
<tr>
<th>Z</th>
<th>-5.375a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymptotic Significance (2-tailed)</td>
<td>.001</td>
</tr>
</tbody>
</table>

*Note. a Based on negative ranks*

**Findings Associated with Hypothesis 2**

There is no association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school rankings. To examine the association between the top-to-bottom rankings and the 2014 cohort principals’ perceptions of engagement in the transformation redesign school improvement, the researcher created a line graph (see Figure 1). The matched patterns depicted by the 2016 top-to-bottom ranks and the rank gains were not consistent with the ways principals perceived their actions. The null hypothesis was retained.
Figure 1. 2016 New rankings, rank gains, and principals’ perceptions.

**Detailed Analysis**

For RQ1, the researcher computed a Wilcoxon signed rank test to describe the association between the 2014 to 2016 top-to-bottom rankings. The Wilcoxon signed rank test computed a statistically significant association; $Z = -5.375$, $p < .001$. The researcher also calculated the positive and negative ranks (see Table 5). For the negative differences, $N = 0$; the mean rank was .00 and the sum of ranks was .00. For the positive differences, $N = 38$; the mean rank was 19.50, and the sum of ranks was 741.00. There were two ties. The rank descriptions indicated a difference in the median rankings between the 2014 to 2016 top-to-bottom rankings.
Table 5

Wilcoxon Signed Rank Test: 2014 and 2016 Top-To-Bottom Ranks

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Ranks</td>
<td>0</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Positive Ranks</td>
<td>38</td>
<td>19.50</td>
<td>741.00</td>
</tr>
<tr>
<td>Ties</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. \( ^a \) 2016 top-to-bottom < 2014 top-to-bottom; \( ^b \) 2016 top-to-bottom > 2014 top-to-bottom; \( ^c \) 2016 top-to-bottom = 2014 top-to-bottom.

The Wilcoxon signed rank test also revealed statistical descriptions. The descriptive calculations for the 2014 top-to-bottom rankings were \( N = 40, M = 2.25, SD = 1.3191, Mdn = 2, \) minimum = 0, maximum = 4 (see Table 6). For the 2016 top-to-bottom rankings, the descriptive calculations were \( N = 40, M = 20.90, SD = 18.872, Mdn = 14.5, \) minimum = 0, maximum = 76 (see Table 6).

Table 6

Wilcoxon Signed Rank Test: 2014 and 2016 Top-To-Bottom Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Mdn</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTB2014</td>
<td>40</td>
<td>2.25</td>
<td>1.391</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>TTB2016</td>
<td>40</td>
<td>20.90</td>
<td>18.872</td>
<td>14.5</td>
<td>0</td>
<td>76</td>
</tr>
</tbody>
</table>

Note. TTB represents top-to-bottom.

For the second question, the researcher created a line graph to describe the association between the principal perception survey data and the 2016 top-to-bottom rankings. The new
ranks and the rank gains for each priority school demonstrated a similar pattern. However, the matched pattern depicted between the school ranks was not consistent with the ways principals perceived their actions. That is, there is no association between the principals’ perceptions of their self-efficacy and the way the schools’ rankings changed.

**Chapter 4 Summary**

The present study addressed two research questions. The first research question described the association between the 2014 to 2016 top-to-bottom rankings from pre- and post-implementation of the transformation redesign method using the top-to-bottom state percentile ranking data. The second research question described the association of the principals’ perceptions of their administrative efficacy in the transformation redesign method and the 2016 top-to-bottom rankings via data from an online Qualtrics survey with a return rate of 42.5%. The researcher used the principal perception survey data, the 2016 top-to-bottom achievement ranking data, and the ranks gains data to describe the associations between variables.

For the first question, the researcher established a statistically significant association between the 2014 to 2016 top-to-bottom rankings from pre- and post- implementation of the transformation redesign method. For the second question, there was no association between the principal perception survey data and the 2016 top-to-bottom rankings. Therefore, the study returned a statistically significant association for the 2014 and 2016 achievement rankings and no association between the principals’ rating scale survey results and the 2016 top-to-bottom achievement rankings.
Chapter 5: Discussion and Conclusion

Annually, the Michigan Board of Education assesses public school students and ranks schools according to performance levels on mandatory achievement assessments. The ranking is the top-to-bottom school ranking (Michigan Department of Technology, Management and Budget, 2016c) and almost all public schools are rank ordered by the achieved proficiency level percentiles. The schools that fall below the fifth percentile are priority category schools that move under the control of the Michigan School Reform Office. As per Michigan law, priority schools must redesign to improve achievement rates.

