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Teacher Perspectives of the Role Distributed Leadership May Play in Their District's Sustained Training Initiatives in Early Reading, Mathematics, and Student Instructional Interventions

Carmine Pontillo
Indiana University of Pennsylvania

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TEACHER PERSPECTIVES OF THE ROLE DISTRIBUTED LEADERSHIP

MAY PLAY IN THEIR DISTRICT'S SUSTAINED TRAINING

INITIATIVES IN EARLY READING, MATHEMATICS, AND STUDENT

INSTRUCTIONAL INTERVENTIONS

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Education

Carmine Pontillo

Indiana University of Pennsylvania

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Indiana University of Pennsylvania
School of Graduate Studies and Research
Department of Professional Studies in Education

We hereby approve the dissertation of

Carmine Pontillo

Candidate for the degree of Doctor of Education

_____   _____
Robert E. Millward, Ed.D.
Professor of Education, Advisor

_____   _____
Joseph F. Marcoline, D.Ed.
Associate Professor of Education

_____   _____
Sue A. Rieg, Ed.D.
Professor of Education

ACCEPTED

_____   _____
Timothy P. Mack, Ph.D.
Dean
School of Graduate Studies and Research

Title: Teacher Perspectives of the Role Distributed Leadership May Play in Their
         District's Sustained Training Initiatives in Early Reading, Mathematics, and
         Student Instructional Interventions

Author: Carmine Pontillo

Dissertation Chair: Dr. Robert E. Millward

Dissertation Committee Members: Dr. Joseph F. Marcoline
                                   Dr. Sue A. Rieg

Staff development training is a method many public schools employ in an effort to prepare their teaching staff to better meet the demands of effectively educating district students.

In this mixed methods case study quantitative and qualitative data was incorporated to answer four research questions:

1. How accurately do scores achieved by students on primary reading assessments of the Dynamic Indicators of Basic Early Literacy Skills predict the reading assessment levels they achieve as reported by the Grade Level 3 Pennsylvania System of School Assessment?

2. How do teachers perceive they are using assessment data and teaching strategies presented through their training initiatives to effectively adjust their instruction to meet student demands within their classrooms?

3. What perceptions do teachers share regarding the effectiveness of their district training programs in helping them meet the challenges of educating all their students?

4. What concepts of the roles of distributed leadership in their professional development programs do teachers share and do these roles reflect the three essential elements of distributed leadership: leadership practice is the central and anchoring concern; leadership practice is generated through the interaction of leaders, followers, and their situation, and the situation both defines leadership practice and is defined through leadership practice.

The quantitative aspect of this case study incorporated statistical analysis of student assessment scores from three separate cohorts of students. Qualitative data was collected through teacher surveys and interview responses.

Conclusions indicate that there was a predictive capacity between the DIBELS and PSSA assessments. Teachers perceived effectiveness in their training programs. They agreed that they have learned to use assessment data to more effectively adjust their instruction to the needs of their students. Teachers also perceive distributed leadership to play a role in their own professional development and that it is a crucial component in those staff trainings in which they have volunteered to participate.

ACKNOWLEDGMENTS

At the onset I'd like to thank my committee, Dr. Rieg and Dr. Marcoline, and my chair, Dr. Millward for their advice and guidance. They were successful in leading me from the roughest drafts to a decent finished piece. I am especially grateful to Dr. Millward for his patience and time. Both are greatly appreciated. I also need to thank Dr. Maier and his graduate interns for their support.

I want to convey my special thanks to my wife Elaine, and my sons Benjamin and Jason. Their combined wit, humor and love kept me going through a process that on many occasions I doubted would ever end well. I really appreciated the laughter - it helped the most! I need also to thank the newest member of our family, our daughter-in-law, Sarah. She challenged me to race to become the first official "Doctor" Pontillo in the family. She won. I didn't mind the loss. I would be remiss if I did not mention our dog Shadow. She spent countless hours at my side while I read and wrote. She was mostly quiet but always welcome company.

I'd like to thank the administrators, teachers, and students of the Jeannette City School District. Watching their stories unfold from day to day has been truly inspirational for me.

Finally, I like to thank three important people who didn't make it to see this task completed. In no small way I owe my degree to them. They are my Mom, Pasqualina, my Dad, Joseph, and a very unique professor, Dr. Emily DiCicco.

I have vivid childhood recollections of my Mom reading and my Dad studying for his postal job. My Mom shared her reading with us through her 86th year. My Dad memorized each individual town and its township in the entire state of New Jersey for his work as a postal clerk. I can still see him studying the flash cards in my mind's eye. I thank them for the example they set for reading and study. My persistence to tasks can come from nowhere except their genes.

I had the great pleasure of knowing Emily as a teacher, college advisor, and friend. She is in no small measure responsible for my teaching career, reading specialist degree, and shift toward a career in administration. I'll never forget her unorthodox style and zest for living. Her explanation of her "CYA" principle of administration was priceless!

I miss them, but cherish their memories and thank them for being who they were for me.

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CHAPTER I

THE PROBLEM

Introduction

In an article written for *Kappan*, James P. Spillane argues that when examining the successes and failures of school initiatives we place undue focus upon the school principal as leader. In his framework for distributed leadership, "school leadership practice is constructed through the interactions of leaders, followers, and aspects of context" (Spillane, 2009, p.70). The purpose of this case study was to explore teacher perceptions relative to the role of distributed leadership within the context of three separate training initiatives taken by their school district.

> Distributed cognition suggests that capacities are distributed throughout
> the social and material conditions of the organization and that they are
> fluid rather than fixed. The implication here is that making better use of
> existing capacities including leadership, within the organization is likely to
> result in some advantage. From this perspective, distributing leadership is
> more likely to have a positive impact upon the organization if it is aligned
> to the contours of expertise and the provision of conditions that support
> social learning. (Harris, 2009, p. 4)

This case study incorporated reviews of student assessment data, staff survey results, and responses to a teacher questionnaire developed by the researcher. As such, it incorporated a mixed methods approach in its endeavor to draw conclusions.

The researcher explored student data to help test the relationships between teacher training and student learning: are teachers using skills introduced during their training;

are these skills impacting student learning; and, is there a predictive correlation to student achievement? What do teachers believe about the training initiatives: Do they perceive that their training meets national standards of effective staff development? Why do teachers choose to assume lead roles in training initiatives and are these personal choices evidence of distributed leadership?

School Mission

The primary mission of each public school is to provide a viable education for each of its students. There are numerous factors upon which the achievement of this goal rests. Early success in learning how to read is an important factor in predicting academic achievement for most students (Watson, Kidd, Horner, Connell, Lowther, Eddins, Kruger, Gross, Rainey, Gospel, & Watson, 2003).

Schools should facilitate the journey we begin at birth as life-long learners. But, how effectively can such an endeavor be supported by our public schools? Despite the constant political and public chorus for change and improvement, the practice of teaching and the structure of schools have remained basically unchanged throughout the last century and into the current (Cuban, 2004; Evans, 2001). For years, school systems have used teacher professional training haphazardly (Guskey, 2002; Marzano, 2003). Despite national standards espoused by organizations such as National Staff Development Council (NSCD), Southwest Educational Development Laboratory (SEDL), and National Science Foundation (NSF) few school districts have implemented and promoted training that produces positive organizational growth through progressive change. School administrators promote programs of staff development as the chief tools their districts may employ to instruct their staff in procedures that they believe should positively affect

student learning outcomes. But, rarely are staff development programs sustained and coordinated. "The public schools of America in the year 2000 are not much different from schools of the 1970's" (Schlechty, 2001, p. 3). Many in public education view change as a problem rather than as an opportunity (Schlechty, 2001).

Schools, in order to be leading organizations, need to be cognizant of what makes them so efficient in achieving their goals and objectives (Reeves, 2006). As Douglas Reeves outlines in his learning framework, American schools, as organizations, need to understand what makes their employees, teachers, most efficient in realizing their organizational goal, student learning. Many researchers now agree that learning is the bottom line when assessing school effectiveness. According to Philip Schlechty the core business of schools is: ". . . the invention of tasks, activities, and assignments that the students find to be engaging and that bring them into profound interactions with content and processes they will need to have mastered to be judged well educated" (Schlechty, 2001, p. 54). This learning is not isolated; it should include the entire school community.

Role of Assessment

Traditionally schools have been places where children were ranked according to their academic achievement; now, they have become places where all students must demonstrate academic proficiency (Stiggins, 2005). This fact is underscored by federal and state achievement standards set for public schools under the *No Child Left Behind Act* (NCLB) and the *Individuals with Disabilities Education Act* (IDEA) legislation (Federal Register, 2002; Pennsylvania School Code, Chapter 16). These requirements represent a dramatic shift in perceptions about assessment, both at the instructor and district levels. Teachers need to focus upon formative rather than summative aspects of assessment in ways to facilitate rather than

intimidate student learning (Stiggins, 2005). The change is neither automatic nor easy. To help teachers reformulate some basic assumptions they must receive viable training. This training should be coherent, personal, and continuous (Evans, 1996).

Professional Development

Professional development is a major school intervention strategy public educational entities enlist to provide this training. It is public education's catalyst for change. Primarily, it reigns as the key teacher-training tool aimed at promoting effective student learning in American school systems. In Pennsylvania, staff development is a keystone to the Department of Education's school program improvement process (*Getting Results!* Pennsylvania Department of Education, 2007). Our federal government's education legislation, NCLB, mandates that 10% be set aside from federal compensatory education program funds, Title I, to provide staff development training in any district identified for program improvement. School program improvement is based upon our state's formula for making Adequate Yearly Progress (AYP). A district's failure to meet state proficiency standards in reading and/or mathematics, attendance, graduation, or assessment participation for two consecutive years triggers school improvement planning. This formula is mandated by NCLB. If not developed and strictly adhered to, states, and in turn LEAs, may lose their entire share of compensatory education funding. As Title I represents the single largest federal allocation to education in the United States, 14.5 billion dollars in 2010 (New America Foundation, 2010), this mandate may result in significant redirection in its funding uses among participating school districts. This would symbolize a significant program shift from instruction to training, maintaining the federal government's current focus on the connection between "quality" staff training and effective results orientated instruction (NCLB, 2000). In this environment, public school districts need

to insure that the professional training options they provide affect positive learning outcomes among the students they are responsible for and effective instructional strategies by the educational staff they employ.

Purpose

The purpose of this case study was to examine teacher perceptions relative to the role of distributed leadership within the context of three separate training initiatives taken by the school district in which they were employed. Three faculty-training programs that were incorporated for the past 10 years in a small urban school district were investigated. These training programs included: the K-3 Reading Initiative; the Math Science Partnership; and, the Response to Intervention project.

Research Questions

The following questions helped guide the research:

1. How accurately do the scores achieved by students on the primary reading assessments of the Dynamic Indicators of Basic Early Literacy Skills predict the reading assessment levels they achieve as reported by the Grade Level 3 Pennsylvania System of School Assessment?

2. How do teachers perceive they are using assessment data and teaching strategies presented through their training initiatives to effectively adjust their instruction to meet student needs within their classrooms?

3. What perceptions do teachers share regarding the effectiveness of their district training programs in helping them meet the challenges of educating all their students?

4. What concepts of the roles of distributed leadership in their professional development programs do teachers share and do these roles reflect the three essential elements of distributed leadership: leadership practice is the central and anchoring concern; leadership practice is generated through the interactions of leaders, followers, and their situation, and the situation both defines leadership practice and is defined through leadership practice (Spillane, 2006)?

School District Options

In an attempt to help meet its obligation to insure that its students make AYP in reading and mathematics, the Jeannette City School District implemented three distinct but related programs of staff development training for its teachers: K-3 Reading Instruction Program; Math Science Partnership Training; and, Response to Intervention Classroom Model. The participation of K-3 teachers in these initiatives was the focus of this case study.

According to a memo from State Education Secretary Charles B. Zogby, the K-3 Reading Initiative was an attempt by the Pennsylvania Department of Education (PDE) to introduce state educators to some of the latest research findings in reading. Participants were scheduled to receive at least 80 hours of on-line in-service training. Benefits to school district participants would be: increased learning for all students; development of instructional strategies based on scientific research; alignment of local curriculum with Pennsylvania Academic Standards development; and, implementation of data-driven decision making resources; and, the provision of assessment evidence to guide student learning (K-3 Reading Instruction, 2002).

A major focus of this training was the philosophy and procedures established through the University of Oregon's, Dynamic Indicators of Basic Early Literacy Skills (DIBELS) Program. This program of assessment would identify student needs relative to grade level benchmarks, afford strategic interventions, and monitor student progress in reading skills ability (Good & Kaminski, 2002).

Nowhere in public education is the idea of formative assessment more important than in the development of reading ability during the onset of schooling in the primary grades. The DIBELS system of assessment would enable primary teachers to monitor the five critical areas of reading development, phonemic awareness, phonics, vocabulary development, comprehension, and fluency (Good & Kaminski, 2002; National Reading Panel, 2000). These latter areas are especially targeted for intermediate level students starting in grade three.

In the Jeannette McKee Elementary School a series of short DIBELS assessments needed to be mastered by the primary teachers. The significance of these assessments needed to be understood. Student achievement levels needed to be matched to intervention support strategies. The need to adjust instruction toward identified student needs had to be accepted. The key to student success was their teacher's ability to monitor their progress in these critical reading skills areas underscoring the importance of formative assessment.

Teachers would learn these prerequisite skills as they progressed through nine online learning modules. Teacher progress would be directed by a district facilitator, or coach, specially prepared for the task through a train-the-trainer component of the training package. DIBELS promised a high degree of correlation among their early assessment results and later student success in reading (Good & Kaminski, 2002).

The Math Science Partnership is a federal, Title 2, compensatory education program serving school districts nationally, through a competitive grant arrangement. The following descriptive information was gathered from the United States Department of Education's Ed.gov website:

This program is designed to improve the content knowledge of teachers and the performance of students in the areas of mathematics and science by encouraging states, institutes of higher education (IHEs). Local education agencies (LEAs), and elementary and secondary schools to participate in programs that would; improve and upgrade the stature of mathematics and science teaching by encouraging IHEs to improve mathematics and science teacher education, focus on the education of mathematics and science teachers as a career-long process, bring mathematics and science teachers together with scientists, mathematicians, and engineers to improve teaching skill and provide summer institutes and ongoing professional development for teachers to improve their knowledge and teaching skills.

The program supports projects to improve math and science education through partnerships, which include, at a minimum, a high-need LEA, and the mathematics, science, or engineering department of an institution of higher education (IHE).

The Mathematics and Science Partnership (MSP) program is intended to increase the academic achievement of students in mathematics and science by enhancing the content knowledge and teaching skills of

classroom teachers. Partnerships between high-need school district and

the science, technology, engineering, and mathematics (STEM) faculty in

institutions of higher education are the core of these improvement efforts.

Other partners may include state education agencies, public charter

schools or other public schools, businesses, and non-profit or for-profit

organizations concerned with mathematics and science education.

The Math and Science Partnership program is a formula grant

program to the states, with the size of the individual state awards based on

the student population and poverty rates. No State receives less than one

half of one percent of the total appropriation. With these funds, each State

is responsible for administering a competitive grant competition, in which

grants are made to partnerships to improve teacher knowledge in

mathematics and science. (Ed.gov, 2008)

The Jeannette City School District successfully applied for the Title II grant in the

2004-2005 school year. It became a member of a consortium of 43 Western Pennsylvanian

School Districts, 3 area universities, and a number of major Pittsburgh area businesses, under

the sponsorship of Allegheny Intermediate Unit #3. In the spring of 2007, the school district

became the first to receive the Carnegie Science Center, Award for Excellence. This award

was based on the district's full commitment to the Mathematics and Science Partnership (MSP)

program. Three district teachers partnered with local universities in developing college

curriculums in science and mathematics. All district administrators participated in the

consortium's Lenses of Learning seminar trainings. Sixteen classroom teachers attended

leadership academies and conducted follow-up district in-service programs. One administrator

and six district teachers coordinate data review and attend seminars as the district's Leadership
Action Team. "Jeannette City School District is transforming itself into a model, learning
community that focuses on students and their interactions with teachers, administrators, staff,
parents, and community members" (Radical Equations, 2007). This commitment reflected the
degree of administrative training and staff involvement in all aspects of the grant guidelines.

In the late winter of 2005, administrators from the school district were introduced to the
Response to Intervention (RtI) model. Attending a Pennsylvania Training and Technical
Network (PATTAN) workshop the Elementary Principal and Federal Programs Coordinator of
the Jeannette City School District were introduced to an overview of the concept. This
overview was summarized in a Bureau of Special Education memo:

> IDEA 2004, The Individuals with Disabilities Education Improvement Act
>
> focuses on student performance and improvement of learning and achievement
>
> for all students including those with disabilities. The Act provides the
>
> opportunity to use an approach titled "Response to Intervention" (RtI) as an
>
> alternative to the "discrepancy model" for identifying students with learning
>
> disabilities. Response to Intervention focuses on providing "instructional
>
> interventions" that are, "scientifically based" as stated in IDEA 2004 and
>
> assessing their impact. RtI is a viable means to intervene prior to academic
>
> failure while collecting data on the impact of instruction and instructional
>
> interventions.
>
> Schools are encouraged to implement RtI within broader reform and
>
> school improvement efforts to improve learning and achievement of all
>
> students, while meeting NCLB, IDEA and least restrictive environment

requirements. The Department is developing tools to assist districts in the

implementation of RtI including a School Intervention Model, a school-wide

process to assist schools in data analysis and the development of intervention

strategies to improve student performance. Within the School Intervention

Model RtI serves as a means to deliver a continuum of service options matched

to the specific needs of students . . . .

Response to Intervention (RtI) includes the following: high quality,

evidenced-based instruction in the general education setting: delivered by the

classroom teacher and other staff (special education, Instructional Support, Title

I, ESL) assuming an active role in students' instruction; curriculum based

assessment measures; continuous monitoring and the use of data to inform

instruction. (Rhen, 2005)

Many of those attributes identified for the RtI model were partially implemented within

the district. Universal screening, explicit instructional strategies, flexible grouping, data driven

decision making, progress monitoring, and positive behavior support systems (PATTAN,

2005) were incorporated in various stages through the district's Elementary Student Assistance

and initial Instructional Support Programs. Believing the RtI model to be implementable, a

committee of regular and special education teachers, Title I support teachers, guidance

counselor, school psychologist, and school and district administrators was formed. This "RtI

Committee" comprised of 15 individuals began a two year exploration of the RtI model. The

committee researched the topic through readings, workshop attendance, and follow-up

committee discussions. Meeting through the summer of 2007, they finalized a RtI model for

district implementation beginning in the 2007-2008 school year. Their plan is contained in a district publication, The RTI Toolkit.

Could teachers perceive an engagement of distributed leadership principles affecting these training initiatives? According to author Daniel Spillane:

> From a distributed perspective, leadership involves mortals as well as heroes. It involves the many and not just the few. It is about leadership practice, not simply roles and positions. And leadership practice is about interactions, not just the actions of heroes. (Spillane, 2006, p. 4)

At the conclusion of his first chapter of *Distributed Leadership,* Spillane, clarifies his concepts. He writes:

> Leadership practice typically involves more than one person-if not by design, then by default and by necessity. It is difficult to imagine how things can be otherwise. Expecting one person to single-handedly lead the efforts to improve instruction in a complex organization such as a school is impractical. Leadership is too often portrayed as a synonym for what the school principal or some other formal or informal leader does. Other sources of leadership in schools are ignored or treated as supplementary and important but almost secondary to the real leadership that comes from the principal's office. A distributed perspective offers an alternative way of thinking about leadership in schools by foregrounding leadership practice and by suggesting that leadership practice is constructed in the interactions between leaders, followers, and their situations. While not a prescription for how to practice leadership, distributed leadership offers a framework for thinking about leadership differently. As

such, it enables us to think about familiar phenomenon in new ways that come closer to approximating leadership on the ground than many of the conventional and popular recipes for school leadership. (Spillane, 2006, p. 26)

Data Collection

By its nature, this case study contained both quantitative and qualitative data. The qualitative aspects of this study were supported by two data repositories; the University of Oregon's (UO), Center on Teaching and Learning DIBELS Data System and Pennsylvania Intermediate Unit #3's Comprehensive Data Analysis (CDA) software. The school district uses the CDA site to house all of its elementary student assessment data including all local and state annual assessments. The Jeannette City School District maintains a complete record of its students' progress throughout the benchmark assessments from kindergarten through sixth grade. Use of the two systems allowed a quantitative analysis to be undertaken. A longitudinal alignment of student assessment scores was designed. A correlation among DIBEL assessment levels and Reading Proficiency attainment on the Third Grade Pennsylvania System of School Assessment (PSSA) was established starting with the spring of 2005, assessment period. The study therefore encompassed the results of at least three separate and complete cycles of student class members. This data helped demonstrate the accuracy of a very central teacher perception; has their teaching improved student learning. Did training effectively improve their teaching?

Teacher surveys helped clarify general teacher perceptions regarding the change process and degree of internalization of new teacher skills. Survey questions examined qualities of effective teacher training. The researcher attempted to incorporate the opinions of

all primary teachers, including those who retired and others who moved from the district, into the interview and survey process.

A core of teachers who volunteered as mentors and provided direct professional training to fellow teachers were interviewed. The researcher collected a more personal account of their perceptions relative to distributed leadership. This was a cadre of teachers who seem to volunteer more often and involve themselves in additional professional development activities.

Definition of Terms

The following terms are helpful in understanding this study and they are broken into three groups. List A definitions are provided by the University of Oregon's website dedicated to its Dynamic Indicators of Basic Early Literacy Skills, and List B terms and definitions come from the Assessment Menu of Pennsylvania's Department of Education website under the Pre K-12 tab. List C presents those terms helpful in understanding the theory of distributed leadership as presented in a podcast by Susan Smith Nash.

