A Study to Identify the Knowledge Sources Used by Nine Elementary School Principals in Virginia

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(ABSTRACT)

Educators often employ instructional approaches because of their customary use in the classroom, not because they are necessarily supported by validated evidence. Missing from leadership literature is an understanding specifically about elementary school principals' use of knowledge sources to support their instructional leadership. This study identified the knowledge sources used by nine elementary school principals, discovered the barriers they faced in using the sources, and revealed how they guided their teachers to use the sources. This study was guided by three research questions: (a) What are the knowledge sources used by elementary school principals in Virginia? (b) What are the barriers elementary school principals face to using the knowledge sources? (c) How do elementary school principals guide their teachers to use the sources? The elementary school principals completed extensive data analysis of students' Standards of Learning (SOL) test results and curriculum related benchmark test results to determine their students' instructional weaknesses and strengths. Despite the complexity of challenges such as students' poverty, mobility, and diversity, the elementary school principals conveyed a commitment to access the best current professional knowledge related to the curriculum, leadership, the brain, poverty, diversity, and motivation. Time constraints and funding limitations emerged as barriers for elementary school principals with using knowledge sources. The elementary school principals disseminated knowledge to teachers in a variety of formats. This study

provides useful information to school system leaders, school board members, designers

of principal preparation programs, and for professional organizations that seek to

improve the profession by promoting evidence-based practices. The elementary school

principals led with an overriding belief that all children could be successful. Their

omnipresent spirit and motivating presence allowed their teachers to prevail despite

significant contextual issues and identified instructional weaknesses related to their

students. As head learners they accessed the best available knowledge sources and

exemplified continuous professional enhancement. Results from SOL tests and

curriculum based tests data were critically important knowledge sources. Data allowed

the elementary school principals to lead teachers to make sound instructional decisions

and enhance their pedagogical repertoires.

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INTRODUCTION TO THE PROBLEM

Principals are in strategic positions to lead teachers in making the best decisions for children relative to instructional methods. As principals establish a clear vision that is shared by all, their knowledge of school and classroom practices that improve student achievement are vital components of their leadership repertoire (DuFour & Eaker, 1998). Unfortunately, tradition and expediency, not research and data, have often influenced practice (Manning, 1995; Riehl, Larson, Short, & Reitzug, 2000). This study was designed to identify the knowledge sources effective elementary school principals use in their instructional leadership roles, to discover the barriers encountered by those principals who use the sources, and to find out how elementary principals guide their teachers to use the sources.

As consumers of knowledge principals benefit from the ability to filter out misleading information. Goodlad (1984) observed the following:

The major professions seek continuously to provide their members with the knowledge and skills needed to transcend the conventional wisdom of the public they serve. Research and transmission of the implications of findings to professionals are the ultimate weapons for fighting myths and quackery. (p. 164)

The lesson plan model designed by Madeline Hunter was an example of a myth. It was widely adopted nationally on face value because of its perceived effectiveness. It took more than a decade to be evaluated and ultimately was found to make no discernible difference in achievement (Slavin, 1989). When practice is not informed by valid knowledge sources, beliefs are perpetuated and children are subjected to instructional

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programs based on tradition, myths, folklore, and ideology. Given the demands of the position, elementary principals need proven approaches to guide others to help students reach a high level of achievement.

As a result of increased high-stakes accountability measures principals are expected to be the instructional leaders of their schools. One source estimated that only 25% of principals were skilled as instructional leaders (U.S. Department of Education, 1999). Another source stated that 50% of principals attempted to improve instruction (Leithwood & Montgomery, 1982). Principals can no longer get by with solely managing the operation of their schools and are required to seek opportunities to grow as instructional leaders (Bottoms & O'Neill, 2001). Principals will need a comprehensive knowledge of "curriculum, instruction, and assessment to provide a continuous improvement process" that results in improved student achievement (DiPaola & Tschannen-Moran, 2002, p. 5). Principals may enhance their effectiveness by gaining access to the current research about "learning and effective teaching strategies" (DiPaola & Tschannen-Moran, p. 6). All of the implications for principals to function as instructional leaders require continuous learning informed by credible knowledge sources.

In Virginia public schools the accreditation measures are the Standards of Learning (SOL) tests. The full implementation of the SOL testing began in 1999, with standards for elementary schools in English, mathematics, history, and science. Virginia schools are classified as follows: (a) fully accredited, (b) accredited with warning, or (c) accreditation denied (Virginia Department of Education, 2006). Accreditation ratings for each school are published in newspapers and on the Virginia Department of Education

website. Principals are expected to pay attention to data trends for their students' achievement in order to lead their teachers to reach the 70% passing rate by their students. Principals are key in helping others to continuously improve.

The federal No Child Left Behind Act of 2001 (NCLB) signed into law by President George W. Bush on January 8, 2002, created an additional high stakes accountability requirement for public schools. Schools failing to meet their state achievement objective in reading or mathematics for two consecutive years are identified. These schools are required to adopt effective instructional practices and inform parents of their right under the law to transfer their children to higher performing public schools (U.S. Department of Education, 2003). In August 2002, there were 23 failing elementary schools identified in Virginia.

Past events in education indicate that substantiated knowledge resources have had limited impact on practice that improve achievement (Bowsher, 2001; Grossen, 1996; Slavin, 1989). For instance, significant research findings were not disseminated from Project Follow Through in the 1960s. Direct Instruction, an instructional program, was found to be an effective approach in Project Follow Through and then again, 35 years later, in the Comprehensive School Reform effort. Its efficacy, however, was not widely known by practitioners, as of late 1990s (Schmoker, 1999).

Statement of the Problem

More needs to be understood about effective elementary school principals' use of knowledge resources that assist them to lead others to improve instruction. This study sought to discover the sources of information effective principals use in making instructional decisions and to determine the barriers they face with using these sources.

Purpose of the Study

The purpose of this study was to gain a greater understanding from elementary principals in Virginia who lead the most academically successful schools about their knowledge sources and the barriers they faced while using those sources. Much has been written about the importance of principals functioning as instructional leaders during this era of high stakes accountability. The findings supply definitive knowledge needs for those providing ongoing professional development to principals, superintendents, school boards, designers of principal preparation programs, and policy groups.

Research Questions

This study using a qualitative approach is designed to answer the following research questions:

1) What are the knowledge sources used by elementary school principals in Virginia?

2) What are the barriers elementary school principals face to using knowledge sources?

3) How do elementary school principals guide their teachers to use the sources?

The Importance of the Principal as "Head Learner"

As the director of the Principals' Center at Harvard University for more than 10 years, Barth (1990) suggested that the principal should be the head learner in the school. Resulting from his leadership role at the Principals' Center and a decade as a

principal, he developed a conceptual model for principals' learning. His model is illustrated in Figure 1.1.

The model was designed to help principals to improve their ability as instructional leaders. Principals' daily interactions and engagement in practice are often analogous to functioning in "swampy ground" (Leithwood, Begley, & Cousins, 1992). Reflecting on practice is the process of taking time to examine events and interactions. Barth (1990) suggested that principals benefited from time to reflect and to support one another in a noncompetitive manner. Meetings with colleagues offer time for reflection and the opportunity to discuss practice.

engage in practice

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reflect on practice

↓

articulate practice

↓

better understand practice

↓

improve practice
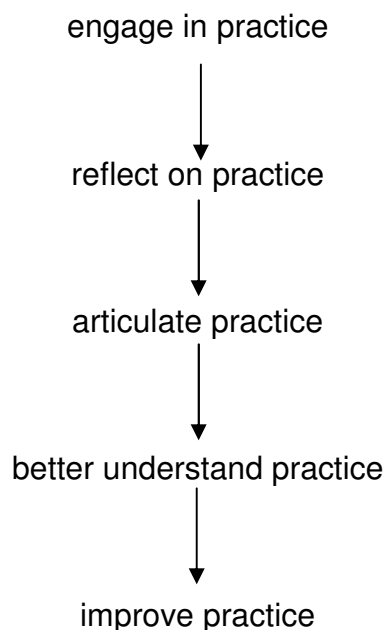
Figure 1.1. Barth's Conceptualization for Principal's Learning

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From "*Improving Schools from Within*," by Roland S. Barth, 1990, p. 85. Copyright 1990 by John Wiley & Sons, Inc. Reprinted with permission of the author.

Because of the active nature of the role and long work hours, principals have limited time to be reflective (Riehl et al., 2000). Reflecting at a "high ground" perspective provides the opportunity to think about the events that occurred in "swampy ground" interactions (Leithwood et al., 1992).

Professional growth experiences can provide the skills and knowledge to gain such understanding. Prior to improving their schools principals need to better understand them (Barth, 1990). Professional growth experiences identified by principals, as part of a study, varied from attending conferences to reading journal articles (Boris-Schacter & Merrifield, 2000). Principals also noted that "going to work everyday offered opportunities to grow" (p. 91).

Boris-Schacter and Merrifield (2000) studied 19 elementary and middle school principals from a Massachusetts school district who were considered *particularly good* by colleagues to discover their perspectives about professional growth. Principals chosen were recommended by multiple colleagues. They had successfully led reform in their schools and were recognized as individuals who could mentor prospective principals. All principals were interviewed by both researchers who viewed themselves as "educators and learners" instead of managers (Boris-Schacter & Merrifield, 2000, p. 90). An analysis of findings discovered that these principals possessed an ethic for continual improvement and functioned as "facilitative learners" to help teachers. Ultimately, it was concluded that leadership development should not be limited to a preparatory academic program, but rather should be an ongoing process of improvement (Boris-Schacter & Merrifield, 2000; Lashway, 1999).

Despite the competing demands of administrative tasks, however, instructional leaders convey an urgency to others to continuously improve (DuFour & Eaker, 1998). Principals help teachers to increase students' learning by "providing resources, providing feedback, and communicating" (Gould, 1998, p. 119). Included in the resources supplied to teachers are professional articles and staff development opportunities.

To be effective leaders, principals should find time to engage in professional experiences that enhance their leadership skills (Gould, 1998). Bottoms and O'Neill (2001) suggested, "As school leaders deepen their knowledge of research-based instructional methods and classroom assessment, they will become skillful at keeping a constant focus on quality classroom instruction" (p. 10).

Leithwood and Montgomery (1982) studied principals' behaviors that affected students' learning. They interviewed 23 principals in one Canadian school district for 1½ to 3 hours each to determine reoccurring dimensions prior to conducting an extensive literature review. Studies reviewed were divided into three categories: "(1) leadership, management, and administrative concepts, (2) school change and implementation of educational innovations, and (3) school effectiveness" (p. 310). They found in their literature review that only 50% of principals were identified as effective because they attempted to improve practice. They suggested that effectiveness was a continuous process and understanding principals' "stages of growth" was an area for study (p. 336).

Types of Knowledge Sources

More information is needed to understand effective principals' use of knowledge sources to improve practice and subsequent barriers they and others face with using all

of the available sources. Knowledge sources identified by the researcher through discussions with three principals and two university professors in Virginia are believed to be: (a) journals, (b) books, (c) professional conferences, (d) interactions with colleagues, (e) experiences as a principal, (f) data, (g) electronic sources, and (h) academic preparation programs. Additional knowledge sources may be discovered as a result of conducting the study. It is believed that effective principals use knowledge sources. The "answer" may be more an eclectic mix of instructional approaches within the leadership toolbox. School improvement efforts may be benefited versus attempting to find "the answer." Principals need to lead because of high stakes accountability measures. Knowledge sources are available in a variety of formats to support principals' leadership. The eight identified knowledge sources will be explained more fully.

Journals

Trade journals are often published by professional associations and are not entirely research based. *Principal,* published by the National Association of Elementary School Principals (NAESP), had an insert in the April 2001 issue seeking articles for future publications. It stated that the publication was a magazine and not a scholarly journal (Principal, 2001). In 1999 *Principal* had 38,000 readers, with 10% of its articles being research based. Another professional association, the American Association of School Administrators (AASA) publishes *The School Administrator,* a magazine with articles about practices, policies, and programs for school administrators.

Two additional trade journals, *The Kappan* and *Educational Leadership,* are published monthly from September to June. Phi Delta Kappa International, Inc., has published *The Kappan* since 1915. Its publisher seeks to offer a professional journal

focused on addressing policy issues for educators of all levels. There are approximately 90,000 members of Phi Delta Kappa International, Inc. *Educational Leadership,* published by the Association for Supervision and Curriculum (ASCD), is considered research based (American Institutes for Research, 1999), even though not all of the articles are supported by research. ASCD has been functioning since 1943 and has a current membership of more than 160,000.

Scholarly journals are refereed publications with their review process of submitted work by authors. Contrasted with *Principal* and the NAESP, the National Association of Secondary School Principals took a different approach by having the *NASSP Bulletin* become a refereed scholarly journal in 2002. This change in format was the result of an expressed interest by the publisher to influence practice in schools. The publication has a readership of 37,000, with a "pass along rate of 1.7" that the publisher believed would allow the *Bulletin* to reach 100,000 practitioners (Educational Researcher, 2001, p. 25).

The publisher of *Educational Administrative Abstracts* attempts to provide 1000 abstracts yearly of the "hundreds of books, government reports, conference papers" and articles from the estimated 200 major journals (Educational Administrative Abstracts, 2003, p. 1). Tschannen-Moran, Firestone, Hoy, & Johnson (2000) identified "10 prestigious refereed journals" (pp. 364-5). They are: *Educational Administration Quarterly, the Journal of Educational Administration, Journal of School Leadership, Educational Evaluation and Policy Analysis, Educational Policy, Journal of Educational Finance, Teacher College Record, American Journal of Education, Harvard Educational Review, and American Educational Research Journal.* Publications also recognized as

research journals are *Educational Leadership, Educational Research and Evaluation, Educational Researcher, Journal of Education for Students Placed at Risk, Review of Educational Research, School Effectiveness and School Improvement* (Educational Research Service, 1999). AASA publishes a quarterly journal, *The AASA Professor,* which is research based and is focused on best practices about educational administration. There is no dearth of available scholarly journals about education.

The content format for one of the above-mentioned journals is provided. *School Effectiveness and School Improvement* focuses on research that is helpful to researchers and practitioners. It has an international scope and is the official journal of the International Congress for School Effectiveness and Improvement (ICSEI). The journal is published nine times a year and is available electronically (School Effectiveness and School Improvement, 2003). It is unknown by the researcher about the number of elementary principals who subscribe to these refereed journals.

Books

Subscribers to the Association for Supervision and Curriculum Development (ASCD) receive books annually. The books focus on a wide range of topics such as: understanding the brain, improving students' achievement, conducting curriculum design, building capacity within schools, differentiating teaching in the classroom, and using data for improving achievement. Books varied in content from non-research to research based. It is estimated that hundreds of books related to education are published yearly (Educational Administrative Abstracts, 2003).

The ten best selling books at the NAESP Annual convention in April 2003 were: (a) *K-12 Principal's Guide to No Child Left Behind*, (b) *What Great Principals Do*

Differently, (c) *Return With Honor*, (d) *Differentiated Instruction*, (e) *Day 2 Day*, (f)

Changing Lives Through the Principalship, (g) *Falling Awake*, (h) *The Educator's Book*

of Quotes, (i) *Mastering the Art of Mentoring Principals*, and (j) *The Principal's*

Companion (NAESP, 2003).

Professional Conferences

Conference attendance may serve as part of principals' overall professional

growth plan and as a knowledge source. Meetings and conferences for principals

should connect theory with practice (Gould, 1998). In so doing, principals are able to

apply theory to the context of their schools.

Regional, state, and national meetings for principals also offer opportunities for

principals to gain knowledge. Of the 29,500 members of NAESP, approximately 3200

principals, or 11% of the membership, attended the national conference in 2006 (P.

Murphy, personal communication, November 27, 2006). Virginia principals who are

members of NAESP are eligible to attend the fall and spring state meetings conducted

by the Virginia Elementary School Principal Association (VAESP). VAESP had 1233

members in 2005-2006. There were 154 principals who attended the fall conference in

2006 (J. Hackler, personal communication, November 27, 2006).

One-day sessions, however, do not provide the necessary growth opportunities

for principals (Bottoms & O'Neill, 2001). They, like other educational professionals,

should engage in a continuous improvement process (DuFour & Eaker, 1998) because

teachers benefit from having principals who strive to "increase their knowledge and

skills" (Gould, 1998, p. 162). Likewise, meetings and conferences offer forums for

administrators to talk with and inform other administrators (Riehl et al., 2000).

DiPaola and Tschannen-Moran (2002) surveyed 1543 Virginia elementary and secondary principals to investigate critical issues facing principals. An analysis of findings indicated that local meetings had "much value" for 32.5% and "some value" for 46%. Principals gain tacit knowledge through their attendance at conferences (Hansen, Nohria, & Tierney, 1999). Tacit knowledge is information best acquired through direct experiences with those who possess the content.

Interactions with Colleagues

Principals improve their capabilities by networking (Weick, 1996) and by discussing new practices with colleagues (McGeown, 1979-80). Principals can be isolated in their schools by the nature of their roles and they benefit from support by other principals (NAESP, 2001). Having the opportunity to meet and talk to principals from schools with similar contexts helps to make networking beneficial.

Sixty-six percent of elementary principals nationwide noted that networking contributed to their success (Drake & Roe, 1999). It is unclear what percentage of networking between colleagues occurs during local meetings, at state and national conferences, or electronically. Personal growth takes place through sharing in a variety of ways as principals attempt to lead increasingly complex organizations (Marshall, 1997).

Experiences as a Principal

Principals are faced with ever-changing expectations. The rate of change encountered by principals is fast paced and has caused them to work longer hours to keep up with demands. Eighty-four percent of Virginia principals reported to be working more than 50 hours weekly (DiPaola & Tschannen-Moran, 2002).

Weick (1996) noted that principals should "simultaneously trust and mistrust their past experiences" (p. 567). By so doing, principals remain open to new possibilities while they guard against basing decisions solely on the strength of mere tradition. Principals possess an extensive amount of practical knowledge and the ability for them to discern contexts of issues is invaluable (Riehl et al., 2000). However, principals should strive to learn continuously and not allow complacency to set in with feeling that they have experienced it all (Weick, 1996).

In a study of Virginia principals, an analysis of findings revealed that 63.9% of principals felt experiences as an assistant principal were of "much value". The role of assistant principal was not applicable to 18.3% of the respondents (DiPaola & Tschannen-Moran, 2002, p. 34). Leithwood and Montgomery (1984) found that principals' growth in effectiveness had a positive impact on student achievement.

Data

Using intuition and personal preference to select instructional approaches without empirical data does not promote improvement (Grossen, 1996). Prior to adopting a program there needs to be "hard evidence" of effectiveness. There are numerous examples of programs being implemented without confirming data (Slavin, 1989, pp. 755-756).

Data present a "discussion tool" and point of departure in this time of accountability (Bottoms & O'Neill, 2001, p. 11). Schools that have made significant advancements with improving students' achievement have been led by principals who helped teachers take ownership with the data (Bottoms & O'Neill, 2001). Principals can help their teachers with data usage to arrive at an "objective, commonly held reality" for

all (Schmoker, 2001, p. 51). By so doing, principals lead teachers to strive to reach the established vision of the school.

Data analysis takes on three forms: "disaggregration, drilling down and examining trends" (NAESP, 2001, p. 59). Disaggregation is the starting point of processing data within categories. Drilling down is the practice of examining data at a deeper level, beyond that of identifying averages. Examining trends is the process of looking at achievement data for more than one year of information (NAESP, 2001; Thomas, 2003). In this time of high-stakes tests, it helps all stakeholders to objectively measure yearly achievement gains.

Virginia elementary principals receive data as a result of the Standards of Learning (SOL) tests for their third and fifth graders. Reports entitled Student Performance by Objective are sent to principals and provide data at three levels of analysis: each child, the school, and the district detailing achievement for English, mathematics, history, and science. Scores are disaggregated according to students' results in each subgroup performance for ethnicity and disabilities within each of the four subjects. Additional data about students' ethnicity composition and special needs are also delineated. The data provide information for each classroom and about the school.

Electronic Sources

The usefulness of the Internet and World Wide Web in communicating research is just beginning to be realized as it provides real time information (Pea, 1999). Authors of websites are testing the use of "hypertext and virtual reality, e-journals, and indexing services" as ways of connecting knowledge with those in practice (Willinsky, 2000, p. 5).

For example, in 2002, NAESP presented a 90-minute webcast entitled "User-Friendly Data Tools for Schools," at a cost of $195 for members. Webcasts transmitted in 2003 by NAESP pertained to after-school programs and early childhood programs. Members of the Southern Regional Education Board (SREB) suggested that principals would benefit by using the Internet to promote their own learning (Bottoms & O'Neill, 2001).

ASCD offers professional development (PD Online) courses concerning multiple intelligences, differentiated instruction, conflict resolution, diversity, classroom management, brain research, and parent involvement. ASCD also publishes an online Education Bulletin. The use of listserves present potential electronic vehicles for principals to network with other practitioners (NAESP, 2001).

NAESP has a Principal's Electronic Desk with links to audio notes and archived information. ASCD publishes the SmartBrief site that addresses curriculum and professional leadership issues. *Education Week* offers a website for electronic access.

Many of the scholarly journals are available electronically. Examples of the costs for annual electronic subscriptions for two journals are: (a) Educational Administration Quarterly is $123, and (b) Educational Administrative Abstracts is $127.

Academic Preparation Programs

The focus of principal preparation programs is frequently criticized because of an over reliance on administration and management. In addition, there is an emphasis on "finance, legal issues, and other state-required content" rather than on helping people to be involved as leaders (U.S. Department of Education, 1999). Present in some development programs is a disregard for research focused on "effective teaching and schooling" (U.S. Department of Education, 1999). This is despite what colleges and

universities espouse as the belief that principals need to be prepared as instructional leaders (Drake & Roe, 1999). Principals may refer to the information that was imparted during their preparation program that offers a knowledge source in their role as instructional leader.

Principals are expected to be instructional leaders to meet the increased demands created by high stakes accountability measures; therefore, staying current with valid research and related literature is imperative. Yet, little is known about effective principals' use of journals, use of books, attendance at conferences, interactions with colleagues, experience as a principal, use of data, access of electronic sources, and reference to academic preparation programs as knowledge sources. There is concern that barriers or factors impede principals from accessing, learning from, then utilizing research and other professional knowledge sources to improve instructional practice and student learning.

Significance of Study

The proposed study may provide a deeper insight about elementary principals' knowledge sources and barriers to using those sources. Those reading the research may discover the past impact of knowledge sources as it relates to informing practice. Others may realize the limitations of leading without the benefit of valid knowledge.

There is a significant knowledge base that can inform principals. Potential benefits are lost until principals respect and respond to what is known about organizational improvement and effective teaching (Schmoker, 1999). Without reference to a valid knowledge base, the profession is likely to repeat mistakes of the past by

using ineffective programs and by responding to reform suggestions without substantiated frameworks.

Using valid knowledge seems to offer principals a lever in trying to maximize the influence of the position and assistance in making significant advancements in students' overall achievement (National Research Council, 1999). Decisions supported by empirical data seem to offer an informed way to lead (Crow, Hausman, & Scribner, 2002). Nevertheless, there is evidence that research has little influence in the operation of many of our nation's schools (Kennedy, 1997; Reese, 1999; Schmoker, 1996, 1999; Slavin, 1989, 2001). The suggestion to use research as a contributing factor to inform decision-making is often met with indifference by educators and the public (Slavin, 2002).

School faculties throughout the United States have proven they can beat the odds by overcoming obstacles and achieving success, but there continue to be many schools that are under performing. The principal is in a critically important leadership role to help classroom teachers become better informed. By studying what sources elementary principals use, we can better understand how to disseminate knowledge sources to all principals.

Forty percent of principals nationally were eligible to retire between 1999 and 2005 (Bottoms & O'Neill, 2001). Because such a large number of leaders are leaving the profession there will be increased implications placed on training institutions and school systems with preparing and supporting principals to be effective. Experts serving on the Southern Regional Education Board (SREB) recommended that a prototype for preparing principals as leaders be developed outside the institution so that others could

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emulate its design (Bottoms & O'Neill, 2001). A significant body of knowledge from experience will be lost to the profession as effective principals retire. As teachers move to the administrative ranks, it may be important for school districts to have a proven prototype for training their prospective principals.

Superintendents and school boards are in critical positions to grasp the notion that improvement of a system is a school-by-school process (Goodlad, 1984). The findings may disclose the best ways for them to support their principals.

University professors may profit from the study's findings by understanding principals' experiences and beliefs regarding the use of knowledge sources. Designers of principal preparation programs may be informed about the best way to provide a knowledge-based orientation throughout students' coursework and fieldwork.

Researchers may be supplied with a richer understanding about the best way to advance their findings to principals. There may be research partnerships established between school systems and institutions of higher learning as a result of increased awareness about the needs of principals.

National advisory groups such as the National Research Council (NRC), National Educational Research Policy and Priorities Board (NERPPB), Southern Regional Education Board (SREB), Interstate School Leaders Licensure Consortium (ISLLC), National Policy Board for Educational Administration (NPBEA), The University Council for Educational Administration (UCEA), and National Academy of Education are attempting to improve the profession. This study may be instructive to such groups by providing information about effective principals' use of knowledge sources and barriers encountered to using those sources.

Summary of the Study

This study is divided into five chapters. Chapter I provides a description of the following: (a) introduction to the problem, (b) statement of the problem to be studied, (c) the purpose of the study, (d) the research questions to be answered by the study, (e) a discussion about the importance of the principal as the "head learner," (f) the types of knowledge sources, and (g) significance of the study.

Chapter II presents a comprehensive review of the literature about the effects of principals' leadership on achievement, an examination of schools' cultures, an analysis of recent efforts by policy groups that acknowledge the need for leaders to be research based to improve the achievement of schools, and a description of the barriers to using knowledge sources.

Chapter III explains the methodology for the exploratory study of understanding elementary school principals' use of knowledge sources and the barriers to using the knowledge sources. Interview data from identified elementary school principals served to inform the study.

Chapter IV presents the findings obtained through interviews with the identified elementary school principals. The categories and themes that emerged are shared about knowledge sources, barriers to using the sources, and how principals guided their teachers to use the knowledge sources.

Chapter V provides conclusions and implications for practice derived from the study and presents implications for further research.

CHAPTER II

LITERATURE REVIEW

To develop this literature review an electronic search was conducted using the terms elementary principal, students' achievement, and research. Books, journals, dissertations, computer databases, reports, and websites were accessed. Research that was compiled within the past 35 years was considered.

This review contains five parts that provide a context for the qualitative study. First, studies about principals' effect on achievement are examined. Principals are critically important in supporting teachers in their efforts to improve students' achievement. Second, studies dealing with school culture are reviewed. The culture that exists in a school establishes the base for decision-making. There are nuances within a school that seem to perpetuate an uninformed culture. Third, a review of research about teachers' beliefs related to using research is shared. As principals directly influence teachers, it was instructive to understand what is significant for teachers with using research. Fourth, recent decisions by policy-making groups indicate an awareness and commitment about the importance of the contribution that research can have with improving schools. Various proposed frameworks for advancing research to schools are outlined. Fifth, barriers to using knowledge sources are discussed.

Public education involves roughly 3 million teachers and 50 million students. The "U.S. spends $300 billion a year on education." (U.S. House Committee on Science, 1998, p. 46). The federal government spends less than $30 million or .01 percent of the total allocation to educational research. (U.S. House Committee on Science, 1998). That amount is a pittance when contrasted with the defense budget that contributes

15% of its allocated budget to research. The minimal allocation for educational research may indicate the perceived value by policymakers and practitioners. Berliner and Biddle (1995) commented that Americans have been given the false impression that educational research is not as valid as or is less useful than research from other fields. Educational research is often criticized because it is not considered hard science (Marzano, Pickering & Pollack, 2001).

A core goal of research in the social and behavioral sciences should be the improvement of practice (Carnine, 1997). Such a focus would begin to improve the disconnected relationship between practitioners and researchers. There is evidence to suggest the failure of adequately disseminating findings resulted in less than informed decisions. A case in point occurred in Project Follow Through. It was the largest and perhaps the costliest ($1 billion) educational research project in the history of the United States, involving 70,000 students from 180 schools. Project Follow Through began in 1967 as part of President Lyndon Johnson's War on Poverty. It focused on providing schools with instructional approaches to help low performing children to reach the 50% achievement level. The project was in existence until 1995, but there is little indication that the research findings were ever widely disseminated, thus inhibiting their application. House, Glass, McLean, and Walker wrote an article in 1978 that appeared in the *Harvard Educational Review* that was critical of the project and questioned the results. While children taught by teachers using the instructional approaches of Direct Instruction and Kansas Behavior Analysis exceeded the 50th percentile in their achievement testing, Glass and Camilli wrote a report to the National Institute of Education in 1981 that discredited the project and limited the dissemination of the

results (Grossen, 1999). Grossen (1996) commented that replicable results from a large- scale study occurred in Project Follow Through, which is a rare occurrence in the profession.