The Michigan School Reform Office follows federal TRN policies instituted by the U.S. Department of Education from the Race to the Top and SIG programs for all priority school redesign school improvement planning. Following federal TRN policies and priorities, the Michigan Department of Education identifies low performing public schools and mandates they redesign their curricula to raise achievement scores (Michigan Department of Technology, Management and Budget, 2016b). Administrators redesign priority schools by choosing one of four mandated redesign methods: (a) closure; (b) restart; (c) turnaround; or (d) transformation (Michigan Department of Technology, Management and Budget, 2016c). For the closure method, the priority school completely closes. For the restart method, a charter organization assumes control of the school. For the turnaround method, the principal and more than 50% of the staff are replaced. For the transformation method, the school receives a new principal and a redesigned school improvement plan (Michigan Department of Education, 2014; Michigan Department of Technology, Management and Budget, 2016b; U.S. Department of Education, 2009, 2010b).
The purpose of federal TRN reform policies is to quickly improve student achievement through significant redesign of the curricula of low-performing schools according to evidence-based programs, practices, and strategies that the states monitor (U.S. Department of Education, 2010a). The Department of Education (2010a) defined evidence-based programs, practices, and strategies using a three-tiered model: (a) significant evidence showing the differences in achievement between groups of learners was narrowed and the achievement for all learners was improved; (b) moderate demonstration of success was shown; and (c) practices revealing potential with some research-based evidence was established. Federal TRN reform prioritizes rapid improve of student achievement. The Department of Education (2010a) defined these priorities as: (a) the application of technology to leverage digital information; (b) the use of strategies to increase efficiency in the use of resources; (c) increasing standards with effective strategies for both English Language Learners and students with disabilities; and (d) ensuring rural and high-needs areas receive suitable support.

Federal TRN policy requires that priority schools redesign using annual performance targets with measurable outcomes and report achievement rates related to the implementation of the improvement methods to SEAs (U.S. Department of Education, 2010a). In 2014, 52 public schools fell below the fifth percentile in the state of Michigan, became priority schools, and received orders to restructure by developing redesign school improvement plans (Michigan Department of Education, 2016). Forty of the 52 schools in the 2014 Michigan priority cohort selected the transformation method.

Low-performing Michigan priority schools must redesign following federal TRN strategies to raise achievement levels, but other than the top-to-bottom ranking, there is no procedure to determine the association between the redesign methods and achievement. The
present study determined the association of the 2014 to 2016 top-to-bottom rankings from pre- and post-implementation of the transformation redesign method and the association of the 2016 top-to-bottom rankings and principals’ perceptions. The findings may prove beneficial in guiding school improvement practices at low-performing schools.

**Research Questions**

The present study utilized the following research questions:

**RQ1.** What is the difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method?

**RQ2.** What is the association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking?

**Hypotheses**

**H1o.** The difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method is not statistically significant.

**H1a.** The difference between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformation redesign school improvement method is statistically significant.

**H2o.** The association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking is not statistically significant.
H2a. The association between the principals’ perceptions of administration efficacy in the implementation of the transformation redesign school improvement method and the gain in school ranking is statistically significant.

Summary of the Results

For RQ1, the analysis revealed a statistically significant association between the 2014 to 2016 top-to-bottom rankings from pre- and post-implementation of the transformation redesign method; the alternative hypothesis was supported. For RQ2, the analysis indicated no association between the 2016 top-to-bottom rankings and principals’ perceptions of administrative efficacy in the implementation of the transformation redesign method. The null hypothesis was retained.

Discussion of the Results

The results suggest that implementation of the transformation redesign method increased achievement rankings for the 2014 priority schools between the 2014 and 2016 assessment years. The federal government developed the transformation redesign method to improve achievement in low performing schools; the 40 priority schools in the 2014 cohort significantly improved in top-to-bottom rankings. The results of the present study solely reflect the 2014 to 2016 assessment cycle. The present research did not address the sustainability of achievement over time or deficiencies of schools that did not attain the desired level of achievement.

The survey results indicated that principals’ perceptions of administrative efficacy were not associated with the improvement of achievement rankings. The principals highly rated their administrative efficacy in the implementation of factors that align with higher student achievement; however, the principals’ perception levels did not follow the same pattern as determined in the 2016 top-to-bottom rankings and ranking gains.
Discussion of the Results in Relation to the Literature

The literature review revealed a lack of rigorous research examining the effects of federal TRN school improvement practices as instituted by the U.S. Department of Education from the Race to the Top and SIG programs (Le Floch, 2015; Lutterloh et al., 2016; The Wing Institute, 2017; U.S. Department of Education, 2017). Studies of other federal Title I programs included research on the CSRD, a 2012 Title I Supplemental Support Services program, the SIG program in California, and a 2015 Massachusetts SIG program (Deke et al., 2012; LiCalsi et al., 2015; U.S. Department of Education, 2008; U.S. Department of Education, Institute of Education Services, What Works Clearing House, 2013).

