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# Sustainability of a school reform program as measured by Title I students achievement, behavior, and attitudes

Sharra R. Smith
*University of Nebraska at Omaha*

SUSTAINABILITY OF A SCHOOL REFORM PROGRAM AS

MEASURED BY TITLE I STUDENTS'

ACHIEVEMENT, BEHAVIOR, AND ATTITUDES


By


Sharra R. Smith


A DISSERTATION


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## SUSTAINABILITY OF A SCHOOL REFORM PROGRAM AS MEASURED BY TITLE I STUDENTS' ACHIEVEMENT, BEHAVIOR, AND ATTITUDES

BY

**Sharra R. Smith**

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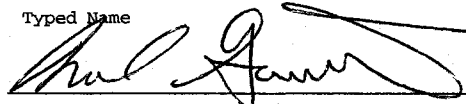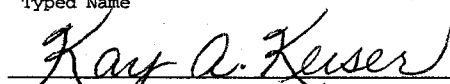
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ABSTRACT

SUSTAINABILITY OF A SCHOOL REFORM PROGRAM AS

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ACHIEVEMENT, BEHAVIOR, AND ATTITUDES

Sharra R. Smith

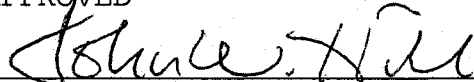University of Nebraska

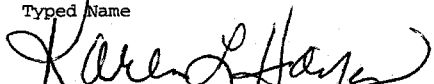Advisor: Dr. John W. Hill

The sustainability of a Different Ways of Knowing

Comprehensive School Reform Demonstration program, and the

influence of the reform model on student achievement,

behavior, and attitudes following a three-year

implementation phase, was evaluated. The fourth-grade

pretest compared to sixth-grade posttest gains made by

students ($n$ = 50) as they completed the Title I eligible

Comprehensive School Reform Demonstration programs

indicated that the sustainability plans in place at the

conclusion of the implementation phase continued to result

in positive student outcomes. Levels of performance for the

Comprehensive School Reform Demonstration programs'

students were also found to be congruent with the posttest

achievement, behavior, and attitude data for students

participating in similar neighborhood non-Comprehensive

non-Title I eligible School Reform Demonstration programs

($n$ = 50) during the sustainability phase. Reform model

implementation sustainability supported student achievement, behavior, and attitudes consistent with continued school success. The study results support a cautious approach to district-wide reform model program scale-up.

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goal without your love and support; it's hard to put into

words how much I truly appreciate you!

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CHAPTER ONE

Introduction

*Purpose of the Study*

The purpose of this study was to determine the effectiveness of the Comprehensive School Reform Demonstration (CSRD) program, in its sustainability phase, on Title I students' learning outcomes, behavior, and attitudes toward school as compared to their non-CSRD peers' learning outcomes, behavior, and attitudes toward school.

The study analyzed achievement, behavior, and attitudinal data of CSRD and comparison non-CSRD students to determine if the sustainability of the CSRD program significantly impacted student outcomes.

*Literature Related to the Study Purpose*

The CSRD program was originated in 1998 as the result of legislation passed by United State Senators Obey and Porter. This revolutionary program, primarily for economically disadvantaged students, allowed schools, particularly schools in need, to apply for grant monies to be used for a schoolwide reform effort (McChesney & Hertling, 2000). These schools in need, often receive Title I funds which are designed to support state and local school reform efforts tied to challenging academic

standards in order to reinforce and amplify efforts to improve teaching and learning for students farthest from meeting state standards. Title I reaches about 12.5 million students enrolled in both public and private schools (US Department of Education, 2004).

The CSRD program was created to help raise student achievement by assisting public schools across the country in implementing effective, comprehensive schoolwide reforms that are not only based on reliable research and effective practices, but also emphasize basic academics coupled with parental involvement (Berends, 2004). Each building applicant included in this study was required to choose and receive staff consensus on their selection of a schoolwide reform model. The Different Ways of Knowing (DWoK) program was chosen by the three Title I CSRD schools described in this study.

The DWoK curriculum involves learner-centered (Schuh, 2003), arts-infused (Parr, Radford & Snyder, 1998), inquiry-based teaching (Brew, 2003), learning, and school management. The DWoK program also has a comprehensive design that is aligned with other components including assessment (Soep, 2005), classroom management (Metzger, 2002), professional development (Poglinco & Bach, 2004), parental involvement, and the multiple intelligences

(Gardner, 1995). The DWoK program incorporates curriculum, technology, and professional development which enables all students to meet measurable goals for student performance tied to challenging district content standards (Northwest Regional Educational Laboratory, 1998).

*Importance of the Study*

Although DWoK had created a positive atmosphere of learning and achievement in the three Title I schools involved in the implementation of a CSRD reform model, no research had been conducted to identify if the sustainability efforts were creating lasting effects on student achievement, behaviors, and attitudes. The research identified if CSRD students were at an academic, behavioral, and attitudinal advantage over non-CSRD peers. The research also determined the efficacy of the DWoK program and contributed to discussion of its implementation district-wide.

*Research Questions*

The following research questions were used to analyze the outcomes for students participating in the independent variables, CSRD and comparison non-CSRD schools' programs: Overarching Pretest-Posttest Achievement Research Question #1. Did students who participated in CSRD programs, in the sustainability phase, have different or congruent 4th-grade

compared to 6th-grade NRT reading, language, and math achievement scores? Overarching Pretest-Posttest Achievement Research Question #2. Did students who participated in non-CSRD programs, in the sustainability phase, have different or congruent 4th-grade compared to 6th-grade NRT reading, language, and math achievement scores? Overarching Posttest-Posttest Achievement Research Question #3. Did students who participated in CSRD and non-CSRD programs, in the sustainability phase, have different or congruent 6th-grade compared to 6th-grade NRT reading, language, and math achievement scores? Overarching Posttest-Posttest Achievement Research Question #4. Did those students who participated in the CSRD and non-CSRD programs, in the sustainability phase, have observed Criterion-Referenced Test Essential Objective (CRT-EO) reading, math, social studies, and science mastery determination score improvement frequencies that were the same or different from the non-mastery determination scores? Overarching Posttest-Posttest Achievement Research Question #5. Did those students who participated in the CSRD program, in the sustainability phase, have greater observed CRT-EO reading, math, social studies, and science mastery determination score frequencies as compared to those students who participated in non-CSRD program?

Overarching Posttest-Posttest Achievement Research Question #6. Did those students who participated in the CSRD and non-CSRD programs, in the sustainability phase, have different or congruent 6th-grade compared to 6th-grade cumulative report card reading, math, social studies, and science grades? Overarching Posttest-Posttest Behavior Research Question #7. Did those students who participated in the CSRD and non-CSRD programs, in the sustainability phase, have different or congruent 6th-grade compared to 6th-grade tardies, absences, and discipline referrals? Overarching Posttest-Posttest Attitude Research Question #8. Did those students who participated in the CSRD programs, in the sustainability phase, report negative, neutral, or positive attitudes towards school, on the School Climate Survey, at the completion of the 6th-grade, that were different or the same as for those students who participated in non-CSRD programs?

*Definitions of Terms*

*Comprehensive School Reform Demonstration (CSRD) program.* The Comprehensive School Reform Demonstration (CSRD) program provides financial assistance to help schools, particularly those with a high population of low socio-economic students, develop and implement systematic approaches to schoolwide improvement that are grounded in

scientifically based research and effective practices (US Department of Education, 2004).

*Title I.* Title I provides financial assistance through State educational agencies to local agencies and public schools with high numbers or percentages of poor children to help ensure that all children meet challenging state academic content and student academic achievement standards. The Title I funds are targeted to public schools with the highest percentages of children from low-income families (US Department of Education, 2004).

*Different Ways of Knowing (DWoK).* Different Ways of Knowing (DWoK), a CSRD reform model, is a comprehensive arts-infused curriculum; this research-based and research-validated approach integrates literature, reading, writing, mathematics, and science with the visual, performing, and media arts (US Department of Education, 2000).

*Norm-referenced tests (NRTs).* Norm-referenced tests are "tests that compare an individual's performance to the performance of his or her peers" (Salvia & Ysseldyke, 2004, p. 691).

*Terra Nova Achievement Test.* "The Terra Nova–Second Edition is a group-administered, multiple-skill battery that provides norm-referenced and objective-mastery scores" (Salvia & Ysseldyke, 2004, p. 420).

*Criterion-Referenced tests (CRTs).* Criterion-Referenced tests "measure a person's skills in terms of absolute mastery" (Salvia & Ysseldyke, 2004, p. 689). CRT scores report how well students perform relative to a predetermined performance level on a specified set of educational goals and outcomes. The content of a CRT is determined by how well it matches the learning outcomes considered most important (Bond, 1996).

*Essential Objectives.* Essential Objectives are CRT assessments developed by the Bellevue Public Schools. These assessments have been submitted to the Nebraska Department of Education and have been deemed as, meeting or exceeding state standards.

*Behavioral data.* Behavioral data includes absences, tardies, and discipline referral information for each participant. These three dependent measures are a direct result of the participants' behavior as recorded and available in the school database.

*Boys' Town Social Skills.* The Boys' Town Social Skills presents a model of teaching life skills across the academic curriculum, which enables students to assume responsibility for managing their own behavior.

*Discipline Referral Information.* All discipline referral information were derived from data collected based

on the Boys' Town Social Skills and will be limited to referrals to the principal's office.

*Sustainability.* Sustained reform is most often defined as a continuation of classroom practices that have been implemented during the reform program's existence, and the decisions, actions, and policies by school and district leaders that support continuation (Hargreaves & Fink, 2000). Sustainability of education reform is defined as the perception of continued implementation and practice of a change that occurred initially as a consequence of a reform program. The practice would need to be continued after the implementation phase of the reform program has ended in order for sustained change to be attributed to it.

*Limitations*

The limitation to this study was teacher and administrative turnover that occurred in the CSRD, DWoK schools during the implementation and sustainability phases. This turnover was due to retirements, spousal relocation, and caring for family members. While there was teacher and administrator turnover, the consistency of the CSRD program was maintained, supporting continued student learning and new hire transition.

*Delimitations*

The student participants were delimited to those students who had completed the necessary achievement measures in both 4th and 6th grades.

The non-CSRD schools were delimited to those schools within the same school district that had a similar enrollment pattern and neighborhood setting. The CSRD schools were delimited to those Title I schools who chose to implement the DWoK reform model program.

*Assumptions*

It was assumed that all teachers within the CSRD schools were teaching and sustaining DWoK at a consistent level. It was also assumed that all teachers within the CSRD schools fully understood DWoK best practices and integrated DWoK philosophies into daily classroom instruction. A further assumption was that all teachers participated in required quarterly DWoK professional development activities.

As discipline referral data was collected retrospectively as a part of this study, it was assumed that all six schools had fully implemented the district-adopted Boys' Town Social Skills training as their primary means for providing effective discipline and collecting discipline referral data.

This study considered student participants who had been involved in the DWoK sustainability process from 4th through 6th grade and were enrolled in a DWoK school during the implementation phase.

Finally, it was assumed that, disregarding the DWoK program, all student participants received an equitable and consistent education from the six participating schools. All schools implemented the same curriculum and students had equal access to all materials within the school district.

*Significance of the Study*

This study contributes to research, practice, and policy. It is of significant interest to CSRD model developers and schools.

*Contribution to research.* After reviewing the literature, it was evident that there was a need for research regarding the sustainability efforts of CSRD reform models. It was also evident that more research was needed on the DWoK reform model, its success during implementation as well as the sustainability phase. Presently, only two in-depth studies, have been published regarding the DWoK program.

*Contribution to practice.* The results of this study can add to the research on the effects of hands-on learning

and the use of "multiple intelligences" (Gardner, 1995) in classrooms. The study also demonstrated the effects of whole school reform.

*Contribution to policy.* The entire study focused on what began as a policy issue, how to replicate successful schoolwide reform programs, and resulted in Congress creating the CSRD program. This study allows policymakers at the national, state, and local levels to better understand if the large sums of money encumbered for this program and put in place during the implementation phase are truly paying off through sustainability efforts.

Local level policymaking is also impacted through this study. If in fact the results show a positive impact on student learning outcomes, a discussion should be generated to consider district-wide implementation.

*Organization of the Study*

The literature review relevant to this study is presented in Chapter 2. This chapter reviews literature regarding CSRD programs, specifically DWoK, to include a review of research based studies as well as the effect of DWoK on student measured achievement, behavior, and attitudinal data. Chapter 3 describes the research design, methodology, independent and dependent variables, and procedures that were used to gather and analyze the data of

this study. This includes a detailed synthesis of the participants, a comprehensive list of the dependent variables, dependent measures, and the data analysis used to statistically determine if the null shall be accepted or rejected in each case. Chapter 4 reports the research findings, including data analysis, tables, and descriptive statistics. Chapter 5 includes an analysis of the findings, discussion, and implications for future research.

