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The Relationship Between School Board Governance Behaviors and Student Achievement

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THE RELATIONSHIP BETWEEN SCHOOL BOARD GOVERNANCE BEHAVIORS AND STUDENT ACHIEVEMENT SCORES

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The Relationship between School Board Governance Behaviors and Student Achievement Scores

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This non-experimental quantitative study examined the relationship between school board governance behavior (i.e. boardsmanship) and student achievement scores. Pearson's *r* correlation was utilized to examine the relationship.

Boardsmanship was defined by scores on the Board Self-Assessment Survey (BSAS) © designed by, and used with permission from, the Washington State School Directors Association (WSSDA). The BSAS consisted of a 69 item survey organized around 5 board Standards, 22 Benchmarks, and 69 Key Indicators (i.e. survey items). Board members from all 121 high school districts in Montana were invited to participate in the online survey. Seventy-four board members from 27 school districts returned complete and useable surveys for a response rate of 22.3% (27/121).

Student achievement was defined by scores in reading, math, and science assessed by Montana's Criterion Reference Test (CRT) given to all 10^{th} graders. CRT scores were obtained from the Office of Public Instruction in Helena, MT. Data from both the BSAS and CRT were collected during the spring of AY 2011-2012.

Statistically significant relationships were found between several aspects of student achievement and numerous elements of boardsmanship. Student achievement significantly correlated with some aspect of all five board Standards such as (a) providing responsible school district governance, (b) setting and communicating high expectations for student learning with clear goals and plans for meeting those expectations, (c) creating the conditions district wide for student and staff success, (d) holding the school district accountable for meeting student learning expectations, and (e) engaging the community. School boards that accomplish the items identified in the BSAS govern districts with the highest achievement scores. Each of these board Standards were further explicated through the Benchmarks and statistically significant Key Indicators which describe specific actions the board could take in order to participate in district efforts to raise student achievement. Boards do play a role in student achievement and their actions matter.

Acknowledgments

The idea for this project was sparked nearly 25 years ago when, as a newly elected member of a local school board, I noticed the radical diversity of opinion between members of the school board as to their leadership and governance role. Just what does a board member do? What role does the board play? What kinds of decisions are helpful? How does a board member know when their actions are more harmful than not? Where does one go for answers? More than twenty years later some of these questions are being answered in increasing numbers of published research. I'm pleased to have contributed to the national conversation on improving the effectiveness of school boards.

This dissertation was clearly a team effort. I was fortunate enough to have been the one to have organized the efforts of many people whose contributions and support made this project possible, and they deserve recognition and thanks.

First and foremost I need to extend my deepest gratitude to my tireless, patient, and always-optimistic committee chair – Dr. William P. McCaw. His willingness to encourage and lead me through this exercise at this late stage in my career gives testament to his thorough fair-mindedness and integrity. And to the members of my committee; Dr. Kathleen Budge, Dr. Beverly Ann Chin, Dr. John Matt, and Dr. Frances O'Reilly, who provided guidance at just the right times, my heartfelt thanks. Your formal and informal directives, suggestions, and ideas have proved invaluable.

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The ability to carve out the time needed to work on this project was often created by my dear wife Connie who protected my office time and deflected other commitments. Evenings and week-ends could have been dedicated to other things – but her understanding of the importance this project has for me is deeply appreciated.

Dedication

This project is dedicated to those countless students, teachers, administrators, and schools who care for the children in the classroom every day. When my own children were attending school I sensed that the educational system was not working at its best and that the problem was not always with the people in the system but with the system itself. Teachers and administrators seemed to know what to do and how to deal with the issues facing them. But board members, however well intentioned, seemed to be the weak link in the chain and often unintentionally disturbed a system of otherwise highly functioning professionals. If the kids were to thrive the whole system needed to work together better and this was too often not the case. I hope this project in some way proves to be helpful to the educational system that served my kids well.

And so I dedicate this project to my wonderful children – Erik, Abbie, and Emily – with the message that it's never too late to tackle big projects.

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Foreword

"In qualitative work a researcher's background can influence the way in which the situation is described, interpreted, and appraised; hence knowing who the researcher is and where he or she has come from is not altogether irrelevant" (Eisner, 1991, p. 193).

My interest in the topic of school boards is more than academic. I am a college faculty member of 42 years (teacher), and the director of the college honors program (administrator). I was a school trustee (board member) for more than 20 years, first for a 200 student, K-8 elementary district for ten years (board chair for six years), then for a 4,000 student, 11-member 9-12 high school district for ten years (chair of the curriculum committee for 6 years). And I've recently completed my doctoral studies (student). During the time I was on the elementary board, membership increased from three to five members and ten classrooms were added more than doubling the size of the school. As one would expect some years proceeded without incident while others were punctuated by relative conflict and turmoil. On the high school board the issues were similar, the stakes were a bit higher, the budget numbers had more zeros, there were larger numbers of players in every sector, and the political pressures seemed to escalate. I was chair of the curriculum committee for 6 of those years and during this time the board hired a new superintendent, built a new high school, remodeled an existing high school and middle school, and initiated significant changes to the curriculum. I've been involved with elementary and secondary schools, small and large districts, and small and large boards. I've known 2-year college education as a faculty member, and 4-year and graduate programs most recently as a student once again. My view of public education is from top to bottom, and from student, faculty, administrator and board member perspectives.

I've seen excellence and mediocrity in every sector, but at the board level the disparity ripples across the district. I've seen excellent board members who intuitively understood collaborative governance principles and who respected the office to which they were elected. And I've seen mischievous board members who seemed to create and relish disruption and controversy. This harm must be remedied.

Every newly elected official comes to the school board eager to learn the ropes and anxious to begin advocating for the changes they were sent there to champion. In my experience most board members admit to having been initially naive regarding the complexity and wide sweep of issues school boards routinely confront and adjudicate. It seems critical that newly elected board members quickly acquire essential expertise and come to appreciate the district-wide benefits of becoming a collaborative member of the education team. This will not occur without mentorship, training, and guidance from seasoned trustees and professional organizations. And yet few districts mentor and train new board members in any systematic way.

What school boards need is mentorship of new board members along with a carefully crafted inventory of best practices in board governance that both directs and constrains their actions. If district boards are interested in behaving like other boards of highly successful districts they must at least entertain the idea that the board has an effect on student achievement, and begin to replace harmful behaviors with effective ones.

CHAPTER ONE

"When No Child Left Behind (NCLB) was enacted on January 8, 2002, public education got a new mission: universal high achievement" (American Association of School Administrators [AASA], 2004, p. 2). Already saddled with traditional duties such as budget, policy, and community relations, school boards across America found themselves confronted with the additional job of raising student achievement scores (Delagardelle, 2008; Duval, 2005; Kirst, 2008). But how?

Although the relationship between school board governance behaviors and student achievement may not be readily apparent, several studies suggest that school boards in districts with high student achievement scores behave differently than boards in districts with low student achievement scores (Alsbury, 2008a; Delagardelle, 2008; Goodman & Zimmerman, 2000a; Iowa Association of School Boards [IASB], 2000; Iowa School Boards Foundation [ISBF], 2005; Thompson, 2010; Walser, 2009b). Still unclear, however, are the specifics as to what a board should be doing or not doing in order to positively affect achievement (Carver, 2000, Carver, 2006; Goodman, Fulbright, & Zimmerman, 1997; Goodman & Zimmerman, 2000; Lashway, 2002).

This is arguably due to the fact that there are ". . . very few data-driven studies on the effectiveness of school boards. . . . . Rather, opinion-based writings on the overall role of the school board in relation to student achievement dominate the literature" (Delagardelle, 2008, pp. 193-194). Establishing "data-driven" (Delagardelle, 2008, p. 193) connections would be imperative if we are to better understand the relationship between student achievement and board actions.

To help school boards identify those behaviors that foster a "culture of improvement" (Washington State School Directors' Association [WSSDA], n.d., p. 2), several authors and organizations recommend that boards conduct an annual self-assessment by completing a survey or questionnaire (National School Boards Association [NSBA], 2006b; NSBA, 2008; Smoley, 1999; WSSDA, 2007; WSSDA, n.d.; Walser, 2009b). Part of the thinking behind board self-assessment concerns the appropriate roles of boards and superintendents. Strong and effective educational leadership, they argue, facilitates student achievement by encouraging board members to engage at the policy level, allowing administrators to manage and lead and teachers to focus on the education of students (Goodman & Zimmerman, 2000; Thompson, 2010; WSSDA, 2007). The WSSDA Board Self-Assessment Survey (BSAS) is both an assessment tool and a research instrument offered to school boards in Washington state "to encourage school boards and individual board school directors to subscribe to the highest levels of professional and personal conduct and performance" (WSSDA, 2009, p. 1), and to "focus on student achievement as their primary responsibility" (p. 1).

Whatever their decisions, boards must be able to justify their actions to the community as effectual in promoting the smooth functioning of the district in all ways conducive to optimal student achievement. Assuming the actions and behavior of school boards have no impact on student achievement is indefensible in light of recent research (Bryant, 2000; Delagardelle, 2008; Hess & Meeks, 2010; Hoy, 2003; ISBF, 2005; Marzano, 2003; Marzano, Waters & McNulty, 2005; National School Boards Association [NSBA], 2006a; Walser, 2009b; WSSDA, 2009). It is therefore the duty of every school official, including members of the school board, to not only understand their influence

but also to behave in all ways conducive to intentionally creating a climate and culture within the district that will encourage students to learn and allow teachers to teach, to permit administrators to manage and lead, and to encourage boards to govern (Dellagardelle, 2007; Gemberling, Smith & Vallani, 2000; Goodman & Zimmerman, 2000; NSBA, 2006a; Strengthening the Work, 2004; WSSDA, 2009).

Problem Statement

When it comes to student learning, school boards sometimes fail to appreciate the influence they wield over student achievement (Delagardelle, 2008; Goodman & Zimmerman, 2000; Walser, 2009b). The actions or inactions boards decide to take combined with the issues they choose to address can ripple through the entire school district in unanticipated ways (Dellagardelle, 2007; Hess & Meeks, 2010; Smoley, 1999). As the culture and climate reacts to the decisions boards make, administrative and teacher productivity are affected potentially lowering or raising student achievement (Alsbury, 2008c; Houston, 2001; Hoy & Miskel, 2003; Tschannen-Moran, 2003; Walser, 2009b).

When political or personal motivation of a board member trumps educational concern, and when attempting to manage the district boards fail to provide suitable leadership and governance, student achievement can be harmed (Caruso, 2005; Goodman & Zimmerman, 2000; Goodman, Fulbright, & Zimmerman, 1997; Hess & Meeks, 2010; Walser, 2009b; WSSDA, 2009). Paul Houston, former executive director of the American Association of School Administrators (AASA), advises "school leaders of every stripe" (Houston, 2001, p. 430), especially superintendents, to avoid the "killer B's – busses, buildings, books, budgets, bonds, and the like" (Houston, 2001, p. 431), and instead pursue the "crucial C's . . . like connection, communication, collaboration,

community building, child advocacy, and curricular choices" (p. 431). Although qualitative alliterations such as these are informative on some level, it still leaves boards with questions. Since school board members lack empirically based information about how boardsmanship may be linked to student achievement, locally controlled public education is in jeopardy of becoming an assortment of novel individual efforts subject to change with each new candidate elected to the board. Even though the ideas may lie close to the hearts of board members, they remain personal opinion untested by educational research (Mountford, 2001).

A school board's affect on student achievement is indirect, several layers removed from the student. These vital links to student achievement need to be thoroughly understood and explicated in order for school boards to fulfill their essential duty to act in the best interests of students. Without empirical evidence showing a relationship between specific board behaviors and student achievement boards may continue to unintentionally inflict harm on student achievement. If student achievement is to be seriously pursued by a school district, it is vital that school boards understand their most pivotal role – "to focus on student achievement as their primary responsibility" (WSSDA, 2009, p.1).

Purpose of the Study

The role of the school board in promoting student achievement cannot currently be described with precision. Were this relationship to be made more explicit, boards would be able to make more intentional and measured contributions to district-wide efforts to raise student achievement scores. The purpose of this quantitative study was to examine the relationship between student achievement scores and elements of boardsmanship. Student achievement was measured by that district's scores on Montana's

Criterion Reference Test (CRT), a portion of which evaluates math, reading, and science in Grade 10. Boardsmanship was measured by the BSAS which was developed by WSSDA in 2010-2011 and measures collective boardsmanship on five governance Standards thought essential to raise student achievement scores.