The results of the 2008 CSRD study (U.S. Department of Education, 2008) did not associate with achievement gains. The 2012 Title I Supplemental Support Services study found no evidence that the reform program associated with achievement gains in mathematics or reading (Deke et al., 2012). The U.S. Department of Education (2017) released a report specifically researching TRN methods from the 2010 to 2013 school years indicating that no significant effects on reading or mathematics were determined.

Like the findings for RQ1 in the present study, both the 2012 California study and the 2015 Massachusetts study indicated statistically significant relationships between school reform practices and achievement (LiCalsi et al., 2015; U.S. Department of Education, Institute of Education Services, What Works Clearing House, 2013). The U.S. Department of Education (2008) reported no significant effect on achievement outcomes from the 2008 and 2017 studies. Likewise, the findings regarding RQ2 in the present study revealed no association between improved achievement rankings and the perceptions of principals involved in the transformation redesign school improvement process.
The findings from the present study mirrored the mixed results about school improvement reform from previous studies. The researcher found both statistically significant and no association results for the research questions. Although the present study returned statistically significant results for the first question, the study of TRN school improvement is limited and emergent. Therefore, further research is necessary to adequately understand the effect of TRN redesign school improvement reform methods.

**Limitations**

A limitation of descriptive studies is that findings do not imply causation; therefore, the overall limitation of the present study was the results do not signify causation because the variables were not manipulated and possible alternative explanations were not established (Adams & Lawrence, 2015; U.S. Department of Health and Human Service, n.d.). To determine causation, it would be necessary to manipulate one variable. To determine causation, the independent variable would be manipulated and the dependent variable would be measured to reveal any change (Adams & Lawrence, 2015; U.S. Department of Health and Human Service, n.d.). The present study was descriptive and designed to explain the variables and not to control the variables to determine causation.

Another limitation to the present study was the nonresponse rate for the principal survey. The researcher calculated the ideal survey return rate to be 37 out of 40 (i.e., 92.5%); however, only 17 principals completed surveys for a response rate of 42.5%. With a high nonresponse rate, the external validity lowered, decreasing the ability to generalize to beyond the present population and environment. The University of Wisconsin (2010) noted that a common online survey return rate was between 30% to 40%, indicating that a 60% to 70% nonresponse rate was typical. It is important to receive a high survey return rate to ensure external validity; therefore,
it was suggested that researchers plan for nonresponses (DeLeeuw, Hox, & Dillman, 2008; Fowler, 2014; University of Wisconsin, 2010).

Another limitation to the present study was the validity and reliability of the survey instrument. Shen et al. (2012) created the survey with 11 components, but the researcher selected only five components for the survey of 2014 priority principals: (a) guaranteed and viable curriculum; (b) challenging goals and effective feedback; (c) collegiality and professionalism; (d) instructional strategies; and (e) classroom curriculum design. The researcher selected these five components because they aligned with the purpose of the research (i.e., collecting perceptions from the 2014 priority principals engaged in TRN school improvement to raise achievement). The researcher used the five components as created and made no changes to the survey questions or format. The modification of the number of questions may have altered the reliability and validity of the findings because the instrument was not used exactly as vetted through the original systemic review process (Sauro, 2016).

**Implications of the Results for Practice, Policy, and Theory**

In the present study, the first research question returned a statistically significant result, and the second research question returned no association. Regarding the first question, the association reflected a statistical significance suggesting that the transformation redesign method associated with increased academic achievement. The researcher did not address other aspects of the transformation method (e.g., the extent of implementation, differences in formats of improvement strategies, sustainability, and ways of monitoring student progress). These are opportunities for further analysis to enhance future practices.

Regarding the second question, there was no association between the efficacy perceptions of principals and improvement in achievement rankings. Although no association was present,
priority school principals could intensify and extend the implementation of the practices associated with higher achievement gains to increase the potential for achievement at low-performing schools. Another possible implication for future practice from the findings is that priority school principals join in partnerships to investigate and communicate practices that associate with achievement gains to shape the quality of TRN best practices.