List A

DIBELS. The Dynamic Indicators of Basic Early Literacy Skills are a set of standardized, individually administered measures of early literacy development. They are designed to be short fluency measures used to regularly monitor the development of pre-reading and early reading skills.

Phonological Awareness:

- Initial Sounds Fluency (ISF)--Assesses a child's skill to identify and produce the initial sound of a given word.

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- Phonemic Segmentation Fluency (PSF)--Assesses a child's ability to produce the individual sounds within a given word.

- Alphabetic Principle--The association of letters as symbols of sound in speech.

- Nonsense Word Fluency (NWF)--Assesses a child's knowledge of sound correspondences as well as their ability to blend letter sounds to form unfamiliar "nonsense" words.

  Fluency with Connected Text:

- Oral Reading Fluency (ORF)--Assesses a child's skill of reading text in grade level material.

  Established Learner. Indicates mastery of assessed skill.

  Emerging Learner. Indicates a developing knowledge of an assessed skill.

  Deficit Learner. Indicates a lack of knowledge relative to an assessed skill.

List B

PSSA. The annual Pennsylvania System of School Assessment is a standards based criterion-referenced assessment used to measure a student's attainment of the academic standards while also determining the degree to which school programs enable students to attain proficiency of the standards.

Advanced. The Advanced Level reflects superior academic performance. Advanced work indicates an in-depth understanding and exemplary display of the skills included in the Pennsylvania Academic Content Standards.

Proficient. The Proficient Level reflects satisfactory academic performance. Proficient work indicates a solid understanding and adequate display of the skills included in the Pennsylvania Content Standards.

Basic. The Basic Level reflects marginal academic performance. Basic work indicates

a partial understanding and limited display of the skills included in the Pennsylvania Academic

Content Standards. This work is approaching satisfactory performance, but has not been

reached. There is a need for additional instructional opportunities and/or increased student

academic commitment to achieve the Proficient Level.

Below Basic. The Below Basic Level reflects inadequate academic performance.

Below Basic work indicates little understanding and minimal display of the skills included in

the Pennsylvania Content Standards. There is a major need for additional instructional

opportunities and/or increased student academic commitment to achieve the Proficient Level.

List C

Distributed Leadership. Distributed leadership is often referred to as democratic

leadership, which gives an indication of the profoundly non-hierarchical nature of power and

authority structures in communities of practice or sub-group forces that are called upon to

realize organizational missions and outcomes. It is a powerful organizational strategy, and one

that makes excellent use of the resources--human, physical, and financial--of an organization.

Stakeholders. Individual team members who assume leadership positions when they

are needed.

Organizational Mission. Achieved in stages broken down to component parts and

distributed to teams best able to complete.

Distributed Roles. Takes part in different times, and places under widely divergent

conditions.

Expert Authority. Leadership shifts according to need; the leader role generally resides

with the person who has expert authority for the designated task.

Collaborative Teams. These teams have fluid membership, which changes according to the task, the roles, and the requisite talent.

Communities of Practice. Maintain their affiliation long after the task, and often connect with each other in order to brainstorm about future needs and potential collaborative configurations.

Analytical Concepts. The notions of a vision, mission, and desired outcomes constitute an analytical foundation.

Emergent and Dispersed Leadership. This contrasts with leadership by a single individual; distributed leadership is characterized by the constant appearance and/or emergence of leaders, which are not necessarily in a single location, but instead, are dispersed in time and geographical apace.

Inclusive. Membership hinges on organizational need and the importance of vision, mission, and outcomes. Teams and communities of practice are open and inclusive, rather than rigid.

Formal Neutrality. The individuals are task-orientated, and political or ideological agendas are considered unnecessary and counterproductive.

Instrumental Autonomy. Team members are less constrained by existing teams than in an organization in which leadership stays in one location. They are able to act with authority when their actions are perceived to help bring the organization to the realization of its goals.

Functional Toward Human Capacities. Leadership shifts according to specific, finite, task-orientated needs. Individuals may assume leadership for the time that their specific skills, talents, or other attributes are needed, and then may abnegate leadership when that moment is over (Nash, 2005).

Conceptual Framework/Hypothesis

Early literacy is a rich field of lively academic debate. A popular manifestation is the abundance of articles in both the research and popular press dedicated to the "Reading Wars." The issue contrasts a constructivist versus behaviorist view of student learning. Whole language advocates are locked in battle against phonics instruction supporters (Reyhner, 2003). The war may be overstated. Learning to read in the primary grades is a complicated affair that needs to address a host of factors (Chatterji, 2006; Schwanenflugel, Meisinger, Wisenbaker, Kuhn, Strauss, & Mories, 2006; Wren, 2002). This study did not settle the debate. For its purpose it focused on the phonological issues necessitated by the DIBELS assessment model. Phonics is an important facet of whole language instruction.

Formative and summative assessments are critical in planning student progression. Teachers lean heavily upon summative assessments in their evaluation of student learning. A revival of sorts is concurrent with NCLB. These single snapshots of student achievement are a popular American tradition. Politicians, school systems, teachers, parents, and the community at large all seem to have the occasion to use and misuse their results. Formative assessments are used less frequently. The need to inform instruction through assessment is a keystone of effective teaching and active student learning. Assessing student learning and the active involvement of students in their learning are fundamental aspects of the K-3 Reading Initiative, Math Science Partnership, and Response to Intervention.

Using the cohort groups to study change and effectiveness is a traditional research design. The teachers involved in this case study were divided into three cohort groups. Cohort A, Cohort B, and Cohort C represent differences in teacher training treatments with Cohort A teachers being those who volunteered from training initiatives. Some would predict the

students of teachers in Cohort A to demonstrate superior outcomes because of teacher motivation and the intensity of their training program. The intent of this research was not to compare cohort groups. Rather the purpose of this investigation was to explore interactions; the instructional interventions after their professional training and their effects upon student learning. Senge, Kliner, Roberts, Ross, Roth, and Smith (1999) suggested the effectiveness of coaching and leader modeling upon organization change in their book *Dance of Change*. Researchers such as Daniel Fullem and Thomas Guskey, explore aspects of effective staff development in their numerous investigations. This study endeavored to understand how teaching effectiveness and thereby student learning, was influenced by the aspects of distributed leadership woven through and among the relationships of the participants in the three training initiatives of this small urban school district.

The tenets of distributed leadership are presented through the work of researchers like Richard Elmore and James Spillane. The focus of this paper rested upon the belief that teachers who participate as leaders and trainers in their districts' staff development initiatives not only co-opt some effective instructional strategies for their own students but that they impact learning throughout their school by assuming distributed leadership roles. To paraphrase the work of James Spillane for these teachers, leadership is a central and anchoring concern (Spillane, 2006). Their leadership practice is tied to their personal interaction with traditionally viewed school leaders and their own teacher peers and finally, their instructional practice defines leadership as leadership helps define it. All teachers are classroom leaders. Do some expand their leadership beyond the walls of their classrooms and extend learning more effectively throughout the school community?

Limitations

The study was limited to the Jeannette City School District and its single elementary school, Jeannette McKee Elementary School. By default, the study was therefore limited to the students, their school organization and local community, and the approach this institution took to school reform.

A more extensive study could gather and compare student performance information of those districts that participated in the identified training programs. These studies might yield more general consensus as to the tenets of distributed leadership and its relationship to the effectiveness of this type of professional training.

Summary

During the past decade, the Jeannette City School District has jockeyed with Monessen Area School District for the basement position in the socio-economic ranking of the 17 school districts located in Southwest Pennsylvania's Westmoreland County. Local free and reduced lunch rate is set at more than 60%. The loss of its industrial base coupled with an exodus of downtown businesses has helped to depress the local real estate market to the point that currently a mill of property tax generates less than $50,000 for the Jeannette City School District.

Despite these conditions, the achievement story surrounding this local school district seems encouraging. Seven years ago the members of the primary education staff of the Jeannette McKee Elementary School began their journey into new areas of reading research through a reading initiative sponsored by Pennsylvania's Department of Education. They would be part of this initiative targeting 900 state teachers. Of the 17 school districts in Westmoreland County, Jeannette was the single district willing to start this journey through this particular PDE initiative. Twenty-two more across the state did join them.

In October 2006, the Jeannette McKee School was recognized by the United States Department of Education as a *Blue Ribbon School*--the only socio-economically challenged school in the county to receive such designation. As such, a member of a national group of schools representing less than a quarter of 1% of all the elementary schools, both public and private, in Westmoreland County.

In the Pittsburgh Business Times School Report of the 2006-2007 school year, the Jeannette City School District ranked 2nd out of 129 Western Pennsylvania School Districts in achievement gains when economic factors are weighed into the newspaper calculations of annual yearly progress. The report recognizes the district as an overachiever.

For the past three years school district Third Grade PSSA Reading and Math proficiency rates have hovered between the 73rd and 85th percentiles. This is during a time frame when the state of Pennsylvania set its benchmarking score requirements for third grade at the 54th percentile for Reading and 45th percentile for Mathematics (PDE, 2006). Special education subgroups that showed 0% proficiency three years ago are making steadfast progress in both reading and math. Non-white and economically disadvantaged subgroups have maintained better than established target levels.

Finally, Third Grade PSSA test scores have shown steady growth over the past three assessments. They have grown from the 50th percentile level of proficiency to the 79th percentile in reading.

In the spring of 2007, the District was recognized as a "learning community" whose staff is committed to the needs of its students in their approach to science and mathematics instruction by the Carnegie Museum's *Awards for Excellence* program. Teachers commonly attribute successes such as these to their hard work. But what constitutes this "hard work?"

Are teachers doing what they have always done in their classroom, but with much better results? Are there fundamental changes occurring in their instructional design and delivery? Are teachers experiencing attitudinal and perceptual changes? Are these related to their professional training? Is there a correlation between teacher learning and student achievement? How do leadership roles affect those who participate in the required learning equations? These aspects of the research questions were all areas the researcher investigated through this study.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The purpose of this mixed-methods designed case study was three-fold. First the study revealed the perceptions district teachers have about the effectiveness of their professional training. Secondly, this study examined the perceptions of teachers about the role distributed leadership may play in learning. Finally, the electronically warehoused student assessment data maintained by the school district was used to help triangulate the information presented in this study.

This review presented the three staff development programs that anchor this case study. It included research about the role administrators play in promoting staff development. It reviewed characteristics some researchers believe make staff development programs particularly effective. It explored some unique elements of adult learning theory. Finally, it presented an overview of the attributes of distributed leadership and summarized the individual models of staff development incorporated in one of Pennsylvania's smaller urban school districts.

Staff Development and Organizational Change

In his foreword to *Evaluating Professional Development,* Daniel Sparks wrote that the contemporary focus of many teacher staff development programs is the provision of improved teacher learning experiences so as to insure high levels of achievement for all students. However, many research studies document low teacher regard as to the effectiveness of professional training experiences. "A long history of low-quality staff development experiences has left most teachers with little faith that it will actually help

them improve student learning" (Sparks in Guskey, 2000, p. IX). This professional

training lacks clear focus, does not emphasize individual and organizational change, is

not presented as a series of small changes adhering to a purposeful vision, and finally is

neither on-going nor procedurally embedded (Guskey, 2000).

In a position paper he wrote for The Albert Shanker Institute, Richard Elmore

described American public schools as "loose coupled organizations" that are basically

self-sustaining and really not receptive to any degree of significant change (Elmore,

2000). In what way can staff development impact organizations such as these? One

manner may be through aspects of a theory of learning called constructivism. In his

dissertation, James G. Crosby postulated that schools as learning communities are

constructivist. Teachers, as members of these communities of learners, need to construct

the understanding of their craft within the confines of the setting in which they are

immersed, the schools. Like their students, American teachers comprehend learning

within the context of cultural norms and expectations. Their learning is collegial and

collaborative (Crosby, 2007).

Much of Crosby's paper draws upon the work of Jerome Bruner. As a

psychologist, he argues that human learning is constructivist. In *The Culture of*

Education, Bruner wrote:

> It takes its inspiration from the evolutionary fact that mind could not exist
>
> save for culture. For the evolution of the hominid mind is linked to the
>
> development of a way of life where "reality" is represented by a
>
> symbolism shared by members of a cultural community in which a
>
> technical-social way of life is both organized and construed in terms of

that symbolism. This symbolic mode is not only shared by a community,

but conserved, elaborated, and passed on to succeeding generations who,

by virtue of this transmission, continue to maintain the culture's identity

and way of life. (Bruner, 1996, p. 3)

People are habitual in their organizational lives. The "deepest habits of people are embodied in the structure and culture of the organizations where they live out their lives" (Schlechty, 2001, p. 163). Directed organizational change is not a light endeavor. It involves procedural, technological, structural, and cultural change to result in systemic change. All these levels of change are interconnected; relaying on each other to be truly effective. Of the quality of training required to implement change Phillip Schlechty wrote: "change requires much more than awareness workshops: it requires as well, opportunities for people to practice and to observe and opportunities to be coached and to coach others" (Schlechty, 2001, p. 162). School organizations use professional development activities to influence a change in teaching strategies. Unless the training activities promote professional growth and positively affect student learning outcomes organizational change is unlikely.

In Peter Senge's book, *Dance of Change* an essay written by Edgar Schein articulated the need to understand the problems that bring an organization to a cultural impasse (Senge, 1999). Understanding school culture can lead to change if school leaders are attuned to the cultural nuances of their organizations. Professional development can be their useful tool. However, these professional development programs need to be learner focused and research-based upon school effectiveness

(Cuban, 2004; Schlechty, 2001; Sparks, D., 2004). Professional teacher training

programs need to be "coherent, personal, and continuous" (Evans, 1996, p. 63).

Our current standards driven reform movement places increased need for change

upon our public schools.

> Public schools and school systems, as they are presently constituted, are
>
> simply not led in ways that enable them to respond to the increasing
>
> demands they face under standards-based reform. Further, if schools,
>
> school systems, and their leaders respond to standards based reforms the
>
> way they have responded to other attempts at broad scale reform of public
>
> education over the past century, they will fail massively and visibly, with
>
> an attendant loss of public confidence and serious consequences for public
>
> education. The way out of this problem is through large-scale
>
> improvement of instruction . . . . (Elmore, 2007, p. 42)

It is a performance-based, constructivist view of learning; a legislated standards-

based view of curriculum content; a view of intelligence, not as fixed but as something

the learner develops; and a concomitant understanding of teaching as a more complex

and multidimensional process (Sergiovanni & Starratt, 2007). Realistic solutions to the

organizational problems inherent in American public schools are not presented through

the traditional single day in-service agendas common in these institutions. Dennis Sparks

offered the following four points to illustrate why staff development may be ineffective.

First, the ideas and practices presented have not spread to all schools. People do not do

what they do not know. Second, even if the ideas or practices have been introduced,

people's understanding of them is not very deep. They know the terms or the list or the

guidelines, but they do not know enough to put them into practice. Third, our current

mental models--our assumptions and belief systems--support current practice. Spark's

assumption here, of course, is that our mental models affect what we do. If you change

people's practices without changing their mental models, they will keep getting pulled

back to their old ways. Lastly, educators do not set ambitious goals for student learning.

You do not need very good staff development to get to mediocre goals. Good staff

development is really only necessary if you have ambitious goals such as high levels of

learning for all students (Sparks, 2004).

   In her dissertation research Barbara Marin presents Pink's 12 barriers to effective

innovation. Pink's concern regarding central office vision and control, the inadequate

implementation of training and staff supports, insufficient local knowledge base of the

reform theory, long terms duration, and insensibility to the role of district relationships

and partnerships (Marin, 2001) mirror the deficiencies of school professional training

programs as presented earlier in this chapter (Guskey, 2000). Obstacles such as these

often maintain schools that really have not changed much in the last 100 years. With

each attempt at change, there is a slip back to the safe, familiar, traditional modes where

people find familiar comfort (Marin, 2001; Sparks, 2004).

Effective Practices within Staff Development

   Traditionally, school organizations have turned to professional development as

annual attempts to promote changes in their staff's approach to and effectiveness in,

instruction. A program of:

Professional development is defined as those procedures and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they may in turn, improve the learning of students . . . .

1. It is an intentional process.

2. It is an ongoing process.

3. It is a systemic process. (Guskey, 2000, p. 16)

The variety of approaches has been extensive, from teacher evaluation and clinical supervision, to peer mentoring and online courses.

In *Contemporary Issues in Curriculum, Fourth Edition*, Dennis Sparks and Susan Loucks-Horsley present five models of staff development for teachers. They classify their models as: (1) individually guided staff development; (2) observation/assessment; (3) involvement in a development process; (4) training; and, (5) inquiry (Ornstein, Pajak & Ornstein, 2007). As regular and as varied these approaches may be, many have been generally inconsistent in achieving their stated goals. Research results document many of their shortcomings (Achinstein, 2002; Brownell, Adams, Sindelar, & Waldron, 2006; Leonard & Leonard, 1999; Metzen & Edmunds, 2007; Sparks, 2004).

Staff training practices found to be most effective include: programs conducted in school settings and linked to school-wide efforts; teachers participating as helpers to each other and as planners, with administrators, of in-service activities; programs with emphasis on self-instruction with differentiated training opportunities; maintaining teachers in active roles, choosing goals and activities for themselves; programs with emphasis on demonstration, supervised trials and feedback; and programs whose training

is concrete extended over time and that provides on-going assistance and requested support (Ornstein, Pajak, & Ornstein, 2007).

In a paper prepared for the National Staff Development Council (NSDC), Dennis Sparks and Stephanie Hirsch presented a summary of the research regarding effective staff development. Their research indicated that effective programs must be results-driven and job-embedded, focused on helping teachers become deeply immersed in subject matter and teaching methods, curriculum-centered and standards-based, sustained, rigorous, and cumulative and directly linked to what teachers do in their classrooms (Sparks & Hirsch, 2000).

The authors go on to outline NSDC's set of standards and guidelines that schools can use to evaluate the quality of their staff development programs:

- Set clear and high standards for the learning of all students and then focus on the changes on practice required to achieve student-learning goals.

- Hold superintendents and principals, as well as teachers, accountable for student achievement and the provision of high-quality staff development in their annual performance reviews.

- Invest in teacher learning, ideally allocating at least 10 percent of their budgets to staff development.

- Review school improvement plans to ascertain that they focus on student learning and specify effective methods for reaching these goals.

- Involve all teachers in the continuous, intellectually rigorous study for the content they teach and the ways they teach it.

- Embed opportunities for professional learning and collaborating with colleagues in the daily schedule of teachers. NSDC advocates that at least 25 percent of teachers' time be devoted to their own learning. Schools should schedule more time for collaborating with colleagues.

- Provide teachers with classroom assessment and other action research skills that allow them to determine on a regular basis if their students have been improved because of their new knowledge and skills.

- Recognize the importance of skillful leaders in schools and at the district level who have a deep understanding of instruction, curriculum, assessment, and the organizational factors that affect student learning. (Sparks & Hirsch, 2009)

Evidently, there is abundant advice school districts can access in the research to help guide them to the implementation of effective professional development program strategies. What is missing is a procedure for evaluating these programs. In *Evaluating Professional Development* Thomas R. Guskey postulated the evaluation of five critical components of training initiatives: participants' reactions; participants' learning; organizational support; change and participants' use of new knowledge and skills; and, student learning outcomes (Guskey, 2000, p. 82).

Adults: Learning and Cognitive Processes

In his book *The New American Story,* Bill Bradley presented his vision for a new and improved future for Americans. On one of his final pages he shared the following with his readers:

Making the New American Story a reality requires government and

citizens alike to be at their best. It combines community service and

30

individual freedom to achieve what the vast majority of Americans want.

It says that we have obligations to one another that we fulfill by collective

and individual action. It says that we can't realize the American dream

alone – we need one another. At the same time, the one life we are in total

control of is our own, and by our personal actions we either help or hurt

the chances for collective advancement. It is our choice. If enough of us

want the New American Story, we can transform America. (Bradley,

2007, p. 338)

The case he makes for adult collaboration is strong and not unfamiliar in this

review (Crosby, 2007; Schlechty, 2002; Sparks & Hirsh, 2000). Adults need to assume

responsibility while realizing their connectedness to other adults.

In her doctoral dissertation about the factors that can influence the effectiveness

of staff development programs Lisa Renee Forbes (2003) presented two major

perspectives relative to adult intelligence. The first reflects the adult learning theory of

M. S. Knowles. It is based upon his five assumptions regarding the characteristics of

adult learning as individuals mature; that, as they age, adult self-concept moves from one

of being a dependent personality toward being a self-directed human being. Adults

accumulate a growing reservoir of experience that becomes an increasingly rich resource

for learning. Their readiness to learn becomes oriented increasingly to the developmental

tasks of their social roles. Their time perspective changes from one of postponed

application of knowledge to immediacy of application, and accordingly, their orientation

toward learning shifts from one of subject-centeredness to one of performance-

centeredness. Adults are motivated to learn by internal factors rather than external ones (Knowles, 2007).

Her second perspective is that of the characteristics shared by adult learners. The learners are by definition adults. They are in a continuing process of growth, not at the onset of such process. They bring with them a background of experience and values. They bring to their education a set of intentions and expectations. They are at a stage of life where they must weigh competing interests. Finally, they have their own established set of patterns of learning (Rogers, 1996).