Research Question

The research question that guided this study was: How do the actions of school boards (boardsmanship) relate to student achievement? A substantial amount of research is available to teachers and administrators that identify effective actions to take in support of student achievement. School boards could benefit significantly were there a comparable source of in-depth information to consult.

Definition of Terms

For the purpose of this study, the following definitions were used:

All districts refer to the data set of correlations between student CRT scores and boardsmanship scores from all surveyed board members who provided complete surveys from all districts, and contain data from 27 school boards.

Boardsmanship consists of those collective behaviors exhibited by boards that conform to the categories of descriptions (board Standards) offered by the BSAS, namely, (a) providing responsible school district governance, (b) setting and communicating high expectations for student learning, (c) creating the conditions district-wide for student and staff success, (d) holding the school district accountable for meeting student learning expectations, and (e) engaging the local community and representing the values and expectations they hold for their schools.

Public school boards are the "local board that oversees public schools" (American Heritage Dictionary, n. d.) consisting of the appointed or publicly elected, voting members of the school board that oversees a public school district. Montana state government has no specific definition of *school board* however the term *trustees* is defined as "the governing board of a district" (Goss, 2012).

Quorum as defined by Montana Code Annotated (2011) refers to the membership of a school board and states "a quorum for any meeting is a majority of the trustees' membership" (MCA, 2011). This study operationally defined *quorum* as the data set of correlations where ≥ 50% of the board members responded to the survey. This data set contains correlations between student CRT scores and Boardsmanship scores from 11 school boards.

School Board refers to that publicly elected board charged with governance of the local public school district. See *Trustee*

Student achievement was defined as student proficiency levels as measured by scores on Montana's state CRT given in 10^{th} grade which generates discipline specific scores in math, reading, and science. Proficiency was determined by the combined percentage of students who scored in the *proficient* and *advanced* range on Montana's 2011-2012 CRT.

Trustee is synonymous with the term *school board member* and was defined as an individual who is publicly elected or appointed to serve as a voting member of the governing board of a public high school district.

Delimitations

This study was delimited to Montana school boards that oversee public high school districts that enroll 10 or more students in 10th grade. Some school boards have non-voting representative members seated with the board. Only elected or appointed, voting members of the school board were surveyed. In addition, student achievement data was used from only those districts with 10 or more students in 10th grade due to the fact that Montana's CRT scores are not reported from districts with less than 10 students in 10th grade. Because different states employ different student achievement assessments, this study was delimited to Montana in order to control for multiple measures of student achievement.

Limitations

Threats to internal validity include the truthfulness and accuracy of the answers provided by the self-selected school board members who complete the survey. Another limitation is the inability to isolate all variables of influence with possible effects to student achievement such as socio-economic status, local political realities, community issues with the school, status of teacher contract negotiations, the attitudes and actions of principals and superintendents, the availability of educational equipment, and the quality and age of the school buildings and facilities. Another limitation was unequal board member representation between school districts. Multiple trustees responded from most districts and the mean BSAS scores were used as district scores. In four cases a single board member responded from that district in which case the sole board member was used as that districts BSAS score. Last, the degree to which the state-wide CRT scores

accurately represent student achievement could be challenged, however CRT scores are the only state-wide assessment currently available and generally considered valid.

Significance of the Study

Board members bring their own perceptions of how a district might operate generated in part from personal opinion and promises made during election campaigns (Danzberger, 1994). Once elected to the board, members find themselves burdened with multiple and conflicting demands. Constrained only by an oath to protect the constitution, board members are often left to their own devices, relying on good intentions, preconceptions, grievances, or political and fiscal motivation to try to figure out how to proceed (McCarty & Ramsey, 1971; Mountford, 2001). While teachers and administrators have a substantial pool of research-based guidance to help them identify effective administrative, curricular, and pedagogical strategies that foster student achievement (Marzano, 2003), boards suffer from a shortage of evidence-based ideas of how to conduct themselves (Delagardelle, 2008).

This quantitative study examined the relationship between student achievement scores and board governance behaviors as described by the BSAS (WSSDA, 2009). Explicating these statistically significant relationships provides boards empirically based guidance to direct their actions. With these relationships empirically established, school board training can be more focused and prescriptive as well as being designed with the intent of increasing the effectiveness of the district as measured by improved student achievement. Because of the findings from this quantitative study, boards, especially in low-achieving districts, now have access to empirical information about not only the role

the school board plays, but also the effective board behaviors related to improved student achievement scores.

Summary

Even though federal legislation has directed public education to focus on student proficiency and achievement, school boards remain comparatively uncertain as to their genuine role or influence (Delagardelle, 2008; Hess & Meeks, 2010). While teachers and administrators can find quantitative research articulating established curricular and pedagogical advice that promote achievement (Marzano, Waters, & McNulty, 2005), there is no comparable research base for school boards to consult (Alsbury, 2008a). The relationship between the actions of school boards and student achievement is worthy of further study.

This chapter articulated the problem this study was designed to address, namely what, if any relationship exists between boardsmanship and student achievement. Existing information related to this question is largely qualitative and anecdotal. This study was designed to help remedy this lack of quantitative information.

Were the relationship between boardsmanship and student achievement to be expressed in quantitative terms, school boards could be better informed how they, along with parents, teachers, and administrators, might intentionally participate in raising student achievement scores for their school district. If student achievement is to continue to improve, as NCLB currently mandates, all factors must be identified, employed, and aligned in service of increased student achievement. Parents demand, and students deserve, no less.

CHAPTER TWO – REVIEW OF THE LITERATURE

The following literature review is organized into three sections. The first section is an historical look at education with an eye toward the development of the public school board. The second section identifies factors known to affect student achievement, beginning with those proximal factors closest to the student in the classroom and ending with more distal factors within the school but more remote from the student. The influence of proximal factors is well-known and supported by empirical research, as is the influence of administration. What is not so well-known is the influence of more distal factors such as the school board, and how it might influence student achievement. The third section examines a variety of facets of school boards' relationship with student achievement: from *access*, to *opportunity*, to today's emphasis on universal *proficiency (or achievement)*. This is followed by a discussion of school boards themselves, whether they are the source of, or solution to, poor student achievement scores, and their best and worst practices. Also included is a comparison of various state's rules and regulations with regard to school board membership, training, and service. Each section of this literature review serves to provide context and add perspective to the possible role the well-informed school board and board member might play in helping raise student achievement scores.

School Boards in America

Education of children was of utmost importance for the Puritans of Colonial America. The earliest schools were initially located in private homes, often of clergy or other men of social and political influence. Due to their rapidly increasing popularity it

soon became clear that private homes were inadequate facilities for schools, and the clergy, who were initially the teachers due to their literacy skills, were needed elsewhere to attend the many needs of the community. In 1633 Massachusetts allowed for the creation of citizen boards of education called *selectmen* (Massachusetts Selectmen, n. d.; Miller, 2008; Mountford, 2001; Strengthening the Work, 2004), establishing the American prototype for local control of public education by a school board. "Boston . . . claims credit for establishing the first public school . . . on April 13, 1635" (Littlefield, 1965, p. 64) by hiring the first "schoolmaster for the teaching and nurturing of children with us" (p. 64). Schools were largely controlled and operated by religious organizations suspicious of governmental control.

The public, however, continued to perceive education as a private, not a public, matter until Thomas Jefferson introduced a bill in the Virginia legislature in 1779: "A Bill for the More General Diffusion of Knowledge" (Campbell, Cunningham, Nystrand & Usdan, 1985, p. 63). This bill posited education as a public interest and a national priority vital for the successful operation of democratic government. Eventually "the basis for state control over education was well-established as early as 1820 by constitutional and statutory provisions of the states which made up the Union" (Campbell et. al., 1985, p. 64). Between 1825 and 1850, educational leaders across America marshaled forces within their respective states to create secular schools open to all children and paid for out of public funds (Alexander & Alexander, 2005; Cubberley, 1919).

In 1852 Horace Mann organized a reform movement in Massachusetts designed to weaken, but not abolish, the influence of lay school boards who he felt were too often

motivated by religious ideology or corrupt political ambition. This reform sought to focus the board's attention on secular educational matters and to increase the influence of professionally trained school administrators and superintendents. This was happening at a time of unprecedented growth and immigration in America: "The population in New York City, for example, increased from 60,489 in 1800 to 629,810 in 1855" (Callahan, 1975, p. 24), while the number of students in Boston's primary schools increased from 1,600 in 1820 to over 12,000 in 1860 (Callahan, 1975). With significant domestic population growth along with dramatic immigration, America was becoming increasingly diverse. No longer could the nation tolerate local communities and schools to treat students preferentially and to cling to provincial ideas of who might deserve the opportunity to become an educated person (Cubberley, 1919).

One of the most effective reformers of public education was Ellwood Cubberley, Dean of the School of Education at Stanford University. In 1919, he authored an influential textbook entitled *Public Education in the United States* in which he detailed the functions of school boards as well as the board/superintendent relationship (Cubberley, 1919). The work of the collective board, he argued, was to determine policies, select experts, manage the budget, levy taxes, select school sites, and generally act as a legislative body while turning over the executive functions to a professional superintendent and staff. Individual members of boards should be elected, independent of municipal government, serve 3-5 year terms, be unpaid, and work as a whole. In addition, he specifically described the most desirable type of school board member. Those persons who were likely to make good board members were

> men who are successful in the handling of large, business undertakings – manufacturers, merchants, bankers, contractors, and professional men of large practice. . . . Such men are accustomed to handling business rapidly, are usually wide awake, sane and progressive, are in the habit of depending upon experts for advice, and have tact and perseverance. . . . On the other hand the list of those who usually do not make good school-board members is much larger. Inexperienced young men, unsuccessful men, old men who have retired from business, politicians, saloon-keepers, uneducated or relatively ignorant men, men in minor business positions, and women. (Cubberley, 1916, pp. 124-125)

As messy, contentious, and counterproductive as this system of citizen-driven public education often appears to be, it was George Strayer of the Teachers College at Columbia University who, in 1938, stated "the board of education should have full responsibility for all necessary services of the school system" (National Education Association [NEA], 1938, p. 52). The board, he continued, should take advice from educational experts, but in the end "the final authority must rest with the lay board. The schools belong to the people" (NEA, 1938, p. 59).

Today, many of the decisions historically made by local school boards are being usurped by remote state and federal agencies interested in improving student achievement, but divorced from full appreciation of local realities (Kirst, 2008). Whether this has led to improved student achievement is debatable. In today's pluralistic society, discussion of public education, which serves multiple roles, inevitably leads to conflict, exposing "tensions between inconsistent but equally positively valued goals of a society" (Iannaccone, 1975, p. 260).

Conventional Sources of Conflict

Four main themes of conflict have currency today. First is the conflict between and among the various governments that control education (federal, national, state, local). Second is the power tension between lay boards and professionally trained educators, and third is the tension between administrator and teacher. Last, there's "the tension between the general society's universal interests in education and the interests of the particular child" (Iannaccone, 1975, p. 260). Cistone (2008) concurs. "We need to distinguish two different public interests in education and develop appropriate mechanisms for each. One is the universal and impersonal interest of the general society; the other is the particular personal interests of pupils and parents" (p. 32). In Colonial America, Thomas Jefferson appears to have been focused on the former and helped design a suitable education system to deliver that result, while NCLB of 2002 is aimed at promoting the latter without systemic alteration in the structure of the system. According to Cistone (2008), these are the issues that will capture educational discussions for the foreseeable future.

There are those who argue that school boards have outlived their usefulness, and the management and administration of public schools should be turned over to other interests, such as private businesses (e.g., corporate CEOs) or other governmental agencies such as city mayors, state governors, or federal agencies (Danzberger, 1992; Kirst, 2007; Kirst, 2008, Land, 2002; Miller & Gerson, n.d.; Moore, 2007). Whether schools would improve in terms of student achievement were they in the hands of private business motivated by profits (Bracey, 2004) or mayors vulnerable to political maneuvering (Kirst, 2007) is open for debate, and pilot projects have produced mixed results (Elmore, 2000; Light, 1998; Miller & Gerson, n.d.; Moore, 2007).