Whole language, called TEEM in Project Follow Through, was not successful in raising the achievement of at-risk learners and was negatively correlated with raising students' self esteem (Grossen, 1996). If the results from Project Follow Through had been disseminated, many school systems and states, such as California, may have been more measured in their carte blanche adoption of whole language. The experience of Project Follow Through demonstrated elements of the practitioner-researcher gap. Results of the study based on empirical evidence showed that two programs helped children to achieve very significant gains. Many of the programs found to not significantly raise achievement in results from Project Follow Through have been perpetuated at great educational cost to children.

<center>Principals' Effect on Achievement</center>

Studies considered were completed during the past 35 years and provided a chronological approach to different sophistication about the indirect effects of principals' leadership related to students' achievement. Structural equation modeling (SEM) was not available in earlier research. Studies presented are quantitative, qualitative and mixed approaches.

Leithwood and Montgomery (1982) studied principals' behaviors and obstacles to the growth in principals' effectiveness. They found that effective principals established a relationship with their faculties to "foster the goal of student cognitive growth and happiness" (p. 335). Administrative leadership characterized the majority of principals'

efforts. A principal's role is ambiguous and complex (Leithwood & Montgomery, 1982). They characterized principals in their study as being either typical or effective. In their findings, only 50% of principals were classified as effective because they sought to help teachers with improving instructional programs. Typical principals were mired in administrative duties, seeking to run a smooth ship instead of exercising instructional leadership (Leithwood & Montgomery, 1982).

Studies reviewed included surveys, case or field studies, combination of survey and case studies, ethnographies, pre-experiments, and a conference (Leithwood & Montgomery, 1982). The selected studies focused on the role of the principal, school change, and school effectiveness. In addition, studies met two criteria by providing empirical evidence about one or more of the three focus areas and the written research report provided methodology that could be interpreted (Leithwood & Montgomery, 1982). Content analysis was used to summarize the data in the studies reviewed, given the variety of formats.

Studies within the selected sample that focused on the individual as the sampling unit ranged in size from 1 to 1,448 with a mean of 333. Of the 12 studies that used the school as the sampling unit, the size ranged from 1 to 103 with a mean of 20. Data were also collected from other studies that used questionnaires, interviews, and observations. Multiple measures including document analysis were used in 21 or 53% of the studies.

Data were organized in three dimensions for principals' behavior. The researchers found that critical behaviors of principals included: (a) goals, (b) factors, and (c) strategies. Effective principals had goals that were described as "basic orientations toward students, teachers, and the larger school system" (Leithwood &

Montgomery, 1982, p. 320). Factors dealt with classroom and school-wide experiences for children. School effectiveness was influenced indirectly by the context established by the principal. It appeared that typical and effective principals varied in the focus of attention given to the objectives that teachers worked toward with students.

Strategies were categorized as involving interpersonal relationships and promoting knowledge. Leithwood and Montgomery (1982) found substantially more data about strategies than goals and factors. Effective principals balanced daily interactions while attempting to progress toward goals, and helped others maintain a view of the big picture. Additionally, effective principals were portrayed as those who could "define priorities focused on the central mission of the school and gain support for these priorities from all stakeholders" (Leithwood & Montgomery, 1982, p. 335). In addition, they found that the development of "cooperative interpersonal relationships" supported the effective principal in leadership (p. 334).

Heck, Larsen, and Marcoulides (1990) sought evidence of factors used by principals that made a difference in achievement. They studied high achieving and low achieving elementary and high schools in California. Heck et al. (1990) commented that finding longitudinal information for a prolonged time period was challenging. Their criteria for inclusion in the study required schools to have sustained achievement levels for a three-year period. Of the 118 schools and 338 teachers that met the initial criterion, ultimately 43% of the original group of schools and 168 teachers met all of the criteria for inclusion in the study sample.

Their model specified three independent variables that included school governance, school climate, and school instructional organization that is displayed in

Figure 2.2. Heck et al. (1990) hypothesized that students' achievement could be affected by frequency of the application of leadership behaviors. The researchers believed they could determine the effect size of such behavior and its influence on achievement. They used structural equation modeling for the analysis. A regression technique was used to categorize schools with similar characteristics in socioeconomic status and language background to create a comparison band. Schools were chosen because they met the criteria of achieving above or below the expected achievement comparison band on the California Assessment Program (CAP) standardized testing during a three-year period. Principals and teachers completed questionnaires about
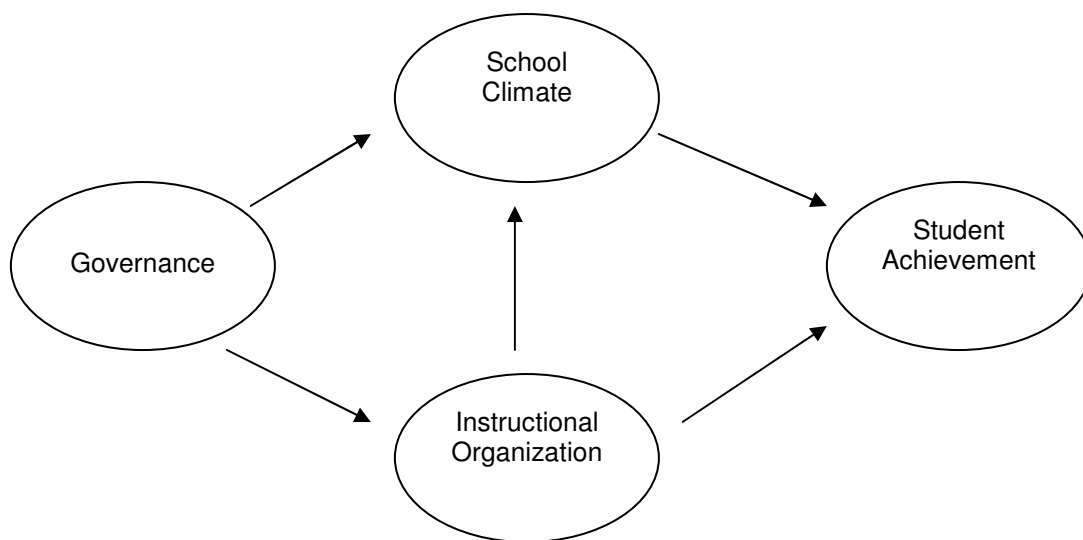
Figure 2.1. Predictive Model of Principal Instructional Leadership Variables Influencing Student Achievement

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instructional leadership exhibited by the principals relative to behaviors that influence

achievement. A 5-point Likert-like scale was used to measure the leadership variables.

They chose 22 of the 44 leadership behaviors that "most strongly identified conceptually

and methodologically with instructional leadership" (Heck et al., 1990, p. 105). The

behaviors selected by Heck et al. are found in Table 2.1.

An analysis of findings disclosed that an effective school climate and instructional

organization strongly influenced school achievement. The parameter estimates revealed

that the effects were almost equally divided between the two mediating domains. Heck

et al. (1990) concluded that principals could directly affect student achievement by their

leadership. They offered "the model suggested that the observed variables are both

reliable and valid indicators of the hypothesized leadership constructs" (p. 117).

Pantelides (1991) examined the effect of elementary principals' instructional

leadership behavior related to variance in achievement. In studying schools in Iowa,

Arizona, and Virginia, 72 principals and 576 teachers were involved in the study. Eight

teachers from each school rated their principal using the Measure of Elementary

Principal's Instructional Leadership Behavior instrument (MEPILB). The mean total of

years of experience for the principals involved in the study was 14.88 years, with 10.88

years at their present school. Pantelides (1991) examined the performance of schools

using the normal curve equivalent (NCE) on the Iowa Test of Basic Skills (ITBS). She

studied the performance of the schools during three years from 1987-1990.

She noted that much prior research was limited to one year of achievement findings.

Pantelides (1991) controlled for the socioeconomic status of students, level of parent

involvement, and the per pupil expenditure of districts. She found that social economic

Table 2.1

Response of Subjects to Questions Concerning Implementation of Instructional Leadership Behaviors in SEM

Behavior	Reported Extent of Implementation Of Behavior (1 low; 5 high)				
	Low Achieving		High Achieving		Significance
	Mean	SD	Mean	SD	of t ratio
Governance (GO)					
Involves staff critical instructional decisions	3.66	1.12	4.31	.85	*
Involves parents in school programs	4.12	.78	4.36	.77	.04
Protects faculty from undue pressure	3.37	1.23	4.08	.86	*
Leaves teachers alone to work	4.25	.80	4.15	.86	*
School Climate (SC)					
Communicates instructional goals	4.18	.89	4.50	.75	*
Communicates high expectations	4.08	.89	4.65	.67	*
Encourages discussion instructional issues	3.35	1.19	3.98	1.03	*
Recognizes academic accomplishment students	3.79	1.03	4.29	.74	*
Informs community about academic achievement	3.95	.99	4.33	.77	*
Works to keep faculty morale high	3.37	1.23	4.02	1.11	*
Establishes safe orderly environment with clear discipline code	3.85	1.16	4.50	.77	*
Instructional organization (IO)					
Develops school goals	4.42	.83	4.64	.65	.04
Coordinates instructional programs with teachers across grade levels	3.36	1.12	3.85	1.03	*
Formal/informal discussion of instruction	3.51	1.05	4.06	.86	*
Observes teachers' instructional methods	3.50	1.25	4.09	.97	*
Ensures systematic monitoring of student progress by staff	3.68	1.06	4.20	.93	*
Emphasizes test results for program improvement	3.87	1.10	4.23	.87	*
Secures resources for teachers	3.61	1.09	4.02	.99	*
Makes regular class visits	3.23	1.15	3.85	1.06	*
After observation, helps teachers improve effectiveness	3.40	1.23	3.92	.98	*
Identifies inservice needs	3.50	1.04	4.03	.86	*
Evaluates curricular programs	3.54	1.02	3.89	.93	*

*p < .01.

Note. From "Instructional Leadership and School Achievement: Validation of a Causal Model," by R. Heck, T. Larsen, and G. Marcoulides, *Educational Administration Quarterly, 26*, pp. 106-107. Copyright 1990 by Sage Publications, Inc. Reprinted by permission of the publisher.

status (SES) had the greatest effect in causing for variances in achievement. She discovered that the principal's leadership did not directly affect achievement.

Pantelides (1991) summarized that her study lacked a path analysis design to provide an examination of the causal effects of principals' leadership related to student achievement. One of her recommendations for future research was for utilizing a measure different from achievement data and possibly employing curriculum based instrument.

Hallinger and Heck (1996) reviewed 40 studies about the principal's role in school effectiveness from 1980 to 1995. The majority of studies used cross-sectional, correlational designs. Theoretical models varied in the studies and in some cases restrained the analysis. They found studies that used direct effects and direct effects with antecedent variables, and presented designs that were limited in the analytical potential with ascertaining a direct influence of principals' leadership on student achievement. Studies using a mediated-effects model viewed the principal as an independent variable in affecting achievement. Hallinger and Heck (1996) noted that the "studies hinted at the possibility of antecedent effects on principal leadership" and the principal may indirectly affect achievement (p. 26).

Studies using mediated effects with antecedent variables model used methods for analysis that were sophisticated. The theoretical framework for the studies was designed to investigate the contextual aspects, in-school processes, and principal leadership qualities that affected outcomes. Hallinger and Heck (1996) posited that "leadership effects on school achievement appear to be indirect" and "achieving results through others is the essence of leadership" (p. 39). In addition, as part of this role the

principal helps teachers understand that they are classroom leaders. One of the limitations in studying principals' effect on achievement involved the necessity to observe schools over a period of time versus a single response. The findings revealed the importance of using a more complex theoretical model and the need to place the principal's effect within the context of the school.

In a study of 87 Tennessee schools, principals' leadership on school effectiveness was measured with students' achievement on criterion-referenced reading tests that were created by the Tennessee Department of Education (Hallinger, Bickman, & Davis, 1996). The instructional climate was conceptualized as three related, but separate, constructs: school mission, student opportunity to learn, and teacher expectations for student learning.

The researchers found that principals lead within a contextual framework created by student socioeconomic status (SES) compositions, parental involvement levels, and gender differences. Gender differences were thought to be a potential powerful antecedent because the researchers hypothesized females who became principals had spent more years in the classroom, and thus, had a greater knowledge of curriculum than their male counterparts who rose to the administrative ranks in a shorter number of years. The researchers did not find a significant antecedent effect as first hypothesized. The three dependent variables affected in varying degrees by the principal's leadership were instructional climate and instructional organization, which in turn influenced student achievement. Additionally, they found that the principal was both a dependent and independent variable in their theoretical design. Their findings indicated that a principal's influence on student achievement was indirect and best understood within a

contextual framework. The theoretical framework for Hallinger et al. (1996) is reflected in Figure 2.2.

Antecedents   Leadership   Instructional   School
                                         Climate   Effectiveness

School SES

                                              Instructional
                                              Climate

Parent
Involvement
                     Principal's
                     Instructional   Reading
                     Leadership   Achievement
Principal
Gender

Teaching   Instructional
Experience   Organization
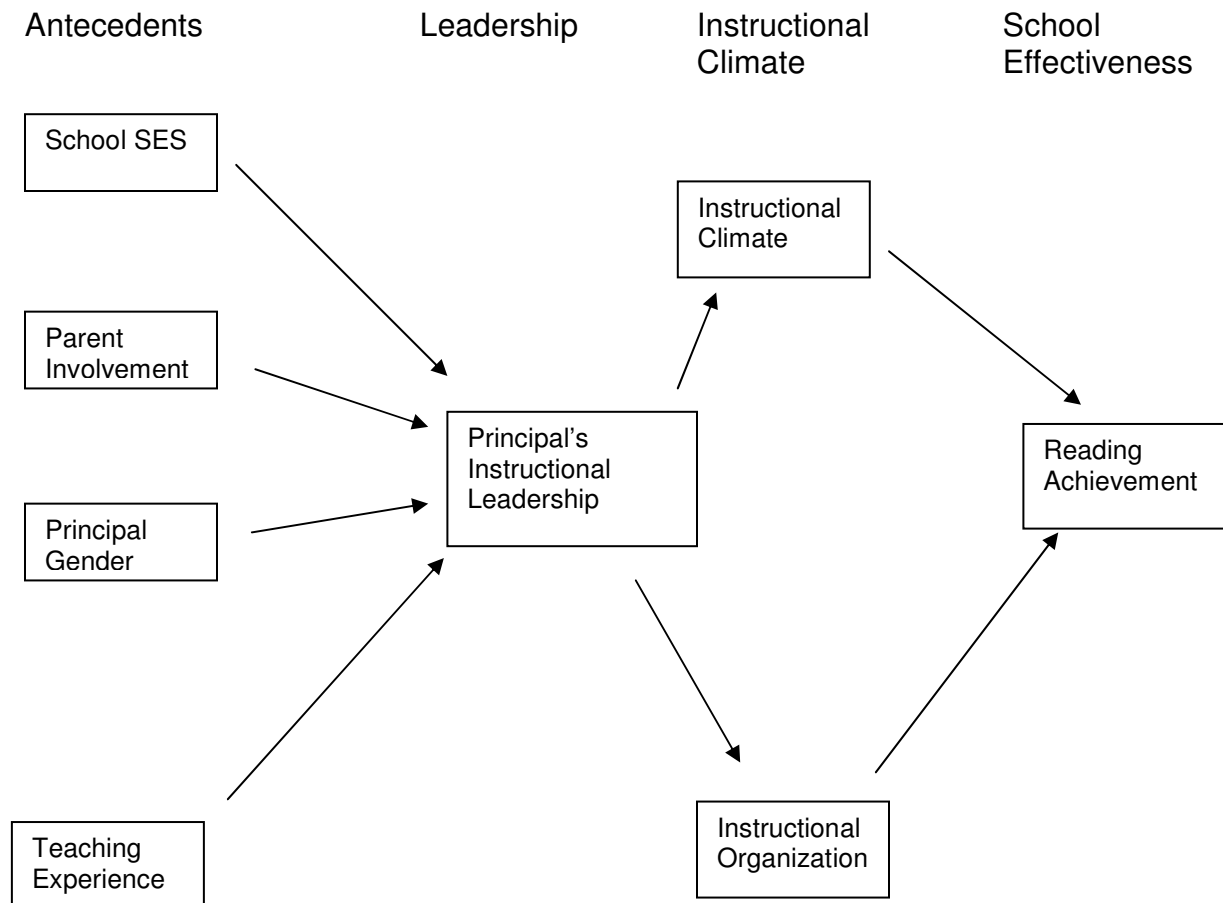
Figure 2.2. Basic Model of Principal Effects on Achievement

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Carter (2000) provided evidence through a case study that high-performing and high-poverty schools are led by principals who promote the cognitive growth of their

students. The Heritage Foundation studied 21 high achieving schools that defeated the odds, given the challenges of working with needy student populations. Seventy-five percent of the students in the schools discussed in the study findings qualified for the federal lunch program. The children in the schools had a median test score above 65% on national achievement tests and eleven schools scored at 80% or higher on achievement measures (Carter, 2000). Schools with similar demographic characteristics typically score below 35% on national achievement tests.

Seven common characteristics of the schools were determined to be: (a) principals need autonomy, (b) principals use measurable goals to establish a culture of achievement, (c) master teachers bring out the best in a faculty, (d) rigorous and regular testing leads to continuous student achievement, (e) achievement is the key to discipline, (f) principals work actively with parents to make the home a center of learning, and (g) effort creates ability (Carter, 2000). Principals' autonomy referred to having flexibility in budgeting, hiring, designing curriculum, and from being micromanaged by others. Principals were skillful with enlisting parent support and finding the best teachers. The high achieving school cultures were established within four to five years.

The 21 schools established a model for emulation. Carter (2000) noted that in the medical and business fields, successful practices are studied and replicated, but such a model in the education profession is missing. The principals of the No Excuses schools completed extensive on site training of teachers and felt that teachers' colleges and education journals have not studied the model for helping low income populations to be successful. The principals and teachers accepted a high level of personal accountability

for the students' success. Their beliefs have been transcended to the students and their parents.

Urban poor students typically represent a high percentage of under achievers. Edmonds (1979) identified their plight two decades ago. Unfortunately, the tragic problem of under achievement has persisted at an epidemic proportion. Our country is losing ground with building human capital in various segments of our population. The Heritage Foundation wanted to reverse that trend by completing their case study for others to model. The No Excuses schools proved that informed faculties led by powerful principals could make a significant difference in students' achievement.

In summarizing the previous studies, a principals' role is complex and best understood within a contextual framework. Consistently mentioned in the literature review was principals' indirect influence on student achievement as a result of their work through others. Principals identified as effective established cooperative relationships with teachers and maintained high expectations to affect students' achievement (Hallinger, Bickman, & Davis, 1996; Hallinger & Heck, 1996; Leithwood & Montgomery, 1982). Effective principals determined the school and classroom factors that affected student learning and helped others to maintain the big picture perspective.

Schools that maintained three years of achievement above the predicted level of performance had common characteristics of governance, school climate, and instructional organization (Heck et al., 1990). An analysis of research findings revealed that establishing an effective school climate and instructional organization served as mediating domains and helped principals to strongly influence students' achievement. Principals who were focused on students' achievement and were not micromanaged led

schools with high poverty student populations that overcame odds by obtaining high achievement (Carter, 2000).

Schools' Cultures

Principals directly influence the culture of a school through the relationships and interactions with their teachers and faculty members. Effective principals treat teachers like professionals and as colleagues (Goodlad, 1984).

Wolcott's (1973) *The Man in the Principal's Office* was a comprehensive case study of Ed Bell, principal of Taft School, an elementary school in the northwest region of the United States. In his descriptive qualitative work that was undertaken in 1966 and 1967, Wolcott found that the principal helped others to be successful, often without getting to their own agenda. He suggested that principals

> might also find utility in their training programs in grappling with the processes
> involved in studying American society and American subcultures, including an
> exploration of how their own formal role reflects ideal statements about America
> but often puts them squarely at odds with the realities of it. They would benefit
> from a better understanding of the anthropologist's distinction between
> education, viewed as cultural process, and "schooling," the latter comprising only
> one aspect of the former. (p. 323)

Ed Bell functioned with the possibility of constant interruptions. Wolcott (1973) commented that Bell's instances of leading were minimized by perceived expectations of directives. His role was more of a maintainer of continuity.

The responsive role seemed to occur frequently. Wolcott (1973) found that a principal functioned like a fireman by reacting to perpetual emergencies. Weick (1996)

noted an essential leadership skill for principals as being able to differentiate between problems and issues. According to him, problems are solved and issues are managed. The urgency of problems actually deprives the principal of time with the most important component of schooling--the children. Likewise, the problem solving process wears down the principal and others who are involved in seeking resolution.

A Place Called School was written as result of a large-scale qualitative case study completed by Goodlad (1984). A research team interviewed and observed 950 educators in 38 schools of all grade levels. They found that schools were different, but schooling was the same. The sameness was defined as teachers delivering information during 70% of class time. Goodlad found a lack of direction by educators and minimal access of data and research. The cultural pull of relying on conventional wisdom in teaching practices pervaded the schools. Too often the researchers found a neutral emotional tone in classrooms. Interestingly, they discovered schools that were rated as satisfactory by their communities had a predominance of teachers with monotonous instructional delivery styles.

An analysis of his findings indicated that principals and teachers were not being influenced by available knowledge sources on effective pedagogy, but rather functioned from routine. The book began the model for school renewal and it continues to be used today in improvement efforts.

In summary, a principal's workday has the potential to be a highly responsive role as they are busy meeting others' needs. Effective principals treated teachers in a professional manner and as colleagues. Teachers demonstrated that they were uninformed and did not make use of available knowledge sources (Goodlad, 1984).

Teachers' Use of Research

Principals influence the teachers in their school with choices about their pedagogical approaches. Educators are criticized for not being influenced by available knowledge. It was important to gather an understanding about teachers' reactions to research.

In his qualitative case survey and case study of 47 Israeli teachers, Shkedi (1998) found that teachers expressed an existence of a gap between the relevance of the research and their teaching for a variety of reasons. Each teacher was interviewed twice in two-hour interviews. The first interview involved asking teachers about their personal and professional attitudes. In the second interviews, the teachers were questioned about issues relative to research and professional literature. Shkedi (1998) used a case survey to identify associated variables.

Only three teachers regularly read research literature. Teachers reported that they did not read research because of (a) irrelevance of material, (b) lack of time, (c) lack of trust in the studies, (d) lack of understanding, and (e) unavailability. When studies did not coincide with their knowledge and experiences 60% of the teachers rejected the findings entirely.

Shkedi (1998) discovered that the Israeli system of schooling allowed teachers to take a one-year sabbatical every six years for academic or non-academic study. Despite this seemingly ideal format for providing opportunities for professional growth, a low percentage of teachers accessed research. The analysis of the findings suggested that teachers preferred practical educational literature that offered applications to their classrooms. In addition, Shkedi found that teachers' exposure to research literature

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occurred as a result of academic study requirements. One of the teachers, who

resembled the majority of those studied, commented that she "does not rapidly adopt

the operational findings of research that she feels do not correspond with reality"

(Shkedi, 1998, p. 372). Shkedi (1998) offered a significant discovery that may offer a

potential bridge between teachers and research by noting that teachers' knowledge is

narrative in nature, which may increase teachers' interest in qualitative research.

Kennedy (1999) investigated whether the genre of research was a deterrent for

teachers' use. The 100 teachers enrolled in professional development programs were

given summaries of five works considered important by the research community and

relevant to teaching. She discovered that teachers were interested in research when the

findings were persuasive and relevant to their teaching. An assumption within the genre

debate that has been rhetorical and never empirically tested is that teachers represent a

homogeneous group, inferring that a particular genre would appeal to the majority of

teachers. Information in Table 2.2 reflects teachers' responses about the merits of

articles of different genres and the level of persuasiveness, relevancy, and influence.

Many of the teachers found the survey format detracted from persuasiveness

and the narrative format enhanced persuasiveness. Kennedy (1999) concluded that

genre was not the critical determinant for the value of research to teachers. She

discovered a significant finding in that teachers were most interested in articles when

there was a connection between their teaching and learning, which is sometimes

missing in research. Researchers frequently study an isolated component, forgetting the

context of the classroom.

Generally, genre was not the determining factor in teachers' selection of research. Teachers were most compelled by research when they sensed a connection to their teaching. In one of the reviewed studies, only 6% of the teachers used research regularly when it was not required for an academic course.

Policy Groups' Recognition of the Value of Research

There are recent signs of recognition by national policy groups about the importance of using research. In 1999, the National Academy of Education, the National Educational Research Policy and Priorities Board (NERPPB) and the National Research Council suggested the benefits of using research to positively influence schools. In March 1999, the National Academy of Education developed a document entitled *Recommendations Regarding Research Priorities*, as an advisory report to the (NERPPB). The report stressed that the Office of Educational Research and Improvement (OERI) needed to be concerned with the "high academic achievement for all students" (National Academy, 1999, p. 8). One of three recommendations of the report was to enhance the ability of research to inform educational improvement.

Their study noted a weakness that existed, which seemed to impede progress with gaining high achievement for school. Past research procedures have studied students' learning and teachers' teaching in isolation. It suggested that the researcher and practitioner relationship become more collaborative. Included in the report was the

Table 2.2

Nomination Frequencies Across All Studies

Study	Nominations (%)			
	Number reading study	Most persuasive	Most relevant	Influenced thought most
Nonexperimental comparison: Asia	36	56	56	47
Experiment: teaching writing	100	48	47	40
Teaching narrative: science	36	39	50	39
Teaching narrative: writing	64	33	30	41
Conceptual analysis: EEO	64	20	13	23
Survey: NAEP	64	17	16	3
Case study: Benny	36	8	14	14
Disciplinary study: American English	64	11	6	3
Disciplinary study: species	36	0	0	0

Note. "A Test of Some Common Contentions About Educational Research," by M. Kennedy, 1999, *American Educational Research Journal, 36,* p. 523. Copyright 1999 by American Research Association. Reprinted by permission of the publisher.

Stokes model of the three kinds of research and improvement as shown in Figure 2.4.

The Stokes model revealed the possibility of "use-inspired research" or what the Academy called "collaborative-problem solving research and development" (National Academy of Education,1999, p.10). Such a framework offered potential applications for the advancement of improved practices. An additional recommendation was for researchers and educators to share in the accountability for achieving success in improving educational practices and outcomes. The report noted that the Stokes

improved understanding   improved technology and practice

| pure basic research | use-inspired basic research | purely applied research and development |

existing understanding   existing technology and practice
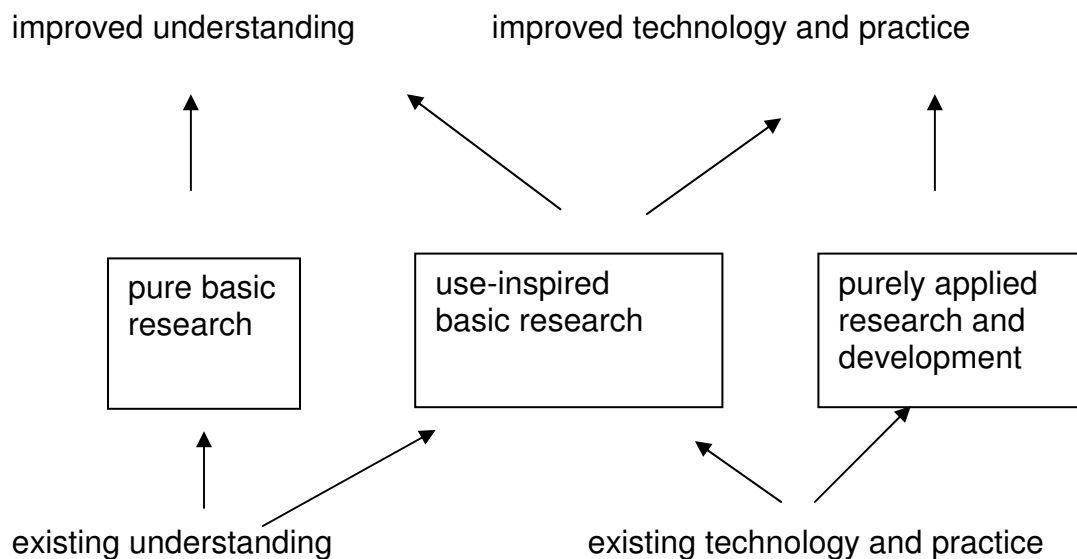
Figure 2.3. Stokes Revised Dynamic Model

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From "Recommendations Regarding Research Priorities: An Advisory Report to the National Research Policy and Priorities Board," 1999. Copyright 1999 by the *National Academy of Education*. Permission sought.

concept would replace the model of research, development, dissemination, and evaluation (RDDE) that has not been effective in promoting the advancement of research in education because of its linear design. In addition, the Academy recommended a "hub and spoke" design to foster the advancement of theories and solutions.