Importantly, it should be noted that in adults, "intelligence is increasingly being described in contextual terms as the mental activity involved in successful adaptation to the environment" (Hansen Lemme, 2002, p. 131). Cognitive psychologists who study the process approach it from four different perspectives: organismic; mechanistic; contextual; and, psychometric. In the organismic model, cognitive development is understood to proceed through a series of sequential, universal stages, tied to age and dictated by a genetic timetable, with each stage representing a qualitative change in cognitive ability. Mechanists, on the other hand, view individual cognitive development as environmentally determined. The mind is written on by experience as if it were a blank sheet of paper. In the contextual model, cognitive development is the result of complex, reciprocal interaction between the individual's genetic nature and the various layers of social, cultural, and historical environment. Psychometrics refers to the method of describing cognitive performance through standardized measurement tools (Hansen Lemme, 2002, p. 128-129).

Appendix A presents six tables reflecting the rate of cognitive change in adulthood from a variety of studies lifted from the Hansen Lemme text. A major conclusion of these studies is that although most adults exhibit an eventual decline in adult cognitive capacity the magnitude of this decline is small and for the most part delayed until late in adulthood (Hense Lemme, 2002). During the duration of their work years most adults remain viable learners. This bodes well for the success of one of the major goals of educational staff development --training teachers to become more effective instructors who can impact the achievement of all their students.

Distributed Leadership

Distributed leadership is seen by some as an organizational division of power where leadership roles are differentiated amongst varieties of quasi-administrative, administrative, and non-administrative personnel (Dean, 2007; Elmore, 2000). Theirs is a rather rigid model. Certain job titles bring definite responsibilities within the organization to keep it performing smoothly. Leadership is shared, but in a somewhat formal matter.

Other researchers (Spillane, 2006; Spillane & Diamond, 2007) asserted that distributed leadership is a much more fluid organizational pattern where staff members assume leadership roles when they sense a situational need. These opportunities allow the organization such as a school, to meet their goals. School administrators occupy traditional administrative positions within the educational organization while teachers enter and exit administrative roles based upon need. The call may be internal for the teacher or a response to an external directive from a traditional school leader such as a principal or district superintendent.

In both instances, these researchers agree with others in the field (Kise, 2006; Marzano, 2003), that within our complex American culture, effectively leading a contemporary public school may be beyond the means of simply one administrator. The complexity of effectively steering the school under such circumstances may become distributed.

Earlier in this review, Richard Elmore's idea of "loose-coupling" was presented. In it, many of the incapacities of the current system of public education to promote, encourage, or lend itself to effective change are argued. In his position paper Elmore, presented a conundrum:

> Schools are being asked by elected officials – policy leaders, if you will –
> to do things they are largely unequipped to do. School leaders are being
> asked to assume responsibilities they are largely unequipped to assume,
> and the risks and consequences of failure are high for everyone, but
> especially high for children. (Elmore, 2002, p. 1)

This innate incapacity for organizational change is a common theme in the literature (Cuban, 2004; Kozol, 2005). Atypical solutions are warranted. "These shifts require school administrators to respond with dramatic and powerful changes in the way schools go about doing their business and perhaps even with a redefinition of the nature of the business they do" (Schlechty, 2001, p. 1).

Elmore traces the development of our public education system. His descriptions of the public school system as a self-sustaining and entrenched organization are reminiscent of the writings of Friedman and Senge as they describe typical business

models. Without becoming a "learning organization" the prospects for the future success of a particular organization is bleak.

In his paper Elmore presented the five principles that lay the foundation of his distributed leadership theory.

- The purpose of leadership is the improvement of instructional practice and performance, regardless of role: Traditional roles of leadership within the public school system are no longer appropriate. Political brokers, managerial operators, and cultural symbolists have no place in reform. If the target is improved instructional practice then the skills leaders will need, will be those that inform best practice in teaching and learning.

- Instructional practice requires continuous learning: Leadership needs to be focused on creating conditions that make learning valuable as an individual achievement dedicated to the collective good. Teacher isolationism fostered among contemporary public schools needs abolished. Leaders must be willing to have their practice and beliefs open to free discussion. Isolated practice inhibits instructional improvement.

- Learning requires modeling: Leaders must be willing to walk the talk. They should be seen doing that which they expect others to be doing.

- The roles and activities of leadership flow from the expertise required for learning and improvement, not from the formal dictates of the institution: People in an organization bring a variety of skills into the arena. They need to understand that the sharing of these skills results in a greater expertise and effectiveness. This is

not based on a command relationship but on a sense of cooperation

acknowledging and making use of differences.

- The exercise of authority requires reciprocity of accountability and capacity:

   Staff members are not required to perform tasks that they have not been

   thoroughly trained for. (Elmore, 2000, p. 20-21)

The model does allow for a delineation of skills among a hierarchy of staff

members (Dean, 2005). However, for the purpose of this study the principles outlined

will be explored relative to the degree of application assimilated among professional staff

members.

These principles have an interesting correlation to the concept of "emergence." In

an article by Margaret Wheatley and Deborah Frieze (2007), emergence is presented as a

description of large-scale change that was initiated as a series of small local actions. The

authors liken it to a "perfect storm," where tiny unrelated and unpredicted weather

conditions come together to form a spectacular tempest. In education, the tempest is

called a "Community of Practice" and it is created by involved networking, realization,

commitment, and professional practice. Involved networking is connecting people who

may not have any idea that others are doing similar things. With "realization" people

begin working together to create more organized benefit. Commitment is characterized

as a shift away from casual to more intense support. At the professional practice level of

the sequence the new practitioners desire to support the learning of others (Wheatley &

Frieze, 2006). Within the model therefore, small networks of teacher/learners have the

potential to restructure American schools in a major way. Their vehicle can be effective

staff development.

Staff Training Initiatives in One Small Urban School District

It was the stated purpose of this paper to explore teachers' perceptions relative to

distributed leadership within in the context of a district's staff training initiatives. To this

end the final section of this review was devoted to describing the district and the three

major training initiatives undertaken in the Jeannette City School District (JCSD) since

the 2002-2003 school year.

Demographics

The JCSD is classified as a small urban school district by the Pennsylvania

Department of Education. It draws its 1,345 students from the small city of Jeannette's

area of about two and one-half square miles. The district is bounded by the suburban

school districts of Penn Trafford Area, Hempfield Area, and Norwin Area in Central

Westmoreland County. It is one of the 17 districts served through Intermediate Unit #7.

Its 100 teachers are spread among three grade span level groups in two buildings. The

Jeannette McKee Building houses its elementary school, grades K through five and its

Middle School, grades six, seven, and eight. Its high school is newly renovated and

welcomes the community's Ninth through 12th grade students. Its two central office

administrators are housed in the district's Vincent J. Aiello Central Administration

Building. There are three principals and two assistants that administer the district's three

schools. The two assistant principals share administrative responsibilities in two of the

buildings, the elementary school, and the district high school.

The student population can be represented as 82% White, 18% Black, 63%

economically disadvantaged and 18% special education. One hundred percent of the

students are identified as Title I since the district opts to administer its Federal Program

Funds through a school-wide program. The district is one of the two poorest in county.

Only a small remnant of a once expansive glass factory remains in the town. With

deteriorating real estate values, one mill of school tax garners less than $50,000 for the

district.

Training Initiative 1 – K through Three Reading Program

In the summer of 2002, all Pennsylvania school districts were invited to take part

in an intensive reading improvement, staff training program. This K-three Reading

Instruction initiative was described by then Secretary of Education, Charles B. Zogby, as:

"An interactive professional education opportunity available to all Pennsylvania K-3

educators to improve the reading performance of all students. A professional education

opportunity provided by the Pennsylvania Department of Education was to support

Reading First in Pennsylvania" (Zogby, 2002). The Jeannette City School District won

selection as one of the State's participating school districts in October, 2002.

According to PDE, the benefits to participants would be the provision of

knowledge and skills to: increase learning for all students; develop instructional

strategies that are based on scientific reading research; align curriculum with

Pennsylvania Standards; develop and implement data-driven decision making resources;

and, provide assessment evidence to guide student learning (Pennsylvania Department of

Education, 2002).

The school district would be responsible for developing a "School Building

Team" and selecting the "Implementation Coach." Members of the team would

participate in the interactive eight-module reading program. Each module was

approximately10 hours. Seven hours of each module consisted of research-based, self-

paced on line course content, online discussion, and classroom planning activities. Three

hours of each module consisted of peer interaction and discussion in a cohort group led

by the Implementation Coach; the focus was to complete all coursework, review case

studies, complete learning activities, integrate practices and strategies into classroom

instruction, and receive onsite assistance and modeling through the Implementation

Coach and Implementation Facilitators (Pennsylvania Department of Education, 2002).

The Implementation Coach would attend training sessions on the implementation

of strategies and how to provide assistance to the school building team participants. This

would include one full day pre-program training and one meeting prior to the beginning

of each module; responsibilities were to prepare, schedule, and conduct school building

team cohort sessions; provide onsite observations, assistance, modeling, and other

assistance needed to support educators in the implementation of strategies in classrooms;

and monitor, track, and report school building team progress (Pennsylvania Department

of Education, 2002).

Eleven of the district's primary teachers volunteered to participate in the

initiative. These included regular education classroom instructors, reading specialists,

instructional support teachers, and special education instructors. The school district

petitioned the state to include administrators on this team. Their petition was successful.

At the end of the 2002-2003 school year all 12 members of the team successfully

completed the program and were awarded 80 hours of Act 48 credit. This team included

five classroom teachers, grades kindergarten through three and grade seven, one extended

day kindergarten teacher, one elementary reading specialist, two primary level special

education teachers, the elementary principal, and the district federal programs

coordinator. The Implementation Coach, who guided the district training, received additional credit hours beyond the 80 granted to the team members.

During the following year, the implementation coach continued the initiative. She maintained her network connections with national professional collaborators. The district designed a training program where the 10 original instructional members of the school building team served as mentors to those remaining primary teachers who had not been trained in year one of the initiative. The implementation coach met regularly with the mentors and teachers. In these meetings, the new teacher trainees received instruction relative to the original eight training modules. In this way, all primary staff members were trained. These sessions also provided the occasion to clarify any initiative issues and give additional direction to the mentor teams.

The initiative continued through the 2007-2008 school year when six new primary staff members were hired by the school district. Members of the original Building Team designed a training program for them. This program consisted of an extensive overview of the original eight modules, in-service training, and a one-on-one mentoring arrangement.

The 2006-2007 school year marked the first occasion that the students who were taught within the training parameters of the K-3 Reading Instruction Initiative from kindergarten through third grade were assessed through the PSSA. The building followed the specific DIBELS annual three benchmark assessment schedule, incorporated a School Wide Assessment Team, and progress monitored student growth. All assessment records were maintained electronically.

Training Initiative 2 - Math Science Partnership

The Southwest region of Pennsylvania is home to 138 independent school districts. These range from small rural to large urban organizations. The central urban hub of this area is the Pittsburgh City School System located in Allegheny County. According to program information:

> The Math & Science Partnership of Southwest Pennsylvania
> comprises 40 of those districts and four institutes of higher
> education (IHEs) that will take the lead in helping all K-16
> students be successful in the science and mathematics necessary
> for the 21st century . . . .
>
> Drawing on research and expert partners, the Partnership
> builds a leadership cadre within each of its partners. Through the
> Partnership's leadership academies, these cadres develop the
> capacity to help guide communities of learners within each district
> to effectively implement challenging courses and coherent
> curricula. These leaders enhance the quality of the educator
> workforce by leading their colleagues in a continuous process of
> refining efforts to improve achievement for all K-16 math and
> science students. The Partnership builds intentional feedback
> loops with K-12 to help IHEs become more responsive to the
> heightened expectations for strengthened math and science
> learning experiences for all undergraduate students, and relevant
> preparation of pre-service teachers. Through Partnership training,
> these cadres develop leadership proficiency with featured tools

such as data analysis system, mathematics, and science curriculum frameworks, and challenging curricula. Intermediate units build capacity to coordinate the Partnership with the introduction of MSP Coordinators as dedicated personnel (Math Science Partnership, 2007).

The Math Science Partnership has established three goals that are focused on improved achievement for all students of the participating school districts. The first is to increase the K-12 students' knowledge of mathematics and science through an increase in the breadth and depth of their participation in challenging courses and coherent curricula.

Second, to increase the quality of K-16 educator workforce through leadership-guided, data-based decision-making and the effective implementation of challenging courses, as a coherent curricula. And third, to create sustainable coordination of partnerships that build intentional feedback loops between K-12 and IHE to tap the discipline-based expertise of the IHE and to improve the mathematics and science learning experiences for all undergraduates, accompanied by relevant preparation for pre-service teachers. (MSP, 2007)

The Jeannette City School District became a participating, second-wave, school district in the summer of 2004, through its successful submission of a Title II competitive grant. Currently, the district has a standing Leadership Action Team comprised of two

district administrators and six of its elementary and secondary math and science teachers. Their function is to analyze data and set district direction and goals in math and science instruction. They are also responsible for monitoring current trends in the two targeted fields, science and mathematics. District teachers attend leadership mathematics academies eight to 10 times annually. The math academies deal with primary (K-1), intermediate (2-5) and secondary (6-12) mathematics instruction. Leadership science academies have been attended by three elementary teachers and six secondary teachers. The elementary teachers deal with a K-5 grade span. The secondary teachers are divided in half. Three represent the middle school team and three represent the high school team. Since the district is so small, this split represents 100% of JCSD's middle school science staff and 50% of the district's high school science staff. Three district teachers have served fellowships with the Partnership's IHE, Saint Vincent University. Two elementary staff members served their fellowships in the science department and one secondary teacher served hers in the math department. All district administrators, including the superintendent, were trained in the administrative component of the Partnership, Lenses on Learning (LOL). In the spring of 2007, the district was awarded the Carnegie Science Center Award for Excellence. This award was presented to a district "transforming itself into a model learning community," one that "has strengthened its science program through professional development for teachers and administrators by planning strategically" (Radical Equations, 2007).

Training Initiative 3 - Response to Intervention

RtI is the practice of: "(1) providing high-quality instruction/intervention matched to student needs and (2) using learning rate over time and level of performance

to (3) make important educational decisions" (National Association of State Directors of Special Education, 2005). In November 2005, district administrative personnel attended PDE's Bureau of Special Education workshop, "An Overview of Response to Intervention: A Schoolwide Framework for Student Success."

> This session will provide participants with an overview of
> Response to Intervention (RtI) as an Early Intervening, school-
> wide approach to improving student results, and meeting AYP
> targets. RtI will be discussed in light of its defining characteristics
> and critical elements including universal screening and the use of
> research validated interventions to meet the identified needs of all
> students. Participants will conduct a district/school needs
> assessment to determine the supports the district/school may need
> to implement an RtI framework. The over arching goal of the
> session is to provide districts with the information needed for an
> informed decision on RtI implementation. (Pennlink, November
> 22, 2005).

The completed needs assessment indicated the district elementary building could be ready for the model. PDE's Bureau of Special Education's program information helped the district formulate a plan. Within the literature provided, the following information was presented as "key points:"

- RtI is an integrated approach to service delivery that encompasses general and special education. Effective implementation of RtI requires

leadership, collaborative planning, and implementation by professionals across the education system.

- SEAs and LEAs are encouraged to develop a single, well-integrated system that connects general, remedial and special education through scientifically based practices, common measures, and explicit decision-making procedures driven by child outcomes.

- SEAs and LEAs are urged to identify, consolidate, supplement, and integrate resources from diverse funding sources to produce the infrastructure necessary to support the implementation of RtI and the realization of improved results.

- SEAs and LEAs are encouraged to establish systematic plans with timelines and defined responsibilities to ensure the successful implementation of RtI across the educational system.

- The rationale for RtI originates in advances in the scientific bases for instruction/intervention and improved measurement technology that is useful for guiding instruction and goal setting and problem-solving methods that guide intervention and important educational decisions, including eligibility for special programs.

- RtI is now deeply entrenched in federal law and policy, based upon multiple policy analyses conducted from the late 1990's to the early 2000's. These policy analyses are unanimous in recommending changes in current delivery systems that are consistent with RtI practices.

- RtI uses a multitier model of educational resource delivery. Each tier represents an increasing intensity of services matched to the level of current student need.

- Student intervention outcomes drive decision making at every tier of the model. A systematic, data-based decision-making (problem-solving) method is used to decide not only what intervention to try but whether the implemented strategies are working for a student. (National Association of State Directors of Special Education, 2005, p. 3-4)

Seldom are school districts given such leeway to develop models by PDE and especially by its Bureau of Special Education. The JCSD took advantage of this opportunity to develop its own model to implement the RtI framework in its elementary building. Using three models of staff development, inquiry, involvement in a development process and observation/assessment (Orenstein, Pajak, & Orenstein, 2007; Sparks & Loucks-Horsley, 2007) the district formulated an RtI Committee. This committee had been charged with developing an operational framework for the model within the district. Working over a two year period the committee was successful in realizing this goal for the 2007-2008 school year. During the two previous years, the RtI Committee reviewed the research, discussed program designs, and applications, reached consensus and formulated its framework. It presented it to staff in its RtI Toolkit.

The framework developed by the Committee allows grade level collaboration that includes support staff, Title I and Special Education teachers, school psychologist, guidance counselor, and administration. Twice monthly meetings allow the discussion of goal setting and strategic support for all students. The formulation of this model was

integrated with aspects of the previously presented training initiatives. Universal

screenings incorporated by the K-3 Reading initiative are a cornerstone to assessments

and progress monitoring required by the tiered design. Student learning documentation

and lesson design refinements, core aspects of the MSP training, enable the strategic

support discussion so important to tiered service delivery. This integration and synthesis

suggests a level of learning worthy of investigation.

Summary

In the preface to her book *Distributed Leadership Different Perspectives*, Alma

Harris (2009) indicated the need to add to the research base in attempts to better define

distributed leadership. The chapters of her book are meant to "illuminate and illustrate

some of the complexity, confusion and contradiction associated within distributed

leadership" (Harris, A. 2009, p. 6). In this case study the researcher explored the subject

within the context of a single public elementary school. Small scale studies such as these

may present obvious limitations. However, they do hold promise.

American public schools are examined continuously in efforts toward

improvement. Often times the improvements are learner focused and based upon the

goals of improved student learning (Elmore, 2007; Guskey, 2000). Most often school

reform efforts are attempted through the provision of professional staff development

programs (Guskey, 2000; Ornstein, Pajak, & Ornstein, 2007; Sparks, 2004). Often times

these programs meet with limited success for short durations of time (Achinstein, 2002;

Brownell, Adams, Sindelar, & Waldron, 2006; Edmunds, 2007; Leonard & Leonard,

1999; Metzen & Sparks, 2004). Despite limitations many researchers have explored

more effective options of practice and procedures within the field of professional teacher development (Guskey, 2000; Ornstein, Pajak, & Orstein, 2007; Sparks & Hirsch; 2000). The principles of adult learning theory are obviously important in teacher training inititiatives (Bruner, 1996; Crosby, 2007; Forbes, 2003; Hansen Lemme, 2002; Knowles, 2007; Marin, 2001; Rogers, 1996).

The researcher has had the benefit of working with his district staff for an 11 year period. During this time the staff has been engaged in three on-going training initiatives: K-3 Reading Program; Math Science Partnership; and, Response to Intervention. Through the proposal of its mixed methods approach of data analysis, survey, and interview the researcher expected to present a detailed overview of what teachers perceive of their training, whether there is evidence of its effectiveness, and how it may add to an understanding of distributed leadership. Many school districts across Pennsylvania share the case study's district's size and access to resources and may readily draw from the study's conclusions. The researcher hoped the study would underscore the importance of staff training, its impact on student learning, and its connection to distributed leadership theory.

CHAPTER III

RESEARCH METHODOLOGY

Introduction

In thousands of schools across the country, teachers strive to meet the needs of their students in an increasingly demanding society within a more overt framework of teacher and school accountability. Many of these teachers are seasoned veterans. Some teachers are newly entered into the profession. Neither group has been pre-serviced to teach in today's environment of standards driven high stakes accountability (Elmore, 2000). Yet, they must. In some cases, groups of teachers are quite successful within this high-stakes testing environment. Student learning outcomes are applauded in state report cards, by the local press and in district boardrooms.

How then does this happy circumstance occur? How do teachers transition to become more effective as measured within this high stakes environment? Is the transition solely orchestrated by our traditional institutional leaders, school administrators, or do the teachers themselves play a significant role in its direction and implementation? Do teachers perceive a need within this situation and seize opportunities to interact with other colleagues in roles atypical to teaching? Who is tugging at the strings of change? Some researchers maintain that contemporary public schools with the myriad of complex problems they present, are hopelessly beyond the ability of single traditional school building administrators (Kise, 2006; Marzano, 2003; Spillane & Diamond, 2007). Despite the challenges, public educators need to be mindful of their mission to educate all students.

In this case study the researcher attempted to collect and examine data in an effort to analyze the reaction of a single small public school system to these pressures of contemporary accountability demands. The district's staff development program was investigated to help determine if there were evidences of enhanced teaching strategies and augmented student learning outcomes. An attempt was made to also determine whether any of these changes were influenced by the three essential elements of distributed leadership as conceptualized by James Spillane and John Diamond; leadership practice is the central and anchoring concern, it is generated in the interactions of leaders and followers, and the situation both defines leadership practice and is defined through it? (Spillane & Diamond, 2007). Was shared leadership evidenced by the interactions of professional educators? Was its orchestration situational? Was it effective?

Purpose

The purpose of this case study was to explore teacher perceptions relative to the role of distributed leadership within their school district's professional training program. This examination was confined to those teachers who assumed lead responsibilities within any one, or up to all, of three separate training initiatives undertaken by their school district. This mixed methods approach included teacher interviews, a teacher survey tool, and a longitudinal review of student reading achievement data. The results of the latter two helped anchor perceptions shared among those teachers interviewed.