Bracey (2004) documents numerous examples of efforts by for-profit business that took over schools and conclude that "to date, efforts to operate public schools for profit have largely failed" (p. xii).

> What do I say when people say, 'Schools won't improve until they're taken over by private companies and run like businesses'? You can say, 'So far, the businesses that have taken over schools haven't managed to get achievement up and they're mostly losing money as well.' If you're feeling sassy, you can begin your rebuttal with 'Oh, like Enron, Imclone, and WorldCom?' (p. 85)

"Despite the long-standing presence of local school boards in U.S. public education, few empirical studies of their effectiveness exist to inform discussion of what role they should have in the 21st century" (Land, 2002, p. 229). Alsbury (2008a), in referring to research on school boards, also acknowledges "the relatively few empirical studies conducted over the past several decades" (Alsbury, 2008a, p. xii).

> The local school board is a distinctly American invention. It has evolved from its beginnings in Colonial New England to become the most characteristic feature of contemporary American governance. Notwithstanding the considerable increase in state and federal power and concerns about its capacity and viability, the school board remains a cornerstone of representative democracy at the local level. It is a critical domain in contemporary life and merits the disciplined efforts of scholars, researchers, and practitioner's alike. (Cistone, 2008, p. 32)

Shifting Priorities of Public Education: Access, Opportunity, and Proficiency

Our system of public education is a complex, and multifaceted enterprise steeped in American tradition. One noted goal of public education is to promote citizenship

(Delagardelle, 2008) and produce literate, well-informed, productive members of society who can knowledgably participate in the democratic process (Bracey & Resnik, 1998). To this end the formative concept of public education, developed through the efforts of early Americans like Benjamin Franklin, Thomas Jefferson, Horace Mann, and William McGuffy, declared that education must be practical, accessible, and effective (Cubberley, 1919; Wiles, 2005).

In Colonial America, proponents of public education wrestled with issues of *universal access* when schools were scarce and far apart, and education was accessible mainly to the affluent and well-connected. That problem was first addressed when communities, under state and federal insistence, established neighborhood schools, beginning in Massachusetts around 1647 (Wiles, 2005).

The second major challenge facing public education was to ensure *equal opportunity* for everyone to attend school and be educated, a considerable problem when the grim reality was significant social stratification and pervasive prejudice against slaves and other minorities (Alexander & Alexander, 2005; Duvall, 2005). This problem reached its peak during the 1950s when racism and segregation were still legally sanctioned in many states (Duvall, 2005). The remedy came when the U.S. Supreme Court issued its 1954 decision in Brown v. Board of Education (Alexander & Alexander, 2005; Wiles, 2005), which demanded equal treatment as guaranteed by the 14th Amendment to the U.S. Constitution.

Today, through federal NCLB legislation, the third issue is being addressed: *universal high achievement (proficiency)* (AASA, 2004; Duvall, 2005):

> When No Child Left Behind (NCLB) was enacted on January 8, 2002, public education got a new mission: *universal high achievement*. That mission was added to the existing missions of *universal access* and *equal opportunity* for all students. . . . Absent universal access and . . . equal educational opportunity, universal high achievement is unachievable. (AASA, 2004, p. 2)

This third mission, however, is something America's schools were never originally designed to accomplish. According to the thinking of Thomas Jefferson, schools were designed "to select and sort students into two groups: a small handful of thinkers and a great mass of obedient doers" (Vollmer, 2010, p. 4). In fact in Jefferson's mind public school consisted of 2-3 years of grammar school for all children in order for "the best genius of the whole selected, and continued six years, and the residue dismissed. By this means twenty of the best geniuses [sic] will be raked from the rubbish annually, and be instructed, at the public expense." (Jefferson, 1984, p. 272)

Having largely accomplished the first two goals of *universal access* and *equal opportunity* by requiring attendance in order to sort students, the current emphasis of public education is one of *universal proficiency*: "In a single generation, we have raised the bar from requiring universal student *attendance* to demanding universal student *achievement*. No generation of educators in the history of the world has been asked to accomplish this goal" (Vollmer, 2010, pp. 52-53). Now that public education has been charged with educating all children, there is great concern the current agrarian and stratifying structure of public education may be ill-suited to deliver universal high achievement (Vollmer, 2010).

The Accountability Movement

The contemporary "accountability movement" (Hoover & Shook, 2003) refers to the political reality whereby school officials, including school boards, are under intense pressure to document accountability in student achievement for their district. However,

> Accountability is not unique to schools…In business, it is the bottom line. In manufacturing, it is the quantity and quality of production. In the public sector, it is how well services are being provided. In education, it is student achievement. (Gemberling, Smith, & Vallani, 2000, p. 6)

Many strategies have been suggested to help districts meet universal achievement standards (Alsbury, 2008a; Carver, 2006; Cistone, 1975; Delagardelle, 2008; Gemberling et. al., 2000; Goodman & Zimmerman, 2000; Marzano, 2003; National Association of Secondary School Principals [NASSP], 1996; NASSP, 2004; NSBA, 2006a; Rubin, 2002), and although the various ideas may have merit, little empirical research exists as to their veracity. This has led some to suggest the current state of affairs of board leadership is nothing more than "leadership by adjective" (Leithwood et. al, 2004, p. 6), based more on commonsensical ideas, "and other opinion-based documents" (Land, 2002, p. 230) than on research and fact. "Currently, the school board literature is rife with conclusions and recommendations based on personal experience, observations, and opinions. School board experts frequently rely on anecdotal evidence, rather than data from carefully designed research studies to support their conclusions" (Land, 2002, p. 265). Such data has been disparagingly referred to as "anecdata" (Slater, 2004, p. 200; Urban Dictionary, n.d.).

Regardless, increasing student achievement is the current mission of schools as identified by federal NCLB legislation (AASA, 2004). Lacking empirically based information to help today's boards know how to govern schools focused on student achievement, members are offered little guidance and are left to rely on assumptions and personal preferences (Delagardelle, 2008). A truly American tradition, school boards are seen to represent democracy at its best (Alsbury, 2008c), and "if/where/when school boards didn't exist, politicians would create them" (Stringfield, 2008, p. 286), because these boards provide a level of personal accountability most elected politicians would not dare confront (Stringfield, 2008). Given the long and unique history of local control of public education in America, however, it seems unlikely school boards will disappear any time soon. Perhaps it's best we try and understand their unique contributions to student achievement.

Factors Affecting Student Achievement

Obviously, some students do better than others, some teachers are more effective than others, and some curricula and instructional methods out-perform others. In addition, some schools generate higher student achievement than others, some principals and superintendents are better leaders than others, and some school boards govern districts that accomplish more and generate higher student achievement scores than others. Also, some communities are more involved and supportive of schools than others (Iowa Association of School Boards [IASB], 2000). These are the factors that affect student achievement (Marzano, 2003) and, through some complex and yet unknown interaction, determine how well students perform in schools.

Proximal Factors

Borrowed from common medical terminology, proximal factors are those features close to, or in direct contact with some referent. Both Delagardelle (2007) and Walser (2009b) use this term in the educational context to refer to factors close to the student such as the parent or teacher, as well as features within the classroom.

Student Factors

It seems reasonable to conclude that those factors with the most direct influence on student achievement include not only the student themselves but also those factors most proximal to the students, including things such as students' unique and individual differences, their family dynamics and socio-economic status, and direct experiences in the classroom (Chubb & Moe, 1990; Marzano, 2003). The long-recognized fact that some students are naturally more capable than others led to empirical measurement of intelligence first by Simon and Binet in 1906 and later by Terman in 1916 and Wechsler in 1955, as well as the description of cognitive development by Jean Piaget in 1950 (King, 2008).

Recognizing that individual differences and intelligence were not solely responsible for differences in student achievement, social scientists in the 1930s began examining other influences of student achievement. Family issues like poverty, neglect, abuse, and parental indifference were shown to be detrimental to student success, while issues like affluence, parental support, care, and attention were shown to be beneficial to student success (Botticelli, 2006; Diamond, 1988; Diamond, 1999; Epstein, 2005; Epstein, Sanders, & Sheldon, 2007; Hallowell, 2003; Marzano, 2003; Marzano, Waters, & McNulty, 2005).

A meta-analysis is the statistical analysis of numerous individual but related studies and can be a compelling research method for determining overarching trends in research findings. Miller (2003) reports on one meta-analysis conducted by the Mid-continent Research for Education and Learning (McREL) of Denver, Colorado, where "student factors" were defined to include individual intelligence, background knowledge, student motivation, and home environment. These factors accounted for 80% of the variance in student achievement (Marzano, 2003). Similarly, Chubb & Moe (1990) identify student ability as the most influential factor in student achievement.

Teacher Factors

Other factors like teacher effectiveness, teacher training, professional development, and curriculum design have also been found to influence achievement (Iowa Association of School Boards [IASB], 2000). In addition, some teachers identify and connect with students more easily and effectively than others (Sanders & Rivers, 1996) which results in improved student achievement, especially for lower-achieving students. This second factor - that of teacher influences - includes (a) instructional strategies, (b) classroom management, and (c) classroom curriculum design, and accounts for 13% of the variance in student achievement, according to Marzano (2000). This meta-analysis of 13 key studies identifies the essential factors of the school effectiveness movement. In addition, Wright, Horn, and Sanders (1997) investigated the specific effect of individual teachers on student achievement by studying 60,000 students from Tennessee in grades 3 through 5 and reported, ". . . the most important factor affecting student learning is the teacher. . . . Effective teachers appear to be effective with students of all achievement levels" (p. 63).

In order to intentionally promote "accomplished teaching" (National Board for Professional Teaching Standards, n.d.) and thereby raise student achievement, the National Board for Professional Teaching Standards (NBPTS) was founded in 1987 and developed a national teacher certification process. Numerous studies have examined the relationship between board certified teachers and student achievement and report mixed results. For example a meta analysis of 6 such studies reported by Cantrell, Fullerton, Kane, and Staiger (2008) was published by the National Bureau of Economic Research. The Wing Institute (n.d.), an independent and non-profit organization established to promote evidence-based education policies and practices, examined the study and concluded that "national certification has minimal impact on student performance." However, other studies report a positive and robust relationship (Cavalluzzo, 2004; Goldhaber & Anthony, 2004; Vandevoort, Amrein-Beardsley, Berliner, 2004). Although NBPTS acknowledges more clarifying research is needed they also affirm that use of the certification process positively impacts student achievement and learning.

School Factors

Even the organizational structure of public education reveals administrative factors that interact to improve student achievement like the right attitudes and actions of principals and superintendents (Waters & Marzano, 2007). Other school factors related to student achievement include the availability of educational equipment and technology (Wenglinsky, 1998). Using data from the U.S. Census Bureau, Crampton (2009) investigated a district's capitol investments in human, social, and physical budget accounts and report that investments in human capitol (e.g., teacher compensation, experience, advanced degrees) had the largest influence on student achievement,

followed by social investments (e.g., professional development activities) and physical capitol assets (e.g., school construction, renovations, additions, land acquisition) - all of which yielded statistically significant relationships with student achievement. However there has been concern expressed over the use of teacher compensation as a proxy definition for human capitol (i.e. licensure, advanced degrees, and experience) which some believe compromise the conclusions.

MacIver and Farley (2003) offer a comprehensive model for improving instruction by describing a number of organizational variables that have been found to influence student achievement from the classroom, school, and district levels. In this model, student achievement is governed by the quality of classroom instruction, which springs from factors such as instructional pacing, teacher qualifications, teaching materials, professional development, and curriculum design. As a consequence, some teachers are more effective than others. In addition, MacIver and Farley note numerous district-level factors such as administrator qualifications, uniform hiring practices, leadership support, and district-wide focused professional development plans that also influence student performance. Consequently, some schools and administrators are more effective than others.

In an oft-cited series of studies by Chubb and Moe (1990) involving more than 400 high schools and 10,000 teachers, they state:

> All things being equal, a student in an effectively organized school achieves at least a half-year more than a student in an ineffectively organized school over the last two years of high school. If this difference can be extrapolated to the normal four-year high school experience, an effectively organized school may increase

> the achievement of its students by more than one full year. This is a substantial school effect indeed. (p. 140)

In addition, Marzano (2003) concludes that ". . . schools that are highly effective produce results that almost entirely overcome the effects of student background" (p. 7), an opinion shared by Crampton (2009).