CHAPTER TWO

Review of the Literature

*A Review of Selected Literature and Research*

A product of the educational restructuring movement, Comprehensive School Reform aims at school-level, collaborative change and calls for "the development of a congenial operating environment so that such change might be sustained and the notion of the 'highly effective school' brought to scale" (Franceschini, 2004, p. v). As the authors of *A Nation at Risk* (National Commission on Excellence in Education, 1983) stated, there are numerous examples of successful schools, but what remains to be discovered is how to take what we know about creating a successful school and use it to create many successful schools at once. The creation of the Comprehensive School Reform Demonstration Program (CSRD) by Congress in 1998 sent the hopeful message that the elusive goal of "scaling up," that is creating more successful schools, may soon be in reach (Hatch, 2000).

The CSRD program directly addresses the continuing challenge of implementing effective strategies and interventions in schools. CSRD is intended to help schools identify and adopt high-quality, well-defined, and research-based comprehensive school reform models that show

the promise of preparing children to meet challenging state content and performance standards (US Department of Education, 2001). The CSRD program was created to help raise student achievement by assisting public schools across the country in not only implementing effective, comprehensive school reforms that are based on reliable research and effective practices, but that also include an emphasis on basic academics coupled with parental involvement (Berends, 2004).

*Title I Relationship to CSRD*

The expansion of CSRD has been fueled by national developments such as, (a) the movement toward systemic and standards-based reform, (b) the establishment of the New American Schools Development Corporation, (c) new federal legislation allowing the use of Title I funds—the primary source of federal assistance to at-risk students from high-poverty schools since 1965—to support schoolwide educational programs in high-poverty schools, and (d) the federal CSRD legislation that provides hundreds of millions of dollars to support the costs of adopting externally developed reform models. Since the mid-1990s the idea of schoolwide reform has emerged as a prominent strategy for helping improve the outcomes of at-risk students from high-poverty schools (Borman, Hewes, Overman & Brown, 2002).

Before then, the school-based services funded through Title I and other categorical programs for at-risk students targeted only those students with the lowest test scores. As a result, the vast majority of schools used the funds to develop specialized pullout programs that provided remedial services to the subgroups of students with the greatest academic needs (Borman, Wong, Hedges & D'Agostino, 2001).

Inspired by the emerging vision of standards-based reform, the 1994 reauthorization of Title I called on states to raise academic standards, to build the capacity of teachers and schools, to develop challenging new assessments, to ensure school and district accountability, to ensure the inclusion of all children, and to develop coordinated systemic reforms. The new legislation encouraged schoolwide initiatives rather than targeted programs for all schools where at least 50% of the students were economically disadvantaged. These sweeping changes began the transformation of Title I from a supplemental remedial program to the cornerstone of the standards-based, schoolwide reform movement (Borman, 2000).

During the 1990s, Title I schoolwide projects proliferated across the country. In 1991, only 10% of the eligible Title I schools operated schoolwide programs, but by 1996, approximately 50% of the eligible Title I schools

had implemented them (Wong & Meyer, 1998). These outcomes, combined with new evidence from the Congressionally mandated Prospects study of the modest overall impacts of Title I services (Puma, Karweit, Price, Ricciuti, Thompson & Vaden-Kiernan, 1997), suggested that federal policies for improving education for at-risk students from high-poverty schools were in need of further retooling.

The increasing marketplace for CSRD models and the proven replicability of many of the programs showed that research-based models of educational improvement could be brought to fruition across many schools and include children from varying contexts (Borman et al., 2002).

*Basics of CSRD*

Today, over 300 different designs are being implemented in CSRD-funded schools. The majority are nationally available models as opposed to designs developed locally by school districts or individual schools. The typical school seems likely to experience greater success with an externally developed model. Such designs offer the advantage of coordinated comprehensive components, documented curriculum strategies and materials, and ongoing external support in such areas as professional development, governance structures, resource allocation, and parent and community involvement (Ross & Lowther, 2003).

CSRD focuses on reorganizing and revitalizing entire schools, rather than on implementing a number of specialized, potentially uncoordinated, school improvement initiatives (Borman et al., 2002). The US Department of Education defines CSRD using eleven components that, when coherently implemented, represent a comprehensive and scientifically based approach to school reform. Specifically a CSRD program:

1. Employs proven methods for student learning, teaching, and school management that are founded on scientifically based research and effective practices and have been replicated successfully in schools,

2. Integrates instruction, assessment, classroom management, professional development, parental involvement, and school management,

3. Provides high-quality and continuous teacher and staff professional development and training,

4. Includes measurable goals for student academic achievement and establishes benchmarks for meeting those goals,

5. Is supported by teachers, principals, administrators, and other staff throughout the school,

6. Provides support for teachers, principals, administrators, and other school staff by creating shared

leadership and a broad base of responsibility for reform efforts,

7. Provides for the meaningful involvement of parents and the local community in planning, implementing, and evaluating school improvement activities,

8. Uses high-quality external technical support and assistance from an entity that has experience and expertise in schoolwide reform and improvement, which may include an institution of higher education,

9. Includes a plan for the annual evaluation of the implementation of the school reforms and the student results achieved,

10. Identifies the available federal, state, local, and private financial and other resources that schools can use to coordinate services that support and sustain the school reform effort, and

11. Meets one of the following requirements: either the program has been found, through scientifically based research, to significantly improve the academic achievement of participating students; or strong evidence has shown that the program will significantly improve the academic achievement of participating children (US Department of Education, 2002).

Externally developed reform designs are consistent in that they provide a model for whole-school change and attempt to help schools address many, if not all, of the eleven aforementioned components. At the same time, however, the externally developed designs are remarkably diverse in their analyses of specific problems in US education, the solutions that they propose, and the processes through which they propose that schools may achieve those solutions (Borman et al., 2002).

Comprehensive school reform embraces a diverse set of programs and strategies that require thorough reexaminations of all parts of school life, from attitudes and culture to leadership and curriculum. These programs involve all stakeholders in the school, home, and community in the pursuit of academic success for all students (McChesney & Hertling, 2000). To qualify for CSRD funds, schools must select or develop a program that thoughtfully integrates such key elements as curriculum and instruction, student assessment, professional development, parent involvement, and school management (US Department of Education, 1998). Research shows that for a model to be successfully implemented, faculty, staff, and parents must support it through a voter model selection process. In fact, most CSRD model developers refuse to work with a

school unless at least 60 percent of the faculty votes to adopt the design (McChesney & Hertling, 2000).

Many schools are attempting whole-school reform that requires significant changes in teacher and administrator behaviors, using federal funding provided by such programs as Title I and the CSRD program. The conditions required to make such efforts successful are not always common in the districts and schools undertaking CSRD (Berends, Bodilly, & Kirby, 2002). These conditions include teacher support and sense of teacher efficacy, strong and specific principal leadership, clear communication and ongoing assistance on the part of design developers, and stable leadership, resources, and support from the district

Because the target of the federal Title I and CSRD funds is primarily high-poverty schools, the schools most likely to be affected by the CSRD program are also schools that are most likely to face very fragmented and conflicting environments, difficult and changing political currents, new accountability systems, and staffs demoralized by the constantly changing reform agenda (Berends et al., 2002).

Comprehensive school reforms have a curriculum that sets high standards for all students and does not water down (Odden, 2000) material for those in categorical

programs but makes use of appropriate instructional strategies that provide extra help for students who struggle to master regular curriculum. CSRD also addresses the grouping of students for different subjects, the scheduling of instruction and planning time for teachers, pupil support, and home outreach strategies, professional development, and the use of computer technology (Odden, 2000).

There are basically three different types of CSRD programs. They are: (a) organizational programs, (b) schoolwide reform programs, and (c) a combination of organizational and curriculum-specific programs. The organizational programs focus on the organizational and administrative needs of the school rather than directly addressing academic achievement. Schoolwide reform programs are typically designed to increase student achievement in specific curricular areas. Reform programs tend to be more structured than the broader organizational programs. Finally, a combination of organizational and curriculum-specific programs may be needed to make changes to the overall school environment in order to implement programs that will improve student achievement (Fashola, 2004).

All three types of reform programs introduce new activities and new demands that may have to be added to the

already considerable workload of teachers and administrators. However, one of the key reasons that schools choose reform programs is to help them increase their capacity for change (Hatch, 2000). In a recent study conducted by Berends (2004), teachers reported that they were supportive of the models in their schools. In fact, they were generally positive about the effects of the schoolwide strategies on their professional work life and on their students, with roughly 50% of the teachers reporting that the strategies had improved their teaching, improved their flexibility in addressing various ability levels of students, increased students' engagement in learning, and reflected students' academic needs being met "to a greater extent" (p. 153).

Comprehensive reform can help improve schools and increase achievement, but these positive results do not occur without a lot of work. Another challenge to CSRD lies in creating a common vision among people with different beliefs and assumptions about education (McChesney & Hertling, 2000). The principal plays a pivotal role in schoolwide programs by promoting vision and directing activities. However, some researchers caution that reform programs should not be dependent on the long-term presence of a particular leader (US Department of Education, 1998).

Leadership involves balancing instructional goals and practices of the system over time. Educators need to engage in organizational leadership to build systems to support administrators and teachers to provide further expectations and norms for teaching and learning and to encourage a professional climate of continuous learning (Berends, 2004).

*What is DWoK?* Comprehensive school reform is expanding rapidly. A meta-analysis of CSRD model development explains that dissemination infrastructures for replicating and supporting implementations across numerous schools have been developed allowing CSRD models to be transported to schools across the United States. The information disseminated helps local educators understand the tenets of CSRD reform, teaching them how to implement the school organization and classroom instruction that the model suggests. Also explained is the initial training or orientation provided to help educators understand the underlying philosophy of the model; which in many circumstances involves a specific blueprint for implementing and sustaining the model (Borman et al., 2002).

Many of the CSRD models incorporate best practices such as constructivism (Ediger, 1999), active student

involvement, the use of multiple modalities (Olson, 2000), authentic instruction (Dever & Hobbs, 2000), and performance assessments (Crehan, 2001). These models have translated state and national content standards into academic performance indicators, while in many cases developing yearlong curriculum maps for each grade or subject area (March & Peters, 2002). The Galef Institute, founded in 1989 by Los Angeles philanthropist Andrew Galef, represents one such model. This institute is a nonprofit educational organization whose primary goal is comprehensive school reform.

The Galef Institute's Different Ways of Knowing (DWoK) program is a multi-year professional development program for teachers, administrators, and other stakeholders that provides an integrated approach to curriculum, instruction, assessment, and reporting. Recognizing that every child has talent and that children learn by doing, the DWoK curriculum provides clear and flexible guidelines for learner-centered classroom practice. Interdisciplinary, grade-level modules integrate social studies themes with mathematics, science, and the visual, performing, and media arts (Northwest Regional Educational Laboratory, 1998).

DWoK is a comprehensive arts-infused curriculum; this research-based and research-validated approach integrates

literature, reading, writing, mathematics, and science with the visual, performing, and media arts. DWoK has been effective in raising the achievement levels of students by utilizing diverse students' unique linguistic, mathematical, artistic, logical, and intuitive skills. Many students who experience success in the DWoK program have not always been served well by the current system of public education (US Department of Education, 2001). A fundamental question in school reform research concerns the extent to which improvements in school culture and program implementation are associated with gains in student achievement (Datnow & Stringfield, 2000).

The goals of DWoK are to raise academic achievement and improve students' attitudes toward school. The DWoK model developers advocate utilizing the multiple intelligence domains (Gardner, 1995) of students to develop their skills. The DWoK reform program is an umbrella of best practices encompassing the major theoretical approaches to school reform. This approach is built around a variety of research bases, including cognitive research (Perkins, Jay, & Tishman, 1993), the effects of early and sustained intervention (Langer, 1984), and research on motivation and classroom environments (Weiner, 1985). Research that supports using thematic, integrated

instruction and incorporating artistic experiences were integral to DWoK's development (Herman, 1999).

DWoK is based on nine "Theoretical Understandings About Learning," learning is optimal when learners: (a) learn in collaboration with others, (b) never stop learning, (c) learn what matters to them, (d) construct meaning for themselves, (e) engage in making meaning in and through the arts, (f) thrive in a safe supportive environment, (g) use both content knowledge and skills as tools to learn more, (h) use the world as their laboratory, and (i) explore their learning over multiple drafts (Galef Institute, 2000). These understandings form the foundation of this school reform model and are the keystones to all aspects of the program.

*DWoK's impact on academic achievement.* DWoK has been studied by different independent research teams in two large-scale implementation trials. A National Longitudinal Study, led by University of California at Los Angeles' Dr. James Catterall, followed 1,000 children in four school districts in Los Angeles and Boston over three years between 1991 and 1994. A second study integrated three separate research projects led by researchers at the University of Louisville and the University of Kentucky. It compared the implementation of 24 DWoK schools in Kentucky

to non-DWoK schools statewide from 1993 to 1995. The
studies used various measures and instruments including
standardized test scores, state assessment results, student
writing samples, student report card grades, surveys of
students and teachers, and systematic classroom
observations (Northwest Regional Educational Laboratory,
1998).