The authors of the publication entitled *Investing in Learning: A Policy Statement with Recommendations on Research in Education by the National Educational Research Policy and Priorities Board* (NERPPB) recommended that there be a "substantial growth" by the federal government in supporting education research. Without such a financial commitment, the board felt that policy decisions and practices would continue to be uninformed.

Improvement as a result of research seemed to "occur slowly and in small increments" (Investing in Learning, 1999, p. 7). Educators have not been active users of research for a variety of reasons. The board recognized that its past dissemination methods have not been effective. It suggested that research be supported at 0.5 percent of expenditures for elementary and secondary education that would amount to $1.5 billion.

Educational research lacks the foundation that currently exists with defense and health care. In addition, educational research has not had a cohesive agenda for cumulative knowledge building (Investing in Learning, 1999). Presently, it is estimated that "$900 million to $1 billion is spent by the U.S. Department of Education and foundations" on research (Investing in Learning, 1999, p. 25). The board noted the importance of transitions for students through the curriculum and the significance of

helping teachers with improving students' achievement in reading and mathematics. A productive relationship between researchers and practitioners is presently missing. Strategies are needed to use findings to help greater numbers of low achieving students.

The National Research Council recognized the importance of having practitioners, researchers, and policy makers on the "same page" with using empirical information to improve education. In 1999, the Council established the Strategic Education Research Program (SERP). As a result of their work, they proposed an overarching question: How can the use of research knowledge be increased in schools and school districts? SERP proposed three related questions:

(1) How can advances in research on human cognition, development, and learning be incorporated into educational practice?

(2) How can student engagement in the learning process and motivation to achieve in school be increased?

(3) How can schools and school districts be transformed into organizations that have the capacity to continuously improve their practice? (Improving Student Learning, 1999, p. 2).

The council was successful in the 1980s with using a model similar to SERP for helping states to improve their highways. Their conceptualization of SERP is based on the rationale that the responsibility for education is a state function, just like the financing for highways. Willinsky (2001) noted that SERP "should be testing whether educational research can serve as a more useful and relevant source of professional

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development and political deliberation, both of which are no less critical to the future of our schools, than improved test scores" (p. 6).

In conclusion, policy groups have suggested the benefits of using research to positively affect students' achievement. Research is currently available to support school faculties to help low performing students. Policy groups have recommended the use of prototypes to help teachers utilize and emulate other school systems that have been successful with improving achievement. Advancements in education have not been supported by the linear pattern of research, development, dissemination, and evaluation (RDDE). One proposal for promoting the impact of research is for the establishment of more collaborative relationships between researchers, educators who work with children, and policymakers. A policy body also recommended a substantial increase in the funding for research by the federal government.

Barriers to Utilization of Knowledge Sources

Barriers are characteristics that interfere with the ease of use by the consumers, elementary principals. Barriers to using knowledge sources for principals, other than data, have not been clearly identified. Time has been identified as a barrier to using data for principals (Torrence, 2002). A principal's role is complex. Their time to provide instructional leadership to impact students' achievement competes with the time necessary to complete administrative tasks.

Gould (1998) was interested in the perceptions of elementary principals' about their efforts with increasing student learning. He sent surveys to 617 elementary principals who comprised the Massachusetts Elementary Principals' Association (MESPA). At the time of the study, there were approximately 1000 elementary principals

in Massachusetts. Principals received a questionnaire with 20 questions that included five open-ended questions. His three research questions asked: "(1) To what extent do elementary school principals consider helping teachers increase learning to be a leadership priority? (2) What do elementary school principals report are the various ways they are helping teachers increase student learning? (3) What work conditions do elementary school principals perceive they need to be more effective at helping teachers increase student learning?" (Gould, 1998, pp. 103-106). He received survey responses from 109 elementary principals for a 17.7% return rate. Gould (1998) found a majority of the principals who responded indicated that they spent 70% of their time with administrative tasks and 30% in helping teachers to improve students' learning.

In Gould's (1998) dissertation study, supported by the Massachusetts Association of Elementary School Principals, an analysis of the findings revealed that elementary principals expressed the desire to provide instructional leadership, but administrative and management issues occupied a great deal of their time. Of the 109 Massachusetts elementary principals, who responded to his survey, 88% noted that increasing student learning was a high priority. He found that principals' time was divided into 70% with administrative tasks and 30% with helping teachers. Principals commented that their preference was to have their time spent in the complete opposite of actual demands. He noted that for schools to improve, principals needed to prioritize helping students to increase learning.

Leithwood and Montgomery (1984) examined obstacles principals faced and whether they were related to effectiveness. Five categories of obstacles identified were: "problems with teachers, the role of principals, characteristics of principals or role

incumbents, difficulty with board level administration, and related to the community" (p. 75). The findings within the category of difficulty of the role incumbent or the principals themselves, focused on the lack of knowledge needed in their leadership role.

There is extensive evidence and discussion in the literature about the barriers to using research. The barriers identified are: lack of relevancy, lack of a productive relationship, difficulty with discerning effect, flawed rationality, lack of usability, dissemination weaknesses, and lack of persuasiveness. Barriers impacting the use of research and data will be discussed.

Lack of Relevancy

A disconnect felt by educators with research partially because of the variations within their schools causes a lack of relevancy. There may not be an exact match between the demographic composition of the students at the principals' school and the population studied. Educational research is viewed skeptically by some educators as emanating from a theoretical base without the grounding of practice. This lack of relevancy to practice seems to present deterrents for practitioners (Heibert et al., 2002; Kennedy, 1997; Slavin, 2002; Willinsky, 2000). The standard joke perpetuated about educational research is that it is a mile wide, but an inch deep (AERA-Analysis, 1999). Added to the perception about the lack of depth of educational research are responses by researchers of "it depends" or "more research is needed" that increase the frustration by practitioners about accessing research (Willinsky, 2000).

Lack of a Productive Relationship

The context of educators and researchers is different which complicates the relationship. According to some writers, educational practitioners and researchers have

not established a productive relationship (Carnine, 1997; Elmore, 1992; Hiebert, Gallimore, & Stigler, 2002; Huberman, 1999; Kaestle, 1993; Kennedy, 1999). There is an inherent gap existing between researchers and practitioners (Carnine, 1997; Hargreaves, 1996; Heibert et al., 2002; Huberman, 1999; and Willinsky, 2000). Researchers are motivated by questions and problems, whereas practitioners are action-oriented and solution-minded. Practitioners and researchers do not always attend the same conferences, which may also contribute to the gap of perspectives and to the lack of dialogue between the two groups (Riehl et al., 2000).

Difficulty with Discerning Effect

A difficulty with research in education is the inability of researchers to recreate studies in sizable dimensions. Claims about effectiveness with instructional programs sometimes are made on the basis of the success of one school or one school system (Slavin, 2003). As a result, decisions are made to implement programs with limited information because of a difficulty with discerning effect by those leading the decision process.

A case in point occurred in 1997 when the U.S. Congress changed the funding plan to help low performing, high-poverty schools to improve students' achievement rate by creating the Comprehensive School Reform (CSR). The 24 available reform models were considered research based and designed for school-wide implementation (AIR, 1999). In 1998 there were 8301 schools throughout the U.S. using one of the reform models. In 2001, only two elementary and one secondary model, or 28% percent, of the available 24 reform options for CSR showed strong evidence of positive effectiveness with improving overall achievement (AIR, 1999; Bowsher, 2001; Slavin, 2002). Such a

low percentage of success seems to indicate a difficulty with discerning the effectiveness of programs or limited time for the programs to run their course so that data could be collected and analyzed. There is a trend that occurs of frequent changes because of weak feedback mechanisms for verifying validity. Programs are declared ineffective and are curtailed (Slavin, 2003).

Flawed Rationality

The education profession has been prone to accept instructional approaches and then later regretted making the decision because rigorous evaluations had not been completed (Slavin, 2003). Such a fad mentality may indicate a flawed rationality in approaching making decisions about instructional approaches (Slavin, 2001). A valid knowledge base enhances decision-making and serves as an instructive component when undertaking school improvement. Such a knowledge base counteracts educators relying on traditions and myths to make decisions. Gilovich (1991) postulated about a weakness that consistently occurs in decision-making that seems to have application to educators. He suggested that people do not suffer from irrationality, but rather from flawed rationality. In a desire to resist change, unsubstantiated beliefs become established facts.

Glasman (1986) found that principals' rationality was subjectively based and "rooted in the values they hold" (p. 231). Prior to high stakes accountability measures principals were likely to examine the process of others' efforts and ignore the resulting product. An example of principals' "rational biases" occurs in other situations such as teacher evaluation. Rational bias may continue in their leadership with decisions related to instructional practice (Glasman, 1986).

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Educators and policy-makers make decisions with specious information. Most

Americans think of themselves as "experts" on educational topics, because of their

personal experience and because they feel that relying on research is unnecessary

when making decisions about schools (Berliner & Biddle, 1995). That translates into

having comparative data and research to assist with important decisions.

Lack of Usability

The format of academic writing seems to limit accessibility by practitioners (Riehl

et al., 2000). Statistics within research-based samples are deterrents to use by teachers

(Kennedy, 1999). Aspects about the usability of research have been discussed as they

related to teachers, not specifically about principals' concerns. As noted previously,

however, principal preparation programs do not always provide instruction in research

analysis. Therefore, principals may not be able to critically decipher statistical analysis

any better than teachers.

Dissemination Weaknesses

Dissemination is how information is conveyed to principals. A dissemination

weakness is illustrated by the findings from Project Follow Through, perhaps the

costliest ($1 billion) educational research project in the history of the United States

involving 70,000 students from 180 schools. Project Follow Through began in 1967 as

part of President Lyndon Johnson's War on Poverty. It focused on providing

instructional approaches for teachers to help low performing children to reach the 50%

achievement level. As a result of summary findings with Project Follow Through, two

successful instructional approaches for use by teachers in low performing schools to

help children reach higher levels of achievement were discovered. Results were never widely disseminated because of a methodological debate (Kennedy, 1999).

In 1986 Chester Finn authored the *What Works* pamphlet that was published by the U.S. Department of Education. The publication offered 41 findings and a half a million copies were disseminated. A year after the dissemination he asked 18 high school principals in California if they were familiar with the pamphlet. Four principals had heard of it, two had seen it, and one principal had discussed it at a faculty meeting. Finn's experience with *What Works* provided evidence of a weakness with disseminating information by mail (Kaestle, 1993).

Lack of Persuasiveness

Persuasiveness is the degree that principals are captivated by the information to effect actions. There are critically important decisions for principals to make, related to motivation, retention, homework, grouping, scheduling, programming for special needs students, understanding poverty and cognitive theory, while there are volumes of research on these topics, principals are often not persuaded by the results (Kennedy, 1997).

There is extensive information about teachers' response to the persuasiveness of research. As consumers of research many teachers found the survey format of the research detracted from persuasiveness and the narrative format enhanced persuasiveness. Kennedy (1999) investigated whether the genre of research was a deterrent for teachers who were enrolled in professional development programs. An analysis of findings from a study conducted with 100 teachers revealed that genre was not the critical determinant for the value of research to teachers (Kennedy, 1999). They

were given summaries of five works considered important by the research community and relevant to teaching. Teachers were interested in research when the findings were persuasive and relevant to their teaching. An assumption within the genre debate that has been rhetorical and never empirically tested was that teachers represented a homogeneous group, inferring that a particular genre would appeal to the majority of teachers. Teachers' responses about the persuasiveness and relevancy of articles have been discussed.

Teachers lacked trust in studies if the research does not comport with their experience or if they do not see its relevance to their practice (Shkedi, 1998). In a qualitative case study, 47 Israeli teachers were questioned about issues related to research (Shkedi, 1998). Teachers reported that they did not read research because of (a) irrelevance of material, (b) lack of time, (c) lack of trust in the studies, (d) lack of understanding, and (e) its unavailability. Results indicated that teachers' primary or only exposure to research literature was during academic study. Sixty percent of teachers responded that when findings of studies did not coincide with their knowledge and experiences they rejected the findings entirely. The analysis of the findings suggested that teachers preferred practical educational literature that offered applications to their classrooms.

One of the teachers, who resembled the majority of those studied, commented that she "does not rapidly adopt the operational findings of research that she feels do not correspond with reality" (Shkedi, 1998, p. 372). A significant discovery of the study that may offer a potential bridge between teachers and research was that teachers' knowledge is narrative in nature, which may increase teachers' interest in qualitative

research (Shkedi, 1998). It is unknown if principals share the same research biases as teachers or if they select research based on what they know about their teachers. They may disregard research.

Time Constraints

As noted, time was found to be a barrier to using data (Torrence, 2002). One defining aspect of the lack of time was insufficient collaborative opportunities for principals with "understanding and exploring data" (Torrence, 2002, p. 107). Virginia principals are working 50 hours weekly that may compete with the available time and the lack thereof (DiPaola & Tschannen-Moran, 2002).

More is needed to understand the barriers principals face with using data (Torrence, 2002). In her national study of 226 principals she posed an open-ended question about the "barriers, conditions or myths" that prevented principals from using data (p. 109). One obstacle frequently mentioned by principals was "time." It is not clear what the response encompassed, whether it was "(1) time to understand the data, (2) time taken from other duties, or (3) time principals have to work with teachers" (p. 109). She suggested that pursuing additional knowledge about principals' data usage could be possibly achieved through interviewing.

In summary, the eight barriers to using knowledge sources identified were: (a) lack of relevancy, (b) lack of a productive relationship, (c) difficulty with discerning effect, (d) flawed rationality, (e) lack of usability, (f) dissemination weaknesses, (g) lack of persuasiveness, and (h) time constraints. Barriers interfere with the use of the available knowledge sources. There exist many reasons that information is not

accessed. Principals find themselves in a position of prominent accountability with the No Child Left Behind Act (NCLB) and the intervening responsibilities.

Summary

The review of literature provided an understanding of how principals indirectly affected the achievement of schools (Hallinger et al., 1996; Hallinger & Heck, 1996; Leithwood & Montgomery, 1982). Effective principals led within a contextual framework by blending supportive interpersonal relationships and promoting academic achievement. As principals create communities of learners, the isolated nature of teaching is minimized and the collective intelligence of a faculty is maximized, thus defeating the uninformed culture (Barth, 1990; Fullan, 1999; Leithwood et al.,1992; Marshall, 1997; Sergiovanni, 1996). An analysis of research findings revealed that principals who accepted their role as leaders, guided teachers to meet with phenomenal success in helping children of poverty (Carter, 2000). The model for emulation is available for others to follow, which has been missing in the profession.

For many years, teachers have been the "object" of research, a flawed approach that has perpetuated the gap between researchers and practitioners. Teachers were influenced by a variety of genres that had relevance to teaching and learning (Kennedy, 1999). Policy groups have made many recommendations for ways that research could affect practice. There are promising suggestions of plans to reduce the gap by engaging in collaborative relationships between teachers, principals, and researchers.

Available studies have focused on about practitioners' use of research, but not specifically about principals. An investigation of elementary school principals'

knowledge sources in their roles should offer insight for administrators, researchers,

and policy-makers.

CHAPTER III

METHODOLOGY

The purpose of the study was to discover the knowledge sources used by elementary school principals, to identify barriers they faced in using the sources, and to understand how they guided their teachers to use the knowledge. Much has been written about the importance of principals functioning as instructional leaders during this era of increased high stakes accountability. Comprehensive interviews were conducted with nine elementary school principals, which created this descriptive study. The results of the study have implications for practice by school system leaders, school board members, principal leadership training universities and colleges, and professional organizations.

Those reading the research may discover the past impact of knowledge sources as it relates to informing practice. Others may realize the limitations of leading without the benefit of valid knowledge. There is a significant knowledge base that can inform principals. Potential benefits are lost until principals respect and respond to what is known about organizational improvement and effective teaching (Schmoker, 1999). Without reference to a valid knowledge base, the profession is likely to repeat mistakes of the past by using ineffective programs and by responding to reform suggestions without substantiated frameworks.

Using valid knowledge seems to offer principals a lever in trying to maximize the influence of the position to make significant advancements in students' overall achievement (National Research Council, 1999). Decisions supported by empirical data offer an informed way to lead (Crow, et al., 2002). Nevertheless, there is evidence that

research has little influence in the operation of many of our nation's schools (Kennedy, 1997; Reese, 1999; Schmoker, 1996, 1999; Slavin, 1989, 2001). The suggestion to use research as a contributing factor to inform decision-making is often met with indifference by educators and the public (Cooper, 1996; Slavin, 2002).

Students throughout the United States have been helped by teachers to achieve success. There continues to be many students that are under performing. The principal is critically important in helping classroom teachers become better informed. By studying what sources effective principals use, we can better understand how to disseminate knowledge sources to all principals.

This chapter presents the design and methodology for this study. A qualitative inquiry offers an entry for research, when there is limited knowledge base about the phenomenon (Patton, 1990). An exploratory study, utilizing in-depth interviews can potentially discover significant categories of value (Marshall & Rossman, 1999). The researcher sought to provide a rich description (Merriam, 1998) given the potential for discovering multiple perspectives.

Included in this chapter are the theoretical framework, research questions, delimitations, limitations, population, participants, researcher bias, ethical standards and role of researcher, data collection, data analysis, rigor measures, and summary.

Theoretical Framework

The theoretical framework for this study was grounded in work by Leithwood and Montgomery (1982), Heck, Larsen, and Marcoulides (1990), Hallinger and Heck (1996), Hallinger, Bickman, and Davis (1996), Goodlad (1984), Barth (1990), and Kennedy (1999). Principals' leadership indirectly influences the achievement gains made by

students (Hallinger & Heck, 1996). Functioning as a leader is challenged by the demands of the position. Principals are rising above the daily administrative grind and are making the achievement of their students a priority (Campbell & Williamson, 2001). The domains consistently noted in the literature review (see Chapter II) are: the principal's collegial relationship with teachers (Heck et al., 1990; Hallinger and Heck, 1996), and the role as the head learner (Barth, 1990; Boris-Schacter & Merrifield, 2000). The theoretical framework displayed in Figure 4.1 combined the notion of a principal being the head learner and informing the teachers within the culture; as a result, teachers generate a positive effect on students' achievement.

Research Questions

Research questions were focused on the theoretical framework. This exploratory study using a qualitative approach is designed to answer the following research questions:

1) What are the knowledge sources used by elementary school principals in Virginia?

2) What are the barriers elementary school principals face to using knowledge sources?

3) How do elementary school principals guide their teachers to use the sources?

Delimitations

This scope of this study is about elementary school principals in Virginia. Secondary school principals were not interviewed for this study.

Limitations

The chosen sampling method was purposeful. Nine elementary school principals were asked to reflect about their leadership during the 2001-2002 school year. A possible limitation may be the accuracy of the principals' recollections about specific

books read or events that occurred during the 2001-2002 school year. The researcher triangulated data sources by interviewing a teacher or colleague from the nine elementary schools. By triangulating the data sources, the researcher was able to check for consistency with the principals' responses by confirming their remarks with a professional colleague (Patton, 2002).

<div align="center">Population</div>

Elementary schools in Virginia are comprised of varied grade level configurations. Design examples for grade level patterns include: kindergarten-2, kindergarten-3, kindergarten-5, kindergarten-6, kindergarten-7, kindergarten-8, kindergarten-12, 1-5, 3-5, 3-6, 2-5, and 4-7. Schools that had third and fifth grades were considered for the purposes of this study.

In 2002 there were 1056 elementary schools that had third and fifth grades, of which 709 schools or 67% earned full accreditation with the Standards of Learning testing. In 2001 of the 1054 elementary schools that had third and fifth grades, 522 schools or 49.5% earned full accreditation in the SOL testing. There were 239 schools or 28% were fully accredited for the first time and 276 schools earned full accreditation for the 2001 and 2000 testing. Fifteen schools received full accreditation in 2000 but lost their full accreditation status in 2001. Eight newly opened schools in 2001 received full accreditation.

The accreditation ratings for the nine schools are displayed in Table 3.1. Accreditation ratings provided by the Virginia Department of Education are comprised of students' achievement on Standards of Learning Assessments and other tests in English, history/social science, mathematics, and science. As stipulated in the Virginia

School Report Card, found on the Virginia Department of Education website,

"Adjustments also may be made for students with limited English proficiency and for

students who have recently transferred into a Virginia public school. Accreditation

ratings also may reflect the success of a school in preparing students for retakes of SOL

tests" (Virginia Department of Education, 2007). The nine elementary schools selected

for this study earned full accreditation in the 2002 SOL testing.

Table 3.1

The 2002 Accreditation Ratings for the Nine Identified Elementary Schools

_____

	Schools								
	A	B	C	D	E	F	G	H	I
Subjects									
English: Reading	100	99	100	100	98	89	96	96	100
Mathematics	96	90	98	97	100	93	100	89	100
History	95	100	91	98	95	*	*	93	95
Science	85	92	100	98	94	100	97	86	95

* No score listed

_____

Participants

        The strategy for participant selection was purposeful (Creswell, 2003; Patton,

1990). Participants for the study included nine elementary principals from schools

throughout the Commonwealth of Virginia, from different sized school systems and varied geographical settings.

There is much that can be gained in discovering the collective responses from nine elementary school principals. Selecting a small group of participants allows the researcher to "understand the particular in depth, not to find out what is generally true of the many" (Merriam, 1998, p. 208). It was not necessary to interview additional principals, because a saturation point was reached (Glaser & Strauss, 1967). There were no foreseeable risks for any of the respondents.

The free and reduced lunches percentages for the 707 schools in Virginia that earned fully accredited status in 2002 ranged from .15% to 87.61%. The mean for free and reduced lunch for all schools that passed the SOL in 2002 was 28.4%. As displayed in Table 3.2, the mean for the free and reduced lunch percentage for the nine elementary schools was 55%. The nine elementary school principals helped children of poverty and diversity to be successful on the SOL assessments.

<center>Researcher Bias</center>

The researcher has served as an elementary school principal or assistant principal in a suburban school system in Virginia for 27 years. The researcher chose to study elementary school principals because of his perceived expertise in the elementary schools and interest about integrating the acquired information into in his professional repertoire. In 2002, the percentage for free and reduced lunches at the

Table 3.2

The Free-Reduced Lunch Percentage of the Nine Elementary Schools

_____

School	Free-Reduced Lunch Percentage
A	73.29
B	58.39
C	56.95
D	35.78
E	46.55
F	56.36
G	34.06
H	81.56
I	34.75

_____

researcher's school was 4.56%. The accreditation ratings from the Virginia Department

of Education for the students at his school were 100% in reading, 97% in mathematics,

97% in history, and 97% in science in 2002. The researcher has not experienced the

high percentages of poverty or diversity within his student population that were found in

the nine elementary schools.

Ethical Standards and Role of Researcher

The hallmark of qualitative work is the ethos that the researcher "will do no harm." To achieve that objective, an ethical commitment to protect principals from harm was conveyed and the elementary school principals were provided with an informed consent form that is presented in Appendix D. Virginia Polytechnic Institute and State University's Institutional Review Board approved the format for the study and the subsequent amendment. All interviews were audio tape-recorded with permission from the elementary school principals to insure the accuracy of the information. Each tape was identified by date, interviewee's name, and school system. Tapes are stored in a locked cabinet. The identity of the elementary school principals and their school systems are protected with the use of pseudonyms in writing the findings.

Data Collection

Pilot Study

A pilot study was conducted with two elementary school principals prior to initiating the study. The pilot participants served as elementary school principals for 14 and 16 years. Seidman (1998) suggested, "If the researcher's goal . . . is to understand the meaning people involved in education make of their experience, then interviewing provides a necessary, if not always completely sufficient, avenue of inquiry" (pp. 4-5).

The purpose for conducting the pilot study was two-fold. First, the researcher gained experience as an interviewer while using the interview protocol and associated prompts. The participants' reactions helped to clarify questions. Their remarks assisted the researcher to modify the interview questions that were unclear or needed rewording (Merriam, 1998; Seidman, 1998) and provided practice with interviewing. Second,

changes to the format of the questions were implemented as a result of their feedback. Questions that were not on the original interview protocol were added.

Permission to interview the nine identified elementary school principals was obtained by asking the superintendents from their schools systems. Superintendents were considered the "gatekeepers" because of their leadership role in the bureaucracy (Rossman & Rallis, 1998, p. 109). The letter to the superintendent is presented in Appendix A. The response letter granting approval from the superintendent is presented in Appendix B. When the superintendent granted approval, a explanatory letter was mailed to the elementary school principal requesting permission to interview them (Appendix C). The letter contained an explanation of the Institutional Review Board process for Virginia Polytechnic Institute and State University (Appendix D) and an approval response form to return. Upon receiving the elementary school principals' permission, they were phoned to schedule a convenient time for the phone interview.

The telephone interview began by asking questions about the principal's years of experience and population size of their school. The demographic survey is presented in Appendix E. A semi-structured interview format was used. The interview protocol appears in Appendix F. Interviews lasted from 28 to 70 minutes and were audio tape-recorded, with the participants' permission. By using a semi-structured interview format the interview questions were designed to investigate topics in all of their complexity (Bogdan & Biklen, 1998).

There are potential limitations in discovering a complete picture from the respondents' understandings when the qualitative researcher focused on only structured questions (Merriam, 1998). The perspectives that are obtained may be more

a reflection of the researcher's biased view of the world. According to Rossman and

Rallis (1998), "questions focus on the accuracy of what is reported (its truth value), the

methodology used to generate findings (its rigor), and the usefulness of the study (its

generalizability and significance)" (p. 45). The use of structured questions along with

exploratory prompts generated greater depth to the elementary school principals'

answers.

Elementary school principals' viewpoints were sought in the interviews by asking

a series of structured questions. In addition to the structured questions being asked,

there was the need to use an array of what some researchers call probes to clarify

information or deepen responses (Lincoln & Guba, 1985; Patton, 1990; Rubin & Rubin,

1995). For some, the word probe does not engender the proper connotation to

interviewing (Seidman, 1998). For this study, exploratory prompt was adopted as the

term used in the interview process to generate additional information. Researchers are

cautioned against being too heavy handed as an interviewer, so the term exploratory

prompts seemed to offer an alternative term and means to increase the depth of

respondents' answers (Wolcott, 1990). Exploratory prompts used during the interviews

are listed with examples of potential questions or explanations for each prompt:

1. Attention prompt: A response by the researcher to the respondent indicated

that a "type of material was . . . especially informative" (Rubin & Rubin, 1995).

2. Interest prompt: "Please tell me more about what you just mentioned."

3. Clarification prompt: A respondent's answer may require additional information

or re-explanation for the interviewer (Patton, 2002; Rubin & Rubin, 1995).

4. Detail prompt: Asking the respondent to "fill in the blanks of responses, such as who, what, where, when, and how?" (Patton, 2002, pp. 372-3).

5. Sequence prompt: "When did you seek the use of research in the decision making process?"

6. Experience prompt: "Can you describe your graduate program's approach to research?"

7. Evidence prompt: "What sources do you use when pursuing research?"

8. Slant prompt: "Who are your favorite researchers in your work?"

9. Elaboration prompt: "Can you tell me more about that (Patton, 2002)?"

10. Steering prompt: "With what you just mentioned, could you tell me more about that topic?"

A goal in interviewing is to accomplish a level of depth with the respondents' answers (Rubin & Rubin, 1995).

The interview questions were developed according to the theoretical framework and topics to answer the three research questions. As the primary instrument of data collection, the researcher attempted to proceed with "empathic neutrality" (Patton, 2002, p. 53). Empathy indicates the researcher's interest in principals' perspectives and neutrality conveys a commitment to be nonjudgmental. In seeking principals' thoughts about their use of knowledge sources, in-depth interviews should provide subjective perspectives (Marshall & Rossman, 1999) or "subject's own frame of reference" (Bogdan & Biklen, 1998, p. 2). Listening and note taking by the researcher throughout the interview process are important skills. As data collecting took place, the process of data analysis began. After transcribing the interview, the interviewees were allowed to

review the text of the transcribed interview and had an opportunity to clarify or restate their responses (Appendix H). Follow-up phone interview were not necessary to clarify any principals' answers.