Two other studies warrant mention. First, to illustrate the effect teachers have on student achievement Sanders and Rivers (1996) report on the differences in average student gains between least-effective teachers (14-point gain) and most-effective teachers (53-point gain) in Tennessee. In addition, they also report a cumulative effect. When students had 3 years of least-effective teachers, students made a 29% gain in 5th grade math scores, compared with 3 years of most-effective teachers reporting an 83% gain (Haycock, 1998a; Sanders & Rivers, 1996) (most and lease effective teachers were estimated from a longitudinal mixed-method analysis). Haycock (1998b) comments that "differences of this magnitude – 50 percentile points – are stunning. All of us know only too well, they can represent the difference between a 'remedial' label and placement in the accelerated or even gifted track" (p. 6). Second, when the most-effective teacher is situated in the most-effective school students achieve at the 96th percentile after two years, as compared to the least-effective teacher in the least-effective school where students achieve at the 3rd percentile after two years (Marzano, 2000; Marzano, 2003). Clearly, district efforts toward teacher and school effectiveness can make a significant difference.

Distal Factors

Borrowed from common medical terminology and used by both Delagardelle (2007) and Walser (2009b), distal factors refer to those educational features that are away from, or removed from, the central point of reference. In this case distal factors refer to educational factors such as the administration and school board, which are several organizational layers removed from the student in the classroom.

The Influence of School Leadership

Research by both Delagardelle (2008) and Marzano (2003) supports the commonsense notion that those factors most proximal to the student hold the greatest influence over achievement (80%), while those most distal school factors like the administration have the least influence (7%). It should further be noted that some of those most influential proximal factors identified by Delagardelle (2008) and Marzano (2003) are the very ones over which the school has little or no influence, such as a student's individual intelligence, home environment, and socio-economic status. Furthermore, the more distal factors, although further removed and less influential, include several things over which the district holds ultimate influence, such as school culture and climate, viable curriculum, safe environment, community involvement, collegiality, and professionalism.

Other distal factors which, although indirect, have been linked to student achievement include effective leadership, a clear and focused mission, a safe and orderly environment, a climate of high expectations, frequent monitoring of student progress, positive home-school relations, and a student's time on task (Lezotte, 1991; Lezotte, 2009). In addition, according to a review of research commissioned by The Wallace

Foundation, Leithwood, Louis, Anderson and Wahlstrom (2004) write that after teaching, leadership is the second most important factor to influence student learning, and this influence is exerted by (a) setting directions, (b) developing people, and (c) making the organization work. These factors influence student learning and "account for about a quarter of total school effects" (p. 5).

Chubb and Moe (1990) address a persistent question regarding the relationship between administrative size and school performance and report that larger school bureaucracies correlate with poor student performance. To improve student achievement, they suggest, school administration should become smaller, more streamlined, market-based organizations. They also argue for decreased bureaucratization and increased school autonomy in order to increase student achievement.

In response, Meier, Polinard and Wrinkle (2000) point out that when organizational failure is recognized, such as low student achievement scores, the short-term action is often for schools to increase the bureaucracy. However, "rather than indicating an unresponsive organization, a larger bureaucracy . . . is a sign of a responsive organization that is trying to meet environmental demands by designing new programs and policies to deal with its problems" (p. 591). They go on to ask whether "bureaucracy cause low performance or does low performance create pressures for new programs and thus for additional bureaucrats to administer them?" (p. 592). Meier (2000) concedes that poor student performance does lead to increased bureaucracies in the short term. However, in the long run, more teachers are added, and class size decreases, which eventually leads to improved performance. This can also be explained by the J-curve phenomena whereby results initially falls but then rises to points higher than the original

starting point and has been used to describe phenomena as diverse as finance, medicine, politics, education, and kitchen remodeling (J-curve, n.d.). In this case it would be critical to know when Chubb and Moe (1990) measured the relationship.

In a series of research projects known as the Lighthouse Studies (IASB, 2000), the IASB investigated superintendent and school board interactions and their relationship to student achievement. Schools were labeled as either *moving* or *stuck*, a labeling scheme taken from Rosenholtz (1989) whose own research was based on faculty perceptions. In the Iowa Lighthouse studies, moving and stuck schools were those

> whose faculties were characterized by a synergistic search to develop a vigorous and humane education and by the creation of initiatives small and large [moving]. On the other end were schools [stuck] whose faculty members worked in relative isolation and did not have the dynamic as a community to make productive changes. (IASB, 2000, p. 22)

Moving districts were characterized by seven leadership conditions vital for school renewal: (a) shared leadership, (b) continuous improvement and shared decision making, (c) ability to create and sustain initiatives, (d) supportive workplace for staff, (e) staff development, (f) support for school sites through data and information, and (g) community involvement (IASB, 2000). This study by Rosenholtz (1989) supports the idea that collaboration is vital and that neither the superintendent nor the school board can effectively increase student achievement when acting alone, an idea supported by others (Elmore, 2000; Marzano, 2003; Waters & Marzano, 2007).

The Iowa Lighthouse Inquiry, now considered seminal with regard to the linkage between student achievement and superintendent/board actions, concludes with several questions:

> Could it be that, unless the policymakers create the conditions necessary for a professional learning community to thrive, the principals and faculties will not be able to generate productive change? [and] Could it be that commonly held assumptions about the role of the school board – that school boards should avoid matters that deal with teaching and learning – may have drawn school boards away from the very behaviors that are most likely to have the greatest impact on student achievement? Do we need a reconciliation regarding the perceptions of the role of the board? (IASB, 2000, p. 59)

Bryant (2000) states unequivocally that "excellence in the classroom begins with excellence in the boardroom" (p. iii). Duvall (2005) developed an instrument aimed at measuring the quality of relationship between the school board and the superintendent (called the Strength of Relationship scale, or SOR) and found that "high levels of agreement and higher overall Strength of Relationship between the board and the superintendent correlate with higher district student achievement" (p. 75). Similarly, MacIver and Farley (2003) offer a model for improving instruction that recognizes a more constructive and direct role for administration and central office personnel in improving student achievement.

These research studies take exception with the position of Bennett, Finn, and Cribb (1999) when they referred to the administration and boards of public schools as the

"blob" (p. 627) that intentionally thwarted educational reform and was responsible for educational decline in America. In one sense, they might have been correct. The administration and board were ultimately responsible for student achievement scores, but rather than intentionally subverting educational reform, administrators and board members attention may have been derailed (IASB, 2000), or they may be uninformed and naive concerning their critical role and ultimate influence on student achievement (Elmore, 2000).

Elmore (2000) expresses the need for those at the highest level of organizational leadership and governance to become more closely attuned to what goes on in the classroom in order that the instructional core of schooling is exposed to appropriately informed scrutiny and accountability. Leaving classroom decisions solely to teachers and unexamined by the school bureaucracy, a stance termed *loose-coupling* (Elmore, 2000, p. 5), results in educational leaders too often working to buffer teachers from outside interference. Elmore (2000) sees a loosely-coupled organization as dysfunctional where there is no "direct relationship between the work that leaders should be doing and the core functions of the organization" (p. 20).

> Derived from institutional sociology, this view, in brief, posits that the 'technical core' of education – detailed decisions about what should be taught at any given time, how it should be taught, what students should be expected to learn at any given time, how they should be grouped within classrooms for purposes of instruction, what they should be required to do to demonstrate their knowledge, and, perhaps most importantly, how their

> learning should be evaluated – resides in individual classrooms, not in the organizations that surround them. (Elmore, 2000, pp. 4-5)

However, were this stance of *loose-coupling* to be allowed to continue unchallenged, Elmore (2000) predicts that the larger public purposes of education would "drift away into matters of individual taste and preference" (p. 11), eventually enfeebling public education to the point the fundamentals of democracy itself would be weakened.

However, according to a national study by Hess (2002), the focus of school boards appears to be changing albeit slowly. "In the 2002 study *School Boards at the Dawn of the 21st Century* . . . board members were less focused on student achievement than they are today" (Hess & Meeks, 2010, p. 32). In the 2002 study, the three most critical factors identified by board members were (a) board-superintendent relations, (b) employee morale, and (c) student safety, while only 22% of board members indicated interest in more training in student achievement. In the repeated 2010 study, the critical factors were (a) budget and (b) student achievement, with more than 90% deeming them extremely or very important (Hess & Meeks, 2010) and more than 50% expressing interest in more student achievement training (Hess & Meeks, 2011). With this new interest in achievement, boards may be paying more attention to what drives achievement gains, and the loose-coupling cautioned by Elmore (2000) may subside. In the 2010 survey, the most popular strategies to improve achievement were (a) professional development, (b) use of assessment data to drive decisions, and (c)

improving the quality of school leadership. “These figures are impressive and suggest an achievement-centric trend” (Hess & Meeks, 2010, p. 33).

Community Factors

Since its inception public education in America has been deeply imbedded in the local community. Schools in Colonial America were conceived as a vehicle to teach basic reading, writing, and arithmetic and to help with instruction in religious traditions. After the American Revolution schools were also viewed as a political vehicle to build nationalism (Lutz & Merz, 1992). Cubberley (1919) successfully argued that schools, rather than sitting unused during evenings and summers, should open their doors to the public and become community centers for many activities “for the benefit of the communities about it” (p. 429). At the beginning of the 20th century parents, clergy, business leaders, politicians, and academics viewed schools as the logical site for assimilation of immigrants, a vehicle for social engineering, as well as a place to prepare for the new industrial age (Volmer, 2010). Now at the start of the 21st century public schools are once again asked to take on roles never before conceived (Resnik, 2006; Volmer, 2010).

Overall Considerations of the Community

Only the board can do certain things, such as policy adoption, financial oversight, accountability, constructive communication with stakeholders, progress toward district goals, and building community support (“Defining the Role”, 2006; Goodman & Zimmerman, 2000; Henderson & Mapp, 2002; Hess, 2002; Resnik & Seamon, 1999). Winik (2006) studied what he termed “good” schools and concluded that “in nearly every case, a community rallied to improve its schools” (p. 4). Whether it was in the form of

community volunteers, linking school with community, establishing a parent-community liaison, or inviting business leaders to join with civic leaders through the local chamber of commerce to push for school improvement, in nearly every case there was a partnership between the school and the community, and it was the school board that occupied the pivotal and legitimate position in bringing the players together.

Parmelee (2006) argues past attempts to increase student achievement have failed, both those that focused on motivating individual students as well as those that created an incentive structure designed to promote market competition between schools, because they failed to develop a commonsense synergy between the school and community. It is vital, she argues, that three key sectors be an active part of developing and implementing new policies: the *state* (consisting of elected policy makers and officials), the *public* (including community members, businesses, and families), and the *professionals* (made of educators and education experts at all levels) (Parmelee, 2006). This she refers to as "collaborative leadership," or coproduction™ which emphasizes inclusive relationships as the key ingredient. Furthermore, who is in the best position to bring these three key sectors together? Arguably, the only group that is legally positioned to do so is the school board.

Gemberling et al. (2000) state the idea clearly: "The key work of school boards – student achievement and community engagement to promote student achievement – is becoming recognized nationally as the primary agenda for boards of education" (p. 3). Similarly, Dr. Joyce Epstein, Director of the National Network of Partnership Schools at Johns Hopkins University, directs a number of studies aimed at understanding how family and community involvement in schools benefits student achievement. Preliminary

results are encouraging: “These studies showed that, through high school, family involvement contributed to positive results for students, including higher achievement, better attendance, more course credits earned, more responsible preparation for class, and other indicators of success in school” (Epstein, 2005, p. 2).

Henderson (2007), through scores of published research articles as well as providing testimony to the U.S. Senate Committee on Health, Education, Labor and Pensions, advocates partnerships between parents, schools, and the community be mandated in order to improve student achievement, thus creating what is termed a “smart education system” (Annenberg, 2006, p.1). Similarly, the Southwest Educational Developmental Laboratory encouraged educational reform based on the idea that school development is intimately connected with community involvement (Henderson, 2002). Under the heading *thriving together*, student achievement improves when schools, families, and the community come together in a partnership focused on improving education: “When schools, families, and community groups work together to support learning, children tend to do better in school, stay in school longer, and like school more” (Henderson & Mapp, 2007, p. 7). Once again, it appears the school board may be in the ideal position to bring all these essential factors together:

> What, then, is the future viability of the local school board? . . . If they are to remain viable in the increasingly complex and politicized environment, school boards must broaden and deepen their base of lay support through the creation of new linkages and mechanisms that facilitate citizen participation in school affairs. (Cistone, 2008, p. 32)

Bryant (2000) argues the critical relationship is between the board and the greater community and states that "board members' primary agenda is raising student achievement and engaging the community to attain that goal" (p. iii). Only the school board has the legitimate authority to engage the community. This may be a key through which communities regain confidence in their public education system. "School boards should strive to collaborate with the business and political leaders in the community" (Gemberling et al., 2000, p. 7).