The UCLA researchers found a positive correlation
between students' test scores and their number of years in
DWoK, including: (a) gains in vocabulary, reading
comprehension, and other measures of language arts, (b)
higher student scores on written tests of social studies
content knowledge and higher student grades by one-half
grade point, (c) increased cognitive engagement and
intrinsic interest in humanities, (d) increased levels of
achievement and motivation over time, as opposed to
patterns of eroding motivation for non-DWoK students, (e)
continued positive student attitudes toward school, (f)
self confidence as student leaders, (g) intrinsically
motivated, and (h) a belief in the value of personal effort
(Catterall, 1995).

The University of Louisville and University of
Kentucky in their statewide assessment program found
positive effects for both teachers and students. Fourth

grade students in 24 schools were found to have (a) 7% greater gains in reading, arts and humanities scores compared to schools statewide, 10% greater gains in social studies scores, 25% greater gains in math scores, and 7% greater gains in science scores over two years, (b) greater involvement of students in their classrooms and more interest in their schoolwork. Teachers reported (87%) that DWoK changed their knowledge and beliefs about how children learn, and that as a result, they vary teaching strategies for individual children. Teachers also reported that following DWoK interventions students were better able to connect new learning to real-life situations and retain information better. Students with learning difficulties experienced success with DWoK strategies. For example, students in DWoK classrooms had better attitudes toward school and learning than students who did not participate in DWoK, and teachers reported increased self-esteem and confidence (Rouk, 1997). Teachers also reported incorporating more writing opportunities for students into their language arts instruction and an overall feeling that DWoK had affirmed many of the practices they were already using in their classrooms.

In the University of Kentucky study, schools noted improvements their students had made in specific skills or

content knowledge. Students were better able to link their learning to real-life situations and make connections. They also worked better in groups, asked more thought-provoking questions, improved their writing, exhibited better research skills, and retained more information (Rouk, 1997).

A study conducted by the Detroit Public Schools in conjunction with the Michigan Department of Education found that DWoK schools scored higher on the following school observation measures (a) Instructional Orientation—Cooperative/Collaborative Learning, (b) Instructional Orientation-Team Teaching, (c) Experiential-Student Activities, (d) Hands-on Learning, and (e) Instructional Strategies—Integration of Subject Area (Thomas, Woods, Hillman, & Ross, 2002). Positive growth in student achievement in both reading and mathematics were also indicated.

According to Berends, et al. (2002), any education reform must have two components: a theory of learning (which brings together assumptions about how students learn, instructional strategies, and performance) and a theory of action (which focuses on the conditions under which the reform will work). The DWoK research base, philosophy, and learning theory, which include active

learning, multi-grade classrooms, authentic assessments, and integrated curricula, are designed to give teachers the tools to make reform a reality in their classrooms. Learning in DWoK springs from children's own knowledge, experience, and unique learning styles. From there it flows to extensive work with literature and other sources of new information, to small group research, and finally to performance events and other ways of demonstrating learning. The interdisciplinary curriculum promotes critical thinking and problem solving, mastery of basic skills, positive attitudes toward learning, and students' confidence in their own strengths and talents (Rouk, 1997).

DWoK's active learning environment and rich materials are critical to its success. But there is another facet that contributes to student learning as well. Professional development and coaching, both identified in research as necessary supports for teachers as they change their classroom practices, are integral to DWoK. During coaching, teachers become familiar with DWoK's research base, philosophy and with its strategies for integrating curricula, infusing the arts into daily classroom instruction, teaching to students' strengths, and assessing student progress. In addition, all DWoK teachers are

required to attend workshops to expand their own knowledge of visual and performing arts (Dreyfus, 1994).

The relationships between teaching practices and student effects support a general case that DWoK is pursuing valuable instructional practices and classroom orientations. This analysis argues against didactic, teacher-directed instruction and in favor of student-centered, problem solving focused teaching (Catterall, 1995).

*Student attitudes and behaviors related to DWoK.* One of DWoK's underlying tenets is that every child can succeed in school if given the opportunity to actively learn in a challenging environment where teachers use a variety of strategies to address children's individual learning needs. A special feature of DWoK is the way in which it enables teachers to infuse the arts into instruction. Arts activities benefit learning across the curriculum in several ways. They provide multi-sensory stimulation, accommodate students' different learning styles, and encourage students to develop new knowledge and talents (Rouk, 1997).

School climate has been researched and continues to be examined and redefined as a result of its significant influences on educational outcomes. The elements that

comprise a school's climate are extensive and complex. Clearly, school climate is multi-dimensional and influences many individuals' attitudes and perceptions. Additionally, school climate can significantly impact educational environments (Marshall, 2003). Teachers no longer believe that all children learn to read in the same way, and so varied instruction is valued. However, in matters of learning to make good choices about discipline, teachers still seem to think and act as if one size fits all (Pastor, 2002). Research suggests that a positive school climate has been associated with fewer behavioral and emotional problems for students. Additionally, a positive, supportive, and culturally conscious school climate can significantly shape the degree of academic success experienced by urban students (Haynes & Comer, 1993).

An in-depth study conducted in Kentucky reported students in DWoK classrooms had average or slightly better than average attitudes toward school compared with a nationally normed sample. The following observations were taken from DWoK classroom teachers, the students enjoyed DWoK activities, were more involved with their learning, were more interested in learning, and showed excitement and enthusiasm for learning. Teachers observed students exhibiting better attitudes about themselves as learners by

being comfortable performing in front of an audience, being active learners, being happy, having increased confidence, and being creative/artistic, resulting in better self-esteem. Teachers also reported that students put more effort into their work, worked better in groups, and used more higher-order thinking skills than they did before the implementation of DWoK. Students with learning difficulties were found to experience significant success with the DWoK program as reported by their teachers, and an increase in students' self-esteem was frequently at the heart of the teachers' comments (Rouk, 1997).

The interaction of various school and classroom climate factors can create a fabric of support that enables all members of the school community to teach and learn at optimal levels (Freiberg, 1998). Students can also have a voice, the ability to search for a solution, and to accept responsibility for the solution supported (Pastor, 2002). Students who previously were reluctant to share their thoughts and experiences with their classmates seemed to come alive during DWoK experiences. Overall, students in DWoK classrooms tended to be eager, purposeful, and attentive to learning experiences that involved the arts. They also enjoyed learning and showing what they knew through the arts. In fact, 90% of teachers reported that

students learned more effectively when concepts were presented with arts activities (Rouk, 1997).

Participating Kentucky elementary school principals also noted the positive effects that DWoK had on student attitudes toward school. Students were described as having higher self-esteem, increased engagement in classroom activities and heightened enjoyment of classroom activities (Rouk, 1997). Catterall's (1995) study of DWoK schools in California showed similar results and focused a section of the study on student motivation and attitudes. Catterall assessed general levels of active cognitive engagement; which relates along with other important dimensions of motivation, typically suffering from systematic erosion over the elementary school years. However, for the groups involved in DWoK, there was an increase in cognitive engagement as they advanced a grade level, thus reversing typical patterns of erosion over time.

Another student attitude that was related to participation in DWoK classrooms was children's beliefs in the value of their own efforts in school. This attitude reflects convictions that success will come to children who apply themselves in their school work and is not simply a matter of innate ability or luck. This meant that classroom observers noted students actively involved in learning

tasks, and understanding task assignments, which resulted in teachers actively promoting student engagement. Student collaboration and group learning activities also seemed to contribute to many of the motivation and learning outcomes examined (Catterall, 1995).

*Elements of instruction in DWoK.* The DWoK model provides a focus on several key aspects of instruction. For example, learner-centered instruction fosters opportunities for learners to draw on their own experiences and interpretations and aligns with constructivist perspectives (Schuh, 2003). Teachers need to understand the learner's perspective and must support capabilities already existing in the learners to accomplish desired learning outcomes. As students investigate and learn about their world, they develop new understandings that they share with those around them. Higher-order thinking skills are utilized throughout the authentic instruction process as learners investigate information and ideas they later use to solve problems (Dever & Hobbs, 2000).

The DWoK model further involves the use of multiple modalities where students are challenged to say (aural), write (kinesthetic), and show or look at (visual) materials they are developing (Olson, 2000). "The increasing use of performance measures in educational assessment programs

suggests the need for more empirical evidence of the relationship of these newer measures to those measures with which educators have greater familiarity" (Crehan, 2001, p. 844). The DWoK reform model thrives on the use of performance assessment and emphasizes the importance this type of assessment plays in the success of children. The importance of learning in different ways and in diverse approaches is key. Furthermore, students need to understand what is taught, not memorize what is being learned (Ediger, 1999).

Inquiry-based teaching focuses on making meaning from what is learned, exploring existing knowledge, and trying to go beyond it. The goal is to encourage a deep approach to learning and with an emphasis on constructivist-based rather than knowledge-based learning, involving students in artistic and scientific productivity (Brew, 2003). Education through the arts provides opportunities for improved student achievement in language arts and math as well as other instructional areas and serves as a foundation to strengthen each school's personality. Opportunities lie in the richness of experiences for students and teachers alike and the potential for learning to become far more meaningful than the traditional model (Parr, Radford & Snyder, 1998).

As Datnow and Stringfield (2000) have noted, "a reform can only impact students if it is implemented" (p. 193). Continuing with this logic, one might expect a reform to raise student achievement at a school only if it implements conditions likely to foster more effective teaching and learning.

Over the last two decades, numerous national studies and reports have documented both the struggles and failings of public education. Educators, policymakers, and researchers alike concluded that a large number of schools, particularly in high-poverty urban centers, were ineffective at meeting the needs of diverse student populations. In an effort to assist schools in making curriculum changes, aid in instructional delivery, and strengthen the organizational structure of the schools, an abundance of schoolwide reform models have emerged (Herman, 1999). If educators have learned anything about school reform, it is that a piecemeal approach to changing poor classroom practice is a losing battle. A collection of isolated programs does not add up to schoolwide improvement (Northwest Regional Educational Laboratory, 2001).

This study was developed to determine the effectiveness of the Comprehensive School Reform Demonstration (CSRD) program, in its sustainability phase,

on Title I students' learning outcomes, behavior, and attitudes toward school. These students were then compared to non-Title I, non-Comprehensive School Reform Demonstration (non-CSRD) peers' learning outcomes, behavior, and attitudes toward school.

CHAPTER THREE

Methodology

*Participants*

*Number of participants.* One hundred students were randomly selected from CSRD ($n = 50$) and non-CSRD ($n = 50$) schools. All participants completed the 6th grade and had attended their CSRD or non-CSRD school since 4th grade.

*Gender of participants.* The gender of the randomly selected participants was congruent with enrollment patterns in the participating schools where females represented 47% and males represented 53% of the total enrollment.

*Age range of participants.* The age range of study participants was from 11 to 13 years and all participants had completed the 6th grade at the end of the 2005/2006 school year.

*Racial and ethnic origin of participants.* The racial and ethnic origin ratio was congruent with enrollment patterns in the participating schools where 80% were White, not Hispanic; 10% were Black, not Hispanic; 6% were Hispanic; 3% were Asian/Pacific Islanders; and 1% were American Indian/Alaskan Native.

*Inclusion criteria of participants.* Sixth-grade students who had attended CSRD schools and non-CSRD

schools, within similar neighborhoods in the same school district, from 4th through 6th grade and had completed all study assessments were eligible for random selection into the study groups.

*Method of participant identification.* No individual identifiers were attached to the achievement, behavior, or attitudinal data of the 100 students randomly selected for data analysis.

*Description of Procedures*

*Research design.* The pretest-posttest two-group comparative survey study design was displayed in the following notation:

Group 1   $0_1$   $X_1$   $0_2$

Group 2   $0_1$   $X_2$   $0_2$

Group 1 = randomly selected CSRD group ($n$ = 50)

Group 2 = randomly selected non-CSRD group ($n$ = 50)

$X_1$ = 4th- through 6th-grade student participation from three similar neighborhood CSRD school programs

$X_2$ = 4th- through 6th-grade student participation from three similar neighborhood non-CSRD school programs

$0_1$ = pretest 4th-grade 1. Achievement dependent variable measures for (a) Terra Nova NRT (*i*) reading, (*ii*) language, and (*iii*) math NCE scores.

$0_2$ = posttest 6th-grade 1. Achievement dependent variable measures for (a) Terra Nova NRT (*i*) reading, (*ii*) language, and (*iii*) math NCE scores, (b) Essential Objectives CRT (*i*) reading, (*ii*) math, (*iii*) social studies, and (*iv*) science mastery scores, and (c) student cumulative report card (*i*) reading, (*ii*) math, (*iii*) social studies, and (*iv*) science scores. 2. Behavior dependent variable measures for reported (a) absence, (b) tardy, and (c) discipline referral data. 3. Attitude dependent variable measures for (a) the School Climate Survey, Elementary and Middle School version, scores.