The purpose of principals forming partnerships is to benefit from collective learning and share best practices to solve the problems that arise through professional TRN school improvement. Meister and Blitz (2016) called partnerships formed for collective learning and sharing research-practice partnerships. Wenger-Trayner and Wenger-Trayner (2015) used the term communities of practice. Priority principals are typically skilled in the use of evidence-based practices to rapidly increase student achievement; therefore, collaborating with other priority principals by sharing approaches to similar situations and concerns and exchanging information, ideas, and experiences regarding redesign school improvement efforts could improve understanding (Meister & Blitz, 2016; Wenger-Trayner & Wenger-Trayner, 2015).

Wenger-Trayner and Wenger-Trayner (2015) described communities of practice as having three dimensions: (a) domain; (b) community; and (c) practice. Domain is a community that forms around a shared interest with a commitment to the interest and a competence that differentiates the members from other people (Wenger-Trayner & Wenger-Trayner, 2015). Community is the result of the relationships created when practitioners learn from one another and care about their interactions, but not necessarily that they collaborate daily (Wenger-Trayner & Wenger-Trayner, 2015). Wenger-Trayner and Wenger-Trayner (2015) specified that through engagement, the practitioners “develop a shared repertoire of resources; experiences, stories, tools, ways of addressing recurring problems” and create the community of practice through

Communities of practice are internally focused on subject matter, externally driven by connecting learning to communities outside of schools, and value topics of interest that serve the continuous learning needs of students (Wenger-Trayner & Wenger-Trayner, 2015). Communities of practice may help priority principals cultivate methods of collective learning based on their shared interests through collaborative interactions. This collaboration may drive the development of theories of successful TRN redesign via evidence-based best practices to assist in rapidly raising student achievement.

Meister and Blitz (2016) outlined partnerships that varied from low to high intensity all with the capacity to generate successful evidence-based solutions for the challenges encountered with professional practice. In addition to describing study councils, research alliances, and design research collaborations that create partnerships between schools, school districts and universities, Meister and Blitz (2016) also suggested the use of communities of practice from Wenger-Trayner and Wenger-Trayner (2015). Additionally, as reported by the U.S. Department of Education, Office of Educational Technology (2014) by participating in communities of practice educators can “strengthen their performance” (p. 6). Because of the value reported in improved communication and learning through the use of communities of practice (U.S. Department of Education, Office of Educational Technology, 2014) participation by priority
principals may strengthen their TRN redesign leadership performance to raise student achievement.

Other than the top-to-bottom priority school ranking data, Michigan does not have a method in place to determine the association of TRN redesign methods and achievement so promoting communication to share information may strengthen TRN best practices. The deputy superintendent of Baltimore City Public Schools echoed the need for TRN communication connections and reported a lack of processes to communicate redesign school improvement information (The Wallace Foundation, 2017). The deputy superintendent inquired about TRN interventions and program successes because limited information was available (The Wallace Foundation, 2017).

To address the need for TRN communication, multiple resources assist in developing redesign efforts (The Center on School Turnaround, 2018: The Reform Support Network, 2014a, 2014b, 2014c). The structuring of effective TRN communication for redesign practices supports rapid school improvement. The Reform Support Network (2014a, 2014b, 2014c) and The Center on School Turnaround (2018) created school improvement communication strategies. These strategies include a performance framework for communication, a communication and engagement rubric, and indicators of effective practice with a communication section to assist TRN leaders in the creation and management of communication expectations (The Center on School Turnaround, 2018). The Center on School Turnaround (2018) developed a resource with four domains of performance indicators for the assessment and review of effective practices in systematic and rapid TRN school improvement planning.

The Reform Support Network (2014a, 2014b, 2014c) created a five-strategy resource, a framework using four key sections, and a five-section assessment rubric for TRN communication
creation and management. Communication TRN strategies that the Reform Support Network (2014a) developed were: (a) make engagement a priority and establish an infrastructure; (b) communicate proactively in the community; (c) listen to the community and respond to feedback; (d) offer meaningful opportunities to participate; and (e) turn community supporters into advocates. The Reform Support Network (2014a) conveyed that using communication strategies builds “trust, respect, and a sense of purpose” with stakeholders, which leads to improved achievement in low performing schools (p. 19).

The Reform Support Network (2014b) created a management framework with the following sections: (a) clarity of outcomes and theory of action; (b) alignment of resources; (c) collection and use of data; and (d) accountability for results. In the section on accountability for results, the element of engagement and communication with both internal and external stakeholders was stressed. It was recommended that SEAs and LEAs create two-way communication processes to engage stakeholders and regularly publish collected stakeholder feedback and TRN progress on publicly available websites and via freely accessible reports (Reform Support Network, 2014b). The Reform Support Network (2014b) advised that in addition to website postings, proactive communication processes (e.g., the creation of meaningful opportunities for community members to engage in TRN activities via purposeful TRN conversations) would be advantageous. The use of public forums, surveys, and focus groups along with newsletters and blogs may help communicate transformation efforts of low achieving schools to stakeholders (Reform Support Network, 2014b).