Finally, Vollmer (2010), former businessman and attorney, reports on his personal transformation from an "ignorant and arrogant" (p. 16) public school critic in 1988 to a public school champion and ally who today embraces two essential conclusions. First, the problem with public education is not a people problem (the vast majority of teachers and administrators are dedicated and competent professionals) but a systems problem because we're still saddled with a centuries-old agrarian and sorting educational structure. Second is the realization that the system is intransigent to change not because of the education community but because of how deeply embedded schools are in the surrounding culture of the community. Fundamental changes to the education system also require changes to local attitudes, values, traditions, and beliefs, which are most often rejected by the public.

It seems the pivotal notion is that the effective board works in collaboration with other entities in the larger community, who themselves hold a vital interest in public education. The notion that a school board or board member acting in isolation can cause transformative and positive change in a district lacks support in the literature. This dynamic is perhaps best described by the Dissatisfaction Theory (Lutz & Iannaccone, 1986), and the McCarty-Ramsey Model (1971).

Dissatisfaction Theory

The Dissatisfaction Theory of Democracy, constructed by Frank Lutz and Laurence Iannaccone in 1986, contends that superintendent actions are subject to the pressures of the local school board, which are in turn dominated by the politics of the local community, most particularly the business community (Lutz & Merz, 1992). Three vital entities are identified: (a) the community, (b) the board and (c) the superintendent. When school boards become elitist and detached from the political realities of the community, incumbent defeat is inevitable, followed shortly by superintendent turnover. Alsbury (2008b) compares board and superintendent turnover to student performance on a state-wide, criterion-referenced test in North Carolina and found that student achievement declines as board turnover increases. He concluded that the Dissatisfaction Theory could be extended to predict that high board and superintendent turnover may negatively influence student performance, especially in large districts.

McCarty-Ramsey Model

Donald McCarty and Charles Ramsey, both professors of education at the University of Wisconsin, published their seminal work in 1971, *The School Managers: Power and Conflict in American Education*, which describes the sociological and political climate of the community within which schools and school boards function. They identified the same three variables: the community, the board, and the superintendent and identified operational approaches that could describe each. For example, when there is a relative degree of agreement between the political framework of the community and the type of board and superintendent, schools tend to operate more effectively. When there is some degree of disagreement between the political framework

of the community and the type of board and superintendent, schools tend to suffer with a "high-friction" (McCarty & Ramsey, 1971, p. 121) atmosphere. (Table 1)

Table 1

Types of Community Power

Community Power Structure	School Board	Role of the Superintendent
Dominated	Dominated	Functionary
Factional	Factionalized	Political strategist
Pluralistic	Status congruent	Professional advisor
Inert	Sanctioning	Decision-maker

(Note: Adapted from McCarty & Ramsey, 1971, p. 22).

More specifically, the authors identify four types of political frameworks of a community (dominated, factional, pluralistic, and inert) which in turn signal four ways in which the school board would be expected to function (dominated, factionalized, status-congruent, and sanctioning). These ultimately drive the politically astute superintendent to act in predictable ways in order to survive (functionary, political strategist, professional advisor, decision maker) (McCarty & Ramsey, 1971).

The McCarty-Ramsey Model (1971) predicts that higher and increasing student achievement scores most often occur in pluralistic communities with status-congruent boards and professional advisor superintendents. Furthermore, this model predicts lower and decreasing student achievement scores will occur most often in dominated, factional,

or inert communities with dominated, factionalized, or sanctioning boards and functionary, political-strategist, and decision-maker superintendents. (Table 1)

This model has been examined and verified with five independent studies. Hess (1994) confirmed the validity of the model by means of a paper survey of superintendents in Wisconsin. Smith (1998) also confirmed the validity in North Carolina but added board presidents to the survey. Lere (2004) and Johnson (2007) also verified the essential validity of the model in Colorado and Oklahoma, respectively, and expanded the scope of the model by including student achievement. In addition, Duvall (2005) conducted an ambitious study in Michigan using an online survey of superintendents and board presidents, again expanding the ideas and detailing more implications. In each case, the basic premise of the McCarty-Ramsey model was upheld, that the pluralistic/status-congruent/professional advisor arrangement led to increasing student achievement, and in each case more details of the relationships were elaborated.

High or low student achievement is apparently not the result of one or two obvious proximal factors like teachers or curriculum, and school boards today cannot afford to be uninformed because, as recent research indicates, their actions or inactions appear to affect student achievement. Several qualitative studies have been conducted and many reports written about the possible connection between high student achievement and community/school engagement. The common theme of collaborative relationships (Parmelee, 2006), collaborative leadership (Chrislip, 1995), systems thinking (Gemberling et al., 2000), smart education (Henderson & Mapp, 2002), dissatisfaction theory (Lutz & Iannacconi, 1986), and partnership schools (Epstein, 2005) is clear:

student achievement is enhanced when the community becomes part of the school curriculum. Mathews (2008) agrees, stating,

> Americans are more likely to regain their sense of ownership of the public schools if current efforts to build a better relationship between schools and the citizenry go further. . . . This work has to start where citizens start, which is with their communities rather than just schools and with education broadly rather than just schooling. (p. 17)

The School Board

On the one hand, interest in student achievement is at an all-time high (Hess & Meeks, 2010). On the other hand, the current fiscal situation across the nation likely means "that some federal initiatives . . . are likely to be curtailed or discontinued. . . . The result will mean that improvement efforts will rest even more heavily on local boards. . . . The work of school boards has never loomed larger" (Hess & Meeks, 2010, p. 34).

A School Board's Influence

According to Lisa Bartusek, Iowa Association of School Boards (IASB) associate executive director for board leadership,

> The Lighthouse studies show that boards in high-achieving districts are very different from boards in low-achieving districts. There's some pretty clear evidence that if we want great gains in student learning, school boards must master their role as strong leaders for school improvement. (IASB, 2009, p. 1)

Because it seems hard to imagine how factors so far removed from the student could affect classroom performance, ". . . the current presumption [is] that

school boards do not have an influence or a role in student achievement" (Alsbury, 2008b, p. 224). However, Delagardelle (2008) states that "while, by their nature school boards are removed from the day-to-day work on teaching and learning, they control the conditions that can allow successful teaching and learning to occur throughout the system" (p. 192).

Applying Elmore's (2000) concept of *loose-coupling* once again, even though control of the "technical core" (p. 6) of education, that complex and intimate relationship between teacher and student, is usually left wholly in the hands of individual teachers (a condition he describes as a pathology of the existing institutional structure), it is the administration and board that craft the mission and control the organizational structure, creating the culture and climate that surround and influence instruction. If schools are to rise to the challenge outlined by NCLB and improve student achievement, "large scale, sustained, and continuous improvement" (Elmore, 2000, p. 35) is the only rational response, and it is the responsibility of school leaders to "fundamentally re-design schools as places where both adults and young people learn" (Elmore, 2000, p. 35).

This cannot be accomplished by schools changing things based on individual ideas rooted in professional autonomy or good intentions. This can only be accomplished when school boards, administrators, and teachers together focus on whatever it takes for students to improve, and when leaders set a long-term "emphasis of collaboration and continuous improvement" (Elmore, 2000, p. 15). Although desirable, "collaboration and collegiality among teachers, and among teachers and principals, is a necessary but not sufficient condition for improvement" (Elmore, 2000, p. 18). Real improvement in student performance is only accomplished when there's a spotlight on proficiency and a

"heavy investment in highly targeted professional development, . . . strong and explicit accountability by principals and teachers, . . . and a normative climate in which adults take responsibility for their own, their colleagues, and their students' learning" (Elmore, 2000, p. 28).

The Individual School Board Member

Most research on school boards has historically focused on the collective board. However, two early works on individual members of boards is offered by Ellwood Cubberley (1916) and George Counts (1927). Between 1927 and 1962, only 18 studies on school boards are reported by Goldhammer (1964), most consisting of quantitative descriptions of board member characteristics. That trend appears to have changed little, according to Alsbury (2008a), who states that "the number of studies conducted [on school boards and individual school board members] over the past several decades . . . has been scant" (p. xii).

However, attention to the behaviors of individual board members as change agents appears to have increased as evidenced most conspicuously by the Iowa Lighthouse studies (Delagardelle, 2008), among others (AASA, 2004; Alsbury, 2008b; Bracey & Resnick, 1998; Carver, 2000; Duvall, 2005; Hill, 2003; ISBA, 2000; Rubin, 2002; Walser, 2009b; Waters & Marzano, 2006; Waters, Marzano, & McNulty, 2003; WSSDA, n.d.).

> Research on organizations reveals that executives often err by targeting group behavior as the initial stage for change…In the case of school boards, for example, individual members differ substantially with respect to personal knowledge and skills, and individual members have the latitude to behave

> politically. Thus, efforts to alter the group behavior of school boards logically begin with efforts to change individual behavior. (Kowalski, 2008, p. 231)

Examination of school boards includes not only macro-level analysis of the collective board but also micro-level analysis of individual board members themselves. According to The Center for Comprehensive School Reform and Improvement *Newsletter* ("Defining the Role," 2006), primary to the effective functioning of schools is

> . . . a clear understanding of the purpose, role, and appropriate functions of school boards – on the part of both board members and school and district practitioners. . . . Confusion about these roles can cause problems and have a negative effect on the operation of a school district. Boards that attempt to micromanage policy implementation, circumvent the superintendent by working directly with employees, or operate as individuals rather than as a team can be both divisive and disruptive. . . . However, in high functioning school districts, roles are clearly delineated, and the relationship between board of education members and the district administration is clear. . . [which] illustrate the positive effect that school board leadership can have on efforts to improve student achievement. ("Defining the Role," 2006, pp. 1-2)

The deleterious effects of micromanagement are often cited in the literature (Caruso, n.d.; Chambers, 2004; Danzberger, 1994; Goodman & Zimmerman, 2000; Hill, 2003; Mountford, 2001; Walser, 2009b), yet substantive research is relatively scarce, leading Saenz (2005) to call for more research to determine the impact of micromanagement on student achievement. Indeed, Walser (2009b) reports, "over and over . . . micromanagement - usually by one or two members of the board - was criticized

by both board members and superintendents as their most common cause of frustration" (Walser, 2009b, p. 6). Caruso (n.d.) affirms this: "Probably the greatest complaint by superintendents is that of the board micromanaging the administration" (p. 3).

Mountford (2001) investigated characteristics of individual board members and found board members behavior tended to occur along three continua: (a) motivation for membership (from *altruistic* to *personal*), (b) conception of power (from *power-with* others to *power-over* others), and (c) decision-making strategy (from *collaborative* to *micromanaging*). If motivation for membership was *altruistic*, members tended to embrace a *power-with* attitude with fellow board members and preferred to make decisions *collaboratively*. In contrast, if motivation for membership was *personal*, members tended to embrace a *power-over* attitude toward fellow board members and were inclined to *micromanage* the administration. What Mountford (2001) did not examine directly was the effect each of these individual behavior clusters had on student achievement.

Caruso (n.d.) cites ten troublesome behaviors by board members that contribute, albeit indirectly, to student achievement by either sustaining or poisoning the political atmosphere and culture and climate of schools. Of great concern should be the consequences of a poorly performing board (Caruso, n.d.; Caruso, 2005; Caruso, 2006; Caruso, 2008; Caruso, 2009).

> The community often judges the school district by the actions of the local board of education, so a poorly performing board telegraphs a negative image to the rest of the community. . . . It also undermines the board's credibility with staff, and if

> allowed to go unchecked, can have a negative impact on the children of your school district. (Caruso, 2006, p. 2)

Borrowing from a common instructional model of *time on task,* Caruso (2009) suggests a board's effectiveness can be similarly assessed by examining meeting agendas to determine a board's "time off task" (p. 2). When a board devotes more time discussing administrative issues like field trips and school bus issues than it devotes to 21st-century classroom and curriculum issues, their "time off task" (p. 2) may be correlated with lower student achievement scores, an idea reminiscent of Paul Houston's "killer B's" (Houston, 2001, p. 431).