Interview Procedures

In writing the study, the elementary school principals were identified with alphabet letters from A to I. A second party transcribed the audio-taped interviews. The interview protocol (Appendix F) was designed to answer the research questions. Nine elementary school principals were interviewed. The elementary school principals selected the date and time for their interviews.

Data Analysis

As a result of the interviews with the elementary school principals, the process of drawing meaning in relation to the context of elementary school principals' leadership role began. Data analysis is an inductive process. Marshall and Rossman (1999) noted, "Data analysis is the process of bringing order, structure, and interpretation to the mass of collected data" (p. 150). Researchers recommended that the process involve the following analytical components: (a) organizing data (Bogdan & Biklen, 1998; Marshall & Rossman, 1989; 1999); (b) generating categories, themes and patterns (Bogdan & Biklen, 1998; Marshall & Rossman, 1989; 1999; Merriam, 1998; Rossman & Rallis, 1998; Seidman, 1998); (c) testing the emergent hypotheses against data (Marshall & Rossman, 1989; 1999); (d) coding the data (Marshall & Rossman, 1999; Wolcott, 1990); (e) searching for alternative explanations of the data (Marshall & Rossman, 1989; 1999); and (f) writing the report (Marshall & Rossman, 1989; 1999).

The narrative information from interviews was used to construct categories. Qualitative data analysis is a repetitive ongoing process that results in data reduction as analysis progresses (Miles & Huberman, 1984). The transcribed interviewed generated a richly descriptive narrative. The goal of data analysis is for large conclusions to occur as a result of the relevant facts (Geertz, 1973).

Wolcott (1990) commented, "Data gathering and data analysis inform the problem statement, just as the statement informs the data gathering" (p. 32). Interview notes in the margins indicated comments of interest and ideas that were generated (Bogdan & Biklen, 1998). In analyzing the data, profiles and themes emerged that allowed the development of thematic connections (Seidman, 1998).

Rigor Measures

During the research process the following rigor measures were maintained: triangulation of data sources, triangulation of methods, credibility, trustworthiness, and transferability.

Triangulation of Data Sources

In an effort to triangulate the interview data from the nine elementary principals, documents were retrieved and phone conversations were conducted. The researcher sent a letter (Appendix I) to the nine elementary school principals requesting that they provide a name of teacher or colleague who could confirm their statements that appear in the study. Upon receiving communication from the principal about a selected individual, the researcher called the individual to schedule a time to discuss the statements made by the principal. The researcher conducted telephone conversations with teachers and colleagues who had worked with the elementary school principals

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during the 2001-2002 school term to confirm statements made by the principals. The

researcher also gathered documents that pertained to the nine elementary schools that

included media releases and school system WebPages.

The researcher triangulated 301 statements or facts related to the nine

elementary school principals. The statements and facts are shared throughout Chapters

IV and V. 300 statements were verified by the researcher through phone conversations

and the retrieval of documents. Detailed explanations about the process for the

triangulation of data are provided in Chapter IV.

Triangulation of Methods

A peer debriefer, member check, and memoing were completed to achieve the

triangulation of methods (Patton, 2002;Creswell, 2003).

Peer Debriefer. A colleague who received her doctorate in 2002 through the

Educational Leadership and Policy Studies Program at Virginia Polytechnic Institute and

State University served as a peer debriefer throughout the collection of the data. She

completed a qualitative study. Currently, she is an elementary school principal in a

suburban school system in Virginia. The peer debriefer looked for the same with

interviews.

Member Check. Each elementary principal received a copy of his or her transcribed

interview following the interview with a postage paid envelope to return his or her

amended transcript. They were allowed to make corrections to the transcribed

interviews. The explanatory letter about the process is shared in Appendix H. Four

principals amended their transcripts.

Memoing. During the interviews with the elementary school principals the researcher kept revelations with maintained notes. The memos provided information that began the discovery of categories.

Credibility

Qualitative researchers believe that reliability is achieved by striving for dependability or consistency (Lincoln & Guba, 1985). A better question when attempting to seek reliability seems to be "Is there consistency with the results given the data collected?" The interview protocol was used with all respondents (Merriam, 1998). Field notes were maintained during the interviews to clarify the need for using exploratory prompts with the respondents.

Wolcott (1995) noted, "The strain for identifying consistency in findings thus yields to establishing consistency through procedures. Reliability is, therefore, an artifact" (p. 168). Bogdan and Biklen (1998) offered, "Qualitative researchers tend to view reliability as a fit between what they record as data and what actually occurs in the setting under study, rather that the literal consistency across different observations" (p. 36). As decisions were made during the interview process, notes were maintained to provide an audit trail.

Trustworthiness

In qualitative research, when the researcher serves as the primary data collector, the internal validity is strengthened because there is direct contact with the respondents instead of using a survey or other instrument (Merriam, 1998). Validity looks at whether a researcher has measured what the research purported to measure (Wolcott, 1995, p. 169). Merriam (1998) suggested that "internal validity deals with the question of how

research findings match reality" (p. 201). All efforts are to show that the results are consistent with the data. Schofield (1990) believed "qualitative researchers have to question seriously the internal validity of their work if other researchers reading their field notes feel the evidence does not support the way in which they have depicted the situation" (p. 203). The study was structured to gain understanding about the topic from many respondents (Bogdan & Biklen, 1998).

The data collected through interviews were transcribed and supported by field notes. Each principal received a copy of their transcribed interview and was given the opportunity to add or clarify comments from their perspective (Appendix H). This practice was considered a member check to enhance the internal validity of the study (Merriam, 1995).

Transferability

This qualitative study of the nine elementary school principals offered a multisite perspective. In an effort to enhance the external validity of this study, a thick description of the phenomenon will allow others to determine the level of transferability of the findings (Lincoln & Guba, 1985; Merriam, 1998). Studying numerous heterogeneous locations makes such an approach a productive way to enhance the generalizability of a qualitative study (Schofield, 1990). Merriam (1998) suggested, "The general lies in the particular; that is, what we learn in a particular situation we can transfer or generalize to similar situations subsequently encountered" (p. 210).

<div align="center">Summary</div>

An explanation of the methodology for this study has been outlined and the

<div align="center">68</div>

process for collecting information through interviews has been explained. The philosophical tenets about leading and learning found in public schools are diverse. The researcher was interested in discovering the important categories and patterns of meaning from nine principals about their use of knowledge sources (Marshall & Rossman, 1999). A researcher's sole goal is to contribute to knowledge while being careful not to be judgmental (Bogdan and Biklen, 1998). The research community's efforts have not always supported practice for a variety of reasons. This exploratory qualitative study provides a deeper understanding and an enlightened description of the phenomenon.

Chapter IV presents the findings obtained through interviews with the nine elementary school principals. The categories that emerged are shared about knowledge sources, barriers to using the sources, and details how nine elementary school principals guided their teachers to use the knowledge sources.

Chapter V provides conclusions and implications for practice and presents suggestions for future research.

CHAPTER IV

FINDINGS

Based on the examination of dialogue with nine identified elementary school

principals in Virginia, this researcher discovered the knowledge sources used by

elementary school principals, barriers that elementary school principals experienced in

using knowledge sources, and means for guiding teachers to use the knowledge

sources. The selected participants were elementary school principals during the 2001-

2002 school year. The accreditation ratings shared in the study are from the 2001-2002

testing.

There are six sections in this chapter. The first section provides information about

how permission was obtained to interview the nine elementary school principals. The

second section details the process for transcribing the interviews. The third section

explains how the researcher verified the statements made by the nine principals and the

related coding provided throughout Chapters IV and V. The fourth section reports the

reactions of the elementary school principals about knowledge sources. The fifth section

is a summary about the barriers faced by elementary school principals with using the

knowledge sources. The sixth section focuses on how elementary school principals

guided their teachers to use the knowledge.

Gaining Access to the Identified Elementary School Principals

Letters were sent to each elementary school principal's superintendent seeking

permission to interview the identified elementary school principal from their school

system. A copy of the letter is displayed in Appendix A. When the superintendent

granted permission (Appendix B), the elementary school principal was contacted by

mail, to gain their permission and to arrange an interview. The letter sent to the

elementary school principal requesting permission to interview them (Appendix C)

contained an explanation of the Institutional Review Board process for Virginia

Polytechnic Institute and State University and an approval response form to return.

Upon receiving the approval letter from the elementary school principal (Appendix D),

they were phoned to arrange a date and time for the phone interview.

Telephone interviews were conducted with the nine elementary school principals.

The mean length of the audio tape-recorded interviews was 43 minutes. The nine

elementary school principals were interviewed using a semi-structured protocol and

prompts were generated during the interview process.

A coding system is provided when summary comments from the nine elementary

school principals are shared in the text. The nine elementary school principals are

identified with alphabet letters from A to I. The number following the alphabet letter

(A/__) indicates the location of a statement within a specific transcript page. For

example, (A/1) refers to elementary school principal A and an interview comment from

page 1 of the transcript.

<center>Transcribing the Interviews</center>

Notes were taken by the researcher during the interviews to generate prompts for

asking additional questions. All of the interviews were audio tape-recorded. The

researcher completed a reflections sheet (Appendix G) about each elementary school

principal following his or her interview. After completing the interviews, the audio tape-

recorded conversations were transcribed by a second party. The transcription provided

the necessary text to begin the memoing process.

Each line of text within the 114 transcribed pages was scrutinized to identify categories. Coding and analysis of each line of text simultaneously took place as suggested by Glaser and Strauss (1999). The nine elementary school principals were sent their transcribed interviews, without any memoing and given the opportunity to make amendments (Appendix H). Four elementary school principals amended their transcripts (B;C;G;H).

Verifying Statements Made by the Nine Elementary School Principals

The nine elementary school principals were contacted by mail (Appendix I) and asked to provide the name of a teacher or colleague who could confirm their statements that appear in the study. Identified teachers and colleagues who worked with the principals during the 2001-2002 school term were contacted to arrange a phone conversation. Displayed in Table 4.1 are the professional positions for the individuals who triangulated the interview data and the number of statements they confirmed.

To indicate that a phone conversation took place between an individual who worked with one of the nine elementary school principals and the researcher, a (pc) was placed beside the elementary school principal's identifying letter (A through I) and the page number within their transcript. For example, the notation in the text of (A/1/pc) indicated that principal A made a comment in page one of her transcript and the researcher confirmed the statement through a phone conversation. Appendixes J through R document the specific facts or statements made by each elementary school principal. Additionally, the date for the phone conversation between the researcher and a teacher or colleague who verified statements are provided beside each fact or statement in Appendixes J through R. 301 statements or facts are shared in the study.

Table 4.1

Colleagues who Confirmed Facts or Statements Conveyed by the Nine Elementary School Principals

_____

Principal	Professional Position	Number of Facts or Statements
A	Reading Teacher	41
B	Classroom Teacher	34
C	Classroom Teacher	38
D	Resource Teacher	33
E	Reading Teacher	29
F	Classroom Teacher	26
G	Lead Teacher	29
H	Superintendent/Mentor	44
I	Principal/Mentor	26

_____

When a document was retrieved to confirm a comment made by one of the nine elementary school principals the notation of (doc) was included beside the principal's name and page number within the transcript. For example, the notation of (A/1/doc), indicated that elementary school principal A made a comment in page one of their transcript and a document was retrieved to confirm the statement.

The identified elementary school principals led schools from a variety of geographical locations throughout Virginia, as shared in Table 4.2. Three were in urban settings, four from rural areas, and two from suburban localities. There were seven females and two males principals. The elementary school principals served a mean of 11.4 years as principals, which is as displayed in Table 4.2. Their experience as

elementary school principals spanned from 5 to 24 years. As educators, their years of

educational experience ranged from 22 years to 35 years as displayed in Table 4.2.

Despite the complexity of the challenges, the nine elementary school principals

conveyed a relentless spirit about accessing the best current professional knowledge

related to the curriculum, leadership, brain-related research, poverty, diversity, and

Table 4.2

Identified Elementary School Principals in Virginia

School	Geographical Location of School	Years at School as Principal	Experience as Principal	Educational Experience	Principal's Gender
A	Urban	13	13	26	Female
B	Rural	2	13	25	Male
C	Urban	2	10	34	Female
D	Suburban	7	13	22	Female
E	Suburban	13	24	33	Male
F	Rural	13	13	29	Male
G	Urban	6	6	23	Female
H	Rural	1	5	35	Female
I	Rural	3	6	22	Female

motivation. The findings from the interviews revealed that the nine elementary school

principals believed they could make a significant impact in their students' and teachers' lives. One elementary school principal shared, "My objective was to make a difference for educators so they could make a difference for children" (H/10/pc).

Of the nine identified effective principals, three were currently serving as principals in their same school systems (A/doc/pc;F/doc/pc;G/doc/pc), one principal transferred to a neighboring school system (B/doc/pc), one was an Assistant Superintendent (C/doc/pc), one was the Executive Director of Elementary Education (D/doc/pc), one was the Director of Head Start and Curriculum (H/doc/pc) and one was the Coordinator of Testing (I/doc/pc). One elementary school principal (E/pc) was retired.

<div align="center">Knowledge Sources</div>

All of the elementary school principals faced challenges in their leadership roles such as students' poverty, mobility, and diversity, as revealed in their interviews. The free and reduced lunch percentage for the nine elementary schools ranged from 34.06% to 81.56%. One elementary school principal revealed that grandparents were raising 65% of her students (H/4/pc).

A second challenge faced by the elementary school principals was the presence of student mobility during the academic year. One elementary school principal reported a student transience rate of almost 50% for the 2001-2002 school year (C/10/pc). The same elementary school principal shared that children from 60 different countries were enrolled in her school (C/8/pc).

Another elementary school principal noted that children with 25 different languages and dialects attended his school (E/10/pc). An elementary school principal

<div align="center">75</div>

reported that 70% of her students were ESL learners (A/7/pc). In the interviews, the

elementary school principals were asked about the enrollment of their schools in the

2001-2002 school term. The student enrollment for the schools ranged from 119 to 600

as shown in Table 4.3. Enrollment figures were also confirmed from data provided by

the Virginia Department of Education.

Table 4.3

Student Enrollment in the Nine Elementary Schools

_____

School	Student Enrollment
A	526
B	133
C	600
D	423
E	350
F	230
G	361
H	139
I	117

_____

The elementary school principals shared their perspectives about their use of the

available knowledge sources. An elementary school principal commented:

I really see my role as principal in appreciating, …getting the right people in the

jobs, giving them the resources they need to get the job done. And a lot of times,

just getting out of the way and letting them do it, but also appreciating (C/14/pc).

The specific knowledge sources used by each elementary school principal are shared in

Table 4.4. An elementary school principal commented that the availability of information

in the education field is overwhelming (D/6/pc). She added that it is essential to reflect

about the relevancy of the information as it related to students' and teachers' needs

(D/5/pc).

Table 4.4

Knowledge Sources Used by the Nine Elementary School Principals

_____

<u>Knowledge Sources</u>

	Journal	Books	Conferences	Interactions	Experience	Data Sources	Electronic Preparation	Academic Sources	Other	Other Sources
A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Teachers	Parents
B	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Appalachian	Teacher
C	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Mentor	Spouse
D	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Academic Cohort	
E	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Community Resource	
F	No	No	No	Yes	Yes	Yes	No	Yes	Site Visit Community Resource	
G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Central Office	
H	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Mentor	Secretary
I	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Mentor	

_____

When an elementary school principal was asked about accessing knowledge sources,

she replied, "…constantly, constantly trying to keep abreast of what's out there and what's happening in other schools and systems and research" (A/2/pc).

Three elementary school principals began their educational careers in secondary schools (A/6/pc;B/6/pc;H/5/pc). One elementary school principal started her career as a physical educator (A/6/pc), another as a K-12 media specialist (H/5/pc) and one as a secondary classroom teacher (B/6/pc). The elementary school principal who began his career as a secondary classroom teacher had never worked with children below seventh grade. His superintendent asked him to lead an elementary school. He ultimately worked for the superintendent in two school systems (B/8/doc/pc). These three elementary school principals recognized that their not being trained as elementary educators inspired them to become knowledgeable instructional leaders as elementary school principals.

An elementary school principal with 13 years of experience expressed her commitment to helping students be successful. She noted, "When a child failed, we really need to internalize what that means to us. It means we failed to do our job" (D/6/pc). She continued by saying, "If you don't believe you can make a difference, you're never going to make a difference" (D/10/pc). Those remarks captured the perspectives of elementary school principals as they led their teachers with identifying knowledge sources to enhance their instructional repertoires.

Journals

Seven elementary school principals read journals in paper or electronic form as knowledge sources as revealed in Table 4.5. Two elementary school principals commented that their knowledge did not come from journals (E/2/pc;F/1/pc). One of the

elementary school principal remarked, "Journals didn't meet our needs, so we just had to get in to help the families" (E/4/pc). His ESL students comprised 40% of his school enrollment and their literacy needs required a great amount of instructional support by tutors and mentors (E/2/pc).

The elementary school principals who read journals mentioned *Educational Leadership* (ASCD), *Principal* (NAESP) and the *Kappan* (Phi Delta Kappa), as frequently read journals. *Educational Leadership,* published by the Association for

Table 4.5

Journals Read by the Nine Elementary School Principals

_____

		Titles of Journals				
Principal	Educational Leadership (ASCD)	Principal (NAESP)	Kappan (Phi Delta Kappa)	Journal	Journal	Journal
A	Yes	Yes	No	International Reading	TESOL	Minority Network
B	Yes	Yes	No	Electronic		
C	Yes	No	Yes			
D	Yes	No	Yes	Practitioner		
E	No	No	No			
F	No	No	No			
G	Yes	Yes	Yes	Staff Develop	Reading Teacher	
				Teaching Children Math		
H	Yes	Yes	No	Ed Digest		
I	No	No	No	Electronic		

_____

Supervision and Curriculum (ASCD) is considered research based, even though not all of the articles are supported by research (American Institutes for Research, 1999). ASCD began in 1943 and has a current membership of more than 176,000. *Principal is* published by the National Association of Elementary School Principals (NAESP). Phi Delta Kappa International, Inc., has published *The Kappan* since 1915. Its publisher composes the professional journal focused on policy issues for educators of all levels.

One elementary school principal reported that she read *Educational Digest* (H/2/pc). She remarked about *Educational Digest,* "…it's condensed, but it's good" (H/5/pc). When asked about her pursuit of knowledge sources, she commented, "Everything I can get my hands on" (H/2/pc). One effective principal read *The Journal of Staff Development* (G/2/pc). Elementary school principals shared that they also read practitioner journals such as *The Reading Teacher*, *Teaching Children Mathematics Journal*, *International Reading Association Journal*, and *ESOL* (English as the Second Language).

An elementary school principal whose school was one of twelve in the United States to be recognized by the Education Trust in 2003 for her students' outstanding achievement read *Educational Leadership* and *the Kappan*. She shared that she did not read a lot of "heavy research" (C/4/doc/pc). Her comments reflected the other elementary school principals' lack of use of prestigious refereed journals. None of the elementary school principals mentioned reading any of the prestigious refereed journals identified by Tschannen-Moran et al. (2000).

The list of "prestigious refereed journals" included: *Educational Administration Quarterly, the Journal of Educational Administration, Journal of School Leadership,*

Educational Evaluation and Policy Analysis, Educational Policy, Journal of Educational Finance, Teacher College Record, American Journal of Education, Harvard Educational Review, and American Educational Research Journal. (Tschannen-Moran et al. 2000, pp. 364-5). Other publications also recognized as research journals were: *Educational Research and Evaluation, Educational Leadership, Educational Researcher, Journal of Education for Students Placed at Risk, Review of Educational Research, School Effectiveness and School Improvement* (Educational Research Service, 1999). As explained, six elementary school principals read *Educational Leadership*, but did not discuss reading any other research journals.

Professional Books

The needs of the student population identified through data analysis and daily challenges influenced the elementary school principals' rationale for selecting specific books for the teachers' study. School system initiatives also contributed to principals and teachers studying identified books to address perceived system wide needs. Consistent themes of professional books read by the effective principals dealt with teaching strategies across the curriculum, leadership, brain-related research, understanding poverty, diversity, and motivation. An elementary school principal who clearly was the head learner of her school provided, "…I tend to be quite a reader of professional books" (G/2/pc). The topics of the books read by elementary schools principals are displayed in Table 4.6.

Two elementary school principals reported that they did not access books in their leadership, but rather used community resources, school system resource personnel or college professors to provide current knowledge (E/2pc;F/7/pc). The authors and titles

Table 4.6

Topics of Books Used by the Nine Elementary School Principals

	Topics of Books									
Principal	Poverty	Leadership	Brain	Reading	Math	Differentiation	ESL	Diversity	Science	History
A	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
B	No	Yes	Yes	Yes	No	Yes	No	Yes	No	No
C	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
D	No	Yes	No	Yes	Yes	No	No	No	No	No
E	No	No	No	No	No	No	No	No	No	No
F	No	No	No	No	No	No	No	No	No	No
G	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No
H	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	No
I	No	No	Yes	Yes	Yes	No	No	No	No	No

of books used by elementary school principals are shown in Table 4.7. Books authored

by Marzano (B/8/pc;G/5/pc;H/3/pc;I/9/pc) and Payne (C/8/pc;G/2/pc;H/2/pc) were

mentioned by elementary school principals as prominent titles. Four elementary school

principals accessed Marzano's book entitled *Classroom Instruction that Works*

(B/8/pc;G/5/pc;H/3/pc;I/9/pc). Marzano completed a meta analyses of 80 studies and

calculated the effect sizes for the nine instructional strategies (Marzano, 2001). An

elementary school principal reflected about reading Payne's book by sharing, "That was

one of the most important readings that I did to understand the community and the

families and generational poverty" (H/2/pc).

Table 4.7

Titles and Authors of Books Used by the Nine Elementary School Principals

_____

Category Codes   C-Curriculum B-Brain-related L-Leadership P-Poverty D-Diversity M-Motivational

Note: During the interviews if the effective principal gave the author's name, but not the book title, only the author's name is listed.

| | | | Principal | | | | | | | | |
Author	Title of Book	Category	A	B	C	D	E	F	G	H	I
Opitz, M.	Good-bye Round Robin	C	X								
Routman, R.	Invitations	C	X						X		
Pinnell, G.S.	Guided Reading and Writing	C	X								
Jenson, W.	The Tough Kid Toolbox	C	X								
Bower, B.	Social Studies Alive	C	X								
	Strategies that Work for English Language Learners	C	X								
Snow, C.	Preventing Reading Difficulties In Young Children	C		X							
Marzano, R.	Classroom Instructions that	C	X						X	X	X
Tomlinson, C		C	X								
DuFour, R.	On Common Ground	C	X						X		
Walhstrom, D.	Designing and Using High Quality Tests	C									X
	How to Write Quality Tests	C									X
Robb, L.		C							X		
Lane, B. & Fletcher		C							X		
Graves, D		C							X		
Levine, M.	A Mind At A Time	B					X				
Zimmerman & Keene	Mosaic of Thought	B				X					
Jensen, E.	Brain Based Learning	B									
Wolfe, P.	Brain Matters	B									
DuPree, M.	Leadership Jazz	L					X				
Covey, S.	7 Habits of Highly Effective People	L					X		X		
Posner & Kouze	Leadership Challenge	L					X				
Wald, P.	Creating Community of Learners	L				X					
Lezotte, L.		L				X					
Gardner, H.	Leading Minds	L					X				
Gardner, H.	Frames of Mind	L					X				
Collins, J.	Good to Great	L		X		X					
Fullan, M.	Moral Imperative	L				X			X		
Reeves, D.	The Daily Disciplines of Leaders	L									
Maxwell, J.	17 Essential Qualities of a Team Player	L									
Payne, R.	Framework for Understanding Poverty	P				X			X	X	
Comer, J.	Child by Child	P									X

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Comer, J.	The Comer Process	P			X
Comer, J.	The Whole Village	P			X
Collier, V.	ESL Classroom	D	X		
Carlson, R.	Slowing Down to the Speed Of Life	M	X		
Lundin, S.	Fish!	M	X		

_____

The elementary school principals referenced numerous book titles about enhancing reading instruction and subjects within the elementary curriculum (A/2/pc;B/3/pc;C/11/pc), leadership (A/3/pc;C/11/pc;D/2/pc;G/3/pc), brain-related research (B/3/pc;C/15;D/8/pc;G/5/pc;I/3/pc), year round education (A/3/pc), English as the Second Language (A/3/pc), multicultural education (A/3/pc;B/3/pc;H/2/pc), and motivation (A/3/pc;C/8/pc;D/8/pc). An elementary school principal shared that she used the books recommended by the ASCD (A/1/pc). The contextual makeup and identified needs of their schools determined through data analysis influenced which books were selected by the elementary school principals.

Professional Conferences

Seven elementary school principals affirmed that attending conferences offered valuable knowledge (A/4/pc;B/3/pc;C/8/pc;E/3/pc;G/2/pc;H/3/pc;I/3/pc). They added that networking during the conferences and throughout the school year was beneficial.

Two elementary school principals did not attend any state or national conferences (D/3/pc;F/1/pc). One elementary school principal chose not to attend any conferences explained that she was completing her doctorate and was immersed with extensive knowledge with her academic workload. She remarked that her professional development was met through her coursework and dialogue with cohort members (D/3/pc).

One elementary school principal mentioned value in attending the Governor's Best Practices Institute conducted by the Virginia Department of Education during the summer (B/4/pc). He served as a NAESP Board member and had prior involvement on the VAESP Board. He also assisted as a regional contact person of the Appalachian Educational Laboratory (Edvantia) and coordinated professional development sessions for educators in his region (B/4/doc/pc). As he reflected about his work on the boards, he explained, "Those opportunities allowed many networking opportunities when I had questions about common issues experienced by peers" (B/5/pc).

Two elementary school principals attended the national Effective Schools conference (C/8/pc;G/2/pc). One elementary school principal attended curriculum related conferences (G/2/pc). Another elementary school principal attended local, state, and national technology conferences (H/3/pc). One elementary school principal attended the National Staff Development conference (C/8/pc).

An elementary school principal remarked that she alternated in attending the national NAESP and ASCD conferences and VASCD conference (A/4/pc). She noted, "I do my best with being involved nationally, state or locally on a monthly level" (A/5/pc). The elementary school principal attended conferences that were conducted locally in the Washington, D.C. region, such as bi-monthly meetings about the arts at the Kennedy Center and sessions at the Library of Congress that combined library services with academics (A/4/pc). She also attended the statewide Title I reading conference (A/5/pc). Elementary school principals attended state ESOL (English for Speakers of Other Languages) conference (A/5/pc;E/7/pc).

An elementary school principal attended the leadership academy and weeklong training for the Comer model schools (H/3/pc). The intensive training convinced her of the total commitment required to be successful with adopting the model. An elementary school principal remarked about conferences within her school division. She noted, "Our school system offered a program entitled "Leaders are Learners" which presented staff development throughout the year in the system" (D/3/pc). Another elementary school principal explained that her system offered instructional conferences for teachers that she attended (A/5/pc). One elementary school principal was selected by the Washington Post to attend leadership symposiums with Colin Powell, Katherine Graham and Bill Marriott where she heard their perspectives about leadership (C/4/pc). The elementary school principals who attended conferences concurred that they were important knowledge sources.

Experiences as Principal

When asked if the experience as a principal offered a knowledge source, one elementary school principal shared that no two days were alike in the principalship (B/5/pc). He remarked, "…you have to realize that you don't know everything" (B/5/pc). He added, "You have to talk with people and use people as sounding boards" (B/5/pc). Another elementary principal shared, "I don't know it all and I recognize that" (A/3/pc). She relayed, "I accept the challenge, but it's really exhausting" (A/11/pc).

An elementary principal indicated that prior knowledge about her teachers helped as she led them (A/5/pc). The elementary school principal with 13 years of experience explained:

Going into the principalship the first year I had the background knowledge of

being an administrator. But when the buck stops here, you have to make the final

decisions. Through experience I have grown, and watching and observing and

listening to my colleagues and how they handle situations (A/5/pc).

An elementary school principal noted that she engaged in many professional sharing

sessions with other principals. She provided:

I have to stay ahead of the curve all the time. So my access to professional

conversations is very high. Which is kind of rare, I think. The learning curve

occurs every single day... there's always something new. And it's great fun, as

well as very frustrating at times (G/3/pc).