The purpose of this study was to determine the effectiveness of the Comprehensive School Reform Demonstration (CSRD) program, in its sustainability phase, on Title I students' learning outcomes, behavior, and attitudes toward school compared to their non-CSRD peers' learning outcomes, behavior, and attitudes toward school. The CSRD program directly addresses the continuing challenge of implementing effective strategies and interventions in schools. CSRD is intended to help schools identify and adopt high-quality, well-defined, and research-based comprehensive school reform models that show the promise of preparing children to meet challenging state

content and performance standards (US Department of Education, 2001).

The increasing marketplace for CSRD models and the proven replicability of many of the programs showed that research-based models of educational improvement could be brought to scale across many schools and children from varying contexts (Borman et al., 2002). Comprehensive school reforms have a curriculum that sets high standards for all students and doesn't water down material (Odden, 2000). Comprehensive school reform embraces a diverse set of programs and strategies that require thorough reexaminations of all parts of school life, from attitudes and culture to leadership and curriculum. These programs involve all stakeholders in the school, home, and community in the pursuit of academic success for all students (McChesney & Hertling, 2000).

As the principal at Central Elementary during the implementation of the CSRD reform model DWoK, I was privileged to view first-hand the involvement of all stakeholders as we engaged in this process. The implementation of the DWoK reform model radically changed the way in which teachers approached instruction, no longer were students sitting in neat rows reading textbooks. The students were engaged in hands-on, cooperative learning

activities with higher-level thinking skills as the
expectation not the exception. The students and teachers at
the school embraced every teaching strategy and best
practice, and the impact was tremendous. All of the
students were engaged in the learning process; their
ability level making no difference. Students understood
that they were an integral piece in the learning
environment. They were encouraged to share their opinions
and knowledge on a regular basis. The students and staff
understood that "growing children create meanings from
school experiences that they can relate to their lives in
culture" (Bruner, 1996, p. 39).

Hargreaves (2003) states, "The cliché of 'making a
difference' no longer suffices as a moral purpose for
teaching" (p. 5). This may be true from society's point of
view, but I believe many teachers still feel they can and
will make a difference in the life of a child. I believe
this is why the reform model at Central has been such a
success; teachers are relentlessly looking for new ways to
improve for their students.

The teachers at Central Elementary are "developing
deep cognitive learning, creativity, and ingenuity among
students; drawing on research, working in networks and
teams, and pursuing continuous professional learning as

teachers; and promoting problem solving, risk-taking, trust in the collaborative process, the ability to cope with change and commitment to continuous improvement as organizations" (Hargreaves, 2003, p. 3). They fully embraced DWoK's "Best Practices of Teaching and Learning" (a) planning standards-based curriculum, assessment, and instruction using standards linked to big ideas, (b) facilitating teaching and learning to support student inquiry and self-directed learning, (c) teaching strategies that expert learners use in reading and writing to close the achievement gap, (d) teaching strategies that raise performance in mathematics to close the achievement gap, (e) integrating the visual, performing, literary, and media arts in all content areas to accelerate learning gains for all student groups, (f) engaging families and communities as partners in student learning, and (g) developing leadership to achieve required goals in student progress (Galef Institute, 2000).

While most teachers were anxious and worried about time and assessments, the teachers at Central Elementary were eager to take on new programs that might increase the students' abilities not for a state test, but rather for the long-term. The teachers didn't complain about yet another thing they have to do, they saw what needed to be

done and embraced it. The teachers at Central cultivated
"sophisticated professional learning systems that were
organized and structured to encourage professional learning
for teachers, so that it became an endemic and spontaneous
part of their work" (Hargreaves, 2003, p. 25).

The Central Elementary parents and families were
included in the process of implementing the reform model.
Like most they were drawing upon their own experiences as
students, so to hear their child explain that they didn't
always use their social studies book or that they acted out
the rain cycle, could be confusing and unsettling.
Educating the families took care of this concern, so
perhaps by presenting a more realistic picture of what was
happening in education to all aspects of society we could
alleviate some of the fear that seems to be generating the
standardized test movement.

*Independent Variable Descriptions*

The independent variables, CSRD and comparison non-
CSRD students, were analyzed using the following research
questions: Overarching Pretest-Posttest Achievement
Research Question #1. Did students who participated in CSRD
programs, in the sustainability phase, have different or
congruent 4th-grade compared to 6th-grade NRT reading,
language, and math achievement scores? Overarching Pretest-

Posttest Achievement Research Question #2. Did students who participated in non-CSRD programs, in the sustainability phase, have different or congruent 4th-grade compared to 6th-grade NRT reading, language, and math achievement scores? Overarching Posttest-Posttest Achievement Research Question #3. Did students who participated in CSRD and non-CSRD programs, in the sustainability phase, have different or congruent 6th-grade compared to 6th-grade NRT reading, language, and math achievement scores? Overarching Posttest-Posttest Achievement Research Question #4. Did those students who participated in the CSRD and non-CSRD programs, in the sustainability phase, have observed CRT-EO reading, math, social studies, and science mastery determination score improvement frequencies that are the same or different from the non-mastery determination scores? Overarching Posttest-Posttest Achievement Research Question #5. Did those students who participated in the CSRD program, in the sustainability phase, have greater observed CRT-EO reading, math, social studies, and science mastery determination score frequencies as compared to those students who participated in non-CSRD program? Overarching Posttest-Posttest Achievement Research Question #6. Did those students who participated in the CSRD and non-CSRD programs, in the sustainability phase, have

different or congruent 6th-grade compared to 6th-grade cumulative report card reading, math, social studies, and science grades? Overarching Posttest-Posttest Behavior Research Question #7. Did those students who participated in the CSRD and non-CSRD programs, in the sustainability phase, have different or congruent 6th-grade compared to 6th-grade tardies, absences, and discipline referrals? Overarching Posttest-Posttest Attitude Research Question #8. Did those students who participated in the CSRD programs, in the sustainability phase, report negative, neutral, or positive attitudes towards school, on the School Climate Survey, at the completion of the 6th-grade, that were different or the same as for those students who participated in non-CSRD programs?

*Dependent Measures*

These research questions focused on the dependent variables, achievement, behavior, and attitude. The first of these, achievement, was analyzed using the following dependent measures: (a) Norm-Referenced Test (NRT) scores, these scores were derived from the Terra Nova test, and included basic battery NCE scores for reading, language, and math, (b) Criterion Referenced Test (CRT) mastery scores, which are referred to as Essential Objectives by the study schools, were collected for reading, math, social

studies, and science, and (c) Student Cumulative Report Card scores, for each subject, reading, math, social studies and science. At the conclusion of each school year classroom teachers report the average accumulated grade for each subject and mark it in the student's cumulative folder. The achievement data was collected retrospectively from 4th-grade and 6th-grade data.

Behavior data was also collected retrospectively from 4th-grade and 6th-grade. The dependent measures were absence and tardy data for each student who was randomly selected for participation in this study. This information was obtained from the students' cumulative folders. Discipline referral information was also collected. All schools involved use the Boys' Town Social Skills method as an instructional tool for discipline prevention and as a tool for discipline referrals and documentation.

School attitude data was collected retrospective, posttest only. All 6th-grade students in the participating schools were administered the School Climate Survey, Elementary and Middle School Version. The survey was divided into six variable categories as a result of a reliability study conducted by the School Development Program, Yale Child Study Center. The variables produced the following reliability results: fairness 0.90, order and

discipline 0.68, parent involvement 0.62, sharing of resources 0.77, student interpersonal relations 0.86, and student-teacher relations 0.89 (Haynes, Emmons, & Comer, 2002).

*Research Questions and Data Analysis*

Overarching Pretest-Posttest Achievement Research Question #1. Did students who participated in CSRD programs, in the sustainability phase, have different or congruent 4th-grade compared to 6th-grade NRT reading, language, and math achievement scores?

Sub-Question 1a. Was there a significant difference between students' 4th-grade compared to 6th-grade NRT reading achievement scores after completing a CSRD school experience?

Sub-Question 1b. Was there a significant difference between students' 4th-grade compared to 6th-grade NRT language achievement scores after completing a CSRD school experience?

Sub-Question 1c. Was there a significant difference between students' 4th-grade compared to 6th-grade NRT math achievement scores after completing a CSRD school experience?

Research Sub-Questions #1a, 1b, and 1c were analyzed using dependent $t$ tests to examine the significance of the

difference between CSRD students' 4th-grade pretest compared to 6th-grade posttest NRT achievement scores. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

Overarching Pretest-Posttest Achievement Research Question #2. Did students who participated in non-CSRD programs, in the sustainability phase, have different or congruent 4th-grade compared to 6th-grade NRT reading, language, and math achievement scores?

Sub-Question 2a. Was there a significant difference between students' 4th-grade compared to 6th-grade NRT reading achievement scores after completing a non-CSRD school experience?

Sub-Question 2b. Was there a significant difference between students' 4th-grade compared to 6th-grade NRT language achievement scores after completing a non-CSRD school experience?

Sub-Question 2c. Was there a significant difference between students' 4th-grade compared to 6th-grade NRT math achievement scores after completing a non-CSRD school experience?

Research Sub-Questions #2a, 2b, and 2c were analyzed using dependent $t$ tests to examine the significance of the difference between non-CSRD students' 4th-grade pretest compared to 6th-grade posttest NRT achievement scores. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

Overarching Posttest-Posttest Achievement Research Question #3. Did students who participated in CSRD and non-CSRD programs, in the sustainability phase, have different or congruent 6th-grade compared to 6th-grade NRT reading, language, and math achievement scores?

Sub-Question 3a. Was there a significant difference between 6th-grade students' NRT reading achievement scores after completing CSRD and non-CSRD school experiences?

Sub-Question 3b. Was there a significant difference between 6th-grade students' NRT language achievement scores after completing CSRD and non-CSRD school experiences?

Sub-Question 3c. Was there a significant difference between 6th-grade students' NRT math achievement

scores after completing CSRD and non-CSRD school experiences?

Research Sub-Questions #3a, 3b, and 3c were analyzed using independent $t$ tests to examine the significance of the difference between CSRD students' 6th-grade posttest compared to non-CSRD students' 6th-grade posttest NRT achievement scores. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

Overarching Posttest-Posttest Achievement Research Question #4. Did those students who participated in the CSRD and non-CSRD programs, in the sustainability phase, have observed CRT-EO reading, math, social studies, and science mastery determination score improvement frequencies that were the same or different from the non-mastery determination scores?

Sub-Question 4a. Were observed mastery and non-mastery determination score frequencies for CRT-EO reading scores the same for students who participated in CSRD and non-CSRD school experiences?

Sub-Question 4b. Were observed mastery and non-mastery determination score frequencies for CRT-EO math

scores the same for students who participated in CSRD and non-CSRD school experiences?

Sub-Question 4c. Were observed mastery and non-mastery determination score frequencies for CRT-EO social studies scores the same for students who participated in CSRD and non-CSRD school experiences?

Sub-Question 4d. Were observed mastery and non-mastery determination score frequencies for CRT-EO science scores the same for students who participated in CSRD and non-CSRD school experiences?

Research Sub-Questions #4a, 4b, 4c, and 4d utilized a chi-square test of significance to compare observed versus expected CRT-EO mastery and non-mastery determination score frequencies for 6th-grade students who participated in the CSRD and non-CSRD programs. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Frequencies and percents were displayed on tables.

Overarching Posttest-Posttest Achievement Research Question #5. Did those students who participated in the CSRD program, in the sustainability phase, have greater observed CRT-EO reading, math, social studies, and science mastery determination score frequencies as compared to those students who participated in non-CSRD program?

Sub-Question 5a. Were mastery determination observed frequency scores for CRT-EO reading scores the same for students who participated in CSRD and non-CSRD school experiences?

Sub-Question 5b. Were mastery determination observed frequency scores for CRT-EO math scores the same for students who participated in CSRD and non-CSRD school experiences?

Sub-Question 5c. Were mastery determination observed frequency scores for CRT-EO social studies scores the same for students who participated in CSRD and non-CSRD school experiences?

Sub-Question 5d. Were mastery determination observed frequency scores for CRT-EO science scores the same for students who participated in CSRD and non-CSRD school experiences?

Research Sub-Questions #5a, 5b, 5c, and 5d utilized a chi-square test of significance to compare observed versus expected CRT-EO mastery determination score frequencies for 6th-grade students who participated in the CSRD and non-CSRD programs. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Frequencies and percents were displayed on tables.

Overarching Posttest-Posttest Achievement Research Question #6. Did those students who participated in the CSRD and non-CSRD programs, in the sustainability phase, have different or congruent 6th-grade compared to 6th-grade cumulative report card reading, math, social studies, and science grades?