The challenge of delivering a "free and appropriate" public education to all students in contemporary American schools requires leadership action from both traditional and non-traditional leaders (Spillane & Diamond, 2007). Much of this research focused on the latter. Teacher leaders and followers within the school climate in

which they work were investigated. Their interactions with school administrators within their classrooms were not ignored. "Using this theoretical position . . . suggests that a distributed perspective on leadership has two aspects, the leader plus aspect and the practice aspect" (Harris, 2009, p. 4).

This chapter presents the rationale, procedures, setting, data collection analysis methods, and the intended instrumentation required for the study. In this case study, mixed methods were employed. There is precedent for using both qualitative and quantitative measures in case study. As Denzin and Lincoln stated: "Although many qualitative researchers . . . will use statistical measures, methods, and documents . . . they will seldom report their findings in terms of the kinds of complex statistical measures or methods to which quantitative researchers are drawn" (Denzin & Lincoln, 2003, p. 15). The quantitative data used herein supported perceptual analysis.

This study essentially conveys meaning through perceptions of those teachers interviewed. However, reliable and valid survey and statistical analysis tools were incorporated to substantiate staff beliefs and trends in student data that may or may not support those perceptions. As Robert Yin observes: "…mixed methods studies allow all sources of evidence to be reviewed and analyzed together. Findings can then be based upon the convergence of the collected information" (Yin, 2003).

This researcher is indebted to the previous works of Dr. Barbara Marin and Dr. Lisa Renee Forbes. Their works (Marin, 2001; Forbes, 2003) provide support for the chosen methodologies. Dr. Marin used teacher interviews to explore the perceptions of effective teachers and Dr. Forbes used teacher surveys to investigate teacher perceptions relative to their district's professional staff development programs.

Research Questions

The following questions will guide the research:

1. How accurately do the scores achieved by students on the primary reading assessments of the Dynamic Indicators of Basic Early Literacy Skills predict the assessment levels they achieve as reported by the Grade Level 3 Pennsylvania System of School Assessment?

2. How do teachers perceive they are using assessment data and teaching strategies presented through their training initiatives to effectively adjust their instruction to meet student needs within their classrooms?

3. What perceptions do teachers share regarding the effectiveness of their district training programs in helping them meet the challenges of educating all their students?

4. What concepts of the roles of distributed leadership in their professional development programs do teachers share and do these roles reflect the three essential elements of distributed leadership: leadership practice is the central and anchoring concern**,** leadership practice is generated through the interactions of leaders, followers and the situation, and the situation both defines leadership practice and is defined through leadership practice? (Spillane, 2006, p. 4)

Background

This study reflected upon the experiences of a specific small primary staff within a single elementary school building. It examined these experiences within the context of the professional training programs offered to them by their school district. This

examination yielded teacher insights relative to the role of distributed leadership. "Distributed leadership is concerned with the co-performance of leadership practice and the nature of the interactions that contribute to co-performance" (Harris, 2009, p. 5).

For the purpose of support, a major focus of this study was the K-3 Reading Initiative. Other programs of staff development important to this case study were the Math Science Partnership and the Response to Intervention Model. The effectiveness of both programs is currently under investigation. The Math Science Collaboration of Alleghany Intermediate # 3 has initiated a three year research study to determine the effectiveness of sustained and coordinated staff development upon students, teachers, and administrators. This research was implemented as part of the evaluation of their professional training programs funded through government grants. A fellow research student at Indiana University of Pennsylvania (IUP) is currently investigating RTII Model as developed and delivered within the JCSD.

Setting of the Study

This study concentrated upon the professional training activities of primary grade level teachers in the JCSD between the years 2003 and 2010. The district is located in the center of Westmoreland County in Western Pennsylvania. It is officially classified by the Pennsylvania Department of Education as a "small urban school district." With its once predominant glass industry literally in ruins, the district is hard pressed to maintain funding for its school programs. This two square mile area of old urban development and housing is surrounded by more affluent, developing suburban communities. The district contains two school buildings: a high school and a combination middle school/elementary school building. Two grade groupings make up two separate schools

housed within this latter building; the Jeannette Middle School, grades 6-8; and the Jeannette McKee Elementary School, grades K-5. The elementary school bears the name of the wife of the glass-making industrialist who founded the town in 1888. Both schools function independently within the single building and have their own building administrators.

As mentioned, this case study focused its attention upon the elementary building. Currently the elementary school houses 650 students: 79% are White, 20% are Black, and 1% are Hispanic. The school has an economically disadvantaged population of 63%. However, some primary classrooms reflect this category approaching levels up to 80%. Twenty-two percent of its students are considered to have special needs (Individual Education Plan). All the population subgroups are incorporated into the PDE's formulas for establishing AYP. Those are the achievement levels required by the NCLB legislation at the building and district levels. The building is administered by one principal and one assistant to the principal. Each primary grade level is assigned five teachers with the exception of its half-day kindergarten groups, which are divided into three A.M. and three P.M. half-day classroom groups. Therefore 3 kindergarten, 5 first grade, 5 second grade, and 5 third grade teachers comprise the primary level staff of 18 teachers. The support staff for these teachers includes two Title 1 Reading Specialists, one Title 1 Student Assistance teacher, an elementary Title 1Math Support teacher, and a single elementary guidance counselor. An extended day kindergarten teacher provides an additional half-day support program for 20 of the district's most challenging kindergarten students. During the study period, five primary teachers have retired. In summary, the primary staff included in this case study numbers 30 teachers.

Case Study

This case study assumed the premise that there is a current of leadership ebbing through a school organization during a time of change and that its flow is distributed. Capturing this "flow of leadership" is no simple task. The researcher presented the conditions as they existed during the case study timeframe of seven years. There should be evidence of what occurred in the school regarding the impact on faculty and students as well as the perceptions of those involved. What were their perspectives regarding possible transitions? Is there evidence of teaching and learning effectiveness in the student record? What roles did the teachers believe they played throughout? The researcher incorporated a variety of tools to seek answers to these questions.

Research Tools--Comprehensive Data Analysis/
Dynamic Indicators of Basic Early Literacy Skills Data System

Since the 2003-2004 school year, the JCSD has been a member of the Math Science Collaborative of Western Pennsylvania. One benefit of membership in the collaborative was the implementation of a data warehousing system within the school district. Named Comprehensive Data Analysis (CDA), this system has the capacity to store both local and state student assessment data. During the case study time period the school district collected and stored all its student assessment data. For the purpose of this study, archived student PSSA reading assessment data was accessed. It provided no links to student identity. All student participants remain anonymous. During the same time period the district also elected to store its DIBELS student assessment data. This was facilitated through the University of Oregon's DIBELS Data System website. Student

benchmark performances that start in kindergarten and continue through grade six are maintained.

There were multiple purposes for the collection of these databases. Foremost was the aspect of collecting and storing local student assessment data in a matter that made its retrieval and treatment immediate. This aspect held the promise of learning how to use assessment data effectively to help drive instructional decisions. For the purposes of this study an analysis of the benchmark reading assessment results recorded through DIBELS system and the annual Third Grade Reading PSSA performance indicators are stored in the CDA system.

Analysis of this database proved useful in a number of ways. National Staff Development Council (NSDC) survey results may indicate that teachers perceive they have been trained to be more effective in responding to student needs. This effectiveness could manifest itself in improved proficiency results on the PSSA aligned with improved DIBELS benchmark scores. Consistent student learning results could help support teacher perceptions.

All individual student progress was monitored through historical student assessment data warehoused in the school district's CDA system and DIBELS records. However, in this case study only complete sets of individual data were incorporated. Only those children who begin their school careers as kindergarten students and continue in the district through third grade were included in the study. The combined databases contain longitudinal data including benchmark assessments, individual progress monitoring reports, and annual PSSA results. Each student's file is maintained in a complete fashion once the child is registered in the school district. The researcher

"farmed" the data to create three cohort groups of students. Again, these were groups of students who began as kindergarten students in the district and continued their participation through grade three. The three separate cohort groups were identified. Those starting their elementary careers in the 2003-2004 school year were in Cohort 1, those in the 2004-2005 school year, Cohort 2, and finally those beginning in the 2005-2006 school year, Cohort 3. Data were collected through the 2008-2009 school year when the data collection for this research project concluded.

Each cohort group of students were assessed three times annually since entering the district as kindergarten students. This assessment data were based upon national benchmarks established through the DIBELS. As grade level students, each child was assessed within the appropriate grade level sequence of assessments. For kindergarten students these assessments included: Initial Sound Fluency (ISF); Phoneme Segmentation Fluency (PSF); Letter Naming Fluency (LNF); Word Use Fluency (WUF); and, Nonsense Word Fluency (NWF). First graders were assessed in: Phoneme Segmentation Fluency (PSF); Nonsense Word Use Fluency (NWF); Oral Reading Fluency (ORF); and, Retell Fluency (RTF). Second grade students were assessed for their level in: Nonsense Word Fluency (NWF); Oral Reading Fluency (ORF); Retell Fluency (RTF); and, Word Use Fluency (WUF). Third grade level students were assessed for their proficiency levels in Oral Reading Fluency (ORF), Retell Fluency (RTF), and Word Understanding Fluency (WUF). This sequence of assessments was plotted on the four DIBELS tables contained in Appendix B. These were imported from the DIBELS homepage (http://dibels.uoregon.edu/benchmarks.php).
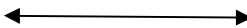
The primary reading skills data were tested to determine a correlation to intermediate grade reading success. The latter was measured by the proficiency levels third graders achieve on their Reading sections of the PSSA while the former was those results Kindergarten students achieved during their first DIBELS benchmark assessments, notably, ISF. The relationship between the DIBELS ISF assessment and the PSSA reading comprehension performance was investigated using the Pearson product-moment correlation coefficient. DIBELS data were analyzed to determine overall comparative characteristics of cohort groups. Graphic representations of each cohort were constructed. Historical data housed within the district's storage system CDA, were utilized to chart individual student progress over the study timeframe. This charting provided a graphic analysis of cohort group changes in score distribution over time. This established student growth patterns over the course of the study and helped provide clues to teacher training proficiency.

Figure 1 helps visualize the assessments schedules and the analysis that attempted in this case study:

Assessment Schedules

DIBELS Benchmark Schedule	PSSA Schedule
Fall – Winter – Spring (3 times annually)	Spring (1 time annually)
Grades K, 1, 2, 3	Grades 3-8 & 11

Data Treatment

Correlational Analysis	
Kindergarten Fall Benchmark Initial Sound Fluency ⟷	3rd Grade PASA Reading Comprehension
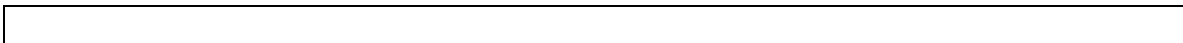
Figure 1. Assessment schedule and analysis.

Standards Assessment Inventory

As discussed in Chapters I and II, the JCSD employed three separate staff development programs from 2003 through 2009. A common strand of formative assessment was implemented during the six year period. In each program, teachers were directed to focus upon understanding their students' needs and were taught how to use a variety of assessment tools. The teachers needed to learn how to interpret assessment scores in order to adjust instruction to enhance effective student learning and achievement. Intensive training seminars were conducted over a period of four years in the K-3 Reading Initiative. Three coordinated waves of training over a four year period prepared the elementary staff in the conceptualization and implementation of the core program. The staff learned a basic principle of progress monitoring, an analysis of student skills acquisition, and instructional adjustments to promote enhanced student reading achievement. The Math Science Partnership and Response to Intervention initiatives supported the central tenet that assessment drives instruction.

In an effort to collect teacher data relative to seven years of in-service training, each primary staff member will respond to the National Staff Development Council's Standards Assessment Inventory (SAI). This instrument addresses NSDC 12 standards of effective professional development. Results of the survey summarized staff perceptions.

For instructors currently employed by the school district, the survey was administered during their fall in-service program. Retired employees were invited to respond to the survey. The results helped establish similarities and differences among the

local district and national samples. The intent was to determine how closely aligned local results are to the national sample. Interview questions determined how closely aligned local training is to NSDC standards.

The survey instrument contained 60 questions with 5-point Likert scale responses. The SAI "was developed to measure the extent to which schools' professional development programs adhere to the NSDC standards" (SEDL Web). NSDC contracted with the SEDL to develop the survey tool. The NSDC standards are asserted to be "best practices" for school professional development programs and consist of 12 areas of focus: Learning Communities; Learning; Resources; Research-Based; Quality Teaching; Design; Equity; Collaboration; Leadership; Evaluation; Data-Driven; and, Family Involvement. NSDC conducted a study to determine the reliability and validity of their survey instrument. Sixty schools nationwide participated in three pilot groups to help determine overall instrument reliability, subscale reliability, content validity, criterion-related validity, and construct validity.

The following represents the conclusions NCSD drew from their pilot study:

This report discussed the instrument development process and the

results form the tests of reliability and validity in three pilot

studies. Reliability was investigated using Cronbach's alpha

(Cronbach, 1971) and found to be consistent and high across all

three pilot studies for the overall scale, and consistently good for

the 12 subscales. These findings indicated that SAI is a reliable

measurement tool.

Several types of validity were examined to assess the soundness of the SAI as a measure of the degree to which schools' professional development programs demonstrate an alignment with components of the NSDC standards. The SAI demonstrates a good content and criterion related validity. Expert advice during the development process and refinement of item content was solicited to ensure that the instrument would clearly reflect various actions or activities relevant to each standard and the experiences of school staff.

Criterion-related validity is support by the results of discriminate function analyses, Teacher ratings and expert ratings of the degree that the components of schools' professional development programs reflected the NSDC standards were comparable for schools grouped as both low and high in adhering to the standards.

Construct validity for the SAI was not supported by the twelve-factor model suggested by NSDC standards. Factor analyses indicated a five to seven factor model as most appropriate. These findings suggest an overlap exists within the twelve subscales of the SAI and that a further examination of the model of the NSDC standards should be undertaken.

While issues regarding construct validity need further investigation, the analyses of the psychometric soundness of the

SAI indicate that it is a reliable and valid measure of the degree

that schools' professional development programs reflect the

actions/activities set our in the NSDC standards. (Southwest

Educational Development Laboratory, 2008)

"Cronbach's alpha for overall instrument reliability were consistent and high

across all three pilot studies (a = .98). Reliability estimates for 12 subscales ranged from

good to strong across tests (a = .71 to .98)" (Vaden-Kierman, Hughs, Jones, & McCann,

2009).

A similar survey tool, the Self Assessment Inventory, was used in the dissertation,

Factors that Influence Effective Staff Development: A Descriptive Study of Two

Connecticut Public High Schools, by Lisa Renee Forbes, in 2003. In this study, the

survey was used to contrast urban and suburban teacher attitudes regarding staff

development. Research indicating barriers to professional training among staff members

in public schools was cited. These were presented as intensified contextual barriers

(Sparks, 2000; Woods, 1997), structural and resource barriers (Killion, 1999),

institutional barriers (Merriam & Caffarella, 1991), and individual teacher barriers to

change (Killion, 1999). They included staff perceptions relative to low expectations for

learning among children of poverty and color, and ineffectiveness of economically

challenged districts to organize effective and sustained training programs. Dr. Forbes'

summary indicated both the distressed urban area staff and the more affluent district area

staff shared equally low opinions of their district's training programs. Results of the

JCSD survey indicated whether the JCSD staff shares some of these opinions.

NSDC recommends the use of SAI over the Self Assessment Inventory used in the Forbes study for those engaged in research studies. Their recommendation is based upon the process used to develop and pilot the survey tool.

Results from JCSD survey also helped determine how the opinions of the district's primary teachers are aligned to those of the teachers who participated in the NSDC's pilot. Data from the JCSD survey were analyzed to determine what common perceptions were shared by the group of JCSD teachers. This information was reflected in later staff interviews. In follow-up conversations, it helped anchor the dialogue around leadership skills and aspects of change. The data served as a reference point for local training effectiveness and helped to collaborate perceptions of those teachers who were in the survey sample. Survey response illustrated the supportive roles of distributed leadership within an effective training program while low scores isolated improvement areas.

Staff Interviews

The researcher planned to interview members of the primary teaching team. Although all were volunteers, certain prerequisites were established. The volunteers were divided into categories. The first were selected from those teachers who took part in multiple first wave trainings. For the purpose of this study, "first wave trainings" were defined as being members of a cadre who engaged themselves in initial training knowing a long-range outcome would be sharing the training as mentors. Those individuals would have had multiple first wave training experiences in any of the three training programs established by the district. The second group was comprised of teacher volunteers who were members of first wave training in at least a single district training initiative. The

last group was comprised of teachers who were newly hired or placed into new positions by their own request. These teachers were in positions initially targeted by the staff training but vacated through attrition. They may not have had the benefit to access all of the initial first wave trainings. In some cases they may have been assigned to a training mentor. Other members of the teaching staff who simply declined to participate in any of the trainings were not invited to participate in the teacher interviews.

Teacher Conversations

"To 'explain' a phenomenon is to stipulate a presumed set of casual links about it" (Yin, 2003, p. 120). The purpose of the interviews were to forge links, "teachers taking on both formal and informal leadership roles – drawing from local knowledge of colleagues, students, and theory in action – shows promise as a next step in school reform efforts" (Margolis, 2008, p. 308). The researcher was not only interested in shared perceptions relative to training effect and student outcomes but of course also their relationship to the tenets of distributed leadership. Analysis of transcribed conversations through pattern matching provided an opportunity for the researcher to ascribe these tenets to the dynamic of these teachers to themselves, their administrators, and in the situation they found themselves. This added to the expanding knowledge base of distributed leadership.

Interview Questions

The following questions were used as conversation starters to create dialogue. The researcher and those teacher volunteers who agreed to participate in this study were engaged in conversation defined by the questions. These questions were developed by

the researcher. They were refined through the assistance of a group of administrators and classroom teachers. Piloting questions also aided in their refinement.

1. Describe those strategies you believe are most effective in teaching. Describe how they impact your teaching behavior and student learning.

2. Describe your teaching strengths and how you acquired them.

3. Describe your perception of effective teaching behaviors. Describe the process involved in becoming an effective teacher?

4. Describe how you have changed, grown, and evolved as a teacher over the years. Describe what have been the most important variables in contributing to your professional growth as an effective teacher.

5. Describe the culture and educational climate of your school and the impact of climate upon your professional growth as a teacher.

6. Describe one individual who has had a significant impact upon your professional growth. Describe one or two incidents that had a positive impact upon your professional growth.

7. Describe your perception of what a school would be like where collaboration and support permeate the building?

8. Describe the factors that have contributed the most to your professional growth as a teacher.

9. Describe your perception of an outstanding school. Describe your perception of how such an organization should design an effective professional development program.

10. Over the years you have participated in at least one professional development program. Describe the specific strengths of the program(s). Describe how this

program(s) may be improved.

11. What are the attributes of effective school leadership?

12. What is the central most important goal of effective school leadership?

13. Some educators suggest that schools have become too complex to be effectively run by a single administrator. Issues such as building management, discipline, curriculum development, assessment, and staff training may add to the impossible complexity of administering a school. Educators suggest that distributing leadership among teachers would benefit the effectiveness of the building. In what ways could teachers fit into these leadership roles?

14. Describe your perception of the kinds of behaviors exhibited by a teacher leader?

15. How do teachers in your building demonstrate leadership roles?

16. Do these teacher leaders change from person to person? If so, what affects this transition?

17. In what ways do organizational needs, a vision, a mission, or necessary outcomes have in relation to those people who appear as teacher leaders in your building?

18. Explain what it takes to be perceived as a teacher leader. How do you feel you may fit into this description?

Members of the primary staff were mailed informed consent forms. Those responding positively were scheduled for interviews. Interview sessions were recorded and transcribed. Transcriptions of interviews were made from taped recordings utilizing Dragon's Naturally Speaking speech recognition software. The researcher used the work of Elmore, Diamond, Spillane, Guskey, and Sparks to reach conclusions as to the role of distributed leadership in effective staff development. The researcher also used the

transcribed conversations to determine the degree of any collaboration between NSDC

survey results and teacher responses. Responses to each question were be examined and

tallied to help reach conclusions.

The following matrix was used to help analyze teacher responses to the interview

questions:

Research Matrix

Research Question 2 How are teachers using assessment data and teaching strategies in manners presented through their training initiatives to effectively adjust instruction to meet student needs within their classrooms?	**Interview questions:** 1. Describe those strategies you believe are most effective in teaching. Describe how they impact your teaching behavior and student learning. 2. Describe your teaching strengths and how you acquired them. 3. Describe your perception of effective teaching behaviors. Describe the process involved in becoming an effective teacher? 4. Describe how you have changed, grown, and evolved as a teacher over the years. Describe what have been the most important variables in contributing to your professional growth as an effective teacher. 7. Describe your perception of what a school would be like where collaboration and support permeate the building. How does this perception align with your school?
Research question 3 What perceptions do teachers share regarding the effectiveness of their professional training programs?	Interview questions: 5. Describe the culture and educational climate of your school and the impact of climate upon your professional growth as a teacher. 6. Describe one individual who has had a significant impact upon your professional growth. Describe one or two incidents that had a positive impact upon your professional growth. 8. Describe the factors that have contributed the most to your professional growth as a teacher. 9. Describe your perception of an outstanding school. Describe your perception of how such an organization should design a truly outstanding professional development program. 10. Over the years you have participated in at least

	one professional development program. Describe the specific strengths of the program (s) Describe how this program (s) may be improved.
Research question 4 **How do teachers perceive that the concepts of distributed leadership assume a significant role in staff development programs and does this role reflect the three essential elements of distributed leadership: leadership practice is the central and anchoring concern, leadership practice is generated through the interactions of leaders, followers and the situation both defines leadership practice and is defined through leadership practice (Spillane, 2006, p4).**	**Interview questions:** 11. **What are the attributes of effective school leadership?** 12. **What is the central most important goal of effective school leadership?** 13. **Some educators suggest that schools have become too complex to be effectively run by a single administrator. Issues such as building management, discipline, curriculum development, assessment and staff training may add to the impossible complexity of administering a school. Educators suggest that distributing leadership among teachers would benefit the effectiveness of the building. In what ways could teachers fit into these leadership roles?** 14. **Describe your perception of the kinds of behaviors exhibited by a teacher leader.** 15. **How do teachers in your building demonstrate leadership roles?** 16. **Do these teacher leaders change from person to person? If so, what affects this transition?** 17. **In what ways do organizational needs, a vision, a mission or necessary outcomes have a relation to those people who appear as teacher leaders in your building?** 18. **Explain what it takes to be perceived as a teacher leader. How do you feel you fit into this description?**

Pilot Study

Beginning in the summer of 2009 and continuing through now, the questions used in the researcher's case study were modified. This was accomplished through the pilot study the researcher proposed in the spring, 2009. The researcher worked with a group of seven public school educators, two administrators, and five elementary certified teachers

within two school districts to examine the interview questions. Superintendents from their neighboring school districts gave the researcher permission to pilot in their districts.