The Reform Support Network (2014c) published a five-section rubric as a tool to assess how each SEA connects their mission with communication and community engagement
planning. The Reform Support Network (2014c) divided the rubric into the following five sections to help SEAs assess their progress in building successful communication processes:

- Overall strategy;
- Audience segmentation;
- Audience-specific messages and diverse tactics;
- Stakeholder engagement and coalition building; and
- Communications capacity (Reform Support Network, 2014c, p. 3).

The rubric provides states with a method to reflect on and discuss the depth and quality of communication plan implementation. Included in the rubric was an assessment of the use of multiple social media tools, use of a dedicated email address to regularly collect and disseminate talking points about key issues, and the use of briefing materials for legislators (Reform Support Network, 2014c).

The Center on School Turnaround (2018) published a four-part framework to support TRN rapid improvement in the areas of: (a) turnaround leadership; (b) talent development; (c) instructional transformation; and (d) culture shift. The framework includes expectations for communication practices of SEAs and LEAs, including individual schools. The Center on School Turnaround (2018) reported that creating communication plans at state, district, and school levels was important to stimulate TRN methods to improve student achievement. Effective TRN requires the design, application, and monitoring of communication plans that include indicators and sources of evidence that are periodically reviewed to assess program effectiveness (The Center on School Turnaround, 2018).

To accomplish effective communication about rapid school improvement, The Center on School Turnaround (2018) stressed that states, districts, and schools should develop
communication plans that establish “roles, responsibilities, and expectations” that support the shift of low achieving schools into rapid improvement modes (p. 6). One suggestion for establishing effective communication was publishing the policies and practices from districts and schools on SEA websites to highlight all aspects of the improvement of student learning (The Center on School Turnaround, 2018). The Center on School Turnaround (2018) also suggested including public comments on SEA websites as evidence of TRN improvement efforts to shift learning cultures from low performing to rapid improvement.

In the present study, the return rate for the principal surveys was low (42.5%), indicating a need for the addition of nonresponse planning. The University of Wisconsin (2010) suggested that to receive higher return rates, the use of mixed-mode survey strategies may be necessary. Mixed-mode survey strategies include the mailing of advanced notification letters or invitations, contacting potential participants through telephone calls, and using timed completion reminders (DeLeeuw et al., 2008; Fowler, 2014; University of Wisconsin, 2010). There are many possible reasons for nonresponses to online survey requests. DeLeeuw et al. (2008) reported survey nonresponses may involve: (a) failure of the researcher to locate/identify the anticipated recipient; (b) inability to connect with the intended recipient; (c) refusal by the recipient to take part; (d) incapacity of the recipient to participate (e.g., ill health, absence); (e) inability of the researcher and recipient to communicate (e.g., language barriers); or (f) accidental loss of the data/questionnaire.

For online surveys, nonresponse issues may also include email systems that mark the survey request as spam and place it in the junk folder or the recipients may judge the survey email as spam and ignore or delete it (DeLeeuw et al., 2008; University of Wisconsin, 2010). For online surveys, there may be internet connectivity issues that interrupt the reply process or
the design of the survey may not appeal to the recipient (DeLeeuw et al., 2008; University of Wisconsin, 2010). DeLeeuw et al. (2008) explained that refusal to participate in an online survey accounts for most nonresponses in research studies and the decision to refuse to participate may be due to reward, cost, and trust factors. To increase the response rate, DeLeeuw et al. (2008) and Fowler (2014) suggested using rewards that have a positive psychological effect on participants by explicitly recognizing the value of their responses and incorporating a positive material influence. This may include providing participants with a small, monetary token of enticement such as a new, one-dollar bill in an advanced notification letter (DeLeeuw et al., 2008; Fowler, 2014; University of Wisconsin, 2010).

If an online survey requires little effort because it is short and material costs are minimal because participants use their email to answer, then online survey response rates may increase. Researchers establish trust by identifying the study is part of a legitimate organization and by including contact information (DeLeeuw et al., 2008; University of Wisconsin, 2010). Another way to help ensure online survey trust is for the researcher to provide confidentiality assurances (University of Wisconsin, 2010). Additional points of consideration to reduce nonresponses in online, self-administered surveys include setting a survey completion window with a deadline date and presenting an altruistic purpose to potential participants to reinforce the completion of the entire survey (University of Wisconsin, 2010).