Sub-Question 6a. Was there a significant difference between 6th-grade students' reading grades after completing CSRD and non-CSRD school experiences?

Sub-Question 6b. Was there a significant difference between 6th-grade students' math grades after completing CSRD and non-CSRD school experiences?

Sub-Question 6c. Was there a significant difference between 6th-grade students' social studies grades after completing CSRD and non-CSRD school experiences?

Sub-Question 6d. Was there a significant difference between 6th-grade students' science grades after completing CSRD and non-CSRD school experiences?

Research Sub-Questions #6a, 6b, 6c, and 6d were analyzed using independent $t$ tests to examine the significance of the difference between CSRD students' 6th-grade posttest compared to non-CSRD students' 6th-grade posttest cumulative report card grades. Because multiple

statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

Overarching Posttest-Posttest Behavior Research Question #7. Did those students who participated in the CSRD and non-CSRD programs, in the sustainability phase, have different or congruent 6th-grade compared to 6th-grade tardies, absences, and discipline referrals?

Sub-Question 7a. Was there a significant difference between 6th-grade students' tardies after completing CSRD and non-CSRD school experiences?

Sub-Question 7b. Was there a significant difference between 6th-grade students' absences after completing CSRD and non-CSRD school experiences?

Sub-Question 7c. Was there a significant difference between 6th-grade students' discipline referrals after completing CSRD and non-CSRD school experiences?

Research Sub-Questions #7a, 7b, and 7c were analyzed using independent $t$ tests to examine the significance of the difference between CSRD students' 6th-grade posttest compared to non-CSRD students' 6th-grade posttest tardies, absences, and discipline referrals. Because multiple statistical tests were conducted, a one-tailed .01 alpha

level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

Overarching Posttest-Posttest Attitude Research Question #8. Did those students who participated in the CSRD programs, in the sustainability phase, report negative, neutral, or positive attitudes towards school, on the School Climate Survey, at the completion of the 6th-grade, that were different or the same as for those students who participated in non-CSRD programs?

Research Questions #8 was analyzed using independent $t$ tests to examine the significance of the difference between CSRD students' 6th-grade posttest compared to non-CSRD students' 6th-grade posttest attitudes toward school. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

*Data Collection Procedures*

All study achievement data was retrospectively, archival, and routinely collected school information. Permission from the appropriate school research personnel was obtained. Attitudinal data was obtained retrospectively via survey. A random sampling of 50 students in each independent arm was obtained to include achievement,

behavior, and attitude data. Non-coded numbers were used to display individual de-identified achievement and behavioral data as well as attitudinal data. Aggregated group data, descriptive statistics, and parametric statistical analyses were utilized and reported with means and standard deviations on tables.

*Performance site.* The research was conducted in the public school setting through normal educational practices. The study procedures did not interfere in anyway with the normal educational practices of the public school and did not involve coercion or discomfort of any kind. All data was analyzed in the office of the researcher. Data was stored on spreadsheets and computer disks for statistical analysis. Data and computer disks were kept in a locked file cabinet. No individual identifiers were attached to the data.

CHAPTER 4

Results

The purpose of this study was to determine the effectiveness of the Comprehensive School Reform Demonstration (CSRD) program, in its sustainability phase, on Title I students' learning outcomes, behavior, and attitudes toward school as compared to their non-CSRD peers' learning outcomes, behavior, and attitudes toward school.

The study analyzed achievement, behavior, and attitudinal data of CSRD and comparison non-CSRD students to determine if the sustainability of the CSRD program significantly impacted student outcomes. All study achievement data related to each of these dependent variables was retrospective, archival, and routinely collected school information. Permission from the appropriate school research personnel was obtained before achievement and behavioral data were collected and analyzed. Attitudinal data was obtained retrospectively via survey.

*Research Question #1*

Table 1 displays the demographic data of individual students in CSRD programs including their ethnicity, gender, eligibility for special education support,

eligibility for high ability learner support, and
eligibility for free and reduced price lunch. Table 2
displays the demographic data of individual students in
non-CSRD programs including their ethnicity, gender,
eligibility for special education support, eligibility for
high ability learner support, and eligibility for free and
reduced price lunch. Individual CSRD programs' students'
Terra Nova reading, language, and math normal curve
equivalent scores are displayed in Table 3. Individual non-
CSRD programs' students' Terra Nova reading, language, and
math normal curve equivalent scores are displayed in Table
4.

The first hypothesis comparing CSRD programs'
students' dependent $t$ test pretest posttest Terra Nova
reading, language, and math NCE score results were
displayed in Table 5. As seen in Table 5 the null
hypothesis was not rejected for one achievement subtest,
reading, and was rejected for two achievement subtests,
language and math. The pretest reading score ($M = 55.28$, $SD$
$= 15.63$) compared to the posttest reading score ($M = 57.50$,
$SD = 16.16$) was not statistically significantly different,
$t(49) = 1.22$, $p = .11$ (one-tailed), $d = .13$. The pretest
language score ($M = 53.10$, $SD = 20.44$) compared to the
posttest language score ($M = 59.24$, $SD = 19.86$) was

statistically significantly different, $t(49) = 3.05$, $p <$ .002 (one-tailed), $d = .30$. The pretest math score ($M =$ 50.34, $SD = 17.55$) compared to the posttest math score ($M =$ 58.24, $SD = 15.37$) was statistically significantly different, $t(49) = 5.27$, $p < .000$ (one-tailed), $d = .48$.

Overall, pretest posttest results indicated that CSRD students did not significantly improve their reading scores but did significantly improve their language and math scores. Comparing CSRD students' NRT NCE scores with derived achievement scores puts their performance in perspective. An NRT NCE posttest reading mean score of 57.50 is congruent with a Standard Score of 105, a Percentile Rank of 63, a Stanine Score of 6, and an achievement qualitative description of Average. An NRT NCE posttest language mean score of 59.24 is congruent with a Standard Score of 106, a Percentile Rank of 66, a Stanine Score of 6, and an achievement qualitative description of Average. An NRT NCE posttest math mean score of 58.24 is congruent with a Standard Score of 105, a Percentile Rank of 63, a Stanine Score of 6, and an achievement qualitative description of Average.

*Research Question #2*

The second hypothesis comparing non-CSRD programs' students' dependent $t$ test pretest posttest Terra Nova

reading, language, and math NCE score results were displayed in Table 6. As seen in Table 6 the null hypothesis was not rejected for any of the achievement subtests, reading, language, and math. The pretest reading score ($M$ = 59.32, $SD$ = 14.69) compared to the posttest reading score ($M$ = 59.76, $SD$ = 14.29) was not statistically significantly different, $t(49)$ = 0.03, $p$ = .39 (one-tailed), $d$ = .13. The pretest language score ($M$ = 64.16, $SD$ = 17.65) compared to the posttest language score ($M$ = 61.66, $SD$ = 16.86) was not statistically significantly different, $t(49)$ = - 1.41, $p$ = .08 (one-tailed), $d$ = .14. The pretest math score ($M$ = 62.94, $SD$ = 16.56) compared to the posttest math score ($M$ = 62.06, $SD$ = 12.32) was not statistically significantly different, $t(49)$ = - 0.06, $p$ = .31 (one-tailed), $d$ = .48.

Overall, pretest posttest results indicated that non-CSRD students did not significantly improve their reading, language and math scores. Comparing non-CSRD students' NRT NCE scores with derived achievement scores puts their performance in perspective. An NRT NCE posttest reading mean score of 59.76 is congruent with a Standard Score of 106, a Percentile Rank of 66, a Stanine Score of 6, and an achievement qualitative description of Average. An NRT NCE posttest language mean score of 61.66 is congruent with a

Standard Score of 108, a Percentile Rank of 70, a Stanine Score of 6, and an achievement qualitative description of Average. An NRT NCE posttest math mean score of 62.06 is congruent with a Standard Score of 109, a Percentile Rank of 73, a Stanine Score of 6, and an achievement qualitative description of Average.

*Research Question #3*

The third hypothesis was tested using the independent $t$ test. As seen in Table 7, a comparison of CSRD programs' versus non-CSRD programs' students' posttest Terra Nova reading, language, and math NCE scores, the null hypothesis was not rejected for (a) CSRD students' Terra Nova NCE reading scores ($M$ = 57.50, $SD$ = 16.16) compared to non-CSRD students' Terra Nova NCE reading scores ($M$ = 59.76, $SD$ = 14.29), $t(98)$ = 0.74, $p$ = .23 (one-tailed), $d$ = .15, (b) CSRD students' Terra Nova NCE language scores ($M$ = 59.24, $SD$ = 19.86) compared to non-CSRD students' Terra Nova NCE language scores ($M$ = 61.66, $SD$ = 16.86), $t(98)$ = 0.66, $p$ = .26 (one-tailed), $d$ = .13, and (c) CSRD students' Terra Nova NCE math scores ($M$ = 58.24, $SD$ = 15.37) compared to non-CSRD students' Terra Nova NCE math scores ($M$ = 62.06, $SD$ = 12.32), $t(98)$ = 1.37, $p$ = .09 (one-tailed), $d$ = .27.

Overall, these findings indicated that CSRD and non-CSRD programs equally prepared students for performance on

achievement tests and this was reflected in the reading, language, and math dependent measures comparisons.

*Research Question #4*

Table 8 displays the individual CSRD students' sixth-grade essential objectives mastery determinations for reading, math, social studies, and science. The individual non-CSRD students' sixth-grade essential objectives mastery determinations for reading, math, social studies, and science are found in Table 9. CSRD students' posttest essential objectives reading, math, social studies, and science mastery compared to non-mastery determinations are found in Table 10. The fourth hypothesis was tested using chi-square ($X^2$). The result of $X^2$ displayed in Table 10 was statistically different ($X^2$(3, $N$ = 50) = 13.57, $p$ = .01) so we rejected the hypothesis of no difference or congruence for CSRD students' mastery compared to non-mastery determinations. Inspecting the frequency and percent findings in Table 10, observed frequencies for CSRD program students essential objectives posttest mastery determinations, we found that the number of CSRD students with observed mastery determinations in reading (40, 80%), math (47, 94%), social studies (49, 98%), and science (48, 96%) was greater than the totals observed for non-mastery

determinations (10, 20%; 3, 6%; 1, 2%; 2, 4%, respectively).

Overall, these findings indicated that CSRD students had observed mastery determination frequencies that ranged from a high of 49 (98%) for social studies and a low of 40 (80%) for reading. These frequencies represented greater reading, math, social studies, and science achievement success than observed non-mastery determinations.

Non-CSRD students' posttest essential objectives reading, math, social studies, and science mastery compared to non-mastery determinations are found in Table 11. The fourth hypothesis was tested using chi-square. The result of $X^2$ displayed in Table 11 was statistically different ($X^2$(3, $N$ = 50) = 20.37, $p$ = .001) so we rejected the hypothesis of no difference or congruence for non-CSRD students' mastery compared to non-mastery determinations. Inspecting the frequency and percent findings in Table 11 we found that the number of CSRD students with observed mastery determinations in reading (48, 96%), math (49, 98%), social studies (49, 98%), and science (39, 78%) was greater than the totals observed for non-mastery determinations (2, 4%; 1, 2%; 1, 2%; 11, 22%, respectively).

Overall, these findings indicated that non-CSRD students had observed mastery determination frequencies that ranged from a high of 49 (98%) for math and social studies and a low of 39 (78%) for science. These frequencies represented greater reading, math, social studies, and science achievement success than observed non-mastery determinations.

*Research Question #5*

CSRD students' posttest essential objectives reading, math, social studies, and science mastery determinations compared to non-CSRD students' posttest essential objectives reading, math, social studies, and science mastery determinations are found in Table 12. The fifth hypothesis was tested using chi-square. The result of $X^2$ displayed in Table 12 was not statistically different ($X^2(3, N = 100) = 1.69, p = .70, ns$) so the null hypothesis of no difference or congruence was not rejected for CSRD students' compared to non-CSRD students' observed mastery determinations. The frequency data found in Table 12 indicated that the number of CSRD students with observed mastery determinations in reading (40), math (47), social studies (49), and science (48) was not greater than the totals observed for non-CSRD students observed mastery determinations (48; 49; 49; and 39, respectively).

Overall, these findings indicated that CSRD and non-CSRD students had observed mastery determination frequencies for reading, math, social studies, and science that were considered congruent.