The administrators and three of the teachers provided their feedback relative to construction of the questions and answer expectations. A veteran and novice teacher agreed to the pilot interviews.

With minimal revision, the first eight interview questions were used by Dr. Barbara Marin in her case study of teacher efficacy (Marin, 2001). With her permission the use of these eight questions helped the researcher collect teacher perceptual data. Teacher perceptions of their strengths, their training, the views they share on lifelong learning and of change, the effects of school culture upon change and of collegiality, and administrative support were all important in establishing answers to research questions two and three of this case study.

Interview questions nine through 17 were substantially modified from those originally proposed. Their modification was the result of the combined critiques of the researcher's committee and the aforementioned educators. The changes reflected in these revised questions targeted a collection of data that facilitated a final analysis of all the data contained in the case study. This included both the archived student data and the analysis of NSDC's Standard Assessment Inventory. Triangulation of this data helped establish answers to research question four, the possible role of distributed leadership in staff development.

Summary

In an attempt to answer the four research questions poised within this case study the researcher will employed three research tools; a data base of assessment scores

achieved by three separate cohort groups of primary students, a compilation of teacher responses to survey questions, and a matrix of teacher responses to interview questions. Throughout the duration of this case study the statistical assessment data, the mean scores of the National Staff Development Council's Standards Assessment Inventory, and the responses to teacher interview questions that were presented in this chapter were collected for analysis.

CHAPTER IV

ANALYSIS OF RESULTS

The purpose of this case study was to explore teacher perceptions relative to the role of distributed leadership within the context of three training initiatives taken by their school district. This chapter presents three separate sets of data: student assessment records; staff survey results; and, faculty members' responses to a teacher questionnaire. All were analyzed in an attempt to address the following four research questions proposed by the case study:

How accurately do the scores achieved by students on the primary reading assessments of the Dynamic Indicators of Basic Early Literacy Skills predict the reading assessment levels they achieve as reported by the Grade Level 3 Pennsylvania System of School Assessment?

How do teachers perceive they are using assessment data and the teaching strategies presented through their training initiatives to effectively adjust their instruction to meet student need within their classrooms?

What perceptions do teachers share regarding the effectiveness of their

district training programs in helping them meet the challenges of educating all

their students?

What concepts of the roles of distributed leadership in their professional

development programs do teachers share and do these roles reflect the three

essential elements of distributed leadership: leadership practice is the central and

anchoring concern; leadership practice is generated through the interactions of

leaders, followers, and their situation; and, the situation both defines leadership

practice and is defined through leadership practice (Spillane, 2006).

Setting

To answer these four research questions this case study examined the

primary teaching staff and students of Jeannette McKee Elementary School in the

Jeannette City School District. The study data were collected over an eight year

time period beginning in the 2002-2003 school year and ending in the 2010-2011

school year.

The primary level, reading assessment data amassed from 2003 to 2009, of

three different cohort groups of students was analyzed. Graphs and statistical

examinations were incorporated into this investigation. Statistical scrutiny was

facilitated through two- and three-way ANOVA analysis and the computation of a

Pearson product-moment correlation coefficient. These were applied to the

assessments of the three cohort groups followed during the case study timeframe.

The DIBELS Initial Sound Fluency Kinderagarten (ISF-K) Level assessment

scores and the Pennsylvania System of School Assessment (PSSA) Reading

Comprehension standard scores were the focus of the analysis. However, the statistical review was not limited to the two assessments alone. ANOVA analysis did incorporate each of the DIBELS assessments administered to cohort members between kindergarten and third grade.

Teacher perceptions were explored through analysis of the National Staff Development Council's (NSDC), Standards Assessment Inventory (SAI). Mean scores of survey responses were computed relating to the 12 standard areas proposed by NSDC and examined through the inventory tool. This inventory was administered to the members of Jeannette's primary teaching staff in the fall of 2010.

Additional perceptual details were appraised through teacher interviews. A questionnaire incorporating 12 questions was prepared by the researcher. An analysis of the transcribed teacher volunteers' responses to discussion questions was aided by the creation of a matrix and careful review of interview transcriptions. The transcription of teacher dialogues was facilitated through the use of Nuance's, Dragon Naturally Speaking, Version 11, home software.

Student Assessment Discussion

To determine the impact of its long term training initiatives and provide a more detailed record of local student achievement data, the Jeannette City School District began to utilize the University of Oregon's DIBELS Data System. Assessment data housed on this system is comprised of what DIBELS reading researchers believe to be the five critical areas of reading development: phonemic awareness; phonics; vocabulary; fluency; and, comprehension. Records involving

an individual student, an individual class, and an individual school can be accessed through this system. The system provides the school district with a historical record of student progress from kindergarten through grade six. These data were "mined" for the purposes of this case study. "Mining" is a term the University of Oregon uses on its DIBELS site that refers to the site's procedures for retrieving assessment data.

District teachers registered each of their students' benchmark scores three times annually during the case study period. Assessment scores of the cohort groups were collected in the fall, winter, and spring each year. The collection sequence began in the 2003-2004 school year for the purpose of this case study. The 2003-2004 school year is important because it represents the starting point at which the assessed students' learning experiences were coordinated through the K/3 Reading Initiative, inclusively from the time the children began as kindergarten students through their grade three spring assessment period. Cohort 1 represents this first group of students identified.

Having completed their K/3 Reading Initiative training, district primary staff teachers were organized into various School-Wide Assessments Teams (SWAT) groups to facilitate the DIBELS universal assessments required of all students in the kindergarten through grade three district classes. These SWAT groups were comprised of classroom and Title 1 support teachers who combined forces to administer the DIBELS assessments in a more efficient manner. A chart illustrating this sequence of assessments, including which assessments were administered to each grade level, is contained in Appendix B. Upon completion

of the individual assessments tasks, students' results were transferred by team members into the warehousing system.

DIBELS assessment training had been one of the key components of Pennsylvania's Department of Education's (PDE), K/3 Reading Initiative that provided consistency for assessment delivery and collection. The University of Oregon's data collection system would eventually provide a complete historical assessment record for each of the district's elementary students. Over time, this data base of assessment scores could be accessed--"mined"--to monitor each individual child and class as they progressed through the elementary building.

In an attempt to complete the assessment profile of its elementary students, the school district made a decision to add its PSSA annual grade level assessment scores for Reading, Mathematics, Writing, and Science to the DIBELS assessment record. All assessment records were housed in Intermediate Unit 3's Comprehensive Data Analysis (CDA) site and accessible for analysis.

Student Data Analysis

The aforementioned historical assessment record was accessed to help in the analysis of data for this case study. The data analyzed included DIBELS and PSSA scores. The scores were explored within the context of three cohort groups. As previously explained, each cohort group reflects four years of student assessment data.

Graphs in Figures 2 and 3, help to present a visual profile of the initial assessment performances of students within the three separate cohort groups. These graphs portray the complete assessment profiles of individual students

representing the three separate student cohort groups, Cohort 1, Cohort 2, and

Cohort 3. These three Cohort groups began their academic careers in one of the

three following school years: Cohort 1, 2003-2004; Cohort 2, 2004-2005; and,

Cohort 3, 2005-2006.

The data represented in the following graphs represents scores achieved by

each of the cohorts' group members.
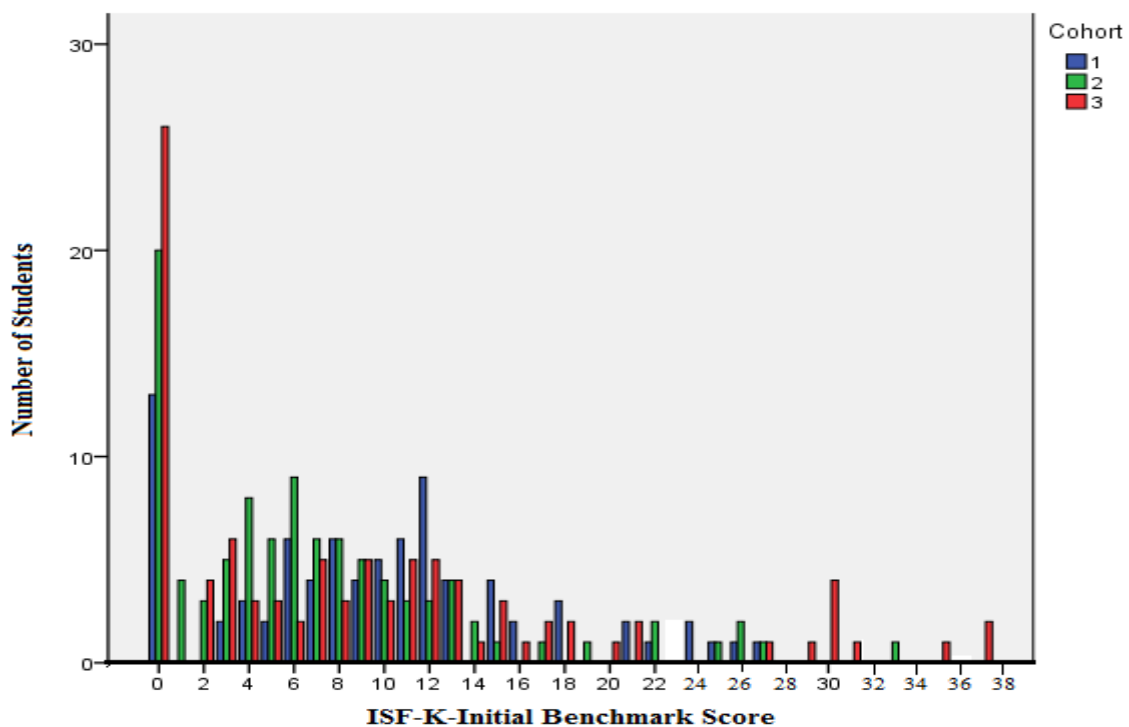
Figure 2. Cohort Performances Individual Initial Sound Fluency Scores DIBELS

Fall Benchmark.

Coordinates on the graph in Figure 2 represent the scores attained by all

kindergarten students who were administered the Initial Sound Fluency

Kindergarten Level at the beginning benchmark period (ISF_K_Beginning) in

their first year at school. This assessment was administered to the cohort groups

in the fall. It is the first universal assessment of a class entering the school district. The purpose of the ISF is to help determine how aware individual students are of the sounds of letters represented in words. The blue bars represent the number of students in Cohort 1, 2003, who achieved scores within the ranges listed on the bottom of the graph. Green bars represent the scores attained by group members of Cohort 2 in 2004. Finally, red bars are representative of the scores attained by the members of Cohort 3 in 2005. The data presented on this graph is that of all 275 kindergarten students who participated in the initial assessment.

Coordinates represented on the two graphs in Figure 3 desegregate the initial data a bit further.
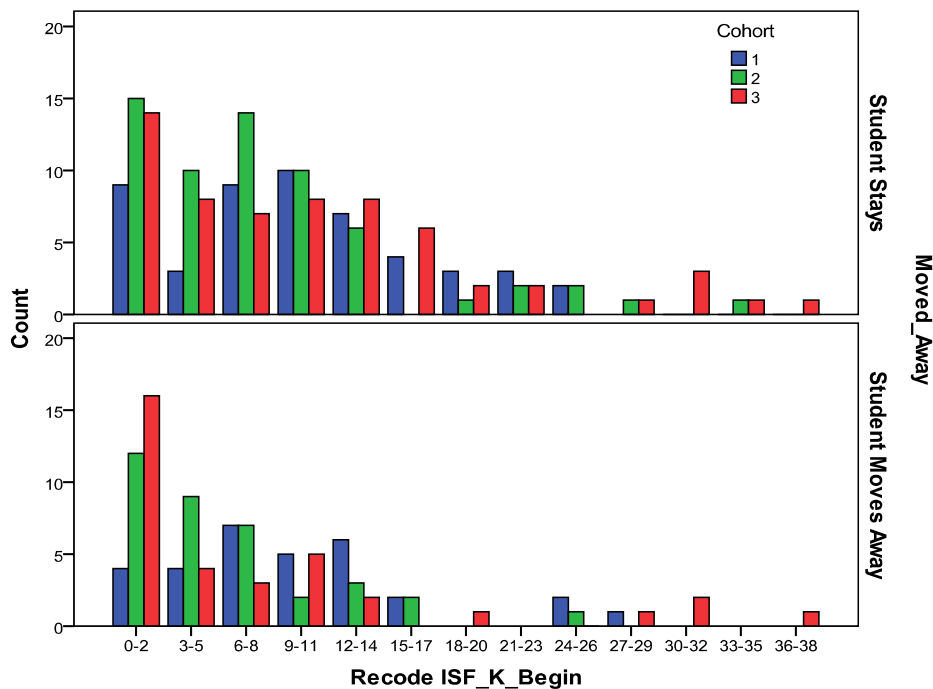
Figure 3. Cohort Performances Individual Initial Sound Fluency Scores

DIBELS Fall Benchmark Students Who Stay/Students Who Move Away from the District.

The coordinates represented on the bar heights of the top graph of Figure 3, "Student Stays," reflect the scores of the beginning cohorts' student populations who remained in the district four years after the initial assessment. Only the scores of these cohort students would be subjected to additional investigation. This was a population of 173 students. Scores of new students and those who left the district during the intervening years are represented on the bottom graph.

To help determine whether these moves altered the achievement characteristics of the three cohort groups, the scores were analyzed using a two-way ANOVA. Preliminary checks were conducted to ensure that for the ANOVA there was no violation of the assumptions of normality, linearity, homogeneity of variances, and homogeneity of regression, slope, and reliable measurement of the covariate. The level of significance was set at $p < .05$.

Results are demonstrated in Table 1.

Table 1

Preliminary Checks for the ANOVA

Cohort Group	Did Not Move		Moved		Dif m Value
	n	m	n	m	difference
Cohort 1	50	9.8	31	9.6	0.2
Cohort 2	62	8.0	36	7.5	0.5
Cohort 3	61	10.3	35	10.0	0.3
	df		f		P

C	2	3.009	.051
M	1	3.328	.069
C x M	2	.674	.510
Error	269		

Although in all three cohorts the average ISF-Kindergarten scores were higher for students who did not move than for student who moved, the differences were not statistically significant $F(1,269) = 3.3$, $p = .069$. Since this indicates no significant differences in the baseline abilities it is appropriate to analyze later differences in ability using only the students who remained in school for their complete individual four year cohort timeframe cycles. A three by two between groups analysis of covariance (ANCOVA) was conducted to assess the effectiveness of teacher instruction among the three cohort groups of students.

The independent variables were cohort group membership and gender. The dependent variable was the final assessment scores the students achieved in each of the 14 benchmark assessments. The covariate was the initial assessment scores achieved in the corresponding assessments. The benchmark assessments for kindergarten were: Initial Sound Fluency (ISF-K); Letter Naming Fluency (LNF-K); and, Phoneme Sound Fluency (PSF-K). The benchmark assessments for first grade were: Phoneme Sound Fluency (PSF-1); Nonsense Word Fluency (NWF-1); Oral Reading Fluency (ORF-1); Retell Fluency (RTF-1); and, Word Understanding Fluency (WUF-1). The benchmark assessments for Second Grade were: Oral Reading Fluency (ORF-2); Retell Fluency (RTF-2); and, Word Understanding Fluency (WUF-2). The benchmark assessments for third grade

were: Oral Reading Fluency (ORF-3); Retell Fluency (RTF-30); and, Word

Understanding Fluency (WUF-3).

Preliminary checks were conducted to ensure that for each ANCOVA

there was no violation of the assumptions of normality, linearity, homogeneity of

variances, homogeneity of regression slope, and reliability of the covariate.No

significant gender/interaction was seen for any of the 14 benchmark assessments.

A significant cohort effect was seen in the following assessments: Initial Sound

Fluency in kindergarten; Word Understanding Fluency in first grade; Retelling

Fluency in second grade; and, Word Understanding Fluency in third grade.

Cohort Characteristics and Trends

The results presented in Figures 4, 5, and 6 represent additional analysis

done for this case study. They are presented as a visual documentation of the

distribution of reading skill scores on the post-test and pre-test of the 173 students

who remained in the school district from kindergarten through grade three.

Figure 4 shows the distribution of final assessment results of the 173 students

from the three cohort groups who remained in the district from kindergarten through their

third grade year. Figure 4 shows that the results are centered around 1368 and are

approximately normally distributed. Figure 4 also shows that 151 of the 173 students met

the minimal proficiency score of 1200 set by the Pennsylvania Department of Education.

Histogram for Combined Cohort Groups, Kids who didn't move
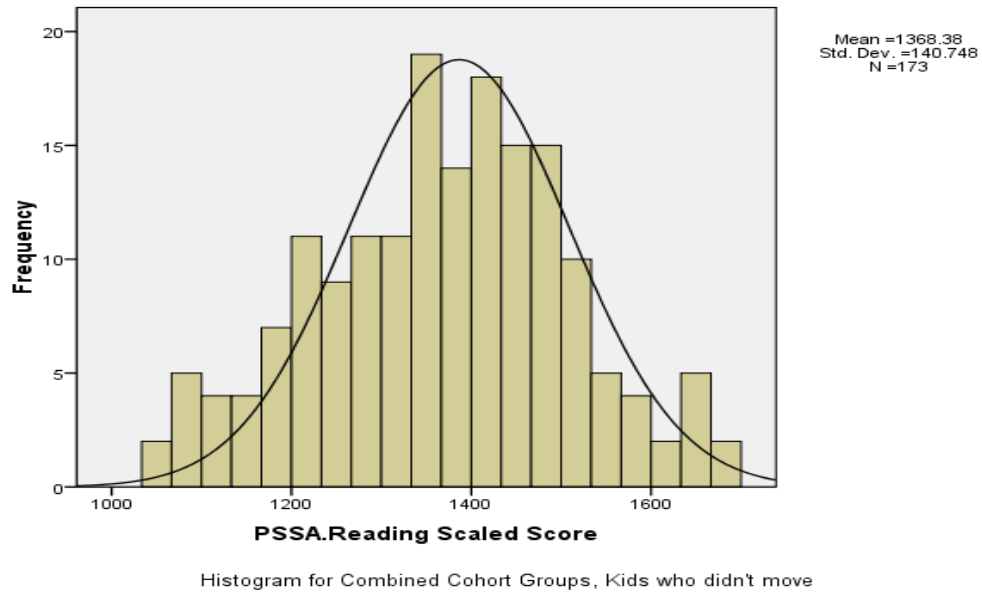
Figure 4. Histogram for Combined Cohort Groups PSSA Reading Scaled Scores

Students Who Did Not Leave the District for the Four Year Study.

The distribution in Figure 5, contrasts to that represented in Figure 4.
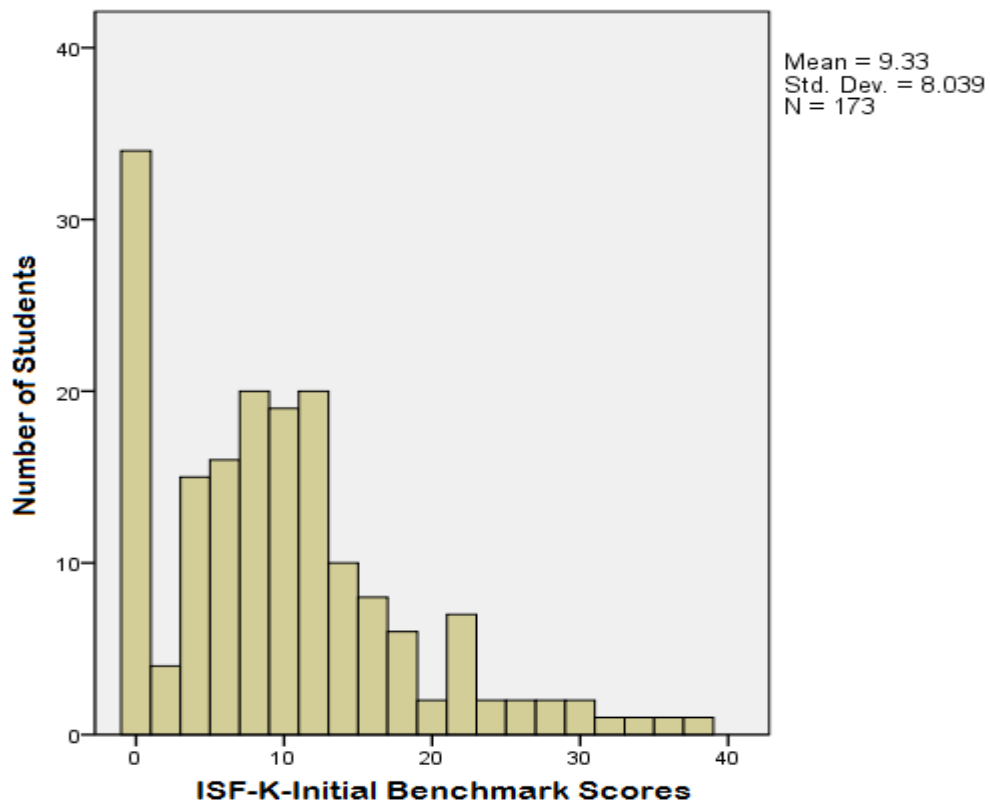
Figure 5. Histogram for Combined Cohort Groups Initial Sound Fluency Scores

Kindergarten Level Students Who Did Not Move During Four Year Study.