An elementary school principal reflected about the influence of his experiences

and remarked, "Knowing what makes the world turn and then learning what makes you

fall flat on your face" (F/4/pc). "When you hit on something that is really working…"

(F/4/pc). He shared his perspective about continuing with effective approaches and

resisting the temptation to make unnecessary changes (F/4/pc).

An elementary school principal that networked within her school system,

commented, "We work together in the administrative ranks. We tend to celebrate our

collective accomplishments. It has given me the courage to be a better administrator"

(I/11/pc). The mean years of experience as principals was 11 years, as displayed in

Table 4.3 on page 74. Comments by the elementary school principals revealed their

evolution as leaders.

Data

All of the elementary school principals identified their students' needs with comprehensive data analysis (A/7/pc;B/5/pc;C/10/pc;D/4/pc;E/3/pc;F/1/pc;G/3/pc;H/5/pc;I/10/pc). Data were consistently reported to be the vital knowledge sources used by the elementary principals. Data from the current year, compared with prior year data helped to identify strengths and needs for instructional focus by the faculty. When an elementary school principal was asked about his use of data, he revealed that, "Assessment is key, data-driven is key. Best practice is key" (F/5/pc). Another elementary school principal relayed, "Data driven instruction is everything" (H/5/pc). Those comments captured the collective insights of the nine elementary school principals.

The elementary school principals consistently shared their perspectives about the value of data analysis to support instructional decisions. An elementary school principal cautioned, **"…**not losing sight of the individual child**,** too" (A/7/pc). Another elementary school principal reviewed the data and looked for patterns in subject strands with SOL scores and used teachers' workdays to dig deeper into the data (B/5/pc). Prior to implementing information she shared, "experience and the data together" was done with a team of teachers (D/8/pc).

An elementary school principal completed disaggregation from the current year and preceding years. In addition, his teachers used pretesting with children to begin the year and also administered quarterly benchmark testing. He summed up, "It's actually enjoyable to break down the data" (F/9/pc).

In their attempt to meet the current accountability measures, the elementary school principals promoted data driven instruction. One elementary school principal explained that she analyzed the SOL data and then had the teachers to administer pretests to all students during the first two weeks of school (A/7/pc). One elementary school principal shared that her superintendent frequently commented, "In God we trust, and all others bring data" (I/4/pc).

When an elementary school principal was asked about the objective of data analysis, he indicated, "To improve instruction, to look at our weak areas... to look for strands… and patterns…" (B/5/pc). He added that it was also essential to question "is it an issue concerning the materials that we're actually using?" (B/5/pc). An elementary school principal affirmed that he completed "very, very thorough dissaggregation of the test data. .. identifying specifics. Very measuring specifics" when analyzing data (F/1/pc). He remarked, "When the word flies through the air that I've received the SOL scores, they're beating down my door. That shows ownership. That's very good" (F/2/pc). He added about questions guiding data analysis, such as, "…what happened to those who passed? And what happened to those who failed? That is just the beginning with data analysis given the expectation relative to No Child Left Behind and subgroups" (F/3/pc).

One elementary school principal triangulated data about ethnic aspects before putting them into practice with his students and his teachers (E/5/pc). He constantly used data (E/4/pc). He explained, "We did a lot of testing and sampling and could predict the results of the SOL testing" (E/4/pc).

An elementary school principal examined the data for the overall school and then disaggregated data to individual students and teachers. She relayed, "When our students return to school in September, we pretest all of our students during the first two weeks. All of the teachers must submit their data. We also completed quarterly reviews with the teachers" (I/8/pc).

Another elementary school principal shared that the clientele at her school was becoming more diverse and the change has required the teachers to "dig in" with item analysis and reviewing subcategories (G/3/pc). She explained that as part of their school plan and to enhance their data analysis they incorporated *Smart Goals* by DuFour (G/3/pc).

An elementary school principal felt that adhering to the Effective School correlates supported his students' success. His system had adopted Effective Schools during his prior superintendent's term. Through data analysis he realized that there were correlates that needed attention (F/5/pc). An elementary school principal shared her superintendent's perspective about school improvement. She noted that he would frequently ask, "…do you have results and then change beliefs, or do you have beliefs and then get results?" (G/6/pc).

Electronic Sources

All but one elementary school principal used electronic sources (F/1/pc). One of the elementary school principals who accessed electronic sources felt that they were not a major source of knowledge for her (D/4/pc). An elementary school principal noted, "I didn't have a lot of time to read journals, but I did have time to surf" (E/4/pc). An elementary school principal remarked, "There isn't a day that goes by that I don't look

up some kind of information on the Internet" (G/4/pc). Elementary school principals

shared that they completed electronic searches on ERIC (H/2/pc;I/5/pc) and the

Appalachian Network (Edvantia) (B/1/pc). An elementary school principal shared that

she used Reading from A to Z, an electronic source that is produced monthly (A/2/pc).

Two elementary school principals frequently used the Virginia Department of

Education website to review the blueprints (H/5/pc;I/9/pc). Another elementary school

principal accessed the NAESP electronic newsletter (B/6/pc). An elementary school

principal shared that several of her teachers completed an online class through a local

university. As a result of the online course, she read more information electronically

(C/8/pc).

An elementary school principal commented that in his school they provided

services to ESL families through the "settlement house" approach. He maintained that

information located through electronic sources helped him to gain an informed and

accurate understanding about ethnic aspects about his ESL students. He explained that

historical information about ethnic groups found through searches on the World Wide

Web allowed him to have a more extensive cultural knowledge (E/4/pc). Another

elementary school principal used the Washington Post online source (A/8/pc).

Academic Preparation

The elementary school principals were asked about their academic preparation

programs as knowledge sources. One elementary school principal explained how her

undergraduate degree program instilled the importance of insuring each student's

success (C/4). The dates that the elementary school principals completed their

administrative degrees are presented in Table 4.8. The years of their administrative

degree completion spanned from 1973 to 1993.

An elementary school principal commented, "No principal preparation program

can train principals for what they face in the daily work" (B/6/pc). One elementary school

principal who completed his administrative degree in 1973 discussed the lack of

relevancy with his graduate training. He relayed that his degree didn't prepare him for

the current expectations (E/4/pc). Another elementary school principal who completed

Table 4.8

Administrative Degree Completion Date for the Nine Elementary School Principals

_____

School	Year
A	1983
B	1986
C	1991
D	1989
E	1973
F	1991
G	1975
H	1991
I	1993

_____

her preparation program in 1975, commented that the program wasn't strongly related to her current job demands with accountability (G/4/pc).

One elementary school principal earned her masters leadership degree and another effective principal completed her doctorate in cohorts. Both elementary school principals were positive about the academic format of being a cohort member. They felt the process developed networking and collaboration (D/3/pc;I/6/pc). The elementary school principal who earned her masters degree in a cohort asserted that the format helped her learn how to go about getting information. She revealed, "I recommended it to many people" (I/6/pc). She continued, "I learned a whole lot more, because I expected a whole lot more of myself. They assessed us through a portfolio system" (I/7/pc). "We were able to concentrate on areas of personal interest. I integrated my special education knowledge into my studies. I initially hated it, because I wanted the professor to tell me what I needed to do. It was a worthwhile two and one half year program" (I/7/pc).

An elementary school principal who was initially trained as a library media specialist stated that she possessed leadership skills. She shared that when teachers asked her elementary curriculum questions she initially recognized that she had studying to undertake to become more knowledgeable (H/5/pc). Another elementary school principal underwent the principals' assessment program during her graduate studies. She reflected about the experience and commented, "…it allowed you to see how theory goes into practice" (D/4/pc). She also completed her doctorate and relayed that she was professionally enriched by the quality of her cohort members (D/4/pc).

An elementary school principal shared how her first administrative degree prepared her to be an effective school administrator (A/9/pc). "I was more focused on a discipline" (physical education) and her postgraduate work prepared her for the principalship (A/9/pc). She concluded by adding, "…there is nothing like learning on the job" (A/9/pc).

Other Sources

Human resources such as central office specialists, academic coaches, community members, faculty members, parents, and visiting teachers offered significant knowledge to elementary school principals. Central office curriculum specialists were frequently mentioned as knowledge sources for the elementary school principals and their teachers. Community resources, such as members of cultural groups and religious resources also provided valuable insights.

One elementary school principal worked in a school system that had an initiative for teachers to become proficient in differentiating instruction. Visiting instructional coaches from another school system conducted monthly walk through classroom observations and provided feedback to his teachers, which he felt were beneficial (F/7/pc). The same elementary school principal visited a school in St. Louis to view the teachers' application of differentiation of instruction across the curriculum (F/3/pc). He evaluated the experience by stating, "However you are looking a different clientele from our students. It was interesting to see how they differentiated and used technology" (F/3/pc). He relayed, "It was one of the more enjoyable experiences" (F/3/pc).

Another elementary school principal completed a weeklong training at Yale University to gain a thorough understanding about the Comer Model (H/3/pc). When

asked about knowledge sources, the effective principal reflected, "It's your secretary, janitor, and cooks that you need as a friend. Gaining their trust" (H/10/pc). The elementary school principal shared that 2001-2002 was her first year at the school. She remarked that her secretary who had 40 years of experience proved to be an important knowledge source for her (H/10/pc).

One elementary school principal commented, "I also had relationships with the people in central office who could get other things done for me" (C/5/pc). An elementary school principal received support from two resource people in the foreign language department of his school system (E/9/pc). An elementary school principal shared that a valuable information source was the refugee immigration services led by the Catholic Diocese and the Foreign Mission Board, in addition to other religious organizations (E/6/pc). He used volunteers from 37 churches, fraternal and civic clubs as mentors and tutors for his students (E/6/pc).

One elementary school principal periodically met with six colleagues to discuss issues. The format for engagement was a component of her professional growth plan within her school system (D/3/pc). An elementary school principal offered, "My parents and parents in the community share information with me as well. Parents with children with disabilities are constantly learning about disabilities. It's a valuable resource" (A/9/pc).

An elementary school principal shared that she approached new information with an open mind. Her experiences with emotionally disturbed students helped her to be flexible in her acceptance of instructional approaches for all students (D/4/pc).

One elementary school principal convened a committee with parents and community members to provide her with information. She commented that it is important to bring great minds together. She added, "We had a committee with parents and community members to talk about trends" (I/5/pc).

Mentors to the Effective Principals

Three elementary school principals shared that mentors provided them with valuable support (C/pc;H/pc;I/pc). An elementary school principal noted that the prior principal at her school supplied significant assistance and modeling to her as a mentor (H/6/pc). The prior principal is now the superintendent (H/9/pc). One elementary school principal remarked that her superintendent, also served as her mentor. He spent a great deal of time reviewing test scores with her. She relayed, "I don't know what I would have done without him" (I/4/pc). Her superintendent provided additional support. Her background was in special education and testing and the superintendent was data oriented (I/4/pc).

<center>Summary of Knowledge Sources</center>

All of the elementary school principals accessed knowledge in a variety of formats to enhance leadership and instructional approaches. When an elementary school principal was asked about trying new instructional methods she explained, "It's not so much that I am absolutely sure it is going to work, but it's worth using" (D/6/pc). The elementary school principals analyzed data, read professional books and journals, attended conferences, accessed electronic sources, interacted with colleagues, reflected about experience as a principal and relied on their academic studies. Mentors were also mentioned as resources for elementary school principals (C/pc;H/pc;I/pc). An

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elementary school principal grounded her decision making about accessing knowledge sources by asking, "What's best for the children?" (I/10/pc).

<div align="center">Barriers to Using Knowledge</div>

The dialogue with the elementary school principals revealed them to be highly focused leaders. Time limitations and lack of funding were frequently shared as barriers to using knowledge sources. When asked to define what one elementary school principal meant about time being a barrier, she provided, "Time with the teachers. Time to read it, time to reflect upon it, time to reflect about your needs within the building and each child (D/10/pc). Another elementary school principal agreed, "Reflection is so important" (A/11/pc). An elementary school principal added, "Time is always an issue" (G/7/pc).

An elementary school principal commented, "Find the balance, that doesn't have anything to do with school. Time was a universal deterrent. I took that home with me. I was totally visible in the hallways and everywhere" (H/9/pc). To counteract the workload during the school day, two elementary school principals relayed that they completed work at home (E/14/pc;H/9/pc). One elementary school principal whose school was on "warning" upon her arrival in July 2001, chose to be highly visible and available for her teachers during the school day (H/9/pc). Her school had an 81.56% free and reduced lunch percentage and her students achieved state accreditation ratings of 96% in reading, 89% in mathematics, 93% on history, and 86% in science for 2002 (H/doc).

Another elementary school principal remarked, "You have to dedicate so much time to doing things that really are irrelevant to moving instruction forward, but they have to be done. If you don't do them, you will lose your funding, you're going to lose

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your support. …You could be spending time learning more about individuals and families and outreach and all of that. It's a barrier, but it's sort of a necessary evil" (C/14/pc). The time constraints were minimized because of the elementary school principal's beliefs in the value that knowledge contributed to quality decision-making. The elementary school elementary school principals found ways to confront the time barrier.

Noted in the literature as potential barriers with accessing research were: (a) lack of relevancy, (b) lack of a productive relationship, (c) difficulty with discerning effect, (d) flawed rationality, (e) lack of usability, (f) dissemination weaknesses, (g) lack of persuasiveness, and (h) time constraints. None of the elementary school principals mentioned any of the above barriers, other than time constraints relative to using research. The elementary school principals seemed to benefit from research deciphered by authors of books, conference presenters, and authors of journal articles.

One elementary school principal provided that the lack of support and a dismissal of his knowledge by superiors in his school system with the challenges relative to his students' needs proved to be a barrier (E/11/pc). His school had an enrollment of 40% of English as the second language (ESL) students. The elementary school principal had to locate funding to pay for the criminal background checks for the mentors and tutors. He needed support to gain a greater understanding about ethnic and religious backgrounds of his students and their families. The elementary school principal felt that his superintendent, assistant superintendent, and directors did not grasp the extent of his daily challenges related to the high percentage of ESL learners (E/9/pc).

He remarked, "We had done our research" (E/11/pc). His superiors felt that the increase in the ESL population was temporary (E/11/pc). The elementary school principal shared, "The more I became an advocate, the more I felt like I was alienating certain people at central. What they considered best practices often times left out the entire ESL population" (E/11/pc). He concluded by adding, "it's easier to get absolution than permission" as he proceeded to educate his diverse population of students (E/12/pc).

Prior to becoming an elementary school principal she was a library media specialist for kindergarten through twelfth grade. That experience helped her become adroit with accessing knowledge that eliminated barriers with access (H/5/pc). When asked about barriers with accessing knowledge sources, another elementary school principal remarked, "Trying to meet the needs of everyone you come in contact with" (A/11/pc).

Lack of funding also proved to be a barrier for some elementary school principals. Elementary school principals shared that they had to be cautious with the materials purchased for the teachers (B/9/pc;I/11/pc). An elementary school principal commented, "…you go off to these places and you hear all these great speakers and you want to implement these ideas, but then there is the money issue" (B/9/pc). Two elementary school principals added that the lack of funding for staff development initiatives proved to be a barrier (B/9/pc;I/11/pc). One of the elementary school principals sought funding through grants (B/9/pc).

Two elementary school principals led in school systems that had the financial benefit of community trust funds to support education (F/7/doc/pc;G/5/doc/pc). Lack of

funding did not present a barrier in their systems. For example, the funding for the instructional coaches who visited monthly to improve the teachers' differentiation of instruction was financed through the trust fund, in his rural school system (F/7/doc/pc).

In an effort to counteract the barrier of limited time, an elementary school principal used an electronic management system for her teachers to write their lesson plans. She reviewed lesson plans in the evenings from her home using the Internet, which allowed her to be available to the teachers during the instructional day (H/8/pc). She also had the support of a math teacher who assisted her with completing required reports (H/10/pc).

Summary of Barriers to the Use of Knowledge Sources

The lack of time during the instructional day and funding limitations were barriers most frequently mentioned by the elementary school principals. One elementary school principal shared, "I was totally visible. Leadership is doing, participating. It's really hands-on" (H/9/pc). Despite the challenges of barriers, these elementary school principals were willing to commit their personal energy to achieve their established goals.

How Elementary School Principals Guided their Teachers to Use the Knowledge Sources

The elementary school principals offered various ways of guiding their teachers to use the knowledge sources. They designed summer retreats, learning communities, school wide book studies, school wide instructional enhancement projects, individual study, consultants' visits, specially scheduled training days, and faculty meetings. An elementary school principal remarked, "Our school management plan drives our

approach" (A/10/pc). She added, "I am always learning, that is what keeps it fun"

(A/6/pc). An elementary school principal shared that his teachers took it personally if the

students didn't achieve (B/7/pc).

An elementary school principal shared that she conducted summer meetings with

each grade level to examine recent data about their students' strengths and

weaknesses (C/10/pc). Elementary school principals described their use of summer

retreats for the entire faculty. Several elementary school principals discussed their

application of learning communities where teachers examined their professional growth

and studied with colleagues. One elementary school principal shared that her school

system offered frequent release days for teachers, which she used for professional

development and planning. Some elementary school principals offered knowledge

sources to teachers to match their specific needs.

An elementary school principal whose school adopted the Comer Model

explained, "The school becomes totally engaged in learning" (H/4/pc). An elementary

school principal stated the summer sessions allow time to ask, "What are the

foundational changes that we want to make?" It was a team approach (D/8/pc). An

elementary principal commented, "I am a big believer in team teaching. I stressed

collaboration and I stressed team teaching. I think it's crucial that teachers share

information with one another" (F/2/pc).

One elementary school principal relayed, "not everyone needs to have the same

information because of their students' needs. "We match it to our school needs"

(A/10/pc). She purchased multiple copies of books that she identified as providing

necessary information about enhancing vocabulary instruction that her teachers could apply in their teaching (A/10/pc).

An elementary school principal realized that teachers needed varied levels of support with information (D/9/pc). She explained that, "The data led us. We had a large ESL population. Everyone benefits as we stretch ourselves" in meeting other challenges (D/9/pc). She explained, "…The reflection time is so important, you have to make time to do it" (D/9/pc). Two elementary school principals commented about the importance of keeping people motivated (D/11/pc;l/12/pc). Explanations of the variety of formats for guiding the teachers to use the knowledge sources are detailed.

Summer Retreats

Summer retreats provided effective formats for three elementary school principals to meet with their teachers to review data, to introduce relevant books and to plan for the coming year (C/9/pc;D/10/pc;G/2/pc). One elementary school principal relayed that 25 teachers attended their summer retreat (G/6/pc). The elementary school principals shared that creating an opportunity to have the teachers' unencumbered attention set the direction for the school year.

Learning Communities

The established vision of the school guided the development of learning communities within schools. One elementary school principal explained that he modeled his learning communities as described by DuFour (B/8/pc). Another elementary school principal commented that she did not prescribe the membership of the various learning communities. Her school had a 50% attrition rate with student mobility during the school year and a 57% free and reduced lunch average (C/3/pc). Her school was a recipient of

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the "Dispelling the Myth" award given to twelve schools and eight school districts in 2003. The national recognition was awarded by the Education Trust to recognize schools and school districts with high poverty and minority students, which obtained superior academic achievement. (C/3/doc/pc).

Her school had many smaller learning communities (C/8/pc). Some teachers studied brain-based teaching, others examined how to strengthen the home-school connection, and another community studied reading development (C/15/pc). Her system also provided an "opt out day" during the school year for teachers who attended a summer retreat before contract time. Her teachers perceived the extra day as a positive perk (C/9/pc).

Schoolwide Book Study

Elementary school principals suggested books for their teachers to address aspects of the curriculum that were identified as weak through prior data analysis (B/10/pc). Teachers led book talks (D/10/pc). The elementary school principal provided, "There was nothing that I would ask of a teacher that I wouldn't do myself" (H/6/pc). She had high expectations of the children, parents, teachers and herself (H/6/pc). Her school was the only one in her system with a year round calendar (H/6/doc). At three schools, the faculty accessed *Framework for Understanding Poverty* authored by Payne to help formulate an understanding about their students (C/11/pc;G/2/pc;H/2/pc).

Schoolwide Instructional Enhancement Project

An elementary school principal led her school in the adoption of the Comer Model. The effective principal also attended training with her teachers during the school year and during the summer. She held a teacher retreat during the summer. Prior to

their successful year, the school was in "warning" (H/4/pc). She shared that the design of the Comer Model helped her school to "…become totally engaged in learning" (H/4/pc). The elementary school principal summarized, "I feel that the empowerment of teachers was the greatest thing that could have been done for myself, because they were all on board. They all had a voice" (H/4/pc).

Individual Study

When appropriate, elementary school principals offered personalized information to help teachers with identified instructional needs observed through classroom observations (A/11/pc). An elementary school principal provided, "We come back and discuss the implementation. We will build on it on that or we'll find another book…" (A/10/pc). She summed up, "…everybody is not involved in the same information all of the time" (A/10/pc). She modeled instructional techniques in teachers' classrooms (A/11/pc).

One elementary school principal shared that they had a limited professional library for use by the teachers (D/10/pc). Another elementary school principal remarked, "I used teams of teachers to convey the new information" (B/10/pc).

Consultant's visits

An elementary school principal commented that she's not afraid to ask instructional specialists to support the teachers with new materials (A/11/pc). Another elementary school principal shared that an instructional coach from another Virginia school system visited his school to provide feedback about the teachers' efforts with differentiation (F/7/pc). His teachers also benefited from a community trust fund that financed instructional coaches who completed instructional walk throughs (F/8/pc).

Instructionally Focused Faculty Meetings

The consistent theme revealed by the elementary school principals was the importance of leading instructionally focused faculty meetings during the school year (C/16/pc**;**G/7/pc). An elementary school principal also conveyed information in team meetings. She offered an example of how she taught the grade level team leaders teachers how to summarize. She asked the team leaders to model the strategy for their colleagues (G/7/pc). At every faculty meeting, one elementary school principal practiced no fault collaboration with her staff (H/10/pc).

Specially Scheduled Training Days

An elementary school principal explained that her school system had planning and staff development for elementary schools on Monday afternoons from 1:20 to 3:30 and five staff development days a year (G/7/pc). Her system is the benefactor of a community trust fund used to finance such noted authors as Pickering, Payne, DuFour, and Reeves who worked with administrators and teachers within her school system (G/5/pc).

One elementary school principal commented that she frequently met with smaller groups of teachers versus a large faculty group (I/11/pc). Another elementary school principal led staff development during the year for her teachers (G/7/pc). An elementary school principal noted that conveying data was done in a team approach (D/8/pc).

One principal's school was comprised of 40 percent of students as English as the second language students. He met with his leadership team of English as Second Language teachers and lead teachers. They had 157 mentors to help his students, one hour, for one child, for one day a week. It continued for ten years (E/7/pc).

Summary of Guiding Teachers to Use the Knowledge Sources

An elementary school principal commented that she wanted her teachers to ask themselves, "What personal capacity do I need to build?"(C/8/pc). Another elementary school principal noted, "I had some high quality teachers… They took it personally if the students didn't achieve" (B/7/pc). An elementary school principal reflected about guiding teachers with using knowledge sources by providing, "What is the systematic way to follow up? We tried to dig a little deeper, how can we see that it is really working. Having a strategy with how you want to implement it" (D/11/pc). One elementary school principal established a committee structure to approach professional development (G/4/pc).

An elementary school principal stated, "So, we looked at every child's data…what's standing between this child and achievement? That might be something totally nonacademic" (C/6/pc). An elementary school principal discussed her perspective about teachers' work, she relayed, that they have a great amount of stress (H/6/pc). An elementary school principal remarked, "I had the best teachers. They stayed at the school despite the challenge of teaching a high percentage of ESL students. A significant challenge was the fluctuating student enrollment. But the teachers were right there with me. This wasn't the lone ranger act" (E/13/pc).

One elementary school principal completed her administrative studies in a cohort. "Knowing how to go about finding the information that I needed was a very important part" (I/7/pc). It produced a great deal of networking and community building. Another school had a college professor to teach a reading course to the entire faculty (B/6/pc).

An elementary school principal commented, "I am a firm believer that education needs to be personalized" (C/6/pc). Her teachers and she examined the data quarterly for each student to see if instructional interventions were working. The elementary school principal reflected about their efforts, "…it opened my eyes to the power of professional development when it's purposeful and when it's job-embedded and when it's ongoing" (C/9/pc).

Motivational Spirit

A motivational spirit consistently expressed by the elementary school principals emerged as an aspect of their leadership personas that helped maintain their teachers' work with children and families. An elementary school principal shared, "But the whole idea of keeping people motivated. I think that is so important because that allows people…to take risks without fear of repercussions" (D/11/pc). Another elementary school principal remarked, "Keeping people motivated, is so important" (I/12/pc). An elementary school principal shared the importance of always conveying that things are good to the teachers. She added, "If anyone can do it, we can do it. Being the cheerleader as principal, you set the tone" (I/12/pc). An elementary school principal remarked, "We think we're fabulous" (A/2/pc). She expanded, "It is working, but we want 100 percent" (A/8/pc).

Another elementary school principal provided about guiding teachers, "…I think they need that support" (F/7/pc). An elementary school principal proudly noted, "Our school was the first one to be accredited in our county" (B/10/pc). Another elementary school principal relayed, "being in an environment. You want to know that you tried everything you could (D/11/pc). An elementary school principal captured the sentiment

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of other eight elementary principals by adding, "You can't appreciate a good teacher enough" (C/14/pc).

An elementary school principal shared, "…But the mantra was you don't change your expectations for anybody, but understand that each kid is going to need a different level of support to get to those expectations" (C/10/pc). An elementary principal noted that he was the principal of two schools during the year. One school was comprised of kindergarten through second grades and the other had third to fifth grades. He reflected that, "It was difficult running two buildings" (B/7/pc). An elementary school principal shared that her teachers recently thanked her for efforts with guiding them to use identified knowledge sources (H/6/pc).

Three of the elementary school principals remarked that they were cognizant about keeping the teachers motivated to do the job they faced each day (D/6/pc;G/3/pc;H/10/pc). An elementary principal school recognized, "These people have to know everything" (A/6/pc). Her perspective about the wide range of needed professional knowledge spurred her to become the head learner of her school. "But the personalized notice of the littlest things and appreciating them. And that was a knowledge source" (C/14/pc).

Theoretical Model

As a result of completing the study, a theoretical model was formulated. The model is displayed as Figure 4.1. All of the elementary school principals believed that their students could achieve at a high level, despite significant poverty and other challenges. The elementary school principals were exceedingly proud of their teachers' efforts. They shared numerous comments about their teachers' quality teaching. The

elementary school principals sought to find the best knowledge sources for their

teachers. They attributed all credit for such significant achievement by their students to

their teachers. The elementary school principals were the head learners of their
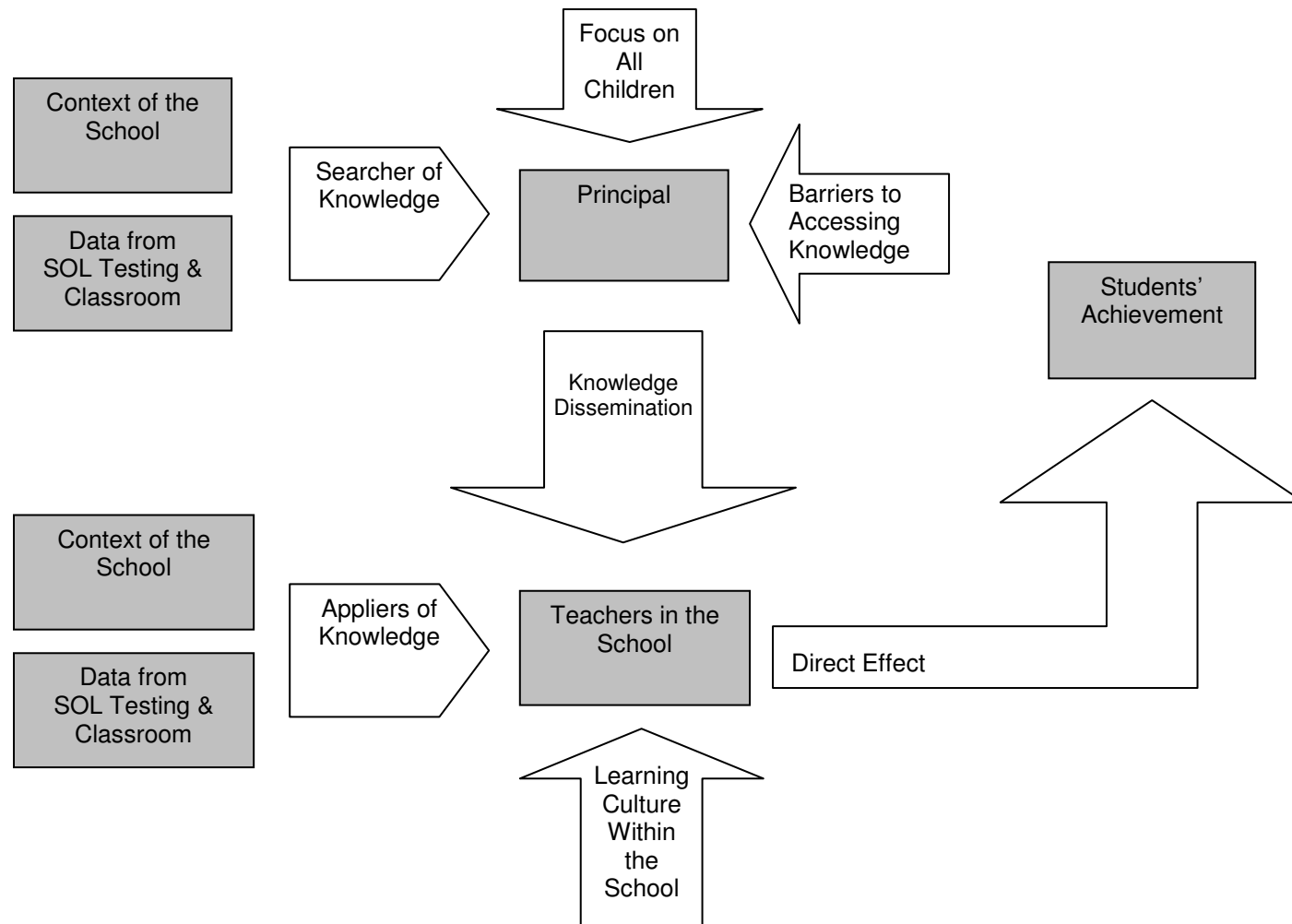
schools.