Because participants self-administer online surveys, visual representation is important (Fowler, 2014). In contrast to telephone surveys during which interviewers motivate the participants, online surveys include no interaction of an interviewer; creating visual appeal is a central factor. DeLeeuw et al. (2008) advised actions to enhance self-administered survey appeal: (a) keep them short; (b) use phrasing and terminology familiar to the participants; (c)
clearly explain the survey context; (c) limit font types; (d) present one question per page; and (e) utilize indenting to create white space for ease of navigating the webpage.

An implication for future practice is the use of a nonresponse plan to limit potential refusals of survey requests and to curb terminations prior to completion. Based on the findings of DeLeeuw et al. (2008) and the University of Wisconsin (2010), the researcher suggests the following nonresponse plan measures:

- Utilize a mixed-methods strategy with advanced notice mailings, telephone contacts, and timed completion notices that include access to the survey;
- Acknowledge the value of the potential participants’ responses;
- Provide a small, monetary token with the advanced mailing;
- Highlight the context of the survey request, the sponsoring organization, contact information, and confidentiality assurances; and
- Limit the font types to two, format one question per page, and utilize indents to create white space for ease of navigating.

In the present study, the principals rated themselves highly on the perception survey (overall mean 3.56) in engagement in high-impact strategies that positively associated with achievement. Overall, the principals rated their perceptions with mean averages ranging from 3.40 to 3.72. An additional implication may be that principals explore beyond their perceptions and use systematic processes to study TRN engagement strategies that increase achievement. By moving beyond perceptions into the active testing of ideas to capture a complex picture of a problem or issue and through use of rigorous data collection and analysis procedures, principals could increase TRN redesign knowledge and develop deeper understandings of way to improve academic achievement (Adams & Lawrence, 2015; Creswell, 2013).
Another possibility for further practice would be to broaden the measures of success the state of Michigan uses to determine school rankings. Michigan solely uses the top-to-bottom ranking (Michigan Department of Technology, Management and Budget, 2016c) to measure the success of schools. By including multiple forms of data, it could provide greater detail and offer a more comprehensive approach to determining state-mandated TRN redesigns. The use of several measures (e.g., interim benchmark assessments, yearly summative assessments) could foster well-developed, corroborative, and multidimensional understandings to provide a holistic overview of individual school needs (Billups, 2014; Cohen & Crabtree, 2006).

**Recommendations for Further Research**

The researcher limited the present study to the 2014 cohort of Michigan priority schools; therefore, future researchers could include additional years to examine top-to-bottom ranking trends’ sustainably. In addition, the study of priority schools in states other than Michigan could expand knowledge of regional or national achievement outcomes of the transformation redesign method. Further research could compare low-achieving priority cohorts with schools with high-achieving rankings. To compare cohorts beyond student achievement, researchers could include additional attributes (e.g., socioeconomic status, attendance rates, mobility levels, the percentage of homeless students) to capture a broader spectrum of understanding of achievement. Further research could also examine transformation redesign work of teachers or the actions of students who participate in the TRN method. Furthermore, to maintain the reliability and validity established by Shen et al. (2011), future researchers could use the full survey instrument with the 11 components.

To add to the literature on TRN redesign school improvement reform, researchers could conduct narrative, phenomenological, or grounded theory studies to engage in “complex, detailed
understanding of the issue” as experienced by individuals or a group (Creswell, 2013, p. 48).
Narrative, phenomenological, and grounded theory studies could enhance understanding of the successes and difficulties of TRN reform practices by providing thorough descriptions. Narrative, phenomenological, and grounded theory studies could provide comprehensive accounts of the viewpoints, behaviors, relations, actions, practices, and processes associated with principals engaged in TRN school reform.

Narrative TRN studies could reveal the complexities of the reform methods as experienced by principals using interviews, observations, and artifacts such as documents and pictures (Creswell, 2013). Typically, narrative studies use a sequence of events to order the themes that emerge during the data collection process (Creswell, 2013). In a narrative study, the researcher would join in a collaborative and exploratory interaction with the participant to shape dialogue and reveal specific information about highlights or moments relevant to individual experiences of TRN redesign school improvement (Creswell, 2013).

A phenomenological study could explore a single TRN concept such as transformation redesign school improvement or transformation administration efficacy. The researcher would engage the TRN principals by sharing similar experiences in a philosophical discussion framed by using general questions (Creswell, 2013). The discussion would be about their subjective experiences of the chosen concept and the objective experiences of the commonalities they experienced (Creswell, 2013). The researcher would begin with the important statements made by the participants, transition to conclude the broader meaning, write comprehensive descriptions, and end with a culminating “essence” of the experience and how the participants perceived it (Creswell, 2013, p. 79).
Grounded theory approaches could expand knowledge of processes and actions of TRN methods that principals use. In grounded theory, the researcher would seek a general explanation or theory of TRN actions by using a dual process of description and explanation to detail the specific stages or steps taken by the participants (Creswell, 2013). To develop a general explanation using grounded theory, the researcher would collect data alternating between participants and use interview memos to develop an evolving concept model (Creswell, 2013). With the use of selective coding, the researcher would compile the emergent intersections of interview categories and present them using diagrams, a proposition or theory, or discussion (Creswell, 2013).