This distribution of DIBELS Initial Sound Fluency scores of the 173 students who

remained in the study and who eventually were administered the final PSSA assessment

is right skewed. Chart scores between "zero" and "seven" represent achievement levels

of students whose reading development is "at risk" of progressing normally. These

scores do illustrate the predominance of at risk scores common to the three cohort groups.

Research question one queried the predictive capacity of DIBELS primary

assessment regarding later PSSA reading assessment levels. Figure 6 represents this

same group of 173 mixed cohort students. They were administered the DIBESL initially

and would remain in the district to be evaluated through the PSSA.
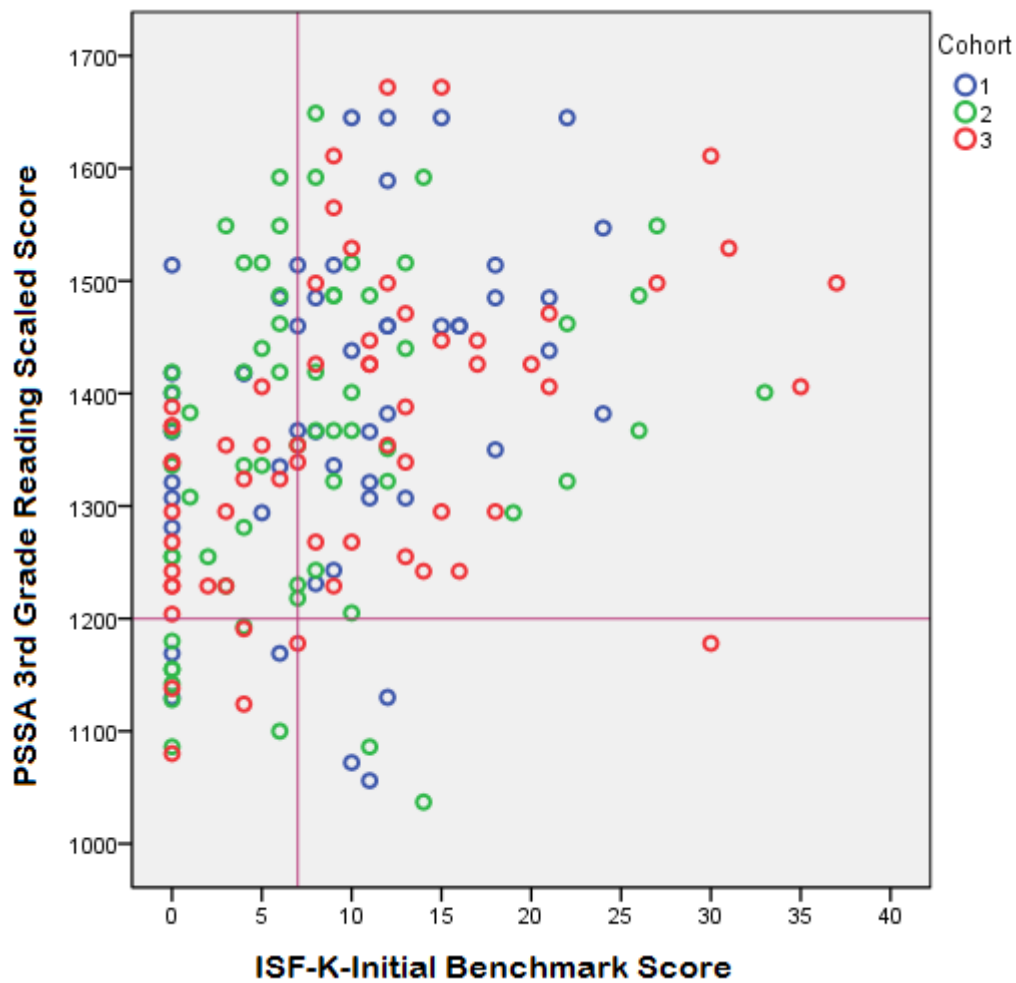
Figure 6. Performances Cohort Members Who Remained in School for Four Years Initial Sound Fluency Score vs. PSSA Scores.

Figure 6 illustrates the results of an analysis comparing how the 173 students performed on both the initial and final assessments. This is a graphic representation of performances on both the initial DIBELS, ISF_K and the PSSA Reading Comprehension assessments. The horizontal line across the scatter plot represents the minimum standard score denoting proficiency for the PSSA. The vertical line represents the minimum proficiency score set for the ISF assessment. This scatter plot provides a visual illustration of the correlation among the ISF and PSSA scores. This relationship was also

investigated using Pearson's product-moment correlation coefficient. The results are

presented in Table 3.

Table 2

Pearson's Correlation Coefficient

ISF_K_Beginning PSSA Reading Scaled Score	Pearson Correlation	Sig. (2 tailed)
n = 173	.362	.000

As demonstrated in Table 3, there was a mildly significant correlation between

the pre-test and post-test scores, [r = .362, n = 173, p<.05]. Although not all pre-test

performances were predictive of post-test performances, generally they were. More

importantly, as illustrated by the plotted coordinates in Figure 6, many students whose

initial scores were in the at-risk range (43), demonstrated later proficiency scores above

at-risk levels.

Group Means

The trend toward improved reading proficiency was supported through additional

investigation of group means. Calculation of group means yielded initial ISF mean

scores of 9.7 for Cohort 1, 7.1 for Cohort 2, and 9.3 for Cohort 3. Later in the year,

universal mean screening scores improved to 20.3, 15.6, and 15.8 respectively. As third

graders, the mean standard scores recorded for the reading comprehension section of the

PSSA were verified as follows; 1384 for Cohort 1, 1357 for Cohort 2, and 1360 for

Cohort 3. With low risk scores established at 8 for ISF and minimum proficiency

standard scores established at 1200 for the PSSA reading, it appears that teachers were

successful in implementing support strategies that facilitated student acquisition of primary reading skills as they transitioned from phonemic awareness skills to more complex decoding and comprehension skills, through their four years of primary instruction.

National Staff Development Council Survey

In earlier chapters of this case study the NSDC's SAI tool was introduced. The survey tool can be examined in Appendix C. NSDC developed this survey tool to help school districts determine how closely aligned their staff development programs are to their national staff development standards.

Twenty-two primary faculty members completed the 60 item survey during the district's January, 2010, in-service day. Those staff members not in attendance on that day were provided the opportunity to complete the survey independently. All but one member of this primary teaching staff returned a completed survey.

A detailed profile of the teachers' responses is presented in Appendix E, *Frequency Counts by Standard Question*. They are based upon averages obtained from the group's responses to the survey items. A Likert scale of values, zero to four, was used in the survey response scale. Five statements were associated with each of the 12 standards. The averages were attained by dividing the sum of the Likert scale values by the survey group population, n = 22. This procedure was set up by Southwest Educational Development Laboratory (SEDL) for NSDC to interpret and evaluate the SAI tool. The researcher used a scale of five to determine mean scores. Both results of the SAI survey are charted on the table

contained in Appendix D. The average response values of each group of five survey questions is listed under one of each of the 12 NSDC' s staff development standards. The 12 standards are grouped under 3 standards categories: Context; Process; and, Content.

Demographics of the respondents provide a variety of details. Fifty percent of the teachers responding have between 10 to 20 years of teaching experience. An additional 9% had more than 21 years in teaching, while none were first year teachers. Although all of the teachers reported that they had taught primary grades, several teachers also had intermediate teaching experience. The group's teaching responsibilities are in the content areas of mathematics and language arts. All respondents reported that they are active teachers.

The average mean values calculated for each standard area within the survey tool are listed in Figure 6.
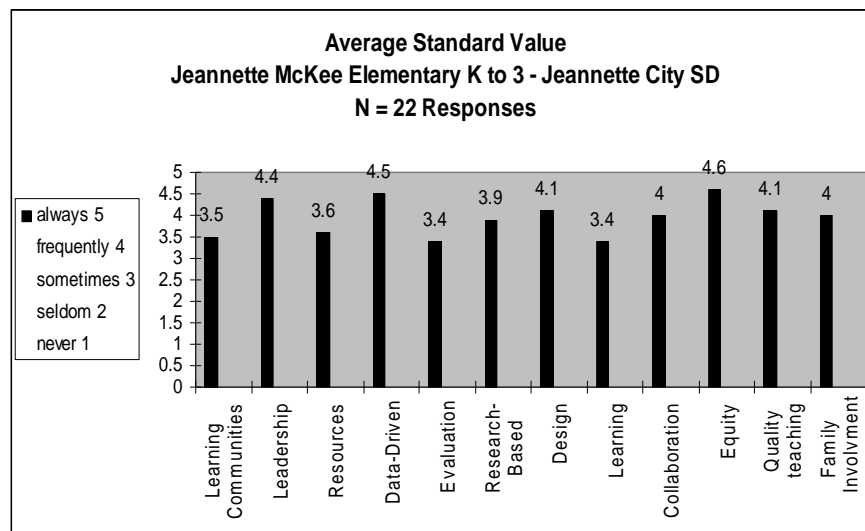
Figure 7. Average Standard Value.

The graphed information in Figure 7 represents a summary of the average response values recorded by the participants of the survey for each standard area.

Although teachers seem to score high across the standards, three mean scores are very high. These are in the standard areas for Leadership, Equity, and Data Driven where the highest averages were recorded for the subcategory responses of the teachers surveyed. Interestingly, these three areas were cited often during individual interview sessions with the teacher volunteers.

When examining those statements related to their view of data analysis some important perceptions held by this group of teachers became apparent. Eighty-two percent of the teachers asserted that they always use student data when discussing instruction and curriculum. Forty-five percent learned to use data frequently to assess student learning while 55% established the routine to always use data to assess student learning. Ninety percent of these teachers judged the effectiveness of their professional development by examining student learning improvement data.

Additional inventory response review underscored the teachers' desire to meet the needs of all of their students. When asked if they adjust their instruction to the needs of diverse learners, 27% said they did so frequently while 73% responded that they always did so. Ninety-one percent said they always demonstrate respect for each student subgroup population, the economically disadvantaged, and exceptional or minority groups, for example. Sixty-eight percent expected high achievement of all of their students. Eighty-six percent were focused upon building positive relationships between themselves and their students. Most of the respondents agreed that they received training to meet the needs of students at different levels of learning.

Conversely, the lowest mean scores among teachers were recorded in the standard categories of Evaluation, Learning, Learning Communities, and Resources. Here, survey responses indicated that 69% of the respondents did not observe the teaching of others as a way to improve their own teaching. Fifty-five percent did not receive peer feedback about their classroom practices. Seventy-seven percent thought that substitutes were under-utilized for staff development. Sixty percent did not perceive a pre-design of evaluation procedures for their training. Seventy-seven percent did not view this as sufficient time to reflect upon their training. Ninety-six percent perceived that choice is seldom a component of the professional development they received in the school district.

Teacher Interviews

Teacher interviews were a methodology of choice to meet the need to obtain evidence about teacher perceptions. A list of 18 interview questions was prepared by the researcher. The questions were presented in the order in which they are written in Chapter III. Sixteen, of the total twenty, primary staff members who participated in one or more of the three school district training initiatives incorporated in this case study were invited by letter to participate in individual interview sessions. Eight responded affirmatively.

The researcher recorded each of the eight interview sessions. These sessions ranged in length from just over an hour to an hour and 45 minutes. Transcriptions of the recorded sessions were made utilizing Dragon speech recognition software. After the interviews were transcribed, they were checked for accuracy. This was accomplished by re-listening to each interview session

multiple times. Any textual miscues were corrected to align to the recorded

dialogue. This process was done twice for each interview session. The

transcriptions resulted in 84 pages of single spaced dialogue. All but two of those

interviewed wished to review the transcriptions.

A research matrix (Chapter III) was used to help analyze teacher responses

to the 18 interview questions. The goal of this effort was to help organize the

transcribed data in reference to research questions two, three, and four. The effort

to analyze this data also included multiple revisits to the dialogues through

individual sessions of re-reading transcriptions and re-listening to taped sessions.

The goal of these sessions was to highlight text and to notate important details in

an effort by the researcher to detect trends or recurring themes in the data.

Review of the transcripts demonstrated three common strands of focus

among the participants that have a relevance to this case study. These were

assessment, staff development, and leadership.

How did the interviewees perceive that they were using assessment data?

Did they believe they had adjusted their instruction to meet the observed needs of

all their students? Was their use of data influenced by their district training?

What if any, role did leadership play? What was the nature of any leadership that

was observed? What perceptions did those interviewed share regarding

leadership roles? Through the analysis of the transcribed conversations an outline

of answers to research questions two, three, and four emerged. In the presentation

of this information in the following section only fictitious names were used. This

was an attempt to conceal the identities of those who volunteered to participate.

Interview Discussion

The role of assessment in developing student proficiency was discussed in Chapter I. Its importance in formulating effective instructional programming for individual students so that school districts could meet legislated achievement standards is part of public education's contemporary political reality. More importantly, this change may impact instructional design by transitioning the nature of classroom assessments from summative to more formative procedures. The SAI results indicated how focused the primary teachers were upon the analysis and application of assessment data. Those interviewed maintained this focus.

The initial response of Carmen to her first interview question reflected such a focus. Her answer was particularly important and succinct. She said, "I develop strategies after I assess my children. I want to make sure that the strategies are worthwhile. I want to make sure the strategies are going to be useful and the strategies are going to fit the child." Similar goals were mirrored time and again throughout the interview process. Candidate 7, Jane, when outlining her strengths as a teacher said, "I am constantly questioning the kids. I am constantly figuring out where they are and what they need." Candidate 6, Helen, simply stated: "I take my assessments, and I use that to drive my instruction."

When asked how he determined what students needed candidate 8, Luke, responded, "Mostly by just watching them . . . formative assessments, by looking and seeing what they know." Candidate 4, Mary, took the process and importance of assessment to a greater standard when she clarified that when the

students themselves describe "how well they understand the lesson you can determine the effectiveness of your teaching." Public education's need to transition to more formative assessment procedures (Stiggins, 2005) was personified in answers like these. Comments provided by this group seemed especially important as the teachers fixed their rationale for the integral role of assessment in their instruction, a primary precept in each of the three district training initiatives related to this case study.

The group of teachers interviewed was also learner focused. Their comments, when examined and checked for trends, began to support some major premises of effective professional training as outlined by the guidelines set by NSDC (Chapter II). Mary provided such an example. She stressed the importance of setting "high standards for the learning of all students." This was a sentiment shared in common with the other candidates. Helen provided a further elaboration:

> Okay, okay, the goals I am looking at as a kindergarten teacher, I
> am teaching to the children to their level, the level that they are on,
> and I am trying to get them higher. They are all on different levels
> and I am trying to be patient, and I am trying to take a low level
> person, child, and move them up to an average child…an average
> child to a high average child…and a high child, someone who is
> achieving, they are going into the next grade level, on that first or
> second grade level. That goal for all my students, as a
> kindergarten teacher, I want all my students to become

independent workers. I want them to be able to become good

thinkers. I want them to be able to use those strategies that they

are taught.

Candidate after candidate stressed the importance of impacting the

learning of all their students. This was another important goal in each of the three

training initiatives related to this case study. Candidate 1, Alice, states that her

strength "would be the growth and development I see in kids . . . using those

assessments . . . and drive their instruction every day." Candidate 2, Juanita,

believes that the most important intervention a teacher develops is to "have

insight with children and from the feedback of those children develop strategies at

the level they need."

Those interviewed also shared many common attitudes in regards to their

professional training. All were intensely self-motivated to improve. When

discussing her acquisition of teaching strengths Mary responded that:

Your growth, your learning is continuous. And I think when you get to

the point that you think there isn't anything else to learn that's your signal

that it's time for you to go. Teaching always involves learning more,

improving, and adding more to what you already know.

Juanita added that, "Training, consulting with other people, attending numerous

workshops and keeping that same open mind," was an important factor

contributing to her professional growth as a teacher. All see the value of district

provided professional training to enhance their capacity as teachers. These

experiences, "in-services . . . workshops," according to candidate 3 Maria, all helped them acquire specific teaching strengths.

Candidate 7, Jane, provided a math area application when she added the following reminisce:

What I gained most from MSP about teaching was that students need to be taught hands-on at a concrete level before numbers are introduced. Before pictures are introduced, you have to do it hands-on first. Then you can go to drawing a picture. They call it, concrete pictorial representational-CPR. I try to use it with every concept I can think of.

Helen, relayed the importance of the K/3 Reading Initiative in providing her a new direction for instructional planning:

Earlier I was driven by curriculum (teacher's manual) . . . . The DIBELS Initiative (K/3 Reading Initiative) changed all that for me because then I was able to see where my students were; go down if they were on a lower level, teach those students there and work on bringing them up. And then that 'kinda' made my stride for me-watch my students grow from where they were. So the DIBELS Initiative was probably the biggest thing that I have been a part of that did that for me.

Luke, provided a bit of a different perspective. He talked about the district's experience with RtI. He explained that the concept was not well received initially by the teaching staff. He went on to explain how "over time it

has become part of the culture of the school and they (teachers) all do it." He further explained how this student support model fosters a collaborative review of student data among grade level staff members. He explains his rationale for accepting it as beneficial for his students, as part self-reflection and part obligation. This sense of responsibility was another common trait of those interviewed.

Despite the popularity of district training initiatives among these candidates, each identified collaborative work among their fellow teachers as an equally important component of their personal learning experiences. Those training sessions do not seem perceived as sufficient by themselves. Each teacher interviewee talked about the importance of that personal contact with other "professionals" within their ranks. Candidates each expressed the importance of professional collaboration in the evolution of their teaching skills. All provided instances of personal impact upon the improvement of their capacity to teach more effectively. Among other examples, each of the eight interviewed provided specific examples of how those, within the interview pool itself, impacted them, or other teachers in the school, attesting to another NSDC standard recognizing the importance of skillful educational leaders (Chapter II). Their learning was a profoundly personal experience for each of them. Although the variety of people named as significant mentors included three administrators, all those interviewed agreed that teacher leaders represented a crucial component of support for professional staff development programs within their school.

These discussions lead to the final series of questions, those dealing with leadership. Each candidate identified the traditional administrative leaders at the building and central office levels. Each candidate also saw teachers as effective leaders within their building. Five of the eight freely admitted to their role as teacher leaders. The two youngest teachers were much more tentative in that assumption. The eighth teacher interviewed admitted to demonstrating those characteristics she identified as essential to teacher leadership but refused to acknowledge that role for herself. Interestingly enough two others of this cohort group named her as their expert "leader," teaching them all there is to know of formative student assessment procedures.

Leaders, they believed, were people who: "knew their staff," were; "good listeners," "empathetic," "humble," "intelligent," "expert," "strong," "confident," "willing to take criticism," "experienced," "knowledgeable," "willing to share," "willing to give/share advice," "willing to take advice," "leading by example," "volunteers," "listeners," "not judgmental," "collaborative," "not afraid of new ideas," "receptive to change," "willing to try new ideas to promote student growth," "were willing to participate in training to advance their own knowledge," "effective," and "not afraid to back off." These were the words the eight candidates used to describe teacher leaders. Each agreed that leadership in their building was distributed, but their descriptions incorporated range and variety.

What united the interviewees was a universal acknowledgement that collaboration is the essential component of effective leadership. What separated

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these teachers was their comfort with the term, "teacher leader." Their conversations indicated some peer conflicts within the building. Some were worried about the perceptions other teachers within the building held of those who volunteered their time and effort to initiatives such as those incorporated into this case study. Concerns about "put downs," "power trips," and "cliquish" groups within the building were opined by multiple candidates. Non-withstanding issues such as these, the over-riding concerns for self-improvement and student progress motivated continual involvement by the members of this particular group of teachers in training activities.

Summary

This mixed method case study employed three tools in an effort to reach conclusions: student data; teacher surveys; and, teacher interviews. These conclusions are drawn in reference to the case study's four research questions.

In reference to research question one the student data collected and analyzed from the three cohort groups of McKee Elementary School's primary students does indicate a moderate relationship between the DIBELS Kindergarten Initial Sound Fluency (ISF) benchmark assessment and the results these students demonstrated on their third grade, PSSA's reading assessment. The relationship was verified through the researcher's calculation of Pearson's product moment correlation coefficient facilitated by Indiana University of Pennsylvania's Research Lab, and its SPSS program.

Additional graphing results indicate a transition in the level of reading skills students demonstrate occurring over the four year time period primary

students attend kindergarten through grade three classes in the McKee building. The positively skewed initial assessment results contrast to the normal curve distribution of the later scores.

Research questions two and three deal with teacher perceptions of their training and its effectiveness. The National Staff Development Council's Standards Assessment Inventory indicates that primary teachers of the McKee Elementary staff perceive that they are highly attuned to their students' needs, that they adjust their instruction according to assessment data and that they expect all their students to achieve. The responses to the survey questions of equity and data driven were rated at 4.6 and 4.5 respectfully on a 5.0 Likert scale. The survey was completed by 22 of the building's 23 member primary teaching staff.