Figure 4.1. Bechtel's Model. The principal and teachers are informed by the data. Knowledge needs are identified through the context of the school and data trends from the SOL and classroom testing. The principal as head learner faced barriers to using knowledge sources. The principal disseminated knowledge to teachers in a variety of formats. The teachers applied the knowledge in their teaching. A learning culture was created in the school. The teachers directly effected the students' achievement.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

The purpose of the study was to discover the knowledge sources used by elementary school principals, to identify barriers they faced in using the sources, and to understand how they guided their teachers to use the knowledge. Comprehensive interviews were conducted with nine elementary school principals from Virginia, which created this descriptive study. The results of the study have implications for practice by school system leaders, school board members, principal leadership training universities and colleges, and professional organizations. Findings from this study also provide a foundation for future research.

The triangulation of data sources was achieved by retrieving documents for verification and by conducting phone conversations with teachers and professional colleagues from the nine elementary principals' schools. The researcher was successful with confirming 300 of the 301 statements or facts that are attributed to the nine elementary school principals.

Triangulation of methods was achieved by engaging a peer debriefer to look for the same with interviews, by maintaining memos throughout the 114 pages of transcripts, and by generating member checks to allow the elementary school principals the opportunity to amend their transcripts.

Memoing began with the first interview and continued throughout the eight subsequent interviews. Upon receiving the transcribed interviews, coding revealed the categories because of frequently occurring themes among the nine elementary school principals' interviews. An analysis of the interview data, by memoing, and through

discovering categories within transcripts from nine elementary principals whose students were successful with passing the SOL tests in 2001-2002.

The themes that emerged from this study included the following: The elementary principals led with an overriding belief that all children could be successful. Their omnipresent spirit and motivating presence allowed their teachers to prevail despite significant contextual issues and identified instructional challenges related to their student population. As head learners they accessed the best available knowledge sources and exemplified continuous professional enhancement. Data were critically important knowledge sources. Data allowed the elementary school principals to lead teachers to make sound instructional decisions and enhance their pedagogical repertoires. Ultimately, the elementary school principals created a learning culture with their schools. The seven findings elucidate the study.

Seven findings emerged from the interviews with elementary school principals: (1) they completed comprehensive data analysis, (2) they identified instructional weaknesses and strengths of their schools that prompted searches for knowledge, (3) they addressed contextual challenges within the student population that prompted searches for knowledge, (4) they were the head learners within their schools, (5) they possessed an omnipresent motivational spirit and provided relentless support to their teachers, (6) the barriers of time and funding limitations were revealed, and (7) they devised a variety of formats for conveying knowledge to their teachers.

Finding #1

The nine elementary school principals systematically identified strengths and weaknesses of their instructional programs by completing extensive data analysis of the

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SOL results for the current year

(A/7/pc;B/5/pc;C/10/pc;D/4/pc;E/3/pc;F/1/pc;G/3/pc;H/5/pc;I/10/pc). Their thorough use

of data established the instructional foundation for the teachers. Data were consistently

reported to be the vital knowledge sources used by the elementary school principals.

The effective principals also compared data from prior years to identify trends within

subject categories and student subgroups.

In addition to their analysis of the SOL results, elementary school principals used

pretesting results in September of subject expectations for all students and quarterly

benchmark testing of all students. According to Reeves (2002) "it is better to measure a

few things many times to compensate for inevitable measurement error, than to attempt

to measure many things only once each year" (p. 44). All three forms of data, SOL

results, pretest results, and benchmark tests helped the elementary school principals to

identify strengths and weaknesses within their instructional programs. Findings from

their data analysis revealed specific deficiencies that led elementary school principals to

identify particular knowledge needs.

Finding #2

The elementary school principals explained that as a result of their data analysis,

they discovered instructional weaknesses and strengths. The elementary school

principals searched for knowledge to bolster their teachers' instructional effectiveness

with the identified deficient areas.

As shared in Chapter II, *A Place Called School* was written as result of a large-

scale qualitative case study completed by Goodlad (1984). A research team found that

schools were different, but schooling was the same. The sameness was defined as

teachers delivering information during 70% of class time. Goodlad found a lack of direction by educators and minimal access of data and research. The cultural pull of relying on conventional wisdom in teaching practices pervaded the schools. They discovered schools that were rated as satisfactory by their communities had a predominance of teachers with monotonous instructional delivery styles.

An analysis of Goodlad's findings indicated that principals and teachers were not being influenced by available knowledge sources on effective pedagogy, but rather functioned from routine. Also revealed was the reality that a principal's workday had the potential to be a highly responsive role because they were busy meeting others' needs. Elementary school principals treated teachers in a professional manner and as colleagues. Teachers demonstrated that they were uninformed and did not make use of available knowledge sources (Goodlad, 1984).

The elementary school principals interviewed in this study were responsive to meeting others' needs, which paralleled Goodlad's findings. Elementary school principals and their teachers within the nine schools were informed by data and various knowledge sources, which differed from Goodlad's findings.

Finding #3

Contextual aspects within the student population such as students' poverty, mobility, and diversity needed to be better understood by the elementary school principals and their teachers. The elementary school principals searched for knowledge to be used by teachers to improve their understanding and effectiveness with their diverse student populations. The elementary school principals were not deterred because of significant challenges, such as the 55.09% mean for the percentage of their

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students' free and reduced lunch and high percentage of ESL students in some schools (A/pc;C/pc;D/pc;E/pc;). The elementary school principals sought to meet the needs of all of their students.

Pantelides (1991) examined the effect of elementary principals' instructional leadership behavior related to variance in achievement. She examined the performance of schools using the normal curve equivalent (NCE) on the Iowa Test of Basic Skills (ITBS). Pantelides (1991) controlled for the socioeconomic status of students, level of parent involvement, and the per pupil expenditure of districts. She found that social economic status (SES) had the greatest effect in causing for variances in achievement.

Pantelides (1991) summarized that her study lacked a path analysis design to provide an examination of the causal effects of principals' leadership related to student achievement. One of her recommendations for future research was to utilize a measure different from achievement data and possibly employ a curriculum based instrument.

The SOL testing, pretesting, and benchmark tests referenced in this study were curriculum based measures as suggested by Pantelides. The findings from this study related to students' achievement did not match Pantelides' discoveries. She found that social economic status (SES) had the greatest effect in causing for variances in achievement.

This study did not control for the socioeconomic status of students, level of parent involvement, and the per pupil expenditure of districts. The mean accreditation ratings for the nine elementary schools was 97.5% in English, 95.8% in mathematics, 95.2% in history, and 94.1% in science. These identified nine elementary schools were

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part of the 709 out of 1056 elementary schools that earned full accreditation from the Virginia Department of Education in 2002.

Finding #4

Eight of the nine elementary school principals were the head learners within their schools. They improved practice through enhancing their teachers' instructional repertoires with content from books, expertise supplied by instructional specialists, and content from conference presenters.

As detailed in Chapters I and II, the demands of increased high-stakes accountability measures have required principals to function as the instructional leaders of their schools. One source estimated that only 25% of principals were skilled as instructional leaders (U.S. Department of Education, 1999). Another source reported that 50% of principals attempted to improve instruction (Leithwood & Montgomery, 1982). Barth (1990) suggested that the principal should be the head learner in their school. He led the Harvard Principals' Center and was a principal for a decade. Barth (1990) emphasized the value of reflection as a component of the principal's leadership as displayed in Figure 5.1.

In Chapter II, Leithwood and Montgomery (1982) characterized principals as being either typical or effective. In their findings, only 50% of principals were classified as effective because they sought to help teachers with improving instructional programs. Typical principals were mired in administrative duties, seeking to run a smooth ship instead of exercising instructional leadership. Wolcott (1973) authored *The Man in the Principal's Office.* In his comprehensive case study of Ed Bell, principal of

Taft School, Wolcott (1973) discovered that the principal helped others to be successful, often without getting to their own agenda.

The nine elementary school principals interviewed for this study were not deterred by their multiple challenges. When instructional weaknesses were evident, knowledge sources were pursued. The elementary school principals examined data, accessed books, attended conferences, sought counsel from central office subject experts, searched electronic sources, networked with colleagues, read journals, and shared the information with their teachers. As reported in Chapter IV, two elementary school principals did not acquire their knowledge through reading books or journals

engage in practice

↓

reflect on practice

↓

articulate practice

↓

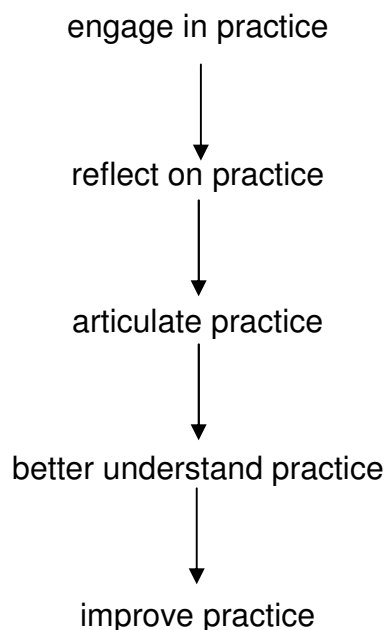better understand practice

↓

improve practice

Figure 5.1. Barth's Conceptualization for Principal's Learning

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From "*Improving Schools from Within,*" by Roland S. Barth, 1990, p. 85. Copyright 1990 by John Wiley & Sons, Inc. Reprinted with permission of the author.

(E/pc;F/pc). One of the elementary school principals was knowledgeable about the ethnic and religious backgrounds. He was a "hands on leader" who learned substantial knowledge through interacting with individuals who were well informed about such ethnic and religious content (E/pc). Another elementary school principal explained that he did not read books or journals, but felt that data analysis was the reason for his students' success. He engaged an instructional coach who conducted monthly classroom walk-throughs and provided feedback to his teachers about their instructional differentiation with students. He expressed a supportive leadership philosophy with his teachers and applauded their professional collaboration (F/pc). Data, books, conference attendance, electronic sources and resource personnel were the most frequently mentioned knowledge sources by the elementary school principals.

Books. When weaknesses in the instructional program were identified, the elementary school principals searched for the applicable best book resources. Sometimes, as with Payne's book *Framework for Understanding Poverty* about poverty, the content of the book helped to deepen the teachers' understanding to meet the contextual challenges within the student population. The books read by the elementary school principal included content about contextual issues, leadership, brain-related research, curriculum issues, and motivational techniques.

Professional Conferences. The elementary school principals consistently relayed the benefits of attending national, state, and local conferences to learn about approaches that were effective in other elementary schools and to hear content from educational experts. Their attendance allowed dialoguing opportunities with colleagues about knowledge recommendations.

Electronic Sources. The elementary school principals searched for information on the World Web Web. The Web provided quick access to content.

Instructional Experts. Central office content experts were asked to support the schools in a variety of ways. When the results of data indicated an instructional weakness, the elementary school principals contacted the available human knowledge sources within their schools systems to provide guidance and expertise. Instructional coaches were also engaged in one school system.

Finding #5

The nine elementary school principals expressed an optimistic attitude about the efficacy of their leadership. They supported their teachers so they could succeed in their daily instructional challenges, whether it was teaching children from poverty, dealing with high student mobility or understanding diversity. The nine elementary school principals conveyed a hopeful belief in their missions about helping each student to meet academic success and sought a 100% success rate on the SOL tests for their students. Hoy, Tarter, and Hoy (2006) described this as "academic optimism" (p. 440). Consistently, the nine elementary school principals shared the importance of helping every child.

As detailed in Chapter II, Carter (2000) provided evidence that high-performing and high-poverty schools were led by principals who promoted the cognitive growth of their students. The Heritage Foundation studied 21 high achieving schools that defeated the odds, given the challenges of working with needy student populations. Seventy-five percent of the students in the schools discussed in the study findings qualified for the federal lunch program. The children in the schools had a median test score above 65%

on national achievement tests and eleven schools scored at 80% or higher on

achievement measures (Carter, 2000). Schools with similar demographic characteristics

typically scored below 35% on national achievement tests.

Provided in Chapter II, Hallinger et al., (1996) explained that the dependent

variables affected in varying degrees by the principal's leadership were instructional

climate and instructional organization, which in turn influenced student achievement.

Also shared in Chapter II, Leithwood and Montgomery (1982) examined principals'

behaviors and obstacles to the growth in principals' effectiveness. They found that

elementary school principals established a relationship with their faculties to "foster the

goal of student cognitive growth and happiness" (p. 335). Elementary principals

balanced daily interactions while attempting to progress toward goals, and helped

others maintain a view of the big picture. Additionally, elementary principals were

portrayed as those who could "define priorities focused on the central mission of the

school and gain support for these priorities from all stakeholders" (Leithwood &

Montgomery, 1982, p. 335).

Finding #6

The elementary school principals were accessible to their teachers and students

during the instructional day. They were tireless leaders who completed work at home.

Time and funding restrictions surfaced as frequently mentioned barriers to accessing

knowledge sources.

DiPaola and Tschannen-Moran (2002) reported that Virginia principals worked 50

hours weekly and they added that the extra work hours might compete with the

available time and the lack thereof. The elementary school principals in this study were

not asked a specific question about the actual hours they worked each week. During their interviews, they discussed the amount of time required to succeed in their roles.

Time. As provided in Chapter II, Torrence (2002) suggested that additional study be completed to more fully understand the barriers principals faced with using data. In her national study of 226 principals she posed an open-ended question about the "barriers, conditions or myths" that prevented principals from using data (Torrence, 2002, p.109). Torrence provided that one obstacle frequently mentioned by principals was "time." It was not clear what the response encompassed, whether it was "(1) time to understand the data, (2) time taken from other duties, or (3) time principals have to work with teachers" (Torrence, 2002, p. 109). She suggested that pursuing additional knowledge about principals' data usage could be possibly achieved through interviewing (Torrence, 2002).

As revealed in this study, elementary school principals identified the barrier of time as it related to accessing all knowledge sources, not solely data. They defined the barrier of time as consisting of (1) time to read the knowledge, (2) time to access knowledge, and (3) time to reflect about the knowledge. Barth posited about the importance of reflection as displayed in Figure 1.1. The time barrier did not deter the effective principals from striving to reach their goals.

Funding. Several of the elementary school principals shared that the lack of funding for staff development materials was a barrier.

Two elementary school principals did not experience funding difficulties (F/doc/pc;G/doc/pc). They served in school systems that had community trust funds

established to help their school systems. Their teachers benefited from the professional expertise shared by educational experts who disseminated their knowledge on site.

Finding #7

The nine elementary school principals designed a variety of formats to guide the teachers to use the knowledge sources. Ultimately, through the sessions for teachers to learn valuable content, the students were assisted. As described in Chapter IV, effective principals (1) created summer retreats, (2) planned learning communities, (3) offered school wide books study, (4) led school wide instructional enhancement projects, (5) promoted individual study, (6) arranged consultants' visits, (7) led instructionally focused faculty meetings, and (8) designed specially scheduled training days. Conveying knowledge to their teachers was accomplished though the variety of formats to meet identified needs.

Shared in Chapter II, Gould's (1998) study of 109 Massachusetts elementary principals, 88% noted that increasing student learning was a high priority. He found that principals' time was divided into 70% with administrative tasks and 30% with helping teachers. Principals commented that their preference was to have their time spent in the complete opposite of actual demands. He suggested that for schools to improve, principals needed to prioritize helping students to increase learning.

<center>Implications for Practice</center>

School System Leaders

The contextual makeup for each school is uniquely related to the composition of the student population. Many of the elementary school principals shared the challenges of understanding students' poverty, diversity, and mobility. Principals need support as

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they lead teachers to be successful with their students. Other professions seek to model effective practices. The educational profession would be well served to model such emulation. This qualitative study shares extensive comments from nine identified elementary school principals. Eight recommendations for school system leaders are outlined.

Recommendation #1. When the SOL results arrive at the school system from the scoring company, central office personnel should organize the data to reduce unnecessary analysis time for the principals. Data that are provided to principals in useable formats eliminates unnecessary analysis time by principals.

Recommendation #2. Central office content specialists should support principals and teachers with addressing the identified instructional weaknesses within schools in their school systems. They should arrange dialogue sessions between central office subject experts and principals to discuss their needs and suggest the best ways to support their teachers.

Recommendation #3. The research office should lead efforts to transmit knowledge to help teachers. School system leaders should capture the tacit knowledge of teachers that exists within the school system. It will be beneficial to convey the existing knowledge within the system to help other administrators and teachers. As detailed, the faculties met in a variety of formats to gain knowledge. That practice should be embraced.

Recommendation #4. School systems leaders would be well served to recognize the importance of principals being the head learners. In the hiring process, interview questions should focus on investigating prospective principals' readiness to function as

the head learners. Three elementary school principals reported that mentors had supported them (C/pc;H/pc;I/pc). The mentoring of prospective principals has promise as a means to enhance system wide success. The practice of conveying tacit knowledge from identified principals offers a means for accelerating beginning principals' administrative growth.

Recommendation #5. Time emerged as a barrier to accessing knowledge. School system leaders should analyze time usage to maximize principals' leadership with their teachers, students, and parents.

Recommendation #6. School system decision makers should prioritize the funding for principals to attend conferences where they can learn about the instructional approaches that are working at successful schools.

Recommendation #7. School systems should counteract funding limitations by employing a grant writer to pursue alternative ways to finance professional development. The centralized funding for staff development for schools can offset the barrier of limited budgets detailed by the principals.

Recommendation #8. As reported in Chapter IV, the elementary school principals' mean years of educational experience was 27.5 years. The expansive tacit knowledge of each will be lost upon their retirement, if it is not captured in some manner. School systems should find ways to record effective principals' knowledge to benefit the subsequent generation of administrators.

School Boards

Reeves (2002) suggested that school boards should analyze the percentage of agenda items that deal with students' achievement. Such a practice would provide a

focused perspective for the school board members. Listed below are five recommendations for school boards:

Recommendation #1. School boards should examine electronic means to assist the principals with data analysis. School boards should provide financial assistance to support such advancements. The technology could help principals to have their children's data for use through successive grade levels.

Recommendation #2. It is critically important that school boards acknowledge those principals and teachers who succeed with challenging student populations. They should be recognized yearly for their significant accomplishments with students.

Recommendation #3. One elementary school principal conveyed that she was supported financially by her school system with meeting the needs of challenging students' instructional needs. She received differentiated funding determined through a needs formula to finance before and after school tutoring programs (C/pc). Such an idea should be emulated for meeting contextual needs of the student population.

Recommendation #4. School boards should also designate funding for their principals to attend professional conferences. School boards should also consider appropriating funds for principals to visit schools that have faced similar challenges and have met with success.

Recommendation #5. In devising the yearly calendar for the school system, school boards should prioritize the goal of providing substantial staff development time for teachers and principals. School boards should support meaningful and ongoing staff development for their teachers. One school had planning time on Mondays from 1:20 p.m. to 3:30 p.m., which provided substantial planning and staff development time for

the principal and teachers (G/7/pc). Elementary school teachers are expected to complete multiple lesson preparations and this calendar format provided time for teachers to complete meaningful planning and reflection. The elementary school principal monitored her teachers' use of the designated time (G/8/pc).

Principal Leadership Training Universities and Colleges

The educational profession has been criticized when compared to other professions such as medicine and science, because effective approaches have not necessarily been emulated. The success of the nine effective principals provides a model to be duplicated. There are eight recommendations offered for consideration by principal leadership training universities and colleges.

Recommendation #1. Help prospective principals to understand how to assist teachers with to succeed with students in poverty. This is a continuing theme for many schools and indicates continued need for knowledge updates.

Recommendation #2. Establish long term mentoring relationships to support principals in the initial stages during their careers. Three effective principals remarked that mentors had supported them as leaders.

Recommendation #3: Practitioners and academics have not had conversations at the same forums (Reitzig, et al, 2000). Such interactions would greatly foster continued advancements and would benefit practitioners and academics.

Recommendation #4. Myriad demands are expected of principals because of their students' needs. Helping future principals to learn how to guide teachers with assimilating available knowledge is a valuable leadership skill. Effective principals need facilitative skills in their leadership roles to be successful with teachers and parents.

Recommendation #5. Develop a comprehensive format of how principals can become the head learner. In Chapter II, Leithwood and Montgomery (1982) recognized that a principal's role is ambiguous and complex. Eight of the nine effective principals were clearly the head learners within their schools.

Recommendation #6. Teach prospective principals how to minimize the barrier of time with completing prioritized work. Future principal will benefit from learning time management strategies.

Recommendation #7. Teach prospective principals how to convey knowledge to teachers. The effective principals successfully used eight formats with their teachers.

Recommendation #8. The two elementary school principals (E/pc;G/pc) who completed their administrative studies in 1973 and 1975 felt that their academic training did not prepare them for the current accountability expectations. They completed their academic studies more than 30 years ago. Despite the obsolete aspect of their academic training they helped their students to achieve at significant levels. Institutions that prepare principals can enhance practitioners' knowledge by offering renewal seminars, as are common practices in other professions.

Professional Organizations

Seven elementary school principals affirmed that attending conferences offered valuable knowledge (A/4/pc;B/3/pc;C/8/pc;E/3/pc;G/2/pc;H/3/pc;I/3/pc). They added that networking during the conferences and throughout the school year was beneficial. The elementary school principals specified in Chapter IV, that attending the NAESP, VAESP, ASCD, and VASCD conferences offered beneficial knowledge.

Professional periodicals read by elementary school principals were *Educational Leadership* (6 of 9 elementary school principals), *Principal* (4 of 9 elementary school principals), the *Kappan* (3 of 9 elementary school principals), the Journal of Staff Development (1 of 9 elementary school principals), and *Educational Digest* (1 of 9 elementary school principals). None of the elementary school principals referenced any prestigious refereed journals identified by Tschannan et al., (2000). Six recommendations for professional organizations are outlined.

Recommendation #1. Efficient data analysis will continue to be an important competence expectation for principals. Elementary school principals will benefit from knowing how to identify the instructional challenges and strengths through data analysis.

Recommendation #2. Helping principals to be successful in meeting contextual challenges such as students' poverty, mobility and diversity will continue to be a critical leadership need.

Recommendation #3. Providing guidance to elementary school principals about their professional growth to become and to remain current as the head learners within their schools.

Recommendation #4. Principals will benefit from professional support with ways to support their teachers and techniques for enhancing the teachers' intrinsic motivation about teaching, as they face increasing contextual challenges within their student populations.

Recommendation #5. The barriers of time and limited funding will continue to be a leadership challenge. Leaders need guidance with how to prioritize their lives. They will also benefit from learning how to be efficient with obtaining funding.

Recommendation #6. Principals need support with how to convey knowledge to teachers. This skill will continue to be an important leadership knowledge strand.

Implications for Future Study

It would be enlightening to interview the teachers at such successful elementary schools to discover their perspectives about how they succeeded despite challenges. Teachers' reflections about how their principals led them would be instructive. Through the examination of teachers' key beliefs within high performing schools their collective insights would provide specificity about how to design an emulation model for other schools. These identified elementary schools are examples of success.

Another future study could be designed to interview parents from elementary school principals' schools to gather their perceptions. This study focused on elementary school elementary principals. A potential study for replication would be to examine the practices of middle or high school principals at successful schools.

Several schools had Comprehensive School Reform Grants. It would be instructive to discover how these elementary school principals maximized the funding. Additional study should be completed to investigate students' long-term achievement trends of elementary principals' schools.

An area for additional study would be to examine effective motivational approaches that elementary school principals used to keep their teachers engaged in their work. Elementary school principals should be asked about the teachers'

characteristics that helped to insure success for their students. A researcher could investigate how those in school system leadership roles supported elementary school principals' use of the best available professional knowledge.

One elementary school principal had the opportunity to be the planning principal for a year prior to the opening the school. In addition to planning, she developed relationships with central office personnel who ultimately supported the professional development of her teachers (C/10/pc). She commented that the planning year was a once in a lifetime opportunity. Her school was one of eight schools in the nation to receive the Dispelling the Myth award from the Education Trust on November 6, 2003 for reaching significant achievement despite having a high poverty student population (C/3/doc/pc). The significant success of her students provides other leaders with a model of emulation.

Reflections about the Research Process

The researcher concluded much study about qualitative research following a five-week summer residency at Virginia Polytechnic Institute and State University. The experience of completing the two pilot interviews helped the researcher to develop interviewing skills and allowed an opportunity to receive feedback about the interview protocol. The researcher became more competent with grasping essential nuances such as posing quality questions and deciding how to ask prompts to delve deeper into the elementary school principals' initial responses. The researcher understood that it was crucial to avoid asking dichotomous or leading questions.

The decision to hire a professional transcriber was an invaluable support in the process. It allowed time to complete memoing throughout the 114 pages of transcribed interview notes.

The nine elementary school principals were engaging and cooperative in sharing their experiences. They seemed to enjoy the opportunity to reflect about their leadership, teachers and collective efforts to help the children. The mean length for the nine interviews was 43 minutes. Such substantial time to conduct individual conversations with the elementary school principals provided comprehensive interviews and a rich descriptive study. The phone conversations conducted with the teachers and colleagues to triangulate the data sources confirmed that these nine elementary school principals provided significant instructional leadership.

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Appendix A

Superintendent's Approval Request

Dear (<u>Superintendent's Name</u>),

I am seeking your approval with allowing (principal's name) to participate in a qualitative study that I am conducting this year. The study is entitled <u>An Exploratory Study to Identify Knowledge Sources Used by Effective Elementary School Principals in Virginia</u>.

In the Standards of Learning testing completed in the spring of 2002, there were 709 elementary schools out of 1056 schools with third and fifth grades that achieved full accreditation. There were 11 schools of the 709 whose students' achieved 2 standard deviations above the predicted level of performance. (Name of the school) was one of those 11 schools. I would like the opportunity to interview (principal's name).

The proposed study will be conducted by using in-depth interviewing. I would like to interview (principal's name) for 60 minutes, to gather his/her thoughts about my questions. The interview will be scheduled at the convenience of your principal. In writing the research, the identities of the principal and the school system will be protected by the use of pseudonyms.

This study represents my dissertation and will assist me in completing the requirements for an Ed.D. in Educational Leadership and Policy Studies at Virginia Polytechnic Institute and State University. I recently completed my 29th year in Chesterfield County School System and 19th year as an elementary principal. I have been involved in academic study through Virginia Tech since January 1997.

If you will allow (principal's name) to participate in the study by being interviewed by me, please complete and return the enclosed response sheet. I will contact (principal's name) upon receiving your approval. I am most appreciative of your consideration of my request.