Similarly, when a board member, or worse yet the board chair, believes he or she can exert authority by being intimidating, verbally abusive, challenging, demeaning, or manipulative, the entire district is diminished. When bullying behavior is exhibited by those in positions of power, overall public support for the school district is reduced, which eventually harms students in classrooms. Other board members and administrators should immediately deem these disruptive and destructive behaviors as unacceptable and work to diminish their occurrence (Caruso, 2006; Caruso, 2008). Glasser (1998) even constructs an entire theory around the idea of coercion called Choice Theory and Motivation, and describes in detail how schools and students are negatively affected. Feltman (2002) defines similar behavior of individual board members as "coercive" and reports that - like the effects of micromanagement - "coercive power is counterproductive in schools" (p. 19).

Further, it is the responsibility of the board chair to forge consensus, aiming for unanimous, or near-unanimous, votes. Split votes can perpetuate divisions in the

community, something that is detrimental to ambitious reforms. “When people have a sense that you could have a split vote, [groups] will prey on boards for various things” (Walser, 2009b, p. 58). The most effective boards monitor the district leadership as well as their own work on both a collective and individual level, making sure their actions are systematically aimed at improving student achievement. When boards drift off-task, it is helpful to simply ask “Are all of these knobs that we are turning connected to anything?” (Walser, 2009b, p. 81).

The Collective Board

Poorly understood and much maligned, the boards of public schools are often criticized for things like political corruption, nepotism, stealing money, and incompetence: “The idea that school boards are ineffective is nothing new however, when one considers that George Counts leveled similar criticisms at school boards in the late 1920’s” (Mountford, 2001, p. 84).

Despite their unique and considerable responsibilities, school boards have not been thoroughly studied and are little comprehended.

> For more than a century, school boards have endeavored to govern America’s schools and school systems. Collectively, the nation’s nearly 14,000 school boards are responsible for the well-being of 52 million children, the expenditure of $600 billion per year, and the supervision of six million employees. Despite the magnitude of this responsibility, school boards and their work are little examined and poorly understood. (Hess & Meeks, 2010, p. 12)

Americans’ perceptions of public education reveal a puzzling phenomenon. When asked to grade the school their children are attending, 77% of adults gave their local

schools a grade of A or B, the highest rating since 1985 when the 5-year nation-wide surveys began (Lopez, 2010). But when asked to grade the nation's public schools, 18% graded public schools with an A or B, the lowest rating since 1985 (Lopez, 2010). How can it be that the local school is perceived as exceptional but schools in general are seen as near failing?

Some have suggested that the negative perception of public schools accelerated after the 1983 publication of *A Nation at Risk* by then-United States Secretary of Education Terrell Bell (Berliner & Biddle, 1995). Public perception can be effectively manipulated when powerful people like Bell and others make dramatic pronouncements filled with certainty. However the full story begins a few years earlier.

School Boards Can Lower Student Achievement

If critics are correct, public education in America is in decline and school boards are to blame. Peter Drucker (1974) states flatly that the only thing that school boards have in common is that they don't work, and William Bennett (1994) refers to educational leaders as the "blob" (Bennett, 1999, p. 627). In an article in *The Atlantic* entitled "First, Kill All the School Boards", Miller (2008) argues schools fail because of union dominance and incompetent school boards. Chester E. Finn, President of the Thomas B. Fordham Institute, agrees, and has stated,

> The local school board, especially the elected kind, is an anachronism and an outrage. . . . We can no longer pretend it's working well or hide behind the mantra of 'local control of education.' We need to steel ourselves to put this dysfunctional arrangement out of its misery and move on to something that will work for children. (Hess & Meeks, 2010, p. 6)

What is the possible source of such displeasure? In 1957, with the launch of Sputnik by the Soviet Union, the U. S. government intervened in public education in an unprecedented way, claiming America was falling behind the Soviet Union due to the apparent declining math and science test scores in public schools. Federal dollars flowed into schools to remedy the perceived problem, but these funds came with mandates which effectively took away many local decisions (Mountford, 2001). Perhaps the most damaging report to leadership in public education came with the 1983 publication of *A Nation at Risk* released by the Reagan White House and then-Secretary of Education Terrell Bell (Berliner & Biddle, 1995), which further contributed to the growing perception that American public education was failing and in need of reform. Once again, new waves of additional controls over education from state and federal officials were spawned, usually coupled with scores of unfunded mandates.

In 1987, William Bennett, then United States Secretary of Education under President Ronald Reagan, used the term "blob" (Waters & Marzano, 2006, p. 8) to refer to the *bloated educational bureaucracy* of public education during his state of education speech (Waters & Marzano, 2006, p. 8). During his tenure as Secretary of Education, Bennett continued to offer "wall charts" (Walker, 1988, p. 5) of disparaging educational indicators calling for efforts to "shrink the blob" (Walker, 1988, p. 5), and to advocate for educational reform arguing that those in the education system outside the classroom soak up resources and resist reform without contributing to student achievement. It is this group, he contends, that primarily provided resistance to the educational reforms he espoused, such as competency testing for teachers, opening the teaching profession to knowledgeable individuals who have not graduated from schools of education,

performance-based pay, holding educators accountable for how much children learn, an end to tenure, a national examination to find out exactly how much our children know, and parental choice of schools (Bennett, 1994). With his co-authors, he re-creates this assertion in his book *The Educated Child* (1999) when he helped write:

> The public school establishment is one of the most stubbornly intransigent forces on the planet. It is full of people and organizations dedicated to protecting established programs and keeping things just the way they are. Administrators talk of reform even as they are circling the wagons to fend off change, or preparing to outflank your innovation. . . . To understand many of the problems besetting U.S. schools, it is necessary to know something about the education establishment christened "the blob" by one of the authors. (Bennett, Finn, & Cribb, 1999, p. 627)

In effect, Bennett and his co-authors charged that the bureaucracy of the public education system, from the principal, superintendent and district office staff, to the school board members, is the main impediment to innovation and improved student achievement as Bennett defines it, with school officials asserting self-interest over student benefit. Bennett's criticism seems to have found a sympathetic audience. According to Rose & Gallup (2008) a majority of the public (51%) believe that someone other than locally elected school boards should be in charge of what is taught and learned in our public schools, with state and federal governments or private enterprises being the favored choices. However, Bushaw and Lopez (2010) conducted a national survey and found greater support for state (46%), rather than local (29%) or federal (26%), control of public education.

Some scholars and researchers have suggested that the school board as presently conceived is simply not up to the challenge it is currently facing. For example, Chester Finn, President of The Thomas B. Fordham Institute and co-author of *The Educated Child* with Bennett and Cribb (1999), argues that school boards are "principally concerned . . . with the viability of the school system as an institution, fiduciaries, one might say, of a public trust rather than change agents on behalf of a compelling societal agenda" (as cited in Hess & Meeks, 2011, p. 7). According to Bennett, Finn, and Cribb (1999), school boards are trustees of a vital American institution more interested in preserving the system than overseeing its transformation. What is needed, they claim, is a more enlightened structure. Hess and Meeks (2011) share this perspective and argue for more enlightened school leadership and ask "Would public education come closer to serving the country's needs in 2011 if it were run by visionary, reform-driven leaders than by cautious, community-based fiduciaries?" (Hess & Meeks, 2011, p. 7).

On the other hand, based on personal experience as an educational champion and reformer, Vollmer (2010) argues that school reform is not resisted by the school bureaucracy but by the community itself within which the school is embedded. He argues student achievement could be improved by "constructive abandonment" (Vollmer, 2010, p. 83) of a few cherished but outmoded concepts. For example schools could benefit by (a) changing curriculum, (b) improving student motivation, (c) rethinking assessment, and (d) altering or lengthening the school calendar. Such ideas are widely embraced by schools but efforts to enact these changes are more often rejected by the community because of misinformation, misunderstanding, overall expense, and an interference with family vacations.

School Boards Can Raise Student Achievement

Much exception has been taken with the contention that America's schools are in decline. Critics have charged the educational reform efforts of Regaen, Bell, Bennett, and George H. W. Bush and others as politically motivated by their fabricating information fueling a "disinformation campaign" (Berliner & Biddle, 1995, p. 3) against public education:

> But many of the myths [about public education] seem also to have been told by powerful people who . . . were pursuing a political agenda designed to weaken the nations' public schools, redistribute support for those schools so that privileged students are favored over needy students, or even abolish those schools altogether. To this end they have been prepared to tell lies, suppress evidence, scapegoat educators, and sow endless confusion. We consider this conduct particularly despicable. (Berliner & Biddle, 1995, p. xii)

Since the 1983 publication of *A Nation at Risk,* public school officials have been working to overcome the negative caricature of the intransigent educational bureaucracy of the nation's public schools promoted by Bennett, Finn and Cribb (1999) and others. However, rather than dismantle or weaken public education, some politicians and researchers have been studying ways to better understand and strengthen the nation's public schools by bringing together the schools and the public. Rod Paige, United States Secretary of Education from 2001 to 2005 under President George W. Bush, appears to disagree with Bennett's characterization of school leaders as the "blob" when Paige states

that “quality school board functioning is central to the effectiveness of schooling. In fact, the effectiveness of school board governance is the single most important determination of school district success or failure” (as cited in Delagardelle, 2008, p. 191). Yet, “the shallowness of research on school boards almost defies belief” (Stringfield, 2008, p. 287).

Danzberger (1992), a vocal champion of school boards and their roles in the governance of schools, has also written broadly on the ineffectiveness of school boards. Many of her concerns are shared by others, including Chait, Holland, and Taylor (1993, 1996) who write extensively about improving governing boards. Waters and Marzano (2006), writing for McREL in Colorado, “found a substantial and positive relationship between district-level leadership and student achievement when the superintendent, district office staff, and school board members do the ‘right work’ in the ‘right way’” (p. 20). These researchers go on to suggest what constitutes the right work in the right way:

> School board members need to hire a superintendent who skillfully fulfills key leadership responsibilities. They need to support district goals for achievement and instruction. They need to support district- and school-level leadership in ways that enhance, rather than diminish, stability. When focused on effective classroom, school and district practices appropriate achievement and instructional goals, and effective leadership responsibilities, it is clear that school district leadership matters. Under these conditions, rather than be part of the “blob”, superintendents, district office staff, and school boards can be part of the solution. (Waters & Marzano, 2006, p. 21)

The paramount question for boards today is deciding which levers in the system to pull in order to effect desired change without creating deleterious and unintended

consequences. For boards, it becomes a near-acrobatic feat. That the school board plays a role in, and has influence over, student achievement is being increasingly recognized in the literature (Delagardelle, 2008; Elmore, 2000; Hess & Meeks, 2010; Marzano, 2003; Walser, 2009b; Waters & Marzano, 2006). How does a board populated by non-educators become more engaged in classroom teaching and learning (Elmore, 2000) without slipping into micromanagement (Carver, 2006; Mountford, 2001)? How does a board exert pressure on the system through policies promoting quantifiable improvement in student performance without becoming unreasonably demanding of administrators or teachers (Lashway, 2002)?

School effectiveness research is today in its third generation (Waters & Marzano, 2006), or "third wave" (Hoy & Miskel, 2008). First-generation, or first wave, research on effective schools was conducted in the late 1960s through the mid-1980s and focused on correlates of effective schools, those schools with higher student achievement, as compared to ineffective schools, those schools with lower student achievement. Several best practices were identified, such as (a) safe and orderly environments, (b) strong instructional leadership, (c) high expectations for student achievement, (d) clear and focused mission, and (e) time on task. The main conclusion of this first-generation research was that "differences in achievement among schools are not just a reflection of the characteristics of students who attend them, but also the efforts of professionals within those schools" (Waters & Marzano, 2006, p. 5). This research helped bring into focus the significance of more factors. However, as helpful as these ideas were, they lacked the specificity needed by educators to clearly and consistently distinguish between the effective and ineffective practices and implement reform.