Staff interviews with those who participated as volunteers in any one or more of three district training initiatives reinforced the perceptions that primary teachers learned how to use data to drive their instruction. These eight staff members were highly self-motivated to improve their teaching effectiveness and saw student learning outcomes as the ultimate goal of their professional development. A key means to meet this end was their ability to learn how to assess students and adjust their instructional delivery to foster individual progress. These teachers expressed high opinions of their specific training programs as well as the roles other teachers assume in training.

Finally, research question four deals with teacher perceptions relative to the role distributed leadership plays in their district and specifically in their staff development programs. Each of the eight interview volunteers perceives that leadership is distributed

within their school. Each believes there are apparent teacher leaders functioning in their

building. Each feels that these leaders arise informally as situations in their building

arise. Each feels the effects of these leaders is augmented by a spirit of collaboration

among staff. This collaborative spirit does seem to be extremely important to those who

volunteer.

CHAPTER V

SUMMARY, CONCLUSIONS, LIMITATIONS, and FINAL REFLECTION

This case study investigated the impact of staff development seminars in reading and assessment. In addition to analyzing reading scores over a 10 year period a survey was used to explore the teachers' perceptions of district staff development training and how distributed leadership was viewed throughout the training sessions.

Summary

Research question one asked: How accurately do scores achieved by students on the primary assessments of the Dynamic Indicators of Basic Early Literacy Skills predict the reading assessment levels they achieve as reported by the Grade 3 Pennsylvania System of School Assessment?

The answer to this question is simply "quite accurately." Assessments results indicated that the cohort student groups continued to improve throughout the data collection period. Development of fundamental reading skills did lead to proficiency in reading comprehension. This was demonstrated by the statistical analysis presented in Chapter 4. Effective instruction in the five essential elements of reading did result in proficient comprehension scores among cohort students. Dr Roland Good and Dr. Ruth Kaminski, of the University of Oregon, predicted success in reading for students who are effectively taught the five essential elements of reading instruction: (1) phonemic awareness; (2) phonics; (3) vocabulary; (4) fluency; and, (5) comprehension. Their Dynamic Indicators of Early Basic Literacy Skills (Dibels) was the foundational component of the K/3 Reading Initiative used by the district to train the primary teachers. Their program places heavy emphasis upon assessment, instructional interventions, and

progress monitoring within those five essential components of primary reading instruction. Significantly, the National Reading Panel (NRP) continues to place an extraordinary importance upon the acquisition of phonemic awareness skills by young children as they attempt to learn how to read.

Related also to this emphasis placed upon the five critical areas of reading instruction was a federal effort to support reading success for all primary students. Dedicated to meeting this end, the United States Department of Education, created the Reading First Grant. This was a $1 billion-per-year initiative. It was designed to help all children read at or above grade level by the end of third grade (U.S. DOE, 2008). The grant's implementation, which coincided with the initial case study timeframe, mirrored three of this case study's underling issues; staff development, student achievement, and the incorporation of research based strategies into reading instruction at the primary grades (Executive DOE summary). The Final Report of the Reading First Impact Study did show mixed results. Of special note, is that the exploratory analysis of this impact study did find "a positive association between time spent on the five essential components of reading instruction promoted by the program and reading comprehension" (U.S. DOE, 2008, p. vi). The results of this case study however, do strongly support the positive relationship between reading achievement and effective reading instructional interventions. This connection was continually emphasized in the staff trainings incorporated in this case study. The analysis of student initial and final test data indicates a positive correlation existing between initial phonemic awareness ISF scores and students' future achievement in reading comprehension as measured by the final assessment, PSSA.

When the results of their initial DIBELS universal assessments, ISF, were reviewed certain characteristics of the cohort groups began to emerge. As a whole, cohort group initial scores were extremely low. Many of the scores were recorded as zero. Those students achieving at this level, did not have minimal proficiency of the phonemic awareness (PA) skill assessed. Initial scores across the three cohort groups were very low. This aspect of initial test data is consistent and does demonstrates that unusually high numbers of young children did not possess a basic understanding of elemental phonemic awareness skills upon entering the district's Kindergarten classrooms.

Free and reduced lunch averages in the Jeannette McKee elementary building ranged between 63% and 67%, annually during this case study. The more recent registrations indicate these rates were as high as 80% for individual primary grade level classes and an overall building average of 72%. One can assume that students from homes of extreme poverty also come to school with marginal skill in most academic areas (Alderman&Taylor,2006) indicating that the building's primary teachers are encountering increasingly more challenging caseloads of students.

Over 37% of the students comprising the cohort groups changed their residence at some time during their primary grade placements. More than a third of this population left the school district during the four year data collection period. This transience is often cited by educators (Alderman & Taylor, 2006) as one of the barriers to effective learning and is a characteristic of the low socio-economic public school population associated the Jeannette McKee Elementary School.

Lack of basic phonemic awareness skills, poverty, and transience all combine to present obstacles to learning how to read. "Some students bring with them to school a wide range of problems stemming from restricted opportunities associated with poverty . . . diverse family conditions, high rates of mobility . . . and lack of enrichment opportunities," (Adelman & Taylor, 2006, p. XV). The population of kindergarten students, arriving in the Jeannette City classrooms each fall, is increasingly typified by such characteristics. According to authors Howard S. Alderman and Linda Taylor:

Best estimates suggest that at least 20% of elementary students in the United States have significant reading problems. Among those from poor families and those with limited English language skills the percentage shoots up to 60-70%.

It is acknowledged widely that poverty is highly correlated with school failure, high school dropout, delinquency, teenage pregnancy, and other problems.

In comparison to students coming from middle or higher income families many young children residing in poverty have less opportunity to develop initial capabilities and positive attitudes to learning that most elementary school programs require for success. Most poverty families simply do not have the resources to provide the same preparatory experiences for their children as those who are better off financially. Moreover, many reside in the type of hostile environment that can generate so much stress as to make school adjustment and learning excessively difficult. (Adelman & Taylor, 2006, p.12-13)

It would then appear that the McKee Elementary final assessment results for the third grade PSSA reading comprehension scores demonstrating dramatic increases in these scores among most third grade students is atypical. These reading scores indicate that at least 75% of all third graders achieved proficient or advanced scores on their reading achievement test. A distinct majority of those students who attained initial ISF scores of zero placed above the minimum proficient cutoff score of 1200 established by the Pennsylvania Department of Education on the third grade PSSA. These results do indicate the long term emphasis on staff training did enhance student learning.

Research question two asked: Do teachers use assessment data and the new teaching strategies presented through their training initiatives to effectively adjust their instruction to meet student need within their classrooms?

As presented in Chapter IV, the ideal of adjusting instruction to meet the needs of students was a common element in the responses among those teachers who were interviewed by the researcher. The need to monitor student learning through on-going assessments found universal appeal among the teachers. Closely monitoring student learning was a common strand among the three staff development programs incorporated into this case study.

The teachers willingly participated in many training opportunities over the years. They conveyed the fact that continual learning was crucial to them as professionals and impacted on the way they evaluated student learning. They learned to monitor students and adjust their instruction to individual student needs. Formative assessments became a crucial element of their evaluation of student learning. They were able to move beyond the summative assessments presented in their textbook series and started to differentiate

their instruction. They saw themselves becoming more effective teachers. Their effectiveness was measured in terms of student success. Data review and analysis enabled them to become more effective teachers. Teachers began moving away from packaged assessments and rote lesson planning as a result of the training seminars.

The result of the Standards Assessment Inventory does lend support to these perceptions. The teachers were asked to respond to sixty survey questions employing a Lickert scale. The survey assessed staff reactions to NSDC's 12 standards of effective staff development.

Overall, the teachers obtained mean scores of 4.5 in the Data Driven standard statements and 4.6 in the Equity standard statements. These mean scores represented close alignment to interviewee responses. General responses demonstrated that teachers within the school had successfully learned how to use data to assess student learning needs. Teachers were apparently comfortable using data during their in-service trainings when analyzing student needs. Teachers also used assessment data to discuss effective instruction and to plan curriculum. Analysis showed that teachers reported that they felt secure using the data in collaborative planning sessions to work on improving student learning. These teachers also believed that their training helped them analyze data and make important instructional and curricular decisions. The interview data also indicated the essential role of collaboration in teacher learning and instructional decision making.

Equity was another standard area that resulted in positive teacher perceptions ranging from 4.5 to 4.9. The results suggested that once again teachers were adjusting their instruction to meet the learning needs of their diverse classrooms and enhancing reading skills among students from lower socio- economic backgrounds. Teachers

maintained high expectations for student success and they created positive classroom environments for all their students. These views were reflected time and again in the teacher interviews.

Whether participating in training as volunteers, or mandated through in-service schedules, the three staff development programs examined in this case study, K/3 Reading Initiative, Math Science Partnership, and Response to Intervention demonstrated success in achieving their targeted goals. As reported through teacher interview and survey responses, teachers, as a whole, agreed that they now use data to adjust their instruction to meet the needs of individual students within their classrooms, teachers agree that they learned this approach through their training initiatives and they agree upon the importance of collaboration in training and application.

Research question three asked: What perceptions do teachers share regarding the effectiveness of their district training programs in helping them meet the challenges of educating all their students?

When reviewing the interview transcripts and recordings it becomes evident that the teachers who volunteered to take part in the training initiatives believed that training was effective. The teachers had positive perceptions, were self motivated, and focused on continual self improvement. They were interested in extending their own teaching capacities and measured their successes by student performance in their classroom. Their improvement was directly associated to improved student learning outcomes. They were an intensely collaborative group of individuals. Although they interacted with all faculty members in their primary level teaching group, there was a preference to work more intensely with others who shared their attitudes. They were open to change and saw it as

a means to affect personal and institutional growth. However, opportunities for change were not limited to those provided through traditional staff training initiatives and teachers cited the influence of sharing, and willingness of their fellow teachers to work together for the purpose of enhancing student learning.

Upon investigation, three survey statements showed neutral mean scores within the Learning Communities sub-category. "We observe each other's classroom instruction as one way to improve our teaching," resulted in a mean score of 2.4. Another statement, "We set aside time to discuss what we learned from our professional development opportunities," resulted in a mean score of 2.8. Finally another statement addressed types of professional development: "At our school, teachers can choose the types of professional development they receive, (e.g., study group, action research, observations)," resulted in a mean score of 2.1.   The reported values did help draw down mean scores for each of the three standards. The statements do designate legitimate issues for improvement in the design for effective district staff development training. Peer interaction, reflection, and choice are essential elements for effective training. The research referred to earlier in this paper's review of the literature, does indicate the connection between those three elements and lasting institutional change (Crosby, 2007; Elmore, 2007; Guskey, 2000; Pink, 2009; Senge, 2009; Sparks & Horsley 2007) . Despite this critical analysis, and within the more general context of teacher discontent with their district's training initiatives the SAI survey results do present a more favorable response from this district's general primary teaching staff when responding to survey questions. Overall, the responses to the survey statements reflect a general satisfaction with the district's training initiatives, and a belief that these helped the teachers learn to

react to the needs of their students establishing a more effective local learning community.

Research question four is the most complex of those poised for this case study and reflects four separate facets and overlaps the former research questions: What concepts of the roles of distributed leadership in their professional development programs do teachers share and do these roles reflect the three essential elements of distributed leadership; leadership practice is the central and anchoring concern, leadership practice is generated in the interactions of leaders, followers and their situation, and the situation both defines leadership practice and is defined through leadership practice (Spillane, 2006)?

In her book, Distributed Leadership, Different Perspectives, Alma Harris introduces its goal, "to bring together the latest thinking and research on distributed leadership" (Harris, 2009, p. 5). The work of James Spillane is presented in the book. In her introduction Harris connects Spillane's work to distributed cognition and social learning theory:

> Distributed cognition suggests that capacities are distributed throughout
> the social and material conditions of the organization and that they are
> fluid rather than fixed. The implication here is that making better use of
> existing capacities, including leadership, within the organization is likely
> to result in some advantage. From this perspective, distributing leadership
> is more likely to have a positive impact on the organization if it is aligned
> to the contours of expertise and the provision of conditions that support
> social learning.

Jim Spillane's highly influential and groundbreaking work on

distributed leadership theory draws heavily upon distributed cognition and

social learning theory (Spillane, et al., 2001). Distributed cognition is

largely concerned with sources and patterns of influence that occur within

organizations. Using this theoretical position, Spillane, et al. (2004)

suggests that a distributed perspective on leadership has two aspects: the

leader plus aspect and the *practice aspect*. Drawing on distributed

cognition theory, Spillane (2006) argues that a distributed perspective

necessitates understanding how aspects of the situation enable and

constraint leadership practice and thereby contributes to defining it.

Distributed leadership is a lens to understand leadership practice; it is a

conceptual and analytical framework for studying leadership interaction.

(Harris, 2009, p. 4)

It is through this "lens" that the researcher will provide the answers to this final research

question of the case study.

Interview question eight asked what it takes to be identified as a teacher leader.

Mary provided the following answer:

I think someone who is perceived as a teacher leader is someone who

participates in training to advance their own knowledge, and to be

effective in their classroom to promote growth in their students. I think it

is someone who is willing to share what they know, formally and

informally. And, I think it is someone who is receptive to change. And,

open to change, and, willing to listen. Do I view myself as a teacher

leader? I do. I think I have done all the different things. I participate in

all the trainings because I want to learn. I want to be the best that I can be

for my students. So, I want to take advantage of all the training that is

there. Our students come in with such diverse backgrounds and diverse

needs that I need to have as much training as I can so that I am effective.

As was demonstrated in Chapter 4, reiterated earlier in this chapter, and presented

here, the eight teachers who consented to be interviewed were driven by a motivation to

learn. Each of the eight teachers interviewed believed leadership to be distributed.

However, they did not present leadership as their primary interest. Rather it seemed a

means to achieve their primary goal, more effective learning. Each of the teachers

perceived the principal as the traditional leader of their school. Three thought confidence

to be an important attribute for a building principal. Five believed it important that a

principal encourage collaboration. Seven agreed that student success was the primary

goal of an effective school leader. One placed collaboration as more important. Seven of

the eight interviewed saw themselves as teacher leaders.

Each perceived teacher leadership role as an opportunity for personal and

organizational learning, the ultimate goal being better serving the needs of students.

Teacher leadership was presented as a type of mentoring relationship among staff

members. Those interviewed allude to teacher leaders as examples of peers who "walk

the talk." They modeled effective teaching strategies, listened, shared, were positive and

open minded, confident, lead by example, and were interested in learning. Each was

attracted to the ideal of creating instructional programming that was suited to individual

learner needs within his or her classrooms. Student achievement was a measure of

personal success. Each saw staff development as an opportunity. Professional

development provided them different avenues of learning. During the interview process

each provided specific examples. Common remarks were associated to the K/3 Reading

Initiative. Many of the interviewees presented their learning within its framework as

career altering.

The perceptions presented, do hint at the social dimensions of learning taking

place in this organization and are also reinforced by teacher responses to the SAI survey

tool. They attest to a common goal of meeting student needs. They reflect the goals of

the three staff development programs examined. There is a conveyed perception of a

collaborative relationship among formal and informal leaders in the organization.

Leadership, although not spoken of in such terms, is an anchoring concern. Student

progress as evidenced in this case study seems dependent upon the leadership interactions

of the actors involved and staff training. These all speak to the "leader plus" theory of

Spillane's work.

The "practice plus" side of Spillane's theory is concerned with procedures and

tools. These are encountered within the situations that an organization can find itself.

They can facilitate or hinder its mission. Over the timeframe of this case study the

McKee Building witnessed some dramatic organizational changes. Twice each month

grade level teams of classroom teachers, Title 1 and Special Education support teachers,

School Psychologist, and School Principal meet to review student and grade level

progress toward attaining annual learning goals. Discussions revolve around an analysis

of data in reading, mathematics, and student behaviors. Records are maintained at the

organizational level and student level. At the student level individual portfolios

document student needs and progress. These procedures represent a conceptual shift towards a reliance on formative data and instructional adjustment.

This change was instigated by an organizational need. Students at the McKee Building were not achieving annual state performance goals. The change was not the result of an administrative dictate. Instead it represents an evolution made possible through adult learning and collaboration. The RtII model is a collaborative design and it is unique to the school district. It is the result of collaborative teacher and administrative research and adjustment and represents the results of a distributed leadership effort. A situational need arose within the organization and teachers assumed leadership positions in meeting that need. They volunteered for training. Better student learning results were promised in reading and math if student learning was assessed in more formative fashion and instruction was adjusted to observed student need. Initial staff learning was shared with fellow staff members. Over time the teaching staff became more proficient with the tools and programs needed for student data collection and assessment analysis. In this case a situational need resulted in some beneficial organizational changes. The relationship forged among traditional school leaders, teacher leaders, and school staff helped the organization realize effective change that promised to augment student learning. The existing capacity of the organization was utilized to expand organizational knowledge and improve its promised outcomes for student learners.

Conclusions

The purpose of this case study was to examine teacher perceptions relative to the role of distributed leadership within the context of three separate training initiatives taken by the school district in which they were employed. Distributed leadership within the context of three district training initiatives appeared to be successful.

Teacher leaders were found to be motivated by a central organizational need; schools need to become more effective educating institutions for children. Teachers who believe that all children can learn demonstrate this success in their classrooms. Even within the challenges poverty presents, poor children did learn when teachers understood and analyzed assessment results and adjusted their instruction. Staff development can be an effective tool for organizational change when aligned to the perceived needs for institutional and professional growth. In order to attain this goal teacher leaders welcomed their district's staff development training programs to address their need for personal professional growth. Teacher leaders are willing to learn and share learning formally and informally. They enter or exit leadership positions dependent upon perceived need. Collaboration is the most important aspect of their conception of leadership practice. Their responses directly support the shared interaction of formal and informal leaders, the situational pressures within the educational organization and indirectly, the key element leadership plays as an anchoring concern for the organization's direction.

Limitations

The following limitations should be considered when examining the conclusions presented by this case study:

1. The findings of this mixed methods case study was limited to the small individual urban school district investigated and the impact of workshops, seminars and other features of the staff training initiatives presented may not be easily generalized to other school districts.

2. The researcher limited his investigation to the distributed leadership theory of James Spillane and others who support this theory.

Recommendations for Further Research

Although it is common to propose opportunities in this section the researcher is aware of two related studies currently in progress. The Math Science Partnership is in the second year of a three year investigation of their second initiative. They are attempting to measure the learning of math and science teachers who are participating in their teacher training activities. This data may provide additional avenues for research related to professional development and teacher effectiveness. A fellow researcher from IUP's School of Psychology, is investigating the effectiveness of the Jeannette McKee's elementary Response to Instruction and Intervention model. She is examining the model from the perspective of its usefulness for students who enter the kindergarten classes with deficient oral language development skills. How successful is the RtII framework in helping these students meet the challenges of developing reading skills in their primary classrooms?

Other research opportunities may include:

1. An investigation of other school systems that participated in these three training initiatives. K/3 Reading Initiative, RtII and MSP were implemented in many

districts across the state of Pennsylvania. Teacher perceptions of training

effectiveness might prove interesting and useful.

2. Other research studies may incorporate large enough populations that support

statistical analysis so as to yield more general conclusions.

3. The SAI survey could be used to collect information from districts who

participated in the initiative.

Final Reflection

My wife had created the illustration (Figure 8) for me to help convey the essence

of what I believed distributed leadership is all about.

Figure 8. Essence of distributed leadership.

Note that the middle position of the upper wing of the flock is empty. The bird

that once held this position has moved forward to take the lead position. At some later

time this bird will return to its former position and another bird will move to the lead

position. The illustration portrays what distributed leadership should look like in our

school organizations. Principals need to rethink the models that portray leadership as a top-down process. Principals who see the values of distributed leadership will promote teacher leadership within their buildings. As Spillane suggests, this is the practice that is generated through the interactions of leaders and followers and is influenced by the organizational situations in which they find themselves. It maintains the potential of growth for learning institutions (Spillane, 2006). Leadership practice is not confined to administrative offices but is promoted throughout the building. Practiced as such, distributed leadership can be a crucial change agent in our public education system.

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APPENDICES

APPENDIX A

Tables Reflecting the Rate of Cognitive Change in Adulthood

FIGURE 4.1

Proportion of Individuals Who Maintain Stable Levels of Performance over Seven Years on Five Primary Abilities
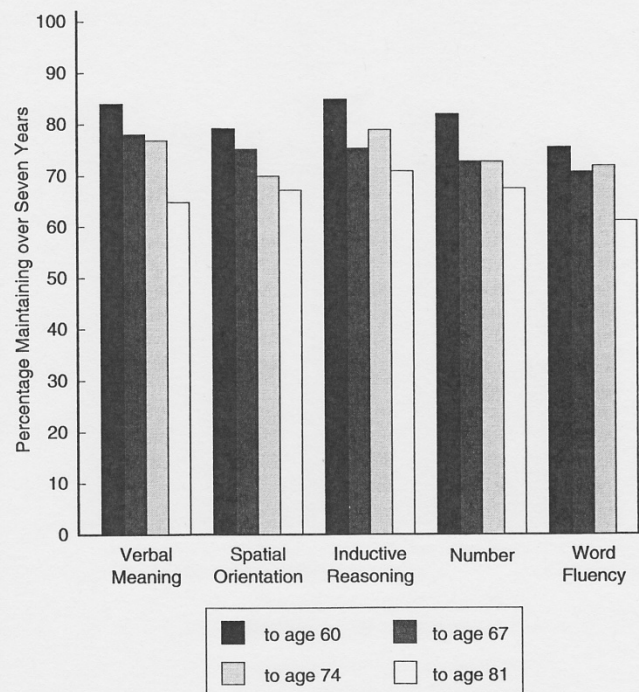
Source: K. W. Schaie (1990). "Intellectual Development in Adulthood." J. E. Birren and K. W. Schaie (Eds.), *Handbook of the Psychology of Aging* (3rd ed., pp. 291–309). San Diego, CA: Academic Press. Reprinted by permission of Academic Press, Inc.