Sincerely,

Donald K. Bechtel

Appendix B

Superintendent's Approval

Superintendent's Name: _____

School System: _____

[Please initial]

_____   I give my permission for you to interview the following principal:

(Principal's Name) (School Name & Address) with the understanding that the identities

of the principal, school. and school system will be kept anonymous.

Please return this response to D.K. Bechtel in the enclosed envelope. Thank you for

your assistance.

Appendix C

Letter to Elementary School Principal

Dear (Principal's Name),

I am seeking your acceptance with allowing me to interview you for a study that I will be conducting this year. The study is entitled <u>An Exploratory Study to Identify Knowledge Sources Used by Effective Elementary School Principals in Virginia.</u>

In the 2002 SOL testing your students scored two standard deviations above the expected level of performance, given the percentage of students receiving free and reduced meals. Congratulations to your student, faculty members, and you. Only 11 schools out of 709 elementary schools that passed the SOL testing in 2002, reached such a significant level of performance.

I would like to interview you to gather your thoughts about my questions. The interview will be scheduled at your convenience. The identities of your school, school system, and you will be protected by the use of pseudonyms in writing the study.

This qualitative study represents my dissertation and will assist me in completing the requirements for an Ed.D. in Educational Leadership and Policy Studies at Virginia Polytechnic Institute and State University. I am completing my 29th year in Chesterfield County School System and 19th year as an elementary school principal. I have been involved in academic study through Virginia Tech since January 1997.

I will be contacting you by telephone in the coming week to find out if you would like to participate in the study. I am most appreciative of your consideration of my request. I recently received initial permission from your Superintendent. A copy of the approval is enclosed.

Sincerely,

Donald K. Bechtel

Appendix D

Informed Consent Form

My name is Donald Bechtel and I am the researcher on a dissertation study entitled An Exploratory Study to Identify Knowledge Sources used by Effective Elementary School Principals in Virginia. I am presently a doctoral student at Virginia Polytechnic Institute and State University in the Educational Leadership and Policy Studies program. I can be contacted at 804-739-6308 (work) or 804-739-1091 (home), or electronically at donald_bechtel@ccpsnet.net.

I am appreciative of your willingness to participate in this research project. Prior to beginning any interviews, I would like to inform you of your rights, which are outlined in the Informed Consent for Participants in Research Projects Involving Human Subjects.

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Narrative Description of the Protocol

Title of Project: <u>An Exploratory Study to Identify Knowledge Sources Used by Effective Elementary School Principals in Virginia</u>

Investigator: <u>Donald K. Bechtel</u>

I. The Purpose of the Research

Educators often employ instructional approaches because of their customary use in the classroom, not because they necessarily are supported by validated evidence. Missing from the body of leadership literature is an understanding specifically about elementary principals' use of knowledge resources to support their instructional leadership. This study will seek to identify the sources of information that effective principals use in making instructional decisions and understand the barriers they face in using the sources. This exploratory study will be guided by three research questions: (a) What are the knowledge sources used by effective elementary school principals in Virginia? (b) What are the barriers effective elementary school principals face to using the knowledge sources? (c) How do effective elementary school principals guide their teachers to use the sources? This study may be useful to those designing principal preparation programs, to school system personnel who plan professional growth inservices for principals, and to policy groups that seek to improve the profession by promoting evidence-based practices.

Interview data from principals identified as effective will serve to inform the study.

II. Procedures

Elementary principals in the Commonwealth of Virginia whose schools had third and fifth grades in 2002 were considered for the inclusion of the study. There were 1056 such schools. *Effective* was selected to describe certain elementary school principals in Virginia. Using the percentage of students receiving free or reduced lunch at each school and the average score for third and fifth grade on the Standards of Learning (SOL) tests in English, mathematics, history, and science, the information was entered as variables using the Statistical Package for Social Science (SPSS). A regression analysis was completed using SPSS. Data were available for 707 of the 709 schools that achieved full accreditation in 2002. Schools that scored two standard deviations above their predicted score for the SOL testing were selected as being led by an effective principal. There were 11 such schools that met the criteria in the spring 2002 testing.

Participants will be interviewed using a structured questions interview format and will receive the questions two weeks prior to the interview. The interviews will be tape-recorded, with the permission of the participants. The interview will be conducted in a location determined by the participants or the participants may request a phone interview. The participants will be asked to respond to the questions. The participants

may be called following the interview. In addition, 2 participants not included in the 11 will be also interviewed as pilot participants prior to beginning the interviews with the 11 identified participants.

III. Risks

This study involves no more than minimal risk for the participants.

IV. Benefits

No promise or guarantee of benefits has been made to encourage participants to participate. Participants may request a summary of the research results.

V. Extent of Anonymity and Confidentiality

Pseudonyms will be used for the name of the participants, the names of their schools and school systems in writing the study. At no time will the researcher release the results of the study to anyone without your written consent. The interviews will be tape-recorded. Tapes will be secured and stored in a locked cabinet and kept by the investigator. The taped conversations will be transcribed for the purpose of completing the research.

VI. Compensation

Participants will not be compensated in this research project.

VII. Freedom to Withdraw

Participants may withdraw from this study at any time.

VIII. Subject's Responsibilities

Participants voluntarily agree to participate in this study.

IX. Subject's Permission

A letter will be sent to the school system Superintendent requesting permission to interview one of their principals. Upon receiving permission from the Superintendent, a letter will be sent to the Principal requesting their permission to be interviewed. Upon receiving permission from the Principal, they will be provided with an Informed Consent form prior to beginning the study.

_____   Date _____
                Participant's signature

Should I have any pertinent questions about this research or its conduct, and research subjects' rights, and whom to contact in the event of a research-related injury to the subject, I may contact:

Donald K. Bechtel   (804) 739-1091 donald_bechtel@ccpsnet.net
Investigator

Dr. Travis Twiford   (757) 363-3930 ttwiford@vt.edu
Chair

David M. Moore   (540) 231-4991/moored@vt.edu
Chair, Virginia Tech Institutional
Review Board for the Protection of Human Subjects
Office of Research Compliance – CVM Phase II (0442)
Research Division

This Informed Consent is valid from August 5, 2006 to August 4, 2007

Appendix E

Demographics Survey About the Principal

Dear (Principal's Name),

Prior to meeting with you for our interview, I would like to find out the following

information about you. This information will assist me in getting to know you better.

Please mail back this survey in the enclosed envelope.

Principal's name   __(Was completed by the researcher)__

Name of School   __(Was completed by the researcher)__

Name of School System   __(Was completed by the researcher)__

Number of years that you have served as the principal at your current school

(include this year in the total)   _____

Number of years as a principal (include this year in the total)   _____

Year that you completed your administrative studies   _____

Number of years as an educator (include this year in the total)   _____

Population size of your school   _____

Grade levels in your school   _____

Do you consider your school to be in a suburban, rural or urban setting?

_____

Please return this form to D. K. Bechtel in the enclosed envelope.

Appendix F

Interview Protocol

1. When you search for information or knowledge that you use in your work, do any

    of the following sources play a part in getting information you can use? Can you

    provide specific titles of commonly used sources?

    Journals

    Books

    Professional Conferences

          Local, state, national

    Interactions with Colleagues

    Experiences as a Principal

    Data

    Electronic Sources

    Academic Preparation Program

    Others that do not

2. How do you validate the quality of the information?

3. How is new information valuable to you in your role as elementary principal?

4. What evidence about the knowledge source determine if you put the knowledge into

practice?

5. When you have been faced with a decision that you felt needed support from

additional information, where did you go to obtain that information?

6. How do you go about getting information in your role.

7. What are the knowledge sources that are available in your school systems?

8. Is there a researcher or researcher whose work you think is better than others?

Explain why.

9. Are there researchers who have influenced your leadership?

10. What professional books have influenced your leadership?

11. How is best practice determined in your school?

12. Are there barriers for you in using knowledge sources?

13. How do you convey knowledge source information to your teachers?

14. Is there a person you feel comfortable with that you can ask professional questions?

Tell me about the person.

15. How do you go about implementation of the knowledge with your teachers?

Appendix G

Reflections about Interview with the Principal

Principal's Name _____

Name of School _____

Date of Interview _____

1.The major themes or concepts that emerged during this interview were:

2. Other significant findings:

Appendix H

Request for Principal to Review their Interview Transcript

July 2, 2006

Principal's Name
Name of School
Street Address
City, State   Zip Code

Dear (Principal's Name):

Enclosed is a copy of the transcript from my (date of interview) interview with you. I wanted you to have an opportunity to review the transcript and to make amendments. You may write directing on the enclosed transcript. If you make any changes, please mail back the transcript to me by August 31.

Your identity, the identity of your school and school system will be protected by the use of pseudonyms in writing the study. I am in the data analysis component of my work with the dissertation and am hopeful to complete it in October.

Your assistance has made a significant difference in adding to the richness of my study. I am appreciative of your helpfulness. I wish you the best for the coming school year. With kindest personal regards, I am

Sincerely,

Donald K. Bechtel

Appendix I

Request to Principal to Identify a Colleague

May 18, 2007

Principal's Name
Principal's School
Address

Dear Principal,

I am appreciative of your allowing me to interview you. Your insights about the 2001-2002 school year at Principal's Elementary School helped me immensely to write my dissertation.

I have enclosed statements that you made during our interview that appear in my dissertation. You have been identified in my dissertation as Principal A through I. You may recall that your identity is protected through the use of a pseudonym. The number beside the (A through I/__) indicates the page number for the statement within your interview transcript.

I am seeking the opportunity to speak to a faculty member or colleague who could verify the enclosed statements. All of the information provided to me by the faculty member or colleague will be represented as a notation of (pc) for phone conversation or (doc) for an e-mail transmission. My e-mail address is Donald_Bechtel@ccpsnet.net. My phone number at school is 804-739-6308 and at home is 804-739-1091.

I recognize that this is a busy time for the faculty members at Principal's School and for you. I am indebted for your assistance, as I work to finalize my dissertation.

Sincerely,

Donald K. Bechtel

Appendix J

Facts or Statements Attributed to Principal A

1. Three were currently serving as principals in their same school systems (A;F;I). doc-5-18-07/pc/6-14-07

2. An elementary school principal reported that 70% of her students were ESL learners (A/7). pc/6-14-07

3. When an elementary school principal was asked about accessing knowledge sources, she replied, "…constantly, constantly trying to keep abreast of what's out there and what's happening in other schools and systems and research" (A/2). pc/6-14-07

4. Three elementary school principals began their educational careers in secondary schools (A/6;B/6;H/5). pc/6-14-07

5. One elementary school principal started her career as a physical educator (A/6). pc/6-14-07

6. The elementary school principals referenced numerous book titles about enhancing reading instruction and subjects within the elementary curriculum (A/2;B/3;C/11), leadership (A/3;C/11;D/2;G/3), brain research (B/3;D/8;G/5;I/3), year round education (A/3), English as the Second Language (A/3), multicultural education (A/3;B/3;H/2), and motivation (A/3;C/8;D/8). pc/6-14-07

7. An elementary school principal shared that she used the books recommended by the ASCD (A/1).   pc/6-14-07

8. Seven elementary school principals affirmed that attending conferences offered valuable knowledge (A/4) pc/6-14-07

9. An elementary principal remarked that she alternated in attending the national NAESP and ASCD conferences and VASCD conference (A/4). pc/6-14-07

10. She noted, "I do my best with being involved nationally, state or locally on a monthly level" (A/5). pc/6-14-07

11. Elementary school principal attended conferences that were conducted locally in the Washington, D.C. region, such as bi-monthly meetings about the arts at the Kennedy Center and sessions at the Library of Congress that combined library services with academics (A/4). pc/6-14-07

12. She also attended the statewide Title I reading conference (A/5). pc/6-14-07

13. Elementary school principals attended state ESOL (English for Speakers of Other Languages) conference (A/5;E/7). pc/6-14-07

14. Another elementary school principal explained that her system offered instructional conferences for teachers that she attended (A/5). pc/6-14-07

15. Another elementary principal shared, "I don't know it all and I recognize that" (A/3). pc/6-14-07

16. She added, "I accept the challenge, but it's really exhausting" (A/11). pc/6-14-07

17. An elementary principal indicated that prior knowledge about her teachers helped as she led them (A/5/pc). pc/6-14-07

18. Going into the principalship the first year I had the background knowledge of being an administrator. But when the buck stops here, you have to make the final decisions. Through experience I have grown, and watching and observing and listening to my colleagues and how they handle situations (A/5). pc/6-14-07

19. All of the elementary school principals identified their students' needs with comprehensive data analysis (A/7) pc/6-14-07

20. An elementary school principal cautioned, "**…**not losing sight of the individual child**,** too" (A/7). pc/6-14-07

21. One elementary school principal explained that she analyzed the SOL data and then had the teachers to administer pretests to all students during the first two weeks of school (A/7). pc/6-14-07

22. An elementary school principal shared that she used Reading from A to Z, an electronic source that is produced monthly (A/2). pc/6-14-07

23. Another effective principal used the <u>Washington Post</u> online source (A/8). pc/6-14-07

24. An elementary school principal shared how her first administrative degree prepared her to be an effective school administrator (A/9). pc/6-14-07

25. "I was more focused on a discipline" (physical education) and her postgraduate work prepared her for the principalship (A/9). pc/6-14-07

26. She concluded by adding, "…there is nothing like learning on the job" (A/9). pc/6-14-07

27. An elementary school principal offered, "My parents and parents in the community share information with me as well. Parents with children with disabilities are constantly learning about disabilities. It's a valuable a resource" (A/9). pc/6-14-07

28. Another elementary school principal agreed, "Reflection is so important" (A/11). pc/6-14-07

29. When asked about barriers with accessing knowledge sources, an elementary

school principal remarked, "Trying to meet the needs of everyone you come in contact

with" (A/11). pc/6-14-07

30. An elementary school principal remarked, "Our school management plan drives our

approach" (A/10). pc/6-14-07

31. She added, "I am always learning, that is what keeps it fun" (A/6). pc/6-14-07

32. One elementary principal relayed, "not everyone needs to have the same

information because of their students' needs. "We match it to our school needs" (A/10).

pc/6-14-07

33. She purchased multiple copies of books that she identified as providing necessary

information about enhancing vocabulary instruction that her teachers could apply in their

teaching (A/10). pc/6-14-07

34. When appropriate, elementary principals offered personalized information to help

teachers with identified instructional needs observed through classroom observations

(A/11). pc/6-14-07

35. An elementary principal provided, "We come back and discuss the implementation.

We will build on it on that or we'll find another book…" (A/10). pc/6-14-07

36. She summed up, "…everybody is not involved in the same information all of the

time" (A/10). pc/6-14-07

37. She modeled instructional techniques in teachers' classrooms (A/11). pc/6-14-07

38. An elementary principal commented that she's not afraid to ask instructional

specialists to support the teachers with new materials (A/11). pc/6-14-07

39. An elementary principal remarked, "We think we're fabulous" (A/2). She expanded, "It is working, but we want 100 percent" (A/8). pc/6-14-07

40. An elementary principal recognized, "These people have to know everything" (A/6). pc/6-14-07

41. The elementary school principals were not deterred because of significant challenges, such as the 55.09% mean for the percentage of their students' free and reduced lunch and high percentage of ESL students in some schools (A/pc;C/pc;D/pc;E/pc;). pc/6-14-07

Appendix K

Facts or Statements Attributed to Principal B

1. He transferred from a neighboring school system (B). pc/6-20-07

2. Four elementary school principals amended their interview transcripts (B). doc/7-10-06

3. Three elementary school principals began their educational careers in secondary schools (B/6). pc/6-20-07

4. One as a secondary classroom teacher (B/6). The elementary school principal who began his career as a secondary classroom teacher had never worked with children below seventh grade. His superintendent asked him to lead an elementary school. pc/6-20-07

5. He ultimately worked for the superintendent in two school systems (B/8). doc/5-18-07;pc/6-20-07

6. Four elementary school principals accessed Marzano's book entitled *Classroom Instruction that Works* (B/8). pc/6-20-07

7. The elementary school principals referenced numerous book titles about enhancing reading instruction and subjects within the elementary curriculum (A/2;B/3;C/11), leadership (A/3;C/11;D/2;G/3), brain research (B/3;D/8;G/5;I/3), year round education (A/3), English as the Second Language (A/3), multicultural education (A/3;B/3;H/2), and motivation (A/3;C/8;D/8). pc/6-20-07

8. Seven elementary school principals affirmed that attending conferences offered valuable knowledge (B/3). pc/6-20-07

9. One school principal mentioned value in attending the Governor's Best Practices Institute conducted by the Virginia Department of Education during the summer (B/4). pc/6-20-07

10. He served as a NAESP Board member and had prior involvement on the VAESP Board (B/4). doc/5-18-07;pc/6-20-07

11. He also assisted as a regional contact person of the Appalachian Educational Laboratory (Edvantia) and coordinated professional development sessions for educators in his region (B/4). pc/6-20-07

12. As he reflected about his work on the boards, he explained, "Those opportunities allowed many networking opportunities when I had questions about common issues experienced by peers" (B/5). pc/6-20-07

13. When asked if the experience as a principal offered a knowledge source, one elementary school principal shared that no two days were alike in the principalship (B/5). pc/6-20-07

14. He remarked, "…you have to realize that you don't know everything" (B/5). pc/6-20-07

15. He added, "You have to talk with people and use people as sounding boards" (B/5). pc/6-20-07

16. All of the elementary school principals identified their students' needs with comprehensive data analysis (A/7;B/5) pc/6-20-07

17. Another elementary school principal reviewed the data and looked for patterns in subject strands with SOL scores and used teachers' workdays to dig deeper into the data (B/5). pc/6-20-07

18. When an elementary school principal was asked about the objective of data

analysis, he indicated, "To improve instruction, to look at our weak areas... to look for

strands… and patterns…" (B/5). pc/6-20-07

19. He added that it was also essential to question, "is it an issue concerning the

materials that we're actually using?" (B/5). pc/6-20-07

20. Elementary school principals shared that they completed electronic searches on

ERIC (H/2;I/5) and the Appalachian Network (Edvantia) (B/1).   pc/6-20-07

21. Another elementary school principal accessed the NAESP electronic newsletter

(B/6).   pc/6-20-07

22. An elementary school principal commented, "No principal preparation program can

train principals for what they face in the daily work" (B/6). pc/6-20-07

23. Elementary principals shared that they had to be cautious with the materials

purchased for the teachers (B/9;I/11). pc/6-20-07

24. An elementary principal commented, "…you go off to these places and you hear all

these great speakers and you want to implement these ideas, but then there is the

money issue" (B/9). pc/6-20-07

25. Two elementary principals added that the lack of funding for staff development

initiatives proved to be a barrier (I/11;B/9). pc/6-20-07

26. One of the elementary principals sought funding through grants (B/9). pc/6-20-07

27. An elementary principal shared that his teachers took it personally if the students

didn't achieve (B/7). pc/6-20-07

28. One elementary principal explained that he modeled his learning communities as

described by DuFour (B/8). pc/6-20-07

29. Elementary principals suggested books for their teachers to address aspects of the curriculum that were identified as weak through prior data analysis (B/10). pc/6-20-07

30. I used teams of teachers to convey the new information (B/10). pc/6-20-07

31. Another elementary principal noted, "I had some high quality teachers… They took it personally if the students didn't achieve" (B7). pc/6-20-07

32. Another school had a college professor to teach a reading course to the entire faculty (B/6). pc/6-20-07

33. An elementary principal proudly noted, "Our school was the first one to be accredited in our county" (B/10). pc/6-20-07

34. An elementary principal noted that he was the principal of two schools during the year. One school was comprised of kindergarten through second grades and the other had third to fifth grades. He reflected that, "It was difficult running two buildings" (B/7). pc/6-20-07

Appendix L

Facts or Statements Attributed to Principal C

1. One was an Assistant Superintendent (C). doc/5-18-07;pc/6-1-07

2. One elementary school principal reported a student transience rate of almost 50% for

the 2001-2002 school year (C/10). pc/6-1-07

3. The same elementary school principal shared that children from 60 different countries

were enrolled in her school (C/8). pc/6-1-07

4. Four elementary school principals amended their interview transcripts (C) doc/9-2-06

5. An elementary school principal commented:

I really see my role as principal in appreciating, …getting the right people in the jobs,

giving them the resources they need to get the job done. And a lot of times, just getting

out of the way and letting them do it, but also appreciating (C/14). pc/6-1-07

6. An elementary school principal whose school was one of twelve in the United States

to be recognized by the Education Trust in 2003 for her students' outstanding

achievement read *Educational Leadership* and *the Kappan*. She shared that she did not

read a lot of "heavy research" (C/4) doc/5-18-07;pc/6-1-07.

7. The authors and titles of books used by elementary principals are shown in Table 4.6.

Books authored by Marzano (B/8;G/5;H/3;I/9) and Payne (C/8;H/2;G/2) were mentioned

by elementary school principals as prominent titles. pc/6-1-07

8. The elementary school principals referenced numerous book titles about enhancing

reading instruction and subjects within the elementary curriculum (A/2;B/3;C/11),

leadership (A/3;C/11;D/2;G/3), brain research (B/3;C/15;D/8;G/5;I/3), year round

education (A/3), English as the Second Language (A/3), multicultural education (A/3;B/3;H/2), and motivation (A/3;C/8;D/8).   pc/6-1-07

9. Seven elementary school principals affirmed that attending conferences offered valuable knowledge (A/4;B/3;C/8;E/3;G/2;H/3;I/3). pc/6-1-07

10. Two elementary school principals attended the national Effective Schools conference (C). pc/6-1-07

11. One elementary school principal attended the National Staff Development conference (C/8). pc/6-1-07

12. One elementary school principal was selected by the Washington Post to attend leadership symposiums with Colin Powell, Katherine Graham and Bill Marriott where she heard their perspectives about leadership (C/4). pc/6-1-07

13. All of the elementary school principals identified their students' needs with comprehensive data analysis (A/7;B/5;C/10;D/4;E/3;F/1;G/3;H/5;I/10). pc/6-1-07

14. As a result of her teachers taking an online course, she read more information electronically (C/8).   pc/6-1-07

15. One effective principal explained how her undergraduate degree program instilled the importance of insuring each student's success (C/4). No confirmation

16. One elementary school principal commented, "I also had relationships with the people in central office who could get other things done for me" (C/5). pc/6-1-07

17. Three elementary school principal shared that mentors provided valuable support to them (C;H;I). pc/6-1-07

18. Another elementary school principal remarked, "You have to dedicate so much time to doing things that really are irrelevant to moving instruction forward, but they have to

be done. If you don't do them, you will lose your funding, you're going to lose your support. …You could be spending time learning more about individuals and families and outreach and all of that. It's a barrier, but it's sort of a necessary evil" (C/14). pc/6-1-07

19. An elementary principal shared that she conducted summer meetings with each grade level to examine recent data about their students' strengths and weaknesses (C/10). pc/6-1-07

20. Summer retreats provided effective formats for three elementary principals to meet with their teachers to review data, to introduce relevant books and to plan for the coming year (C/9;D/10;G/2). pc/6-1-07

21. Her school had a 50% attrition rate with student mobility during a school year and a 57% free and reduced lunch percentage (C/3) pc/6-1-07

22. Her school was a recipient of the "Dispelling the Myth" award given to twelve schools and eight school districts in 2003. The national recognition was awarded by the Education Trust to recognize schools and school districts with high poverty and minority students, which obtained superior academic achievement. (C/3) doc/5-18-07;pc/6-1-07

23. Her school had many smaller learning communities (C/8). pc/6-1-07

24. Some teachers studied brain-based teaching, others examined how to strengthen the home-school connection, and another community studied reading development (C/15). pc/6-1-07

25. Her system also provided an "opt out day" for the teachers during the school year that attended a summer retreat before contract time. Her teachers perceived the extra day as a positive perk (C/9). pc/6-1-07

26. At three schools, the faculty accessed *Framework for Understanding Poverty* authored by Payne to help formulate an understanding about their students (C/11;G/2;H/2). pc/6-1-07

27. The consistent theme revealed by the elementary principals was the importance of leading instructionally focused faculty meetings during the school year (C/16**;**G/7). pc/6-1-07

28. An elementary principal commented that she wanted her teachers to ask themselves, "What personal capacity do I need to build?"(C/8). pc/6-1-07

29. An elementary principal stated, "So, we looked at every child's data…what's standing between this child and achievement? That might be something totally nonacademic" (C/6). pc/6-1-07

30. An elementary principal commented, "I am a firm believer that education needs to be personalized" (C/6). pc/6-1-07

31. The elementary principal reflected about their efforts, "…it opened my eyes to the power of professional development when it's purposeful and when it's job-embedded and when it's ongoing" (C/9). pc/6-1-07

32. An elementary principal captured the sentiment of other eight elementary principals by adding, "You can't appreciate a good teacher enough" (C/14). pc/6-1-07

33. An elementary school principal shared, "…But the mantra was you don't change your expectations for anybody, but understand that each kid is going to need a different level of support to get to those expectations" (C/10). pc/6-1-07

34. "But the personalized notice of the littlest things and appreciating them. And that was a knowledge source" (C/14). pc/6-1-07

35. The elementary school principals were not deterred because of significant challenges, such as the 55.09% mean for the percentage of their students' free and reduced lunch and high percentage of ESL students in some schools (A/pc;C/pc;D/pc;E/pc;). pc/6-1-07

36. Three elementary school principals reported that mentors had supported them (C/pc;H/pc;I/pc). pc/6-1-07

37. She received differentiated funding determined through a needs formula to finance before and after school tutoring programs (C/pc). pc/6-1-07

38. One elementary school principal had the opportunity to be the planning principal for a year prior to the opening the school. In addition to planning, she developed relationships with central office personnel who ultimately supported the professional development of her teachers (C/10). pc/6-1-07

39. She commented that the planning year was a once in a lifetime opportunity. Her school was one of eight schools in the nation to receive the Dispelling the Myth award from the Education Trust on November 6, 2003 for reaching significant achievement despite having a high poverty student population (C/3). doc/5-18-07;pc/6-1-07

Appendix M

Facts or Statements Attributed to Principal D

1. Two were Executive Directors of Elementary Education (D;H), doc/pc/5-18-07

2. An elementary school principal commented that the availability of information in the education field is overwhelming (D/6). pc/5-18-07

3. She added that it is essential to reflect about the relevancy of the information as it related to students' and teachers' needs (D/5). pc/5-18-07

4. An elementary school principal with 13 years of experience expressed her commitment to helping students be successful. She noted, "When a child failed, we really need to internalize what that means to us. It means we failed to do our job" (D/6). pc/5-18-07

5. She continued by saying, "If you don't believe you can make a difference, you're never going to make a difference" (D/10). pc/5-18-07

6. The elementary school principals referenced numerous book titles about enhancing reading instruction and subjects within the elementary curriculum (A/2;B/3;C/11), leadership (A/3;C/11;D/2;G/3), brain research (B/3;D/8;G/5;I/3), pc year round education (A/3), English as the Second Language (A/3), multicultural education (A/3;B/3;H/2), and motivation (A/3;C/8;D/8). pc/5-18-07

8. Two elementary school principals did not attend any state or national conferences (D/3;F/3). pc/5-18-07

9. One of the elementary school principals that chose not to attend any conferences explained that she was completing her doctorate and was immersed with extensive knowledge with her academic workload. She remarked that her professional

development was met through her coursework and dialogue with cohort members (D/3). pc/5-18-07

10. She noted, "Our school system offered a program entitled "Leaders are Learners" which presented staff development throughout the year in the system" (D/3). pc/5-18-07

11 All of the elementary school principals identified their students' needs with comprehensive data analysis (A/7;B/5;C/10;D/4;E/3;F/1;G/3;H/5;I/10).   pc/5-18-07

12. Prior to implementing information she shared, "experience and the data together" was done with a team of teachers (D/8).   pc/5-18-07

13. One elementary school principal earned her masters leadership degree and another effective principal completed her doctorate in cohorts. Both elementary school principals were positive about the academic format of being a cohort member. They felt the process developed networking and collaboration (D/3;I/6).   pc/5-18-07

14. Another elementary school principal underwent the principals' assessment program during her graduate studies. She reflected about the experience and commented, "…it allowed you to see how theory goes into practice" (D/4).   pc/5-18-07

15. She also completed her doctorate and relayed that she was professionally enriched by the quality of her cohort members (D/4). pc/5-18-07

16. One elementary school principal periodically met with six colleagues to discuss issues. The format for engagement was a component of her professional growth plan within her school system (D/3/pc). pc/5-18-07

17. An elementary school principal shared that she approached new information with an open mind. Her experiences with emotionally disturbed students helped her to be flexible in her acceptance of instructional approaches for all students (D/4). pc/5-18-07