Second-generation research extended from the early 1970s through the 1990s, during which time more explicit practices were researched and described in greater detail in order for educators to effectively implement specific practices so as to be able to compute their effect sizes or strength of relationship. The publication of *A Nation at Risk* in 1983 "set off an explosion of state-level reform activity" (Hoy & Miskel, 2008, p. 294) resulting in numerous changes in graduation requirements, longer school days, an extended school year, career paths for educators, competency tests, and various kinds of high school diploma's.

Today, a "third generation of effective schools research translates well-defined, effective classroom, school and leadership practices into specific actions and behaviors" (Waters & Marzano, 2006, p. 5). Specifically, in their publication *School Leadership that Works*, Marzano, Waters, and McNulty (2005) identify scores of specific responsibilities and practices for principals and superintendents which, they have found, lead to improved student achievement. "Terms such as 'accountability,' 'academic achievement,' performance standards,' 'assessments,' 'high-stakes testing,' 'teacher quality,' and 'student dropout rates' infused conversations among educators, policy makers, business leaders, and the public" (Hoy & Miskel, 2008, p. 296).

Even though some critics of public education have been calling for the demise of the local school board (Bennett, Finn, & Cribb, 1999; Hess & Meeks, 2011), it seems unlikely this will happen given its long American tradition. It is more likely that the future will consist of more research about restructuring school boards (Alsbury, 2008a; Danzberger, 1994; Elmore, 2000; Hess & Meeks, 2011; Land, 2002) to determine

precisely what boards should and should not do in order to more effectively operate the schools and participate in raising student achievement scores.

While early studies of school boards were largely descriptive in nature (Goldhammer, 1964; Hess, 2002), more recent studies have sought to provide boards specific guidance regarding how to collaborate with the system in order to foster improved student performance (Alsbury, 2008c; Delagardelle, 2008; Elmore, 2000; IASB, 2000; Marzano, 2003; Walser, 2009b; Waters & Marzano, 2006). Since boards are an integral part of the system of public education, they surely participate in some fashion in defining the mission and in the creation and maintenance of school culture and climate (Hoy & Miskel, 2008).

This most distal factor—the school board—is, arguably, the pivotal factor that can either facilitate or impede student achievement in all its facets (Elmore, 2000; Delagardelle, 2008; Land, 2002; Lashway, 2002). School boards have the ultimate responsibility to fully understand their role in setting the overarching conditions within the district that will in turn determine whether students fail or succeed (Walser, 2009a). This includes not only the more traditional collective functions of policy adoption, financial oversight, building community support, accountability, constructive communication with stakeholders, and progress toward district goals ("Defining the Role," 2006; Hess, 2002), but also includes managing the political atmosphere within the school, having a good working relationship with the superintendent and staff, engaging the community in a collaborative manner, and fostering an atmosphere of trust (Alsbury, 2008b; Bryant, 2000; Delagardelle, 2008; Lashway, 2002; Leithwood et. al, 2004; Lenz, 2009; Lezotte, 2009; McCarty & Ramsey, 1971; MacIver & Farley, 2003; Rubin, 2002;

Tschannen-Moran, 2004a; Walser, 2009b; Waters & Marzano, 2006). Furthermore, in an attempt to emphasize which characteristics were the most critical, "trust and collaboration were singled out 'above all else' as the most important distinguishing factors of well-governed districts" (Walser, 2009b, p. 10).

Contemporary School Board Demographics

In order to limit speculation about school boards, who populates them, and how they operate, it would prove useful to know the facts. However, specific information is limited because "the number of scholars researching school governance in general is small, and the number of researchers specifically devoted to research on the relationship between school governance and student achievement can be counted on one hand" (Hess & Meeks, 2010, p. 16).

Three publications, however, do provide information. Hess (2002), in conjunction with the NSBA, published the results of a nation-wide survey describing boards and board members in 2002, which was updated in 2010 (Hess & Meeks, 2010). Two findings in the 2002 survey are worth noting relative to student achievement. First, concerns of student achievement ranked 8th out of 10 when board members were asked about desired training. Second, is the fact that large districts (having more than 25,000 students) and small districts were significantly different in many ways, and yet the public's overall negative perception of public education appears largely driven by press coverage of challenging urban issues particularly uncharacteristic of smaller districts. This might help explain the tendency Americans have to hold their neighborhood schools in high regard while simultaneously believing public education in general is failing (Berliner & Biddle, 1995; Howell, Peterson, & West, 2009; Lopez, 2010). Hess and

Meeks (2010) expanded and repeated the 2002 survey in 2010 and note several encouraging trends. For example when board members were asked about priorities, student achievement moved into second place after school funding. In addition, board members expressed concern that testing as prescribed by NCLB is too narrowly focused and that "student success [is] defined by more than reading and math achievement" (p. 32). A third independent report by Nylander (2009) paints a similar picture of school boards and board members nationwide.

The Hess and Meeks (2010) report is arguably the most comprehensive snapshot of school boards to date, and contains six sections: (a) who serves on school boards, (b) what board members think, (c) how school boards go about their work, (d) how school boards are configured, (e) school board elections, and (f) school boards and their superintendents. The 75 tables, figures and graphs report the results of the nationwide survey: "At least three macro trends are evident as one reads through the survey results" (Hess & Meeks, 2010, p. 32). First is "a growing thirst for information on what drives student achievement gains" (p. 32). Second is the growing perception that "student success is defined by more than reading and math achievement" (p. 32). Third is that board members increasingly embrace "professional development [for teachers], frequent use of assessment data, and improving quality of school leadership" (p. 33) as the most important means to school improvement rather than reduced class size and charter schools that "are most evident in the popular media" (p. 33).

The School Board and Training

Based on the assumption that a better-informed school board leads to better schools the practice has been to offer, and sometimes require, training for board members

which is most often organized through the respective state school boards associations (NSBA, 2006a, 2008). The NSBA reports that of the 44 states responding to their survey, 20 (45%) states mandate some form of training - most requiring training for both new and veteran board members (NSBA, 2008; Walser, 2009b). Only 3 of 37 states responding to the survey reported minimum educational requirements to serve on a school board, which is a high school diploma or GED (NSBA, 2007), and 2 of the 34 states reported some form of term limits (NSBA, 2006b). Most states elect school board members (30 out of 49 reporting, or 61%) with 19 of 49 (39%) reporting some variation of appointments to the board (NSBA, 2009). It is interesting to note that Cantrell (2002) reports that compared with elected boards, appointed boards have a stronger understanding of a board's role and tended to avoid micromanagement, to be motivated by a desire to serve the community, to assume a service rather than a political responsibility, and to engage in whole-board development to a significantly greater extent than elected boards.

All 50 states have some version of a school boards association. In addition to one independent study by Nylander (2009), the NSBA has surveyed these associations in order to document differences in such things as board member demographics, term limits, minimum qualifications, mandated training, and selection procedures (Hess & Meeks, 2011; NSBA, n. d., 2006a, 2006b, 2007, 2008, 2009). For example, in Arkansas the legislature passed a law in 2005 stating that "members of Arkansas, school boards must comply with a new mandatory training act: Act 1775 of 2005" (Arkansas School Boards Association [ASBA], 2007, p. 1). This law requires board members to attend 6 hours of approved training each year. Similarly, the Florida School Boards Association (FSBA) enacted a voluntary training program in 1992 for school board members that include 40

hours of training. When all members of a board receive this training, it results in that board being designated as a "Master Board," something that 20% of Florida school boards has accomplished (FSBA, 2008). Whether this translates to increased student achievement is unknown.

The Indiana School Boards Association (ISBA) enacted a similar voluntary program in 1992 which involved attendance at a variety of conferences, academies, and seminars in order to be recognized as a Master Board (ISBA, 2008). Tennessee enacted mandatory board training, and Grissom (2005) notes "that school board members and superintendents perceived the mandatory school board training as useful as having an impact on school board members' actions back at their local boards of education" (p. 3). California's Master's in Governance program requires 60 hours of instruction and training in nine areas to be taken over 2 years and needs to be kept current each year (California School Boards Association, 2008). In Montana training for board members, as well as district clerks, is voluntary (MTSBA, personal communication).

Other states like Iowa, Connecticut, Michigan, Pennsylvania, Virginia, Kansas, Oregon, and Colorado have similar board training programs. The training and workshops offered to boards generally focus on topics such as school law, budgets, contract negotiations, open meeting laws, and policy adoption, when there appears to be little or no evidence that additional collective expertise in these traditional areas of boardsmanship has an impact on student achievement, which is a board's most pressing and current concern. Maritz (2006) studied the relationship between voluntary in-service board training in Pennsylvania and found no correlation to district AYP. This raises "questions regarding the effectiveness and appropriateness of current board training"

(Mountford, 2001, p. 28), and may serve to point out that "a forum does not exist where board members and superintendents can gain a new level of insight and understanding into how personal behavior can impair their ability to adhere to their respective roles and responsibilities" (Mountford, 2001, pp. 27-28) and act as a team, which itself has been shown to affect student achievement (Delgaradelle, 2008).

Kreassig (2007) reports that the decision-making process of school boards has changed little over the last 35 years and in light of this recommends that

> school board associations must move away from traditional training for boards and provide guidance about how boards and superintendents can interact with each other and how they can interact with district staff around educational issues and areas that directly impact student learning (Alsbury, 2007, p. 27).

In fact, the state of Tennessee has a particular training module for school boards that focus on governance through policy and planning. A recent study of the effectiveness of this module by White (2004) found that boards that participated in the training changed focus from micromanagement to planning. In addition, Gehring (2005) makes the observation that a growing number of school boards that are concerned that infighting, lack of focus, and a propensity for micromanagement are limiting their effectiveness are turning to Policy Governance for guidance (Gehring, 2005). [The term *Policy Governance* refers to a model authored by Carver (2006).]

Traditional board training in things like school law, budgets, and labor relations are clearly appropriate for boards to pursue, but other training could be made available to boards wishing to enhance student achievement. Perhaps the training boards intuitively seek, or the training that facilitators and consultants offer, are effective for avoiding

litigation and negotiating contracts but ineffective or even counter-productive in addressing student achievement. Given the increasing interest and attention on student achievement at the federal, state and local levels, boards need training leading to improved performance in all aspects of boardsmanship including improved student achievement. Such information could prove especially useful for struggling districts.

School Boards at Their Best

Numerous reports suggest that when school boards behave in accordance with certain standards student achievement is affected (Alsbury, 2008a; Delagardelle, 2008; IASB, 2000). Two problems surface, however. First, not all ideas are supported by research, and second there is little agreement between the studies. Table 2 (below) is a comparison of recommendations for board effectiveness from ten select studies. The lack of uniformity or agreement between the studies as to the factors that constitute board effectiveness in relation to student achievement is apparent.

Delagardelle (2008) writes that "opinion-based writings on the overall role of the school board in relation to student achievement dominate the literature" (pp 192-193). More recent efforts are underway in an attempt to examine potential factors in a more systematic and scientific manner and the field of critical elements may have begun to narrow (Ford, 2010; Harper-Debe, 2010; Hoy & Miskel, 2008; Lenz, 2009; Moore, 2010; Pennycuff, 2010; Romero, 2010; Tschannen-Moran, 2004), perhaps reflected best by the work at WSSDA (2009). Elements most often mentioned include references to vision setting, community engagement, team work and professional development for employees and board members alike.

Table 2

Characteristics of Effective Boards from Ten Select Reports

	Bracey & Resnik (1998)	Brenner, Sullivan & Dalton (2002)	Effective Public School (2007)	Goodman & Zimmer-man (2000)	Great Schools (2009)	Iowa Light- house (2003)	Rosen-holtz (1998)	Smoley (1999)	Waters& Marzano (2006)	WSSDA (2010)
Community Engagement	X		X	X	X	X	X	X		X
Setting/Supporting the District Vision/Goals	X		X	X	X	X				X
Board Leadership							X	X	X	X
Working as a Team		X		X	X	X		X	X	
Good Learning Environment	X									
School Renewal							X			
Manage the Budget	X	X	X		X					X
Student/Instruction Focus					X				X	
Professional Development		X	X	X		X	X	X		
School Advocate					X					
Long-range Planning		X		X						
Skilled Superintendent		X							X	
Rational Decisions								X		
High Student Expectations		X	X			X				X
Safe Learning Environment				X						
Conditions for Success						X				X
Develop Policy		X	X							X
Monitors Goals		X	X							
Effective Superintendent and Staff Relationships		X	X							
Effective Communications			X							
Recruits Future Bd. Members			X							
Role Clarification		X				X				

School Boards at Their Worst

Similar disagreements can be found in the literature concerning worst practices of school boards as reported in Table 3 (below). Given the lack of consistency between the reported lists of worst practices, it is once again persuasive to conclude personal opinion and anecdote dominate the literature. Research based evidence as to the role the school board may play in relation to student achievement is needed to clarify this relationship.