**Conclusion**

Each year, Michigan public school students complete the state-mandated assessment. Some schools are deficient and fall below the lowest fifth percentile in achievement scores. The schools falling below the fifth percentile rank are priority schools that must redesign improvement plans following federal TRN guidelines. In the spring of 2014, 40 Michigan schools that fell below the fifth percentile chose the transformation redesign method.

The present study determined the association between the transformation redesign method and achievement from the 2014 cohort of priority schools. These findings may direct reform practices to raise achievement in the lowest-performing schools. Current literature lacks rigorous examination of the impact of federal TRN mandates on achievement in low-performing schools (Le Floch, 2015; Lutterloh et al., 2016; The Wing Institute, 2017). Available research returned mixed results (Dragoset et al., 2015).

The findings of the present study indicated a statistically significant relationship between the 2014 and 2016 top-to-bottom rankings pre- and post-implementation of the transformational
redesign method in Michigan priority schools. The association was statistically significant, but there was no association between the 2016 top-to-bottom rankings, ranking gains, and principals’ perceptions of administrative efficacy in the implementation of the transformation redesign method. The results of the present study contribute to the body of knowledge about the transformation redesign methods for low-achieving schools and may offer insight for further investigations.
References


AssumptionslimitationsdelimitationsX.pdf


Appendix A: The Data-Informed Decision-Making on High-Impact Strategies Internal Consistency Alpha Coefficients

Table 7

*Data-Informed Decision-Making on High-Impact Strategies*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of Items</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guaranteed and viable curriculum</td>
<td>4</td>
<td>0.91</td>
</tr>
<tr>
<td>Challenging goals and effective</td>
<td>4</td>
<td>0.91</td>
</tr>
<tr>
<td>feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent and community involvement</td>
<td>4</td>
<td>0.92</td>
</tr>
<tr>
<td>Safe and orderly environment</td>
<td>4</td>
<td>0.92</td>
</tr>
<tr>
<td>Collegiality and professionalism</td>
<td>4</td>
<td>0.91</td>
</tr>
<tr>
<td>Instructional strategies</td>
<td>3</td>
<td>0.90</td>
</tr>
<tr>
<td>Classroom management</td>
<td>3</td>
<td>0.91</td>
</tr>
<tr>
<td>Classroom curriculum design</td>
<td>4</td>
<td>0.96</td>
</tr>
<tr>
<td>Home environment</td>
<td>4</td>
<td>0.96</td>
</tr>
<tr>
<td>Learned intelligence</td>
<td>4</td>
<td>0.90</td>
</tr>
<tr>
<td>Student motivation</td>
<td>4</td>
<td>0.94</td>
</tr>
<tr>
<td>Survey as a whole</td>
<td>42</td>
<td>0.98</td>
</tr>
</tbody>
</table>
Appendix B: Measurement Tool for School Principals Survey

<table>
<thead>
<tr>
<th>Please indicate to which extent you engage in the following activities:</th>
<th>1 Not at All</th>
<th>2 Very Little</th>
<th>3 Somewhat</th>
<th>4 To a Great Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tracking the identification, organization, and sequencing of the district essential curriculum</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Monitoring communication of the district essential curriculum expectations</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Tracking allocation of time for students to learn the essential curriculum</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Monitoring alignment of classroom instruction to the district essential curriculum</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Establishing specific goals for individual students</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Providing timely feedback on student progress through aligned classroom assignments</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Developing specific, challenging school goals</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Frequent monitoring on progress toward school goals</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Tracking teacher collegiality and professionalism</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Monitoring teacher involvement in school decision-making processes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. Tracking teacher engagement in an effectiveness of professional development</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. Monitoring the development of a shared professional vocabulary for teaching and learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>---</td>
<td>----------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>13.</td>
<td>Monitoring units of instruction for employment of research-based strategies</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14.</td>
<td>Monitoring adaption of classroom instruction to meet individual student needs</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15.</td>
<td>Monitoring teacher utilization of instructional strategies that work</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16.</td>
<td>Tracking teacher clarity on the goals of instruction</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17.</td>
<td>Monitoring the presentation of new content in multiple learning modes</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18.</td>
<td>Tracking teacher organization of knowledge, skills, and content to facilitate learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19.</td>
<td>Tracking engagement of students in complex tasks involving higher cognitive processes</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix C: MEAP Alpha Coefficients Across Subjects and Grades