*Research Question #6*

The sixth hypothesis was tested using the independent *t* test. As seen in Table 13, a comparison of CSRD programs' versus non-CSRD programs' students' posttest cumulative report card scores for reading, math, social studies, and science, the null hypothesis was not rejected for (a) CSRD students' cumulative reading report card scores ($M$ = 1.94, $SD$ = 0.87) compared to non-CSRD students' cumulative reading report card scores ($M$ = 1.68, $SD$ = 0.65), $t(98)$ = 1.69, $p$ = .05 (one-tailed), $d$ = .34, (b) CSRD students' cumulative math report card scores ($M$ = 2.08, $SD$ = 0.92) compared to non-CSRD students' cumulative math report card scores ($M$ = 1.94, $SD$ = 0.68), $t(98)$ = 0.86, $p$ = .20 (one-tailed), $d$ = .18, (c) CSRD students' cumulative social studies report card scores ($M$ = 2.12, $SD$ = 0.94) compared to non-CSRD students' cumulative social studies report card scores ($M$ = 1.88, $SD$ = 0.75), $t(98)$ = 1.41, $p$ = .08 (one-tailed), $d$ = .29, and (d) CSRD students' cumulative science report card scores ($M$ = 2.02, $SD$ = 0.94) compared to non-CSRD students' cumulative science report card scores ($M$ =

1.82, *SD* = 0.63), *t*(98) = 1.25, *p* = .10 (one-tailed), *d* = .25.

Overall, these findings indicated that CSRD and non-CSRD programs equally prepared students to earn classroom grades that were observed to be within the A and B grade range as reflected in the reading, math, social studies, and science grade comparisons.

*Research Question #7*

The seventh hypothesis was tested using the independent *t* test. As seen in Table 14, a comparison of CSRD programs versus non-CSRD programs' students' posttest tardies, absences, and discipline referrals, the null hypothesis was not rejected for (a) CSRD students' tardies (*M* = 5.78, *SD* = 10.21) compared to non-CSRD students' tardies (*M* = 3.92, *SD* = 10.79), *t*(98) = 0.89, *p* = .19 (one-tailed), *d* = .17, (b) CSRD students' absences (*M* = 6.79, *SD* = 5.04) compared to non-CSRD students' absences (*M* = 6.56, *SD* = 5.36), *t*(98) = 0.22, *p* = .41 (one-tailed), *d* = .04, and (c) CSRD students' discipline referrals (*M* = 0.88, *SD* = 2.18) compared to non-CSRD students' discipline referrals (*M* = 0.76, *SD* = 1.49), *t*(98) = .32, *p* = .37 (one-tailed), *d* = .07.

Overall, these findings indicated that students who participated in CSRD and non-CSRD programs completed this

study with equally low levels of recorded tardies, absences, and office referrals.

*Research Question #8*

The eighth hypothesis was tested using the independent *t* test. As seen in Table 15, a comparison of CSRD programs' versus non-CSRD programs' students' posttest school climate survey, the null hypothesis was rejected for (a) CSRD students' reported order and discipline (*M* = 2.02, *SD* = 0.86) compared to non-CSRD students' reported order and discipline (*M* = 2.26, *SD* = 0.83), *t*(98) = 3.69, *p* < .000 (one-tailed), *d* = .28 and (b) CSRD students' reported student relations (*M* = 2.09, *SD* = 0.83) compared to non-CSRD students' reported student relations (*M* = 2.23, *SD* = 0.74), *t*(98) = 2.41, *p* < .008 (one-tailed), *d* = .18. The null hypothesis was not rejected for (c) CSRD students' reported fairness (*M* = 2.46, *SD* = 0.77) compared to non-CSRD students' reported fairness (*M* = 2.52, *SD* = 0.73), *t*(98) = 0.96, *p* = .17 (one-tailed), *d* = .08, (d) CSRD students' reported parent involvement (*M* = 2.10, *SD* = 0.90) compared to non-CSRD students' reported parent involvement (*M* = 2.18, *SD* = 0.91), *t*(98) = 0.99, *p* = .16 (one-tailed), *d* = .09, (e) CSRD students' reported sharing of resources (*M* = 2.43, *SD* = 0.84) compared to non-CSRD students' reported sharing of resources (*M* = 2.42, *SD* = 0.78), *t*(98)

$= 0.12$, $p = .45$ (one-tailed), $d = .01$, and (f) CSRD

students' reported student-teacher relations ($M = 2.65$, $SD$

$= 0.67$) compared to non-CSRD students' reported student-

teacher relations ($M = 2.69$, $SD = 0.61$), $t(98) = 0.93$, $p =$

$.18$ (one-tailed), $d = .06$.

Overall, the results indicated two areas of

significant difference, (a) order and discipline and (b)

student relations where the non-CSRD students responded

more favorably than the CSRD students on these domain

questions. While no significant differences were found in

the other CSRD non-CSRD comparisons all domain mean scores

ranged from a low of 2.02 to a high of 2.69 on a three-

point Likert scale where, disagree = 1, not sure = 2, and

agree = 3.

Table 1

Demographic Data of Individual Students in Comprehensive

School Reform Demonstration Programs

| Student Number | Ethnicity | Gender |
|---|---|---|
| 1. | White | Female |
| 2. | White | Male (b) |
| 3. | White | Male (b) |
| 4. | White | Female (a) |
| 5. | White | Male |
| 6. | White | Male (b) |
| 7. | White | Female (b) |
| 8. | White | Male (b) |
| 9. | White | Male (a) |
| 10. | White | Female |
| 11. | Hispanic | Female (c) |
| 12. | White | Female (b) |
| 13. | White | Male (c) |
| 14. | White | Male (a) |
| 15. | White | Female |
| 16. | Hispanic | Female |
| 17. | White | Female |
| 18. | White | Male (c) |
| 19. | African-American | Female (c) |
| 20. | White | Male (c) |
| 21. | White | Female |
| 22. | African-American | Male (a) |
| 23. | White | Male (a) |
| 24. | White | Female |
| 25. | White | Female (b) |
| 26. | White | Female (b, c) |
| 27. | White | Female (c) |
| 28. | White | Female |
| 29. | White | Female (b, c) |
| 30. | White | Male (a) |
| 31. | African-American | Female |
| 32. | White | Female |
| 33. | African-American | Male (c) |
| 34. | African-American | Female (a, c) |
| 35. | Asian/Pacific Islander | Female (c) |
| 36. | Hispanic | Male (c) |
| 37. | White | Male (a, c) |

| 38. | Hispanic | Male (a, c) |
| 39. | African-American | Female |
| 40. | White | Male (a, c) |
| 41. | White | Female |
| 42. | African-American | Female |
| 43. | Hispanic | Female (b, c) |
| 44. | Hispanic | Male |
| 45. | White | Female (a, c) |
| 46. | White | Female |
| 47. | White | Male (c) |
| 48. | African-American | Male |
| 49. | White | Female |
| 50. | White | Female (c) |

(a) Note: Eligible for special education support.
(b) Note: Eligible for high ability learner support.
(c) Note: Eligible for free and reduced price lunch.

Table 2

Demographic Data of Individual Students in Non-

Comprehensive School Reform Demonstration Programs

| Student Number | Ethnicity | Gender |
|---|---|---|
| 1. | White | Female (b, c) |
| 2. | White | Female (b) |
| 3. | White | Male |
| 4. | White | Male (b) |
| 5. | White | Male (a) |
| 6. | White | Male (a) |
| 7. | White | Female |
| 8. | White | Male (a) |
| 9. | White | Male (a) |
| 10. | White | Female (b) |
| 11. | White | Female |
| 12. | White | Female |
| 13. | White | Female (b) |
| 14. | White | Male |
| 15. | Asian/Pacific Islander | Female (b) |
| 16. | African-American | Male (c) |
| 17. | White | Male (a, c) |
| 18. | White | Male (a) |
| 19. | White | Male |
| 20. | White | Male |
| 21. | White | Male |
| 22. | White | Female (b) |
| 23. | White | Male (c) |
| 24. | White | Male (c) |
| 25. | White | Female |
| 26. | White | Female (b) |
| 27. | White | Female |
| 28. | White | Female (b) |
| 29. | White | Female (c) |
| 30. | White | Male (b) |
| 31. | White | Male |
| 32. | White | Male (c) |
| 33. | White | Female |
| 34. | White | Male (b, c) |
| 35. | White | Male (b) |
| 36. | White | Female |
| 37. | White | Female |

| 38. | White | Male (b) |
| 39. | White | Male (a, c) |
| 40. | White | Male |
| 41. | White | Male |
| 42. | White | Female |
| 43. | White | Male |
| 44. | White | Female |
| 45. | White | Female |
| 46. | White | Male |
| 47. | African-American | Female |
| 48. | White | Male |
| 49. | Asian/Pacific Islander | Female (b) |
| 50. | White | |

(a) Note: Eligible for special education support.
(b) Note: Eligible for high ability learner support.
(c) Note: Eligible for free and reduced price lunch.

Table 3

Individual Students in Comprehensive School Reform

Demonstration Programs' Terra Nova Reading, Language, and

Math Normal Curve Equivalent Scores (a)

| Student (a) | Reading | | Language | | Math | |
|---|---|---|---|---|---|---|
| | Pre | Post | Pre | Post | Pre | Post |
| 1. | 37 | 65 | 35 | 64 | 28 | 55 |
| 2. | 73 | 76 | 77 | 83 | 67 | 82 |
| 3. | 73 | 71 | 56 | 75 | 67 | 73 |
| 4. | 50 | 76 | 51 | 70 | 48 | 50 |
| 5. | 47 | 62 | 40 | 53 | 29 | 58 |
| 6. | 99 | 99 | 91 | 99 | 90 | 90 |
| 7. | 59 | 60 | 75 | 87 | 60 | 78 |
| 8. | 64 | 73 | 71 | 79 | 76 | 79 |
| 9. | 36 | 8 | 6 | 38 | 29 | 58 |
| 10. | 61 | 61 | 57 | 68 | 73 | 67 |
| 11. | 56 | 69 | 49 | 57 | 46 | 53 |
| 12. | 80 | 67 | 96 | 96 | 79 | 82 |
| 13. | 59 | 63 | 72 | 65 | 60 | 68 |
| 14. | 64 | 79 | 68 | 66 | 57 | 60 |
| 15. | 53 | 54 | 56 | 65 | 39 | 63 |
| 16. | 67 | 52 | 47 | 57 | 67 | 44 |
| 17. | 62 | 52 | 51 | 41 | 33 | 35 |
| 18. | 69 | 43 | 59 | 65 | 39 | 61 |
| 19. | 42 | 71 | 46 | 63 | 42 | 52 |
| 20. | 37 | 48 | 35 | 53 | 32 | 54 |
| 21. | 35 | 39 | 28 | 50 | 42 | 47 |
| 22. | 35 | 48 | 1 | 45 | 32 | 52 |
| 23. | 26 | 44 | 35 | 43 | 31 | 33 |
| 24. | 61 | 63 | 65 | 80 | 66 | 67 |
| 25. | 71 | 71 | 81 | 80 | 74 | 67 |
| 26. | 71 | 71 | 71 | 81 | 65 | 78 |
| 27. | 60 | 58 | 56 | 64 | 50 | 59 |
| 28. | 38 | 55 | 46 | 57 | 38 | 50 |
| 29. | 60 | 60 | 61 | 71 | 67 | 81 |
| 30. | 36 | 32 | 36 | 29 | 43 | 36 |
| 31. | 67 | 68 | 61 | 54 | 49 | 58 |
| 32. | 76 | 61 | 83 | 74 | 68 | 67 |
| 33. | 59 | 53 | 30 | 63 | 49 | 61 |

| | | | | | | |
|------|----|----|----|----|----|----|
| 34. | 44 | 19 | 40 | 17 | 30 | 26 |
| 35. | 50 | 54 | 64 | 60 | 55 | 63 |
| 36. | 56 | 40 | 31 | 53 | 47 | 45 |
| 37. | 32 | 35 | 15 | 5 | 26 | 34 |
| 38. | 34 | 49 | 28 | 15 | 19 | 29 |
| 39. | 66 | 56 | 49 | 46 | 35 | 42 |
| 40. | 39 | 40 | 42 | 31 | 44 | 48 |
| 41. | 37 | 46 | 52 | 51 | 38 | 58 |
| 42. | 36 | 38 | 52 | 60 | 40 | 60 |
| 43. | 71 | 64 | 66 | 69 | 43 | 65 |
| 44. | 78 | 76 | 68 | 97 | 79 | 76 |
| 45. | 47 | 61 | 33 | 34 | 22 | 27 |
| 46. | 47 | 53 | 58 | 59 | 51 | 64 |
| 47. | 60 | 82 | 84 | 59 | 76 | 71 |
| 48. | 56 | 64 | 71 | 57 | 74 | 70 |
| 49. | 57 | 61 | 62 | 59 | 54 | 63 |
| 50. | 71 | 65 | 48 | 55 | 49 | 53 |

(a) Note: Numbers correspond with Table 1.