FIGURE 4.2

Developmental Change in Fluid and Crystallized Intelligence

One of the best-known psychometric structural theories of intelligence is that of Raymond B. Cattell and John L. Horn. The two main clusters of that theory—fluid and crystallized intelligence—are believed to follow different life-span developmental trajectories.

Multidimensionality
Multidirectionality

Different Forms of Intelligence

Examples:
Language
Social
Intelligence

Crystallized (pragmatics)

Intelligence as Cultural Knowledge

Examples:
Memory
Problem Solving
(symbols, figures)

Fluid (mechanics)

Intelligence as Basic Information Processing

Performance

About 25

About 70

Age

Source: P. B. Baltes (1987). "Theoretical Propositions of Life-Span Developmental Psychology: On the Dynamics Between Growth and Decline." *Developmental Psychology, 23,* 611–626. Copyright 1987 by the American Psychological Association. Reprinted by permission.

FIGURE 4.3

Twenty-Eight-Year Age Changes

Age changes over 28 years for the total sample for the abilities of verbal meaning, spatial orientation, and inductive reasoning.
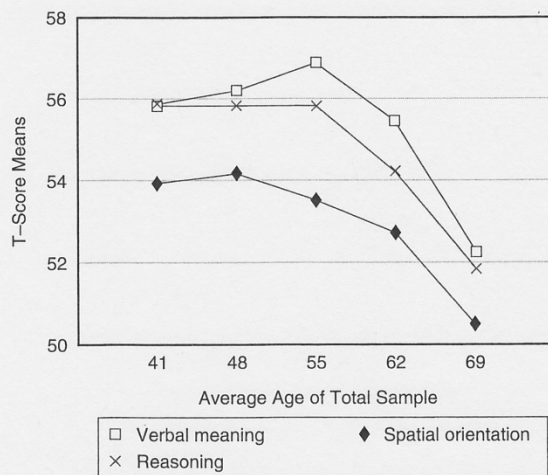
T–Score Means

Average Age of Total Sample
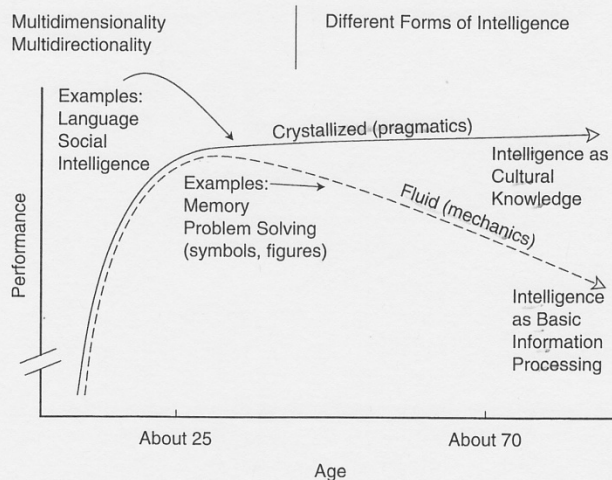
□ Verbal meaning   ♦ Spatial orientation
× Reasoning

Source: K. W. Schaie (1989). "Individual Differences in Rate of Cognitive Change in Adulthood." In V. L. Bengston & K. W. Schaie (Eds.), *The Course of Later Life: Research and Reflections* (pp. 65–85). Copyright 1989, Springer Publishing Company, Inc., New York, NY 10012. Used by permission.

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FIGURE 4.4

Age Changes over 28 Years for Verbal Meaning

Legend:
□ Middle-aged   ◆ Young-old
× Old-old
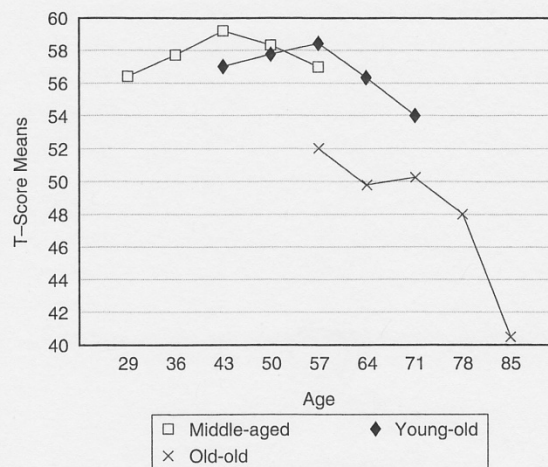
Note: Average ages for middle-aged = 57; young-old = 71; old-old = 85.

Source: K. W. Schaie (1989). "Individual Differences in Rate of Cognitive Change in Adulthood." In V. L. Bengston & K. W. Schaie (Eds.), *The Course of Later Life Research and Reflections* (pp. 65–85). Copyright 1989, Springer Publishing Company, Inc., New York, NY 10012. Used by permission.

FIGURE 4.5

Age Changes over 28 Years for Spatial Orientation

Legend:
□ Middle-aged   ◆ Young-old
× Old-old
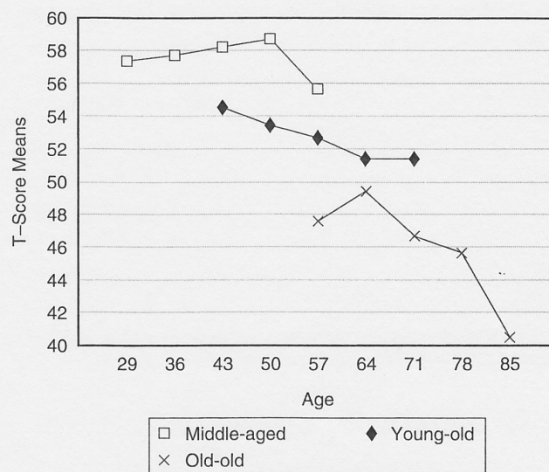
Note: Comparisons of all three cohorts at age 57 show clear evidence of a positive cohort trend.

Source: K. W. Schaie (1989). "Individual Differences in Rate of Cognitive Change in Adulthood." In V. L. Bengston & K. W. Schaie (Eds.), *The Course of Later Life: Research and Reflections* (pp. 65–85). Copyright 1989, Springer Publishing Company, Inc., New York, NY 10012. Used by permission.

FIGURE 4.6

Age Changes over 28 Years for Inductive Reasoning
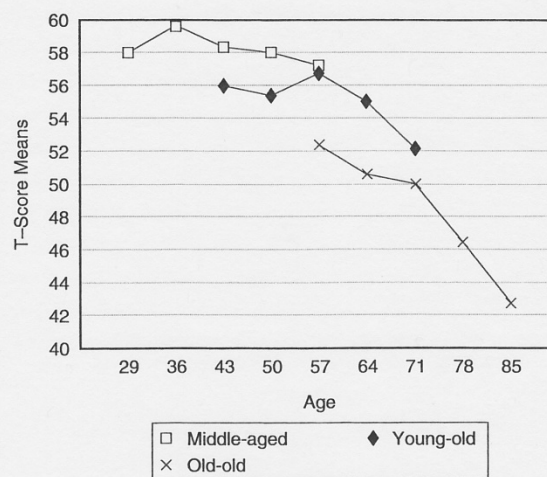
APPENDIX B

Diebels Assessment Schedule

Kindergarten: Three Assessment Periods Per Year

| DIBELS Measure	Beginning of Year Months 1 - 3		Middle of Year Months 4 - 6		End of Year Months 7 - 10	
	Scores	Status	Scores	Status	Scores	Status
ISF	0 - 3 4 - 7 8 and above	At Risk Some Risk Low Risk	0 - 9 10 - 24 25 and above	Deficit Emerging Established	Not administered during this assessment period.	
LNF	0 - 1 2 - 7 8 and above	At Risk Some Risk Low Risk	0 - 14 15 - 26 27 and above	At Risk Some Risk Low Risk	0 - 28 29 - 39 40 and above	At Risk Some Risk Low Risk
PSF	Not administered during this assessment period.		0 - 6 7 - 17 18 and above	At Risk Some Risk Low Risk	0 - 9 10 - 34 35 and above	Deficit Emerging Established
NWF (NWF-CLS Score)	Not administered during this assessment period.		0 - 4 5 - 12 13 and above	At Risk Some Risk Low Risk	0 - 14 15 - 24 25 and above	At Risk Some Risk Low Risk
WUF	**BENCHMARK GOALS FOR THIS MEASURE HAVE NOT BEEN ESTABLISHED.** Tentatively, students in the lowest 20 percent of a school district using local norms should be considered at risk for poor language and reading outcomes, and those between the 20th percentile and 40th percentile should be considered at some risk.					

Table 1

First Grade: Three Assessment Periods Per Year

DIBELS Measure	Beginning of Year Months 1 - 3		Middle of Year Months 4 - 6		End of Year Months 7 - 10	
	Scores	Status	Scores	Status	Scores	Status
LNF	0 - 24 25 - 36 37 and above	At Risk Some Risk Low Risk	Not administered during this assessment period.		Not administered during this assessment period.	
PSF	0 - 9 10 - 34 35 and above	Deficit Emerging Established	0 - 9 10 - 34 35 and above	Deficit Emerging Established	0 - 9 10 - 34 35 and above	Deficit Emerging Established
NWF-CLS	0 - 12 13 - 23 24 and above	At Risk Some Risk Low Risk	0 - 29 30 - 49 50 and above	Deficit Emerging Established	0 - 29 30 - 49 50 and above	Deficit Emerging Established
ORF	Not administered during this assessment period.		0 - 7 8 - 19 20 and above	At Risk Some Risk Low Risk	0 - 19 20 - 39 40 and above	At Risk Some Risk Low Risk
RTF	Not administered during this assessment period.		BENCHMARK GOALS FOR THIS MEASURE HAVE NOT YET BEEN ESTABLISHED. Preliminary evidence indicates that for students to be on track with comprehension they should meet both of the following criteria: 1) meet the Oral Reading Fluency benchmark goal and 2) have a retell score of at least 25% of their Oral Reading Fluency score.			
WUF	BENCHMARK GOALS FOR THIS MEASURE HAVE NOT BEEN ESTABLISHED. Tentatively, students in the lowest 20 percent of a school district using local norms should be considered at risk for poor language and reading outcomes, and those between the 20th percentile and 40th percentile should be considered at some risk.					

Table 2

Second Grade: Three Assessment Periods Per Year

DIBELS Measure	Beginning of Year Months 1 - 3		Middle of Year Months 4 - 6		End of Year Months 7 - 10	
	Scores	Status	Scores	Status	Scores	Status
NWF-CLS	0 - 29 30 - 49 50 and above	Deficit Emerging Established	Not administered during this assessment period.		Not administered during this assessment period.	
ORF	0 - 25 26 - 43 44 and above	At Risk Some Risk Low Risk	0 - 51 52 - 67 68 and above	At Risk Some Risk Low Risk	0 - 69 70 - 89 90 and above	At Risk Some Risk Low Risk
RTF	**BENCHMARK GOALS FOR THIS MEASURE HAVE NOT YET BEEN ESTABLISHED.** Preliminary evidence indicates that for students to be on track with comprehension they should meet both of the following criteria: 1) meet the Oral Reading Fluency benchmark goal and 2) have a retell score of at least 25% of their Oral Reading Fluency score.					
WUF	**BENCHMARK GOALS FOR THIS MEASURE HAVE NOT BEEN ESTABLISHED.** Tentatively, students in the lowest 20 percent of a school district using local norms should be considered at risk for poor language and reading outcomes, and those between the 20th percentile and 40th percentile should be considered at some risk.					

Table 3

Third Grade: Three Assessment Periods Per Year

DIBELS Measure	Beginning of Year Months 1 - 3		Middle of Year Months 4 - 6		End of Year Months 7 - 10	
	Scores	Status	Scores	Status	Scores	Status
ORF	0 - 52 53 - 76 77 and above	At Risk Some Risk Low Risk	0 - 66 67 - 91 92 and above	At Risk Some Risk Low Risk	0 - 79 80 - 109 110 and above	At Risk Some Risk Low Risk
RTF	**BENCHMARK GOALS FOR THIS MEASURE HAVE NOT YET BEEN ESTABLISHED.** Preliminary evidence indicates that for students to be on track with comprehension they should meet both of the following criteria: 1) meet the Oral Reading Fluency benchmark goal and 2) have a retell score of at least 25% of their Oral Reading Fluency score.					
WUF	**BENCHMARK GOALS FOR THIS MEASURE HAVE NOT BEEN ESTABLISHED.** Tentatively, students in the lowest 20 percent of a school district using local norms should be considered at risk for poor language and reading outcomes, and those between the 20th percentile and 40th percentile should be considered at some risk.					

Table 4

APPENDIX C

NSDA Standards Assessment Inventory

NSDC Standards Assessment Inventory

Directions: Thank you for taking the time to complete this survey. It is best to complete this survey alone. When marking your responses, please fill in bubbles completely. You may use either a pen or pencil. Completing this survey will take about 15-20 minutes.

Please mark the responses that most accurately reflect your experiences at your school.

	Never	*Seldom*	*Sometimes*	*Frequently*	*Always*
1. Our principal believes teacher learning is essential for achieving our school goals.	⓪	①	②	③	④
2. Fellow teachers, trainers, facilitators, and/or consultants are available to help us implement new instructional practices at our school.	⓪	①	②	③	④
3. We design evaluations of our professional development activities prior to the professional development program or set of activities.	⓪	①	②	③	④
4. Our school uses educational research to select programs.	⓪	①	②	③	④
5. We have opportunities to practice new skills gained during staff development.	⓪	①	②	③	④
6. Our faculty learns about effective ways to work together.	⓪	①	②	③	④
7. Teachers are provided opportunities to gain deep understanding of the subjects they teach.	⓪	①	②	③	④
8. Teachers are provided opportunities to learn how to involve families in their children's education.	⓪	①	②	③	④
9. The teachers in my school meet as a whole staff to discuss ways to improve teaching and learning.	⓪	①	②	③	④
10. Our principal's decisions on schoolwide issues and practices are influenced by faculty input.	⓪	①	②	③	④
11. Teachers at our school have opportunities to learn how to use technology to enhance instruction.	⓪	①	②	③	④
12. Teachers at our school learn how to use data to assess student learning needs.	⓪	①	②	③	④
13. We use several sources to evaluate the effectiveness of our professional development on student learning (e.g., classroom observations, teacher surveys, conversations with principals or coaches).	⓪	①	②	③	④

	Never	Seldom	Sometimes	Frequently	Always
14. We make decisions about professional development based on research that shows evidence of improved student performance.	⓪	①	②	③	④
15. At our school, teacher learning is supported through a combination of strategies (e.g., workshops, peer coaching, study groups, joint planning of lessons, and examination of student work).	⓪	①	②	③	④
16. We receive support implementing new skills until they become a natural part of instruction.	⓪	①	②	③	④
17. The professional development that I participate in models instructional strategies that I will use in my classroom.	⓪	①	②	③	④
18. Our principal is committed to providing teachers with opportunities to improve instruction (e.g., observations, feedback, collaborating with colleagues).	⓪	①	②	③	④
19. Substitutes are available to cover our classes when we observe each others' classes or engage in other professional development opportunities.	⓪	①	②	③	④
20. We set aside time to discuss what we learned from our professional development experiences.	⓪	①	②	③	④
21. When deciding which school improvement efforts to adopt, we look at evidence of effectiveness of programs in other schools.	⓪	①	②	③	④
22. We design improvement strategies based on clearly stated outcomes for teacher and student learning.	⓪	①	②	③	④
23. My school structures time for teachers to work together to enhance student learning.	⓪	①	②	③	④
24. At our school, we adjust instruction and assessment to meet the needs of diverse learners.	⓪	①	②	③	④
25. We use research-based instructional strategies.	⓪	①	②	③	④
26. Teachers at our school determine the effectiveness of our professional development by using data on student improvement.	⓪	①	②	③	④
27. Our professional development promotes deep understanding of a topic.	⓪	①	②	③	④
28. Our school's teaching and learning goals depend on staff's ability to work well together.	⓪	①	②	③	④

	Never	Seldom	Sometimes	Frequently	Always
29. We observe each other's classroom instruction as one way to improve our teaching.	⓪	①	②	③	④
30. At our school, evaluations of professional development outcomes are used to plan for professional development choices.	⓪	①	②	③	④
31. Communicating our school mission and goals to families and community members is a priority.	⓪	①	②	③	④
32. Beginning teachers have opportunities to work with more experienced teachers at our school.	⓪	①	②	③	④
33. Teachers show respect for all of the student sub-populations in our school (e.g., poor, minority).	⓪	①	②	③	④
34. We receive feedback from our colleagues about classroom practices.	⓪	①	②	③	④
35. In our school, we find creative ways to expand human and material resources.	⓪	①	②	③	④
36. When considering school improvement programs, we ask whether the program has resulted in student achievement gains.	⓪	①	②	③	④
37. Teachers at our school expect high academic achievement for all of our students.	⓪	①	②	③	④
38. Teacher professional development is part of our school improvement plan.	⓪	①	②	③	④
39. Teachers use student data to plan professional development programs.	⓪	①	②	③	④
40. School leaders work with community members to help students achieve academic goals.	⓪	①	②	③	④
41. The school improvement programs we adopt have been effective with student populations similar to ours.	⓪	①	②	③	④
42. At my school, teachers learn through a variety of methods (e.g., hands-on activities, discussion, dialogue, writing, demonstrations, practice with feedback, group problem solving).	⓪	①	②	③	④
43. Our school leaders encourage sharing responsibility to achieve school goals.	⓪	①	②	③	④
44. We are focused on creating positive relationships between teachers and students.	⓪	①	②	③	④
45. Our principal fosters a school culture that is focused on instructional improvement.	⓪	①	②	③	④

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	Never	Seldom	Sometimes	Frequently	Always
46. Teachers use student data when discussing instruction and curriculum.	⓪	①	②	③	④
47. Our principal models how to build relationships with students' families.	⓪	①	②	③	④
48. I would use the word empowering to describe my principal.	⓪	①	②	③	④
49. School goals determine how resources are allocated.	⓪	①	②	③	④
50. Teachers analyze classroom data with each other to improve student learning.	⓪	①	②	③	④
51. We use students' classroom performance to assess the success of teachers' professional development experiences.	⓪	①	②	③	④
52. Teachers' prior knowledge and experience are taken into consideration when designing staff development at our school.	⓪	①	②	③	④
53. At our school, teachers can choose the types of professional development they receive (e.g., study group, action research, observations).	⓪	①	②	③	④
54. Our school's professional development helps me learn about effective student assessment techniques.	⓪	①	②	③	④
55. Teachers work with families to help them support students' learning at home.	⓪	①	②	③	④
56. Teachers examine student work with each other.	⓪	①	②	③	④
57. When we adopt school improvement initiatives we stay with them long enough to see if changes in instructional practice and student performance occur.	⓪	①	②	③	④
58. Our principal models effective collaboration.	⓪	①	②	③	④
59. Teachers receive training on curriculum and instruction for students at different levels of learning.	⓪	①	②	③	④
60. Our administrators engage teachers in conversations about instruction and student learning.	⓪	①	②	③	④

APPENDIX D

Profile of Teacher Responses

(Frequency Counts by Standard Questions)

Standards Assessment Inventory

Average Response Grouped by Standard and Standard Category

CONTEXT								
Learning Communities			**Leadership**			**Resources**		
9:	2.8	3.8	1:	3.9	4.9	2:	2.8	3.8
29:	1.4	2.4	10:	3.0	4.0	11:	2.5	3.5
32:	3.2	4.2	18:	3.3	4.3	19:	1.7	2.7
34:	2.3	3.3	45:	3.7	4.7	35:	3.0	3.9
56:	2.7	3.7	48:	3.1	4.1	49:	2.9	3.9
Avg.	**2.5**	**3.5**	Avg.	**3.4**	**4.4**	Avg.	**2.6**	**3.6**
PROCESS								
Data-Driven			**Evaluation**			**Research-Based**		
12:	3.5	4.5	3:	2.1	3.1	4:	3.2	4.0
26:	3.3	4.1	13:	3.4	4.4	14:	3.0	4.0
39:	3.5	4.5	20:	1.8	2.8	21:	2.7	3.7
46:	3.8	4.8	30:	2.1	3.1	36:	3.2	4.2
50:	3.5	4.5	51:	2.7	3.7	41:	2.7	3.7
Avg.	**3.5**	**4.5**	Avg.	**2.4**	**3.4**	Avg.	**3.0**	**3.9**
Design			**Learning**			**Collaboration**		
15:	3.0	4.0	5:	2.9	3.9	6:	3.0	4.0
22:	3.1	4.1	16:	2.5	3.5	23:	2.1	3.1
38:	3.7	4.7	27:	2.7	3.7	28:	3.0	4.0
52:	2.7	3.7	42:	3.0	4.0	43:	3.2	4.2
57:	3.0	4.0	53:	1.1	2.1	58:	3.6	4.6
Avg.	**3.1**	**4.1**	Avg.	**2.4**	**3.4**	Avg.	**3.0**	**4.0**
CONTENT								
Equity			**Quality Teaching**			**Family Involvement**		
24:	3.7	4.7	7:	3.0	4.0	8:	2.6	3.6
33:	3.9	4.9	17:	3.1	4.1	31:	3.0	4.0
37:	3.5	4.5	25:	3.4	4.4	40:	2.7	3.7
44:	3.8	4.8	54:	2.6	3.6	47:	3.3	4.3
59:	3.0	4.0	60:	3.5	4.5	55:	3.4	4.4
Avg.	**3.6**	**4.6**	Avg.	**3.1**	**4.1**	Avg.	**3.0**	**4.0**