Table 8

*MEAP Alpha Coefficients*

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade</th>
<th>Low</th>
<th>High</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>3</td>
<td>0.88</td>
<td>0.90</td>
<td>0.89</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
<td>0.89</td>
<td>0.91</td>
<td>0.90</td>
</tr>
<tr>
<td>Mathematics</td>
<td>5</td>
<td>0.90</td>
<td>0.92</td>
<td>0.91</td>
</tr>
<tr>
<td>Mathematics</td>
<td>6</td>
<td>0.88</td>
<td>0.91</td>
<td>0.89</td>
</tr>
<tr>
<td>Mathematics</td>
<td>7</td>
<td>0.91</td>
<td>0.93</td>
<td>0.91</td>
</tr>
<tr>
<td>Mathematics</td>
<td>8</td>
<td>0.87</td>
<td>0.89</td>
<td>0.87</td>
</tr>
<tr>
<td>Reading</td>
<td>3</td>
<td>0.84</td>
<td>0.85</td>
<td>0.84</td>
</tr>
<tr>
<td>Reading</td>
<td>4</td>
<td>0.85</td>
<td>0.86</td>
<td>0.85</td>
</tr>
<tr>
<td>Reading</td>
<td>5</td>
<td>0.84</td>
<td>0.85</td>
<td>0.85</td>
</tr>
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Appendix D: MEAP Empirical IRT Reliability Across Subjects and Grades

Table 9

*MEAP Empirical IRT Reliability*

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## Appendix E: Top-to-Bottom Achievement Ranking Scores

Table 10

*School Achievement Scores*

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Appendix F: Survey Consent

Dear Fellow Educator:

My name is Susan Duran, I am a Michigan educator and a doctoral candidate at Concordia University, Portland, Oregon. I would greatly appreciate your participation in a research study on the perceptions of 2014 cohort of Michigan Priority School Principals and their engagement in Transformational school improvement strategies.

**Purpose and what you will be doing:**

The purpose of this survey is to examine the relationship between Priority Principal’s perceptions of engagement in Transformational school improvement strategies and student achievement. Participant responses will address questions about leadership behaviors that align with student achievement. As this study is specifically about Michigan Priority School Principals no demographic information will be asked so nothing can be used to identify you, the school, or the school district. No one will be paid to participate and approximately 70 volunteers are expected to answer the survey. The survey will take place during April 2017. To be in the study you will need to complete the survey and submit it at the end. Your data and responses will remain anonymous and not even the researcher will be able to link your responses to your name or email address. Completing the survey should take less than 10–15 minutes of your time.

**Risks:**

There are no risks to participating in this study other than the normal experience when you are working on a computer online. You will not provide your name or any other identifying information.

**Benefits:**

The information you provide by participating in the survey will help in gathering a better understanding of the relationship between leadership behaviors that align with student achievement. Additionally, participants could benefit by using the findings as a reflective tool for best practices in Priority school leadership.

**Confidentiality:**

The information provided by participating in the survey will not be distributed to any other agency and it will be kept private and confidential. Data specific to your school will not be identified as the reporting is on the aggregate or combined totals from the 2014 cohort of Priority Schools. The information you provide will be kept private at all times and all of the survey documents will be destroyed after three years following the study conclusion.

**Right to Withdraw:**

Your participation in the study is greatly appreciated and it is acknowledged that questions may be personal in nature to your leadership. You are free at any point to choose not to engage with or to stop the survey. You may skip any question(s) you do not wish to answer.
**Contact Information:**

You will receive a copy of this consent form. If you have questions, you can write the principle investigator at email [researcher email redacted]; if you want to talk with a participant advocate other than the principle investigator, you can contact Dr. OraLee Branch, Director of the Concordia, Portland University Institutional Review Board at email [obranch@cu-portland.edu] or call [503-493-6390].

**Your statement of consent:**

I have read the above information and I consent to participate in this study. I asked questions if I had them, and my questions were answered. I volunteer my consent for this study by clicking on the following link and completing the survey.

**Here is the survey link:**

www.xxxxxxx

**Thank you for your participation in the survey research study!**

Sincerely,

Susan Duran
Appendix G: Statement of Original Work

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University, Portland Academic Integrity Policy during the development and writing of this dissertation.

2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the Publication Manual of The American Psychological Association.

__________________________
Digital Signature

Susan Duran

Name (Typed)

__________________________
Date

December 3, 2017