Table 4

Individual Students in Non-Comprehensive School Reform

Demonstration Programs' Terra Nova Reading, Language, and

Math Normal Curve Equivalent Scores (a)

| Student (a) | Reading | | Language | | Math | |
|---|---|---|---|---|---|---|
| | Pre | Post | Pre | Post | Pre | Post |
| 1. | 63 | 62 | 66 | 68 | 60 | 69 |
| 2. | 74 | 77 | 68 | 73 | 54 | 59 |
| 3. | 57 | 71 | 64 | 64 | 61 | 66 |
| 4. | 74 | 79 | 85 | 87 | 71 | 72 |
| 5. | 36 | 39 | 42 | 53 | 40 | 56 |
| 6. | 43 | 49 | 31 | 31 | 13 | 34 |
| 7. | 65 | 62 | 67 | 60 | 59 | 57 |
| 8. | 48 | 60 | 51 | 29 | 42 | 54 |
| 9. | 42 | 45 | 49 | 48 | 45 | 49 |
| 10. | 73 | 76 | 77 | 99 | 99 | 79 |
| 11. | 40 | 22 | 51 | 52 | 57 | 55 |
| 12. | 57 | 65 | 84 | 88 | 68 | 67 |
| 13. | 73 | 79 | 61 | 69 | 88 | 73 |
| 14. | 73 | 76 | 78 | 84 | 72 | 74 |
| 15. | 71 | 76 | 74 | 77 | 67 | 76 |
| 16. | 54 | 67 | 63 | 71 | 62 | 57 |
| 17. | 47 | 45 | 68 | 32 | 44 | 39 |
| 18. | 65 | 64 | 77 | 51 | 60 | 60 |
| 19. | 67 | 61 | 52 | 46 | 75 | 65 |
| 20. | 34 | 50 | 47 | 39 | 48 | 56 |
| 21. | 57 | 59 | 42 | 43 | 54 | 57 |
| 22. | 75 | 63 | 87 | 71 | 63 | 67 |
| 23. | 55 | 64 | 49 | 74 | 55 | 70 |
| 24. | 40 | 60 | 58 | 60 | 46 | 66 |
| 25. | 59 | 56 | 44 | 67 | 65 | 65 |
| 26. | 77 | 82 | 91 | 87 | 96 | 79 |
| 27. | 46 | 57 | 69 | 66 | 72 | 80 |
| 28. | 64 | 67 | 69 | 71 | 74 | 65 |
| 29. | 23 | 40 | 17 | 39 | 39 | 50 |
| 30. | 89 | 58 | 49 | 46 | 66 | 39 |
| 31. | 66 | 60 | 74 | 64 | 62 | 73 |
| 32. | 51 | 49 | 58 | 57 | 74 | 68 |
| 33. | 67 | 50 | 72 | 55 | 62 | 49 |

| | | | | | | |
|------|----|----|----|----|----|----|
| 34. | 76 | 83 | 83 | 76 | 94 | 66 |
| 35. | 80 | 83 | 99 | 87 | 94 | 99 |
| 36. | 74 | 57 | 61 | 57 | 57 | 62 |
| 37. | 60 | 48 | 71 | 66 | 79 | 70 |
| 38. | 72 | 60 | 68 | 59 | 82 | 70 |
| 39. | 39 | 61 | 47 | 56 | 45 | 57 |
| 40. | 50 | 28 | 43 | 38 | 51 | 48 |
| 41. | 48 | 45 | 81 | 57 | 65 | 62 |
| 42. | 60 | 60 | 58 | 59 | 60 | 48 |
| 43. | 64 | 62 | 68 | 50 | 73 | 62 |
| 44. | 55 | 44 | 48 | 50 | 49 | 54 |
| 45. | 63 | 55 | 62 | 54 | 65 | 44 |
| 46. | 30 | 33 | 42 | 42 | 49 | 46 |
| 47. | 77 | 76 | 99 | 75 | 68 | 65 |
| 48. | 51 | 57 | 71 | 60 | 67 | 60 |
| 49. | 66 | 64 | 74 | 84 | 85 | 61 |
| 50. | 76 | 82 | 99 | 92 | 51 | 83 |

(a) Note: Numbers correspond with Table 2.

Table 5

Comprehensive School Reform Demonstration Programs'

Students' Pretest Compared to Posttest Terra Nova Reading,

Language, and Math Normal Curve Equivalent Scores

| Source Of Data | Pretest Scores | | Posttest Scores | | Effect Size | $t$ | $p$ |
|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | | | |
| Reading | 55.28 | (15.63) | 57.50 | (16.16) | 0.13 | 1.22 | .11* |
| Language | 53.10 | (20.44) | 59.24 | (19.86) | 0.30 | 3.05 | .002** |
| Math | 50.34 | (17.55) | 58.24 | (15.37) | 0.48 | 5.27 | .000*** |

* Note: *ns*.

** Note: $p < .002$.

*** Note: $p < .000$.

Table 6

Non-Comprehensive School Reform Demonstration Programs'
Students' Pretest Compared to Posttest Terra Nova Reading,
Language, and Math Normal Curve Equivalent Scores

| Source Of Data | Pretest Scores | | Posttest Scores | | Effect Size | t | p |
|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | | | |
| Reading | 59.32 | (14.69) | 59.76 | (14.29) | 0.13 | 0.03 | .39* |
| Language | 64.16 | (17.65) | 61.66 | (16.86) | 0.14 | -1.41 | .08* |
| Math | 62.94 | (16.56) | 62.06 | (12.32) | 0.48 | -0.06 | .31* |

* Note: ns.

Table 7

Comparison of Comprehensive School Reform Demonstration

Programs' versus Non-Comprehensive School Reform

Demonstration Programs' Students' Posttest Terra Nova

Reading, Language, and Math Normal Curve Equivalent Scores

| Source Of Data | CSRD Posttest Scores | | Non-CSRD Posttest Scores | | Effect Size | t | p |
|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | | | |
| Reading | 57.50 | (16.16) | 59.76 | (14.29) | 0.15 | 0.74 | .23* |
| Language | 59.24 | (19.86) | 61.66 | (16.86) | 0.13 | 0.66 | .26* |
| Math | 58.24 | (15.37) | 62.06 | (12.32) | 0.27 | 1.37 | .09* |

* Note: ns.

Table 8

Essential Objectives Sixth-Grade Mastery Determinations for

Reading, Math, Social Studies, and Science Assessments of

Individual Students in Comprehensive School Reform

Demonstration Programs

| (a) | Reading | Math | Social Studies | Science |
|-----|---------|------|----------------|---------|
| 1. | Mastery | Mastery | Mastery | Mastery |
| 2. | Mastery | Mastery | Mastery | Mastery |
| 3. | Mastery | Mastery | Mastery | Mastery |
| 4. | Non-Mastery | Mastery | Mastery | Mastery |
| 5. | Mastery | Mastery | Mastery | Mastery |
| 6. | Mastery | Mastery | Mastery | Mastery |
| 7. | Mastery | Mastery | Mastery | Mastery |
| 8. | Mastery | Mastery | Mastery | Mastery |
| 9. | Non-Mastery | Mastery | Mastery | Mastery |
| 10. | Mastery | Mastery | Mastery | Mastery |
| 11. | Mastery | Mastery | Mastery | Mastery |
| 12. | Mastery | Mastery | Mastery | Mastery |
| 13. | Mastery | Mastery | Mastery | Mastery |
| 14. | Mastery | Mastery | Mastery | Mastery |
| 15. | Mastery | Mastery | Mastery | Mastery |
| 16. | Mastery | Mastery | Mastery | Mastery |
| 17. | Mastery | Non-Mastery | Mastery | Mastery |
| 18. | Mastery | Mastery | Mastery | Mastery |
| 19. | Mastery | Mastery | Mastery | Mastery |
| 20. | Mastery | Mastery | Mastery | Mastery |
| 21. | Mastery | Mastery | Mastery | Mastery |
| 22. | Non-Mastery | Mastery | Mastery | Mastery |
| 23. | Non-Mastery | Mastery | Mastery | Mastery |
| 24. | Mastery | Mastery | Mastery | Mastery |
| 25. | Mastery | Mastery | Mastery | Mastery |
| 26. | Mastery | Mastery | Mastery | Mastery |
| 27. | Mastery | Mastery | Mastery | Mastery |
| 28. | Mastery | Mastery | Mastery | Mastery |
| 29. | Mastery | Mastery | Mastery | Mastery |
| 30. | Non-Mastery | Mastery | Mastery | Mastery |
| 31. | Mastery | Mastery | Mastery | Mastery |
| 32. | Mastery | Mastery | Mastery | Mastery |
| 33. | Mastery | Mastery | Mastery | Mastery |

| | | | |
|---|---|---|---|
| 34. | Non-Mastery | Non-Mastery | Mastery | Non-Mastery |
| 35. | Mastery | Mastery | Mastery | Mastery |
| 36. | Mastery | Mastery | Mastery | Mastery |
| 37. | Non-Mastery | Mastery | Mastery | Mastery |
| 38. | Non-Mastery | Non-Mastery | Non-Mastery | Non-Mastery |
| 39. | Mastery | Mastery | Mastery | Mastery |
| 40. | Non-Mastery | Mastery | Mastery | Mastery |
| 41. | Mastery | Mastery | Mastery | Mastery |
| 42. | Mastery | Mastery | Mastery | Mastery |
| 43. | Mastery | Mastery | Mastery | Mastery |
| 44. | Mastery | Mastery | Mastery | Mastery |
| 45. | Non-Mastery | Mastery | Mastery | Mastery |
| 46. | Mastery | Mastery | Mastery | Mastery |
| 47. | Mastery | Mastery | Mastery | Mastery |
| 48. | Mastery | Mastery | Mastery | Mastery |
| 49. | Mastery | Mastery | Mastery | Mastery |
| 50. | Mastery | Mastery | Mastery | Mastery |

(a) Note: Numbers correspond with Table 1.

Table 9

Essential Objectives Sixth-Grade Mastery Determinations for

Reading, Math, Social Studies, and Science Assessments of

Individual Students in Non-Comprehensive School Reform

Demonstration Programs

| (a) | Reading | Math | Social Studies | Science |
|-----|---------|------|----------------|---------|
| 1. | Mastery | Mastery | Mastery | Mastery |
| 2. | Mastery | Mastery | Mastery | Mastery |
| 3. | Mastery | Mastery | Mastery | Mastery |
| 4. | Mastery | Mastery | Mastery | Mastery |
| 5. | Mastery | Mastery | Mastery | Mastery |
| 6. | Mastery | Mastery | Mastery | Non-Mastery |
| 7. | Mastery | Mastery | Mastery | Mastery |
| 8. | Mastery | Mastery | Mastery | Mastery |
| 9. | Mastery | Mastery | Mastery | Mastery |
| 10. | Mastery | Mastery | Mastery | Mastery |
| 11. | Non-Mastery | Mastery | Mastery | Mastery |
| 12. | Mastery | Mastery | Mastery | Mastery |
| 13. | Mastery | Mastery | Mastery | Mastery |
| 14. | Mastery | Mastery | Mastery | Mastery |
| 15. | Mastery | Mastery | Mastery | Mastery |
| 16. | Mastery | Mastery | Mastery | Mastery |
| 17. | Non-Mastery | Mastery | Mastery | Mastery |
| 18. | Mastery | Mastery | Mastery | Mastery |
| 19. | Mastery | Mastery | Mastery | Mastery |
| 20. | Mastery | Mastery | Mastery | Non-Mastery |
| 21. | Mastery | Mastery | Mastery | Mastery |
| 22. | Mastery | Mastery | Mastery | Mastery |
| 23. | Mastery | Mastery | Mastery | Mastery |
| 24. | Mastery | Mastery | Mastery | Non-Mastery |
| 25. | Mastery | Mastery | Mastery | Mastery |
| 26. | Mastery | Mastery | Mastery | Mastery |
| 27. | Mastery | Mastery | Mastery | Mastery |
| 28. | Mastery | Mastery | Mastery | Mastery |
| 29. | Mastery | Mastery | Mastery | Mastery |
| 30. | Mastery | Mastery | Mastery | Mastery |
| 31. | Mastery | Mastery | Mastery | Mastery |
| 32. | Mastery | Mastery | Mastery | Non-Mastery |
| 33. | Mastery | Mastery | Mastery | Non-Mastery |

| | | | |
|---|---|---|---|
| 34. | Mastery | Mastery | Non-Mastery | Mastery |
| 35. | Mastery | Mastery | Mastery | Mastery |
| 36. | Mastery | Mastery | Mastery | Mastery |
| 37. | Mastery | Mastery | Mastery | Mastery |
| 38. | Mastery | Mastery | Mastery | Non-Mastery |
| 39. | Mastery | Mastery | Mastery | Mastery |
| 40. | Mastery | Mastery | Mastery | Non-Mastery |
| 41. | Mastery | Mastery | Mastery | Mastery |
| 42. | Mastery | Mastery | Mastery | Non-Mastery |
| 43. | Mastery | Mastery | Mastery | Non-Mastery |
| 44. | Mastery | Mastery | Mastery | Non-Mastery |
| 45. | Mastery | Non-Mastery | Mastery | Non-Mastery |
| 46. | Mastery | Mastery | Mastery | Mastery |
| 47. | Mastery | Mastery | Mastery | Mastery |
| 48. | Mastery | Mastery | Mastery | Mastery |
| 49. | Mastery | Mastery | Mastery | Mastery |
| 50. | Mastery | Mastery | Mastery | Mastery |

(a) Note: Numbers correspond with Table 2.