18. When an elementary school principal was asked about trying new instructional methods she explained, "It's not so much that I am absolutely sure it is going to work, but it's worth using" (D/6). pc/5-18-07

19. When asked to define what one elementary school principal meant about time being a barrier, she provided, "Time with the teachers. Time to read it, time to reflect upon it, time to reflect about your needs within the building and each child (D/10). pc/5-18-07

20. An elementary principal stated the summer sessions allow time to ask, "What are the foundational changes that we want to make?" It was a team approach (D/8). pc/5-18-07

21. An elementary school principal realized that teachers needed varied levels of support with information (D/9). pc/5-18-07

22. She explained that, "The data led us. We had a large ESL population. Everyone benefits as we stretch ourselves" in meeting other challenges (D/9). pc/5-18-07

23. She explained, "…The reflection time is so important, you have to make time to do it" (D/9). pc/5-18-07

24. Two elementary principals commented about the importance of keeping people motivated (D/11;l/12). pc/5-18-07

25. Summer retreats provided effective formats for three elementary principals to meet with their teachers to review data, to introduce relevant books and to plan for the coming year (C/9;D/10;G/2).   pc/5-18-07

26. Teachers led book talks (D/10).   pc/5-18-07

27. One principal shared that they had a limited professional library for use by the teachers (D/10). pc/5-18-07

28. An elementary principal noted that conveying data was done in a team approach (D/8).   pc/5-18-07

29. An elementary principal reflected about guiding teachers with using knowledge sources by providing, "What is the systematic way to follow up? We tried to dig a little deeper, how can we see that it is really working. Having a strategy with how you want to implement it" (D/11).   pc/5-18-07

30. An elementary principal shared, "But the whole idea of keeping people motivated. I think that is so important because that allows people…to take risks without fear of repercussions" (D/11). pc/5-18-07

31. Another elementary school principal relayed, "being in an environment. You want to know that you tried everything you could (D/11).   pc/5-18-07

32. Three of the elementary principals remarked that they were cognizant about keeping the teachers motivated to do the job they faced each day (D/6;H/10;G/3). pc/5-18-07

33. The elementary school principals were not deterred because of significant challenges, such as the 55.09% mean for the percentage of their students' free and

reduced lunch and high percentage of ESL students in some schools

(A/pc;C/pc;D/pc;E/pc;) pc/5-18-07

Appendix N

Facts or Statements Attributed to Principal E

1. One elementary school principal (E) was retired.   pc/6-21-07

2. Another elementary school principal noted that children with 25 different languages and dialects attended his school (E/10). pc/6-21-07

3. Two elementary school principals commented that their knowledge did not come from journals (E/2;F/1). pc/6-21-07

4. One of the elementary school principal remarked, "Journals didn't meet our needs, so we just had to get in to help the families" (E/4). pc/6-21-07

5. His ESL students comprised 40% of his school enrollment and their literacy needs required a great amount of instructional support by tutors and mentors (E/2). pc/6-21-07

6. Two elementary school principals reported that they did not access books in their leadership, but rather used community resources, school system resource personnel or college professors to provide current knowledge (E/2;F/7). pc/6-21-07

7. Seven elementary school principals affirmed that attending conferences offered valuable knowledge (A/4;B/3;C/8;E/3;G/2;H/3;I/3). pc/6-21-07

8. Elementary school principals attended state ESOL (English for Speakers of Other Languages) conference (A/5;E/7). pc/6-21-07

9. All of the elementary school principals identified their students' needs with comprehensive data analysis (A/7;B/5;C/10;D/4;E/3;F/1;G/3;H/5;I/10). pc/6-21-07

10. One elementary school principal triangulated data about ethnic aspects before putting them into practice with his students and his teachers (E/5). pc/6-21-07

11. He constantly used data (E/4). He explained, "We did a lot of testing and sampling and could predict the results of the SOL testing" (E/4). pc/6-21-07

12. An elementary school principal noted, "I didn't have a lot of time to read journals, but I did have time to surf" (E/4). pc/6-21-07

13. He explained that historical information about ethnic groups found through searches on the World Wide Web allowed him to have a more extensive cultural knowledge (E/4). pc/6-21-07

14. An elementary school principal who completed his administrative degree in 1973 discussed the lack of relevancy with his graduate training. He relayed that his degree didn't prepare him for the current expectations (E/4). pc/6-21-07

15. An elementary school principal received support from two resource people in the foreign language department of his school system (E/9). pc/6-21-07

16. An elementary school principal shared that a valuable information source was the refugee immigration services led by the Catholic Diocese and the Foreign Mission Board, in addition to other religious organizations (E/6). pc/6-21-07

17. He used volunteers from 37 churches, fraternal and civic clubs as mentors and tutors for his students (E/6). pc/6-21-07

18. To counteract the workload during the school day, two elementary school principals relayed that they completed work at home (E/14/pc;H/9/pc). pc/6-21-07

19. One elementary school principal provided that the lack of support and a dismissal of his knowledge by superiors in his school system with the challenges relative to his students' needs proved to be a barrier (E/11). pc/6-21-07

20. His school had an enrollment of 40% of English as the second language (ESL) students. The elementary school principal had to locate funding to pay for the criminal background checks for the mentors and tutors. He needed support to gain a greater understanding about ethnic and religious backgrounds of his students and their families. The elementary school principal felt that his superintendent, assistant superintendent, and directors did not grasp the extent of his daily challenges related to the high percentage of ESL learners (E/9). pc/6-21-07

21. He remarked, "We had done our research" (E/11). pc/6-21-07

22. His superiors felt that the increase in the ESL population was temporary (E/11/). pc/6-12-07

23. The elementary school principal shared, "The more I became an advocate, the more I felt like I was alienating certain people at central. What they considered best practices often times left out the entire ESL population" (E/11). pc/6-21-07

24. He concluded by adding, "it's easier to get absolution than permission" as he proceeded to educate his diverse population (E/12) pc/6-21-07

25. One elementary principal's school was comprised of 40 percent of students as English as the second language students. He met with his leadership team of English as Second Language teachers and lead teachers. They had 157 mentors to help his students, one hour, for one child, for one day a week. It continued for ten years (E/7). pc/6-21-07

26. An elementary principal remarked, "I had the best teachers. They stayed at the school despite the challenge of teaching a high percentage of ESL students. A

significant challenge was the fluctuating student enrollment. But the teachers were right there with me. This wasn't the lone ranger act" (E/13).   pc/6-21-07

27. The elementary school principals were not deterred because of significant challenges, such as the 55.09% mean for the percentage of their students' free and reduced lunch and high percentage of ESL students in some schools (A/pc;C/pc;D/pc;E/pc;). pc/6-21-07

28. As reported in Chapter IV, two elementary school principals did not acquire their knowledge through reading books or journals (E/pc;F/pc). pc/6-21-07

29. One of the effective principals was knowledgeable about the ethnic and religious backgrounds. He was a "hands on leader" who learned substantial knowledge through interacting with individuals who were well informed about such ethnic and religious content (E/pc). pc/6-21-07

Appendix O

Facts or Statements Attributed to Principal F

1. Three were currently serving as principals in their same school systems
(A;F/doc/pc;I). doc/5-18-07;pc/7-2-07

2. Two elementary school principals commented that their knowledge did not come from
journals (E/2/pc;F/1/pc). pc/7-2-07

3. Two elementary school principals reported that they did not access books in their
leadership, but rather used community resources, school system resource personnel or
college professors to provide current knowledge (E/2;F/7). pc/7-2-07

4. Two elementary school principals did not attend any state or national conferences
(D/3/pc;F/1/pc). pc/7-2-07

5. An elementary school principal reflected about the influence of his experiences and
remarked, "Knowing what makes the world turn and then learning what makes you fall
flat on your face" (F/4). "When you hit on something that is really working…" (F/4). pc/7-
2-07

6. He shared his perspective about continuing with effective approaches and resisting
the temptation to make unnecessary changes (F/4). pc/7-2-07

7. All of the elementary school principals identified their students' needs with
comprehensive data analysis (A/7;B/5;C/10;D/4;E/3;F/1;G/3;H/5;I/10). pc/7-2-07

8. An elementary school principal completed disaggregation from the current year and
preceding years. In addition, his teachers used pretesting with children to begin the year
and also administered quarterly benchmark testing. He summed up, "It's actually
enjoyable to break down the data" (F/9).   pc/7-2-07

9. When an effective principal was asked about his use of data, he revealed that, "Assessment is key, data-driven is key. Best practice is key" (F/5). pc/7-2-07

10. An elementary school principal affirmed that he completed "very, very thorough dissaggregation of the test data. ..identifying specifics. Very measuring specifics" when analyzing data (F/1). pc/7-2-07

11. He remarked, "When the word flies through the air that I've received the SOL scores, they're beating down my door. That shows ownership. That's very good" (F/2). pc/7-2-07

12. He added about questions guiding data analysis, such as, "…what happened to those who passed? And what happened to those who failed? That is just the beginning with data analysis given the expectation relative to No Child Left Behind and subgroups" (F/3). pc/7-2-07

13. An elementary school principal felt that adhering to the Effective School correlates supported his students' success. His system had adopted Effective Schools during his prior superintendent's term. Through data analysis he realized that there were correlates that needed attention (F/5). pc/7-2-07

14. All but one elementary school principal used electronic sources (F/1/pc). pc/7-2-07

15. One elementary school principal worked in a school system that had an initiative for teachers to become proficient in differentiating instruction. Visiting instructional coaches from another school system conducted monthly walk through classroom observations and provided feedback to his teachers, which he felt were beneficial (F/7). pc/7-2-07

16. The same elementary school principal visited a school in St. Louis to view the teachers' application of differentiation of instruction across the curriculum (F/3). pc/7-2-07

17. He evaluated the experience by stating, "However you are looking a different clientele from our students. It was interesting to see how they differentiated and used technology" (F/3). He relayed, "It was one of the more enjoyable experiences" (F/3). pc/7-2-07

18. Two elementary school principals led in school systems that had the financial benefit of community trust funds to support education (F/7;G/5). doc/5-18-07/pc/7-2-07

19. For example, the funding for the instructional coaches who visited monthly to improve the teachers' differentiation of instruction was financed through the trust fund, in his rural school system (F/7/doc/pc).doc/5-18-07/pc/7-2-07

20. An elementary principal commented, "I am a big believer in team teaching. I stressed collaboration and I stressed team teaching. I think it's crucial that teachers share information with one another" (F/2). pc/7-2-07

21. Another elementary school principal shared that an instructional coach from another Virginia school system visited his school to provide feedback about the teachers' efforts with differentiation (F/7). pc/7-2-07

22. His teachers also benefited from a community trust fund that financed instructional coaches who completed instructional walk throughs (F/8). pc/7-2-07

23. Another elementary school principal provided about guiding teachers, "…I think they need that support" (F/7).   pc/7-2-07

24. As reported in Chapter IV, two elementary school principals did not acquire their knowledge through reading books or journals (E/pc;F/pc). pc/7-2-07

25. Another elementary school principal explained that he did not read books or journals, but felt that data analysis was the reason for his students' success. He engaged an instructional coach who conducted monthly classroom walk-throughs and provided feedback to his teachers about their instructional differentiation with students. He expressed a supportive leadership philosophy with his teachers and applauded their professional collaboration (F/pc). pc/7-2-07

26. Two elementary school principals did not experience funding difficulties (F/doc;K). pc/7-2-07

Appendix P

Facts or Statements Attributed to Principal G

1. Three were currently serving as principals in their same school systems (A;F;G). doc/5-18-07;pc/6-5-07

2. Four elementary school principals amended their interview transcripts (B;C;G/doc;H) doc/7-12-06

3. One principal read *The Journal of Staff Development* (G/2). pc/6-5-07

4. An elementary school principal who clearly was the head learner of her school provided, "…I tend to be quite a reader of professional books" (G/2). pc/6-5-07

5. The authors and titles of books used by elementary school principals are shown in Table 4.6. Books authored by Marzano (B/8;G/5;H/3;I/9) and Payne (C/8;H/2;G/2) were mentioned by elementary school principals as prominent titles. Four elementary school principals accessed Marzano's book entitled *Classroom Instruction that Works* (B/8;G/5;H/3;I/9). pc/6-5-07

6. The elementary school principals referenced numerous book titles about enhancing reading instruction and subjects within the elementary curriculum (A/2;B/3;C/11), leadership (A/3;C/11;D/2;G/3), brain research (B/3;D/8;G/5;I/3). pc/6-5-07

7. Seven elementary school principals affirmed that attending conferences offered valuable knowledge (A/4;B/3;C/8;E/3;G/2;H/3;I/3). pc/6-5-07

8. Two elementary school principals attended the national Effective Schools (G/2). pc/6-5-07

9. One elementary school principal attended curriculum related conferences (G/2). pc/6-5-07

10. She provided:

> I have to stay ahead of the curve all the time. So my access to professional
> conversations is very high. Which is kind of rare, I think. The learning curve
> occurs every single day... there's always something new. And it's great fun, as
> well as very frustrating at times (G/3). pc/6-5-07

11. All of the elementary school principals identified their students' needs with
comprehensive data analysis (A/7;B/5;C/10;D/4;E/3;F/1;G/3;H/5;I/10). pc/6-5-07

12. Another elementary principal shared that the clientele at her school was becoming
more diverse and the change has required the teachers to "dig in" with item analysis
and reviewing subcategories (G/3). pc/6-5-07

13. She explained that as part of their school plan and to enhance their data analysis
they incorporated *Smart Goals* by DuFour (G/3). pc/6-5-07

14. An elementary school principal shared her superintendent's perspective about
school improvement. She noted that he would frequently ask, "…do you have results
and then change beliefs, or do you have beliefs and then get results?" (G/6). pc/6-5-07

15. An elementary school principal remarked, "There isn't a day that goes by that I don't
look up some kind of information on the internet" (G/4). pc/6-5-07

16. Another elementary school principal who completed her preparation program in
1975, commented that the program wasn't strongly related to her current job demands
with accountability (G/4). pc/6-5-07

17. Two elementary school principals led in school systems that had the financial
benefit of community trust funds to support education (F/7;G/5). pc/6-5-07

18. Summer retreats provided effective formats for three elementary school principals to meet with their teachers to review data, to introduce relevant books and to plan for the coming year (C/9;D/10;G/2). pc/6-5-07

19. One elementary school principal relayed that 25 teachers attended their summer retreat (G/6). pc/6-5-07

20. At three schools, the faculty accessed *Framework for Understanding Poverty* authored by Payne to help formulate an understanding about their students (C/11;G/2;H/2). pc/6-5-07

21. The consistent theme revealed by the elementary school principals was the importance of leading instructionally focused faculty meetings during the school year (C/16**;**G/7). pc/6-5-07

22. An elementary school principal explained that her school system had planning and staff development for elementary schools on Monday afternoons from 1:20 to 3:30 and five staff development days a year (G/7). pc/6-5-07

23. Her system is the benefactor of a community trust fund used to finance such noted authors as Pickering, Payne, DuFour, and Reeves who worked with administrators and teachers within her school system (G/5/pc).

24. Another elementary school principal led staff development during the year for her teachers (G/7). pc/6-5-07

25. One elementary school principal established a committee structure to approach professional development (G/4). pc/6-5-07

26. Three of the elementary school principals remarked that they were cognizant about keeping the teachers motivated to do the job they faced each day (D/6;H/10;G/3). pc/6-5-07

27. Two elementary school principals did not experience funding difficulties (F;G). pc/6-5-07

28. They served in school systems that had community trust funds established to help their school systems. Their teachers benefited from the professional expertise shared by educational experts who disseminated their knowledge on site. pc/6-5-07

29. One school had planning time on Mondays from 1:20 p.m. to 3:30 p.m., which provided substantial planning and staff development time for the principal and teachers (G/7). pc/6-5-07

Appendix Q

Facts or Statements Attributed to Principal H

1. One elementary school principal shared, "My objective was to make a difference for educators so they could make a difference for children" (H/10) pc/6-8-07

2. One was the Director of Head Start and Curriculum. doc/5-20-07;pc/6-8-07

3. Four elementary school principals amended their interview transcripts (B;C;G;H). doc/7-10-06

4. Three elementary school principals began their educational careers in secondary schools (A/6;B/6;H/5). pc/6-8-07

5. One elementary school principal started her career as a K-12 media specialist (H/5) pc/6-8-07

6. One elementary school principal revealed that grandparents were raising 65% of her students (H/4) pc/6-8-07

7. One elementary school principal reported that she read *Educational Digest* (H/2). She remarked about *Educational Digest,* "…it's condensed, but it's good" (H/5). pc/6-8-07

8. When asked about her pursuit of knowledge sources, she commented, "Everything I can get my hands on" (H/2). pc/6-8-07

9. The authors and titles of books used by elementary school principals are shown in Table 4.6. Books authored by Marzano (B/8;G/5;H/3;I/9). pc/6-8-07

10. Payne (C/8;H/2;G/2) were mentioned by elementary school principals as prominent titles. pc/6-8-07

11. An elementary school principal reflected about reading Payne's book by sharing, "That was one of the most important readings that I did to understand the community and the families and generational poverty (H/2). pc/6-8-07

12. The elementary school principals referenced numerous book titles about enhancing reading instruction and subjects within the elementary curriculum (A/2;B/3;C/11), leadership (A/3;C/11;D/2;G/3), brain research (B/3;D/8;G/5;I/3), year round education (A/3), English as the Second Language (A/3), multicultural education (A/3;B/3;H/2), unity and the families and generational poverty" (H/2). pc/6-8-07

13. Seven elementary school principals affirmed that attending conferences offered valuable knowledge (A/4;B/3;C/8;E/3;G/2;H/3;I/3). pc/6-8-07

14. Another elementary school principal attended local, state, and national technology conferences (H/3). pc/6-8-07

15. An elementary school principal attended the leadership academy and weeklong training for the Comer model schools (H/3) pc/6-8-07

16. All of the elementary school principals identified their students' needs with comprehensive data analysis (A/7;B/5;C/10;D/4;E/3;F/1;G/3;H/5;I/10). pc/6-8-07

17. An elementary school principal relayed, "Data driven instruction is everything" (H/5). Those comments captured the collective insights of the nine elementary school principals. pc/6-8-07

18. Effective principals shared that they completed electronic searches on ERIC (H/2;I/5) pc/6-8-07

19. Two elementary school principals frequently used the Virginia Department of Education website to review the blueprints (H/5;I/9). pc/6-8-07

20. An elementary school principal who was initially trained as a library media specialist stated that she possessed leadership skills. She shared that when teachers asked her elementary curriculum questions she initially recognized that she had studying to undertake to become more knowledgeable (H/5). pc/6-8-07

21. Another elementary school principal completed a weeklong training at Yale University to gain a thorough understanding about the Comer Model (H/3). pc/6-8-07

22. When asked about knowledge sources, the effective principal reflected, "It's your secretary, janitor, and cooks that you need as a friend. Gaining their trust" (H/10).   pc/6-8-07

23. The elementary school principal shared that 2001-2002 was her first year at the school. She remarked that her secretary who had 40 years of experience proved to be an important knowledge source for her (H/10). pc/6-8-07

24. Three elementary school principal shared that mentors provided valuable support to them (C;H;I). An elementary school principal noted that the prior principal at her school provided significant assistance and modeling to her as a mentor (H/6). The prior principal is now the superintendent (H/9) Mentors were also mentioned as resources for elementary school principals (C;H;I) pc/6-8-07

25. An elementary school effective principal commented, "Find the balance, that doesn't have anything to do with school. Time was a universal deterrent. I took that home with me. I was totally visible in the hall ways and everywhere" (H/9). pc/6-8-07

26. To counteract the workload during the school day, two elementary school principals relayed that they completed work at home (E/14/pc;H/9/pc). pc/6-8-07

27. One elementary school principal whose school was on "warning" upon her arrival in July 2001, chose to be highly visible and available for her teachers during the school day (H/9). pc/6-8-07

28. Her school had an 81.56% free and reduced lunch percentage and her students achieved state accreditation ratings of 96% in reading, 89% in mathematics, 93% on history, and 86% in science for 2002 (H). doc/5-20-07

29. Prior to becoming an elementary school principal she was a library media specialist for kindergarten through twelfth grade. That experience helped her become adroit with accessing knowledge that eliminated barriers with access (H/5). pc/6-8-07

30. In an effort to counteract the barrier of limited time, an elementary school principal used an electronic management system for her teachers to write their lesson plans. She reviewed lesson plans in the evenings from her home using the Internet, which allowed her to be available to the teachers during the instructional day (H/8). pc/6-8-07

31. She also had the support of a math teacher who assisted her with completing required reports (H/10) pc/6-8-07

32. One elementary school principal shared, "I was totally visible. Leadership is doing, participating. It's really hands-on" (H/9). pc/6-8-07

33. An elementary school principal whose school adopted the Comer Model explained, "The school becomes totally engaged in learning" (H/4). pc/6-8-07

34. The elementary school principal provided, "There was nothing that I would ask of a teacher that I wouldn't do myself" (H/6). pc/6-8-07

35. She had high expectations of the children, parents, teachers and herself (H/6). pc/6-8-07

36. Her school was the only one in her system with a year round calendar (H/6). At three schools, the faculty accessed *Framework for Understanding Poverty* authored by Payne to help formulate an understanding about their students (C/11;G/2;H/2) pc/6-8-07

37. An elementary school principal led her school in the adoption of the Comer Model. The effective principal also attended training with her teachers during the school year and during the summer. She held a teacher retreat during the summer. Prior to their successful year, the school was in "warning" (H/4). pc/6-8-07

38. She shared that the design of the Comer Model helped her school to "…become totally engaged in learning" (H/4). pc/6-8-07

39. The elementary principal summarized, "I feel that the empowerment of teachers was the greatest thing that could have been done for myself, because they were all on board. They all had a voice" (H/4). pc/6-8-07

40. At every faculty meeting, one elementary school principal practiced no fault collaboration with her staff (H/10). pc/6-8-07

41. An elementary school principal discussed her perspective about teachers' work, she relayed, that they have a great amount of stress (H/6) pc/6-8-07

42. An elementary principal shared that her teachers recently thanked her for efforts with guiding them to use identified knowledge sources (H/6) pc/6-8-07

43. Three of the elementary school principals remarked that they were cognizant about keeping the teachers motivated to do the job they faced each day (D/6;H/10;G/3) pc/6-8-07

44. Three elementary school principals reported that mentors had supported them

(C/pc;H/pc;I/pc). pc/6-8-07

Appendix R

Facts or Statements Attributed to Principal I

1. One elementary school principal is now the Coordinator of Testing (I). doc/5-18-07;pc/6-22-07

2. Four elementary school principals accessed Marzano's book entitled *Classroom Instruction that Works* (B/8;G/5;H/3;I/9).   pc/6-22-07

3. The elementary school principals referenced numerous book titles about enhancing reading instruction and subjects within the elementary curriculum (A/2;B/3;C/11), leadership (A/3;C/11;D/2;G/3), brain-related research (B/3;D/8;G/5;I/3). pc/6-22-07

4. Seven elementary school principals affirmed that attending conferences offered valuable knowledge (A/4;B/3;C/8;E/3;G/2;H/3;I/3). pc/6-22-07

5. An elementary school principal who networked within her school system, commented, "We work together in the administrative ranks. We tend to celebrate our collective accomplishments. It has given me the courage to be a better administrator" (I/11). pc/6-22-07

6. All of the elementary school principals identified their students' needs with comprehensive data analysis (A/7;B/5;C/10;D/4;E/3;F/1;G/3;H/5;I/10). pc/6-22-07

7. One elementary school principal shared that her superintendent frequently commented, "In God we trust, and all others bring data" (I/4). pc/6-22-07

8. All of the teachers must submit their data. We also completed quarterly reviews with the teachers" (I/8).   pc/6-22-07

9. Elementary school principals shared that they completed electronic searches on ERIC (H/2;I/5). pc/6-22-07

10. Two elementary school principals frequently used the Virginia Department of Education website to review the blueprints (H/5/pc;I/9/pc). pc/6-22-07

11. Both elementary school principals were positive about the academic format of being a cohort member. They felt the process developed networking and collaboration (D/3;I/6). pc/6-22-07

12. She revealed, "I recommended it to many people" (I/6). She continued, "I learned a whole lot more, because I expected a whole lot more of myself. They assessed us through a portfolio system" (I/7). pc/6-22-07

13. "We were able to concentrate on areas of personal interest. I integrated my special education knowledge into my studies. I initially hated it, because I wanted the professor to tell me what I needed to do. It was a worthwhile two and one half year program" (I/7). pc/6-22-07

14. One elementary school principal convened a committee with parents and community members to provide her with information. She commented that it is important to bring great minds together. She added, "We had a committee with parents and community members to talk about trends" (I/5). pc/6-22-07

15. Three elementary school principal shared that mentors provided valuable support to them (C;H;I).   pc/6-22-07

16. One elementary school principal remarked that a principal from another elementary school served as her mentor. He spent a great deal of time reviewing test scores with her. She relayed, "I don't know what I would have done without him" (I/4). pc/6-22-07

17. Her superintendent provided additional support. Her background was in special education and testing and the superintendent was data oriented (I/4). pc/6-22-07

18. Mentors were also mentioned as resources for elementary school principals (C;H;I). pc/6-22-07

19. An elementary school principal grounded her decision making about accessing knowledge sources by asking, "What's best for the children?" (I/10). pc/6-22-07

20. Lack of funding also proved to be a barrier for some elementary school principals. Elementary school principals shared that they had to be cautious with the materials purchased for the teachers (B/9;I/11). pc/6-22-07

21. Two elementary school principals added that the lack of funding for staff development initiatives proved to be a barrier (I/11;B/9). pc/6-22-07

22. Two elementary school principals commented about the importance of keeping people motivated (D/11;I/12). pc/6-22-07

23. One elementary school principal commented that she frequently met with smaller groups of teachers versus a large faculty group (I/11). pc/6-22-07

24. One elementary school principal completed her administrative studies in a cohort. "Knowing how to go about finding the information that I needed was a very important part" (I/7/pc). pc/6-22-07

25. Another elementary school principal remarked, "Keeping people motivated, is so important" (I/12). pc/6-22-07

26. An elementary school principal shared the importance of always conveying that things are good to the teachers. She added, "If anyone can do it, we can do it. Being the cheerleader as principal, you set the tone" (I/12). pc/6-22-07

Appendix S

Request for Permission from Publishers

Publisher of Book or Journal

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Dear Publisher of Book or Journal,

I am a doctoral student at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. I have completed my coursework and am currently writing the first three chapters of my dissertation. The purpose of my study is to identify the knowledge sources that effective elementary principals use in their work.

I am seeking your permission to include in my study a reproduction of the (figure or table) on page # written by (author's name) in the (title of the journal or book). The (figure or table) will be included in my dissertation with proper source citations. My dissertation will be distributed to my committee co-chairpersons, and a copy for the university. In addition, upon the completion of my defense, a copy of my dissertation will be included in the on-line database in the library at Virginia Polytechnic Institute and State University.

Thank you for your help with this request and I look forward to hearing from you. Sincerely,

Donald K. Bechtel, 5911 Rosebay Forest Place, Midlothian, Virginia 2311 804-739-6308 (work) 804-739-1091 (home), donald_bechtel@ccpsnet.net

Acknowledgements

Dedication

I dedicate my dissertation to my wife, Brenda, to my children, Brittany and

Landon, and to my parents, Ruth and Jay Bechtel.

My wife Brenda, a talented educator, respected the value of my academic study.

She supported my class attendance, summer residency, and perpetual research. Her

unending love and sincere encouragement allowed me to successfully complete my

degree. Her courage inspired me to understand that no accomplishment is

insurmountable, as evidenced from her miraculous skydive from 15,000 feet in 2004.

My children, Brittany and Landon were eight and two when I began the doctoral

program. Brittany is currently a sophomore at Virginia Tech and Landon is a seventh

grader. They were optimistic during my academic work. Landon spent a night at Harper

Hall during my five-week residency in the summer of 2000. I was Landon's elementary

school principal during his third, fourth, and fifth grade years from 2003 to 2006. Our

daily conversations allowed me to understand the critical aspects of a school through

the heart and mind of a child. My success has been a true family affair.

My mother, Ruth O. Bechtel, a prolific reader has been a voice of reason

throughout my lifetime. Her caring spirit inspires me everyday. I lovingly remember my

father, Jay E. Bechtel, Jr., a 1939 graduate of Duquesne University, who was a learned

human being. He was profoundly intelligent in ways too numerous to detail. He passed

away in 2004. My parents marveled at my academic perseverance.