Table 10

Observed Frequencies for Comprehensive School Reform

Demonstration Programs' Students' Essential Objectives

Posttest Mastery Determinations

| | Essential Objectives | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | A | | B | | C | | D | | |
| Group | N | % | N | % | N | % | N | % | $X^2$ |
| Mastery | 40 | (80) | 47 | (94) | 49 | (98) | 48 | (96) | |
| Non-Mastery | 10 | (20) | 3 | (6) | 1 | (2) | 2 | (4) | |
| Totals | 50 | (100) | 50 | (100) | 50 | (100) | 50 | (100) | 13.57* |

A = Reading; B = Math; C = Social Studies; D = Science

* Note: $p < .01$ for Observed versus Expected cell

frequencies with $df = 3$ and a tabled value = 11.345 for $p <$

.01.

Table 11

Observed Frequencies for Non-Comprehensive School Reform

Demonstration Programs' Students' Essential Objectives

Posttest Mastery Determinations

|  | Essential Objectives | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
|  | A | | B | | C | | D | | |
| Group | N | % | N | % | N | % | N | % | $X^2$ |
| Mastery | 48 | (96) | 49 | (98) | 49 | (98) | 39 | (78) | |
| Non-Mastery | 2 | (4) | 1 | (2) | 1 | (2) | 11 | (22) | |
| Totals | 50 | (100) | 50 | (100) | 50 | (100) | 50 | (100) | 20.37** |

A = Reading; B = Math; C = Social Studies; D = Science

** Note: $p < .001$ for Observed versus Expected cell

frequencies with $df = 3$ and a tabled value = 16.268 for $p <$

.001.

Table 12

Comparison of Comprehensive School Reform Demonstration

Programs' versus Non-Comprehensive School Reform

Demonstration Programs' Students' Essential Objectives

Posttest Mastery Determinations

| | Essential Objectives Mastery | | | | |
| Group | A | B | C | D | |
| | N | N | N | N | $X^2$ |
| CSRD | 40 | 47 | 49 | 48 | |
| Non-CSRD | 48 | 49 | 49 | 39 | 1.69* |

A = Reading; B = Math; C = Social Studies; D = Science

* Note: *ns* *p* = .70 for Observed versus Expected cell

frequencies with *df* = 3 and a tabled value = 7.815 for *p* <

.05.

Table 13

Comparison of Comprehensive School Reform Demonstration
Programs' versus Non-Comprehensive School Reform
Demonstration Programs' Students' Posttest Cumulative
Report Card Scores for Reading, Math, Social Studies, and
Science

| Source Of Data | CSRD Posttest Scores | | Non-CSRD Posttest Scores | | Effect Size | $t$ | $p$ |
|---|---|---|---|---|---|---|---|
| | Mean | *SD* | Mean | *SD* | | | |
| Reading | 1.94 | (0.87) | 1.68 | (0.65) | 0.34 | 1.69 | .05** |
| Math | 2.08 | (0.92) | 1.94 | (0.68) | 0.18 | 0.86 | .20* |
| Social Studies | 2.12 | (0.94) | 1.88 | (0.75) | 0.29 | 1.41 | .08* |
| Science | 2.02 | (0.94) | 1.82 | (0.63) | 0.25 | 1.25 | .10* |

* Note: *ns.*

** Note: $p < .05$. A one-tailed .01 alpha level was used to determine the threshold for statistical significance and rejecting the null hypothesis.

Table 14

Comparison of Comprehensive School Reform Demonstration

Programs' versus Non-Comprehensive School Reform

Demonstration Programs' Students' Posttest Tardies,

Absences, and Discipline Referrals

| Source Of Data | CSRD Posttest Scores | | Non-CSRD Posttest Scores | | Effect Size | t | p |
|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | | | |
| Tardies | 5.78 | (10.21) | 3.92 | (10.79) | 0.17 | 0.89 | .19* |
| Absences | 6.79 | (5.04) | 6.56 | (5.36) | 0.04 | 0.22 | .41* |
| Discipline Referrals | .88 | (2.18) | 0.76 | (1.49) | 0.07 | 0.32 | .37* |

* Note: *ns*.

Table 15

Comparison of Comprehensive School Reform Demonstration

Programs' versus Non-Comprehensive School Reform

Demonstration Programs' Students' Posttest School Climate

Survey

| Source Of Data | CSRD Posttest Scores | | Non-CSRD Posttest Scores | | Effect Size | t | p |
|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | | | |
| Fairness | 2.46 | (0.77) | 2.52 | (0.73) | 0.08 | 0.96 | .17* |
| Order and Discipline | 2.02 | (0.86) | 2.26 | (0.83) | 0.28 | 3.69 | .000*** |
| Parent Involvement | 2.10 | (0.90) | 2.18 | (0.91) | 0.09 | 0.99 | .16* |
| Sharing of Resources | 2.43 | (0.84) | 2.42 | (0.78) | 0.01 | 0.12 | .45* |
| Student Relations | 2.09 | (0.83) | 2.23 | (0.74) | 0.18 | 2.41 | .008** |
| Student-Teacher Relations | 2.65 | (0.67) | 2.69 | (0.61) | 0.06 | 0.93 | .18* |

* Note: ns.

** Note: p < .008.

*** Note: p < .000.

CHAPTER 5

Conclusions and Discussion

The purpose of this study was to determine the effectiveness of the Comprehensive School Reform Demonstration (CSRD) program, in its sustainability phase, on Title I students' learning outcomes, behavior, and attitudes toward school as compared to their non-CSRD peers' learning outcomes, behavior, and attitudes toward school. The study analyzed achievement, behavior, and attitudinal data of CSRD and comparison non-CSRD students to determine if the sustainability of the CSRD program significantly impacted student outcomes.

*Conclusions*

The following conclusions may be drawn from the study for each of the eight research questions: *Research Question #1*: The pretest posttest results indicated that CSRD students did not significantly improve their average range reading scores but did significantly improve their average range language and average range math scores. *Research Question #2*: The pretest posttest results indicated that non-CSRD students did not significantly improve their average range reading, average range language and average range math scores. *Research Question #3*: The findings indicated that CSRD and non-CSRD programs equally prepared

students for performance on achievement tests and this was reflected in the average range reading, average range language, and average range math dependent measures comparisons. *Research Question #4*: The findings indicated that CSRD students had observed mastery determination frequencies that ranged from a high of 49 (98%) for social studies and a low of 40 (80%) for reading. These frequencies represented greater reading, math, social studies, and science achievement success than observed non-mastery determinations. The findings also indicated that non-CSRD students had observed mastery determination frequencies that ranged from a high of 49 (98%) for math and social studies and a low of 39 (78%) for science. These frequencies represented greater reading, math, social studies, and science achievement success than observed non-mastery determinations. *Research Question #5*: The findings indicated that CSRD and non-CSRD students had observed mastery determination frequencies for reading, math, social studies, and science that would be considered congruent and that would reflect greater individual student achievement success than failure. *Research Question #6*: The findings indicated that CSRD and non-CSRD programs equally prepared students to earn classroom grades that were observed to be within the A and B grade range as reflected in the reading,

math, social studies, and science grade comparisons.

*Research Question #7*: The findings indicated that students who participated in CSRD and non-CSRD programs completed this study with equally low levels of recorded tardies, absences, and office referrals. The findings further indicated that CSRD and non-CSRD students had observed mean scores for tardies, absences, and discipline referrals that were considered congruent. *Research Question #8*: The results indicated two areas of significant difference, (a) order and discipline and (b) student relations where the non-CSRD students responded more favorably than the CSRD students on these domain questions. No significant differences were found in the other CSRD non-CSRD comparisons.

*Discussion*

For the past eight years, federal education policy has actively supported a variety of initiatives focused on enhancing the quality of educational research. These initiatives were designed to ensure that the demands for improvement in education culminated in sound, systematic, and successful efforts to close achievement gaps (National Research Council, 2004). "Scale-up is the practice of introducing proven interventions into new settings with the goal of producing similarly positive effects in larger,

more diverse populations" (McDonald, Keesler, Kauffman, & Schneider, 2006, p. 15). There has been considerable discussion suggesting that scale-up should be conceived multi-dimensionally, requiring consequential changes, endurance over time, and a shift such that knowledge and authority for the reform is transferred from external organizations to teachers, schools, and districts (Coburn, 2003).

It is the variability introduced by contextual differences that creates uncertainty regarding the potential of an intervention to be brought to scale (McDonald et al., 2006). The more recent focus on scale-up in education underscores the importance of understanding the context in which interventions are implemented and student learning occurs (Hassel & Steiner, 2000). Cookie-cutter solutions can not be expected to adequately address the challenges posed by various, dynamic environments with unique and changing target populations. The results inevitably beg the question of implementing the Different Ways of Knowing program district-wide. The research findings established that statistical significance pretest posttest gains were made by the DWoK schools' students in the study, however it is important to note that while the reported posttest achievement scores fell solidly within

the average range for some time now it has been held that
"...in Nebraska's schools, where students consistently
perform above the national average, average performance is
considered to be failure" (Hill, 1989, p. 143). DWoK did
significantly raise achievement scores, and these gains
would suggest implementation of carefully considered
schoolwide reforms in under performing schools.

This study also addressed the question of
sustainability of the DWoK program after the implementation
phase was completed. Were the sustainability plans put in
place viable enough to continue to influence student
achievement, behaviors, and attitudes, despite influences
which teachers are often powerless to control (Hallinan,
2000)? Individual student characteristics alone cannot be
used to explain the success or failure of a reform model.
Important sources of variation operating at the school
level that may impede, constrain, support, and promote
student learning (Hallinan, 2000) play an integral role and
include the beliefs, commitments, education, experience,
roles, professionalism, and autonomy of teachers. These
variables are likely to influence not only achievement, but
also the implementation and sustainability of the reform
models designed to improve achievement (McDonald et al.,
2006).

The gains made by the DWoK schools do suggest that the sustainability plans are still in place and are producing positive outcomes. However, in order to ensure continued success, these sustainability plans need to be reviewed annually and updated as necessary to meet the needs of each school, its students, and teachers.

The aim of scale-up research is not to prescribe a course of action for all schools. Scale-up is not a euphemism for the uncritical diffusion of school reform models shown to have a positive impact on student learning achievement in one setting to different teacher and student populations in diverse and dynamic circumstances. The results should help educators not only predict the likely benefit of an intervention, but provide guidance regarding the possible modifications in other contexts (McDonald et al., 2006).

A truly rigorous approach to scale-up research is critical in creating the evidence base needed to improve student achievement through school reform models (McDonald et al., 2006). The purpose of this study was to determine the effectiveness of the Comprehensive School Reform Demonstration (CSRD) program, in its sustainability phase, on Title I students' learning outcomes, behavior, and attitudes toward school as compared to their non-CSRD

peers' learning outcomes, behavior, and attitudes toward school. The study analyzed achievement, behavior, and attitudinal data of CSRD and comparison non-CSRD students to determine if the sustainability of the CSRD program significantly impacted student outcomes. While the study results may not point directly to a cause and effect relationship between interventions and student achievement, behavior, and attitudes, clearly, students benefited from the continued sustainability of DWoK and are poised to maintain further success in school.

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APPENDIX: Institutional Review Board for the Protection of

Human Subjects Study Approval Letter

# N<sup>UNIVERSITY OF</sup>ebraska
## Medical Center

April 24, 2006

Sharra Smith
KH 414
UNO - VIA COURIER

**IRB#:** <u>154-06-EX</u>

**TITLE OF PROTOCOL:** <u>Sustainability of a School Reform Program as Measured by Title I Students' Achievement, Behavior, and Attitudes</u>

Dear Ms. Smith:

The IRB has reviewed your Exemption Form for *Exempt Educational, Behavioral, and Social Science Research* on the above-titled research project. According to the information provided, this project is exempt under 45 CFR 46:101b, category <u>1 and 4</u>. You are therefore authorized to begin the research.

It is understood this project will be conducted in full accordance with all applicable sections of the IRB Guidelines. It is also understood that the IRB will be immediately notified of any proposed changes that may affect the exempt status of your research project.

Please be advised that the IRB has a maximum protocol **approval period of three years** from the original date of approval and release. If this study continues beyond the three year approval period, the project must be resubmitted in order to maintain an active approval status.

Sincerely,

*Ernest Prentice, PhD /gdk*

Ernest D. Prentice, Ph.D.
Co-Chair, IRB

EDP/gdk