> There are no practical limits on school board powers. They own the district, hire the superintendent and all staff, decide how money will be spent, and in some cases even set schedules and buy textbooks. It is no surprise then that many school board members are "into everything," micromanaging, intervening in schools on behalf of constituents, joining with other board members to issue new policies, and forming alliances with central office staff to obstruct initiatives they do not like. (Hill, 2003, p. 11)

Hill (2003) goes on to describe the all-too-common reality that board members not only have the power to disrupt schools but often gain personally by doing so. Such "self-aggrandizing interventions" (Hill, 2003, p. 12) gain favor with special-interest factions within the community by attempting to create narrow, self-seeking, yet tangible changes in the schools.

Table 3

Characteristics of Poorly Performing Boards from Eight Select Reports

	Carpenter (2006)	Caruso (n.d.)	Carver (2000, 2006)	Great Schools (2000)	Lashway (2002)	Lencioni (2002)	Mountford (2001)	Toudas (1993)
Micro-management			X	X				
Rubber-stamping			X	X				
Demanding					X			
Personal Agenda's	X	X		X			X	
Fail to Govern	X							
Not Accountable	X		X			X		
Administrivia	X		X					
No Board Training	X							
Lack of Trust						X		
Fear of Conflict						X		
Lack of Commitment						X		
Lack of Patience		X						
Poor Results						X		
Single Issue Members				X				
Lack of Collaboration		X		X				
Unprepared				X				
Role Confusion							X	
Not Student Focused							X	
Apathy							X	
Short-term Thinking			X					
Reactive v.s. Proactive			X					X
No Authority			X					
Focus of Wrong Issues								X
Responds to Public Pressure		X						X
High Emotions		X						X
Denies Mistakes								X
Challenge the Vote		X						
Act as Lone Ranger		X						
Violates Confidence		X						

Such a gunslinger mentality in turn breaks down other board members' self-restraint who themselves begin initiating their own, not the district's, agendas for change. This most often incites conflict between board members, often resulting in superintendent turnover and a premature end to long-term reform efforts initiated by the district (Hill, 2003). Board members who engage in such action must come to realize such behavior is a violation of their duty as trustees and may serve to interfere with student achievement (Delagardelle, 2008).

Summary

This review of the literature was divided into four sections. The first section presented the historical context for schools and school boards. The second section dealt with the 6 factors thought to affect student achievement: three proximal factors ([a] student level factors, [b] teacher level factors, and [c] school level factors), and three distal factors ([a] administrative level factors, [b] the role of the collective school board, and [c] the influence of individual board members.)

The second section also discussed the potential role school boards play in student achievement, beginning with an historical overview. Changing priorities of public education began in colonial New England with *access* to education, then developed to equal *opportunity* for everyone to attend public schools, and has ended with universal *proficiency* as the most recent priority. Also in the second section is a review of the history of school boards in America as well as discussion of the role of the community in student achievement. Section Two ends with a discussion of the best and worst practices of school boards and board members.

Public education is ultimately governed by duly-elected citizens most often bereft of educational credentials, yet the school board likely holds the key to student achievement. Well-intentioned but ill-informed, some school boards and board members unintentionally harm students. When elected on single-issue platforms, when harboring personal agendas and armed with an oath to improve schools, overly zealous board members can unknowingly wreak havoc on schools through a variety of mischievous means, including efforts to micromanage and reluctance to collaborate.

For many districts, traditional leverage points to improve student achievement such as teacher training and improved administrative leadership may have already been maximized. What districts need now are not general proposals or politically inspired agendas, but empirically supported, specific ideas of how the board can participate in student achievement as they pour over budgets with an eye on keeping what effects achievement and questioning what does not. Therefore, if student achievement is to continue to improve, as is mandated by NCLB, less conventional leverage points must be identified and exploited for student advantage, most of which are within reach of the school board. Recent research has suggested that when the collective board accomplishes certain things in certain ways, and individual board members conduct themselves according to certain prescriptions of conduct, the result is a smooth-functioning district and an improving of the educational experience for both faculty and students, resulting in increased student achievement scores.

The long-held assumption that actions of board members have little or no effect on student achievement is unjustifiable in light of recent studies. Perhaps if board members knew their actions were of consequence throughout their district and were in

part responsible for student achievement, their behaviors might be more reasoned and considered. Knowing that student achievement increases when board members act collaboratively and that student achievement decreases when board members micromanage, for example, should give board members pause. Knowing this could change board training protocols by giving greater attention to board members' personal preferences with regard to their actions as members of the school board.

Although there are many managerial and administrative reasons why collaborative approaches to leadership are beneficial, and many reasons why micromanagement, bullying, and time off-task are harmful, a board member's choosing to exhibit one behavior or the other might remain a matter of personal preference until it can be shown that one approach harms students while another helps them. At that point, it is no longer an arbitrary decision based on personal preference or political expediency but a realization that one is duty bound to embrace the option shown to promote student advantage. This can only be good news to superintendents and administrators everywhere and to parents whose primary interest is the well-being of their children.

CHAPTER THREE: METHODOLOGY

Quantitative research in the social sciences employs strategies designed to develop operational definitions of variables in order to study a variety of phenomena by making fundamental connections between empirical observations and the mathematical expressions of those relationships (Creswell, 2003). This study used a quantitative strategy utilizing multiple correlations in order to examine the relationship between several dimensions of boardsmanship, and that school district's student achievement scores.

Research Design

This non-experimental quantitative study involved multiple correlations using two main variables, each with multiple sub-categories. A multiple correlation "is used to compare a number of predicator [or independent] variables to increase the accuracy of prediction of a given criteria or outcome variable" (Cozby, 2007, p. 240). In this case the predicator (or independent) variables are the various measurements of boardsmanship developed by the Washington State School Directors Association (WSSDA, 2009). The outcome (dependent) variables are Montana's Criterion Reference Test (CRT) measures of student achievement.

Research Question

This study was guided by the research question: What is the relationship between boardsmanship as measured by the Board Self Assessment Survey (BSAS) developed by WSSDA, and student achievement as measured by Montana's CRT scores? Previous qualitative and anecdotal literature on boardsmanship leads to the conclusion that a relationship exists between the actions of the school board and student achievement,

however critical quantitative relationships have yet to be fully described. If such a quantitative relationship were to be firmly established then boards would have clear justification for embracing certain characteristics of boardsmanship that lead to improved student achievement and rejecting others. This would be a co-relational, and not a causal relationship.

Variables

Independent Variable

The independent variables were the boardsmanship scores on the BSAS which measures board governance behaviors by generating one overall composite board score as well as five other scores, one score for each of the five board Standards (macroanalysis). The five board Standards are to: (a) provide responsible school governance, (b) set and communicate high expectations for student learning with clear goals and plans for meeting those expectations, (c) create conditions district-wide for student and staff success, (d) hold school district accountable for meeting student learning expectations, and (e) engage local community and represent the values and expectations they hold for their schools. In addition, each of the five board Standards is further subdivided into 22 Benchmarks, and 69 Key Indicators represented by each individual survey item. Each of the 69 individual survey questions was considered an independent variable at the most detailed level of analysis (microanalysis). The level of the data is ratio.

Dependent Variable

The dependent variables were districts' student achievement scores on the Montana's CRT which measures proficiency rates in math, reading, and science in 4^{th}, 8^{th},

and 10th grade. In addition, the combined math, reading, and science scores generate one composite score (calculated by the researcher), resulting in a total of four student achievement scores generated by the CRT. Achievement scores on the state CRT are categorized in four levels of proficiency: (a) novice, (b) nearing proficient, (c) proficient, and (d) advanced. In this study, proficiency was determined by the combined percentage of students who scored in the *proficient* and *advanced* range on Montana's 2011-2012 CRT.

Grade 10 scores were solely used as the variable under study due to a pilot archival study conducted by the researcher. Student transfer rates were collected from one school district of approximately 6,000 students during AY 2010-2011 and AY 2011-2012. The average percent of student transfers for 10th grade was less (4.34%) than 4th grade (9.17%) or 8th grade (8.91%). This would arguably suggest that more students in 10th grade were more apt to be exposed to influences of boardsmanship for a longer period of time than in grades 4 or 8, and therefore if boardsmanship did influence achievement it would be most apparent in 10th grade.

Hypothesis

The hypothesis for the present study is that there is a relationship between boardsmanship as measured by the BSAS and 10th grade student achievement as measured by Montana's CRT scores. This relationship however, may only be uncovered at certain levels of analysis. Given that both student achievement and boardsmanship data were embedded in layers of specificity, additional hypothesis may be generated upon further examination of the data.

Null Hypothesis

The null hypothesis was that there is no relationship between boardsmanship as measured by the BSAS and 10th grade student achievement as measured by Montana's CRT scores. Given the layered levels of data, additional null hypothesis may be generated upon further examination of the data.

A priori Assumptions

The Pearson's *r* statistic was used to express the degree of relationship between the two variables. The data for both independent and dependent variables is ratio, expressed in combined percentages of scores. It is assumed that (a) both variables are normally distributed, (b) the relationship is linear and, (c) since Pearson's *r* is sensitive to outliers, the number of outliers is at a minimum, and (d) there is homoscedasticity of the data.

Population

The population for this study was 121 public high school boards in the state of Montana. A single state was selected for this study in order to achieve uniformity in reporting so as to eliminate the confounding variability of different measures of student achievement used in different states. Participants consisted of the school board members from each of the 121 Montana high school districts.

Schools in Montana that contain 10th grade students are governed by three types of school boards with different organizational structures. Some school boards govern K-12 districts, while others preside over 9-12 districts. The third model is when two boards meet in joint session whereby a K-8 elementary district meets jointly with a 9-12 high

school district and board members vote only on district-appropriate items. In this case some or all of the K-8 elementary board members may also be a member of the 9-12 board. Board BSAS scores and student CRT scores were used from all three models of board structure.

Sample

This study sought a census of the 121 high school boards. School board membership in the state of Montana range from 3 members in the smallest districts, to 11 members in the largest districts. Survey results were grouped and analyzed in two ways, (a) an "all districts" group consisting of all board members who returned a completed survey, and (b) a "quorum" group consisting of those districts where a quorum of that districts board's members returned a completed survey.

A quorum (operationally defined for this study as $\geq 50\%$ of the school board members established *a priori*) of board members responded from 11 of these public high school districts for a quorum school board return rate of 9.09% (11/121), consisting of 47 individual school board members. For these quorum school boards the number of school board members on each board ranged from 3 members on the smallest boards to 11 members on the largest boards.

Surveys were returned by 91 board members: 85 responded online, and 6 completed and returned paper surveys. These 91 surveys were received from board members representing 36 of the 121 public high school district school boards in Montana for an overall district board return rate of 29.75% (36/121). Seventeen of the 91 surveys were culled because either there were no CRT scores reported for that district (Montana does not report CRT data for school districts with less than 10 students), or the survey

was in some way incomplete. The culling resulted in useable and complete surveys from 74 board members representing 27 districts, for a usable school board return rate of 22.31% (27/121).

Data Collection Procedures

All school boards of public school districts with 10 or more students in grade 10 was the census under study (n = 121). The school board chairs were contacted by letter and/or e-mail directly or through their superintendent and/or district clerk and invited to participate in the study by asking that their board members complete the BSAS (Appendix H). The survey was made available online through *SurveyMonkey*©, but in the event the online version was not preferred, a paper version was made available. *SurveyMonkey*© is a private online survey construction and data collection company. The company ensures data security by transmitting survey responses over a secure, encrypted connection.

A reminder notification was sent via e-mail and postcard if no response was received within three weeks. A second reminder was sent during week five if information had not been received. Data collection concluded six weeks after the initial contact, assuring capture of at least one monthly board meeting. Survey data was collected online or by paper survey upon request, and statistical calculations were made using Microsoft Excel and IBM SPSS Statistics 20 package (SPSS). Measures of boardsmanship and student achievement were both collected for AY 2011-2012.

In order to increase return rates, endorsements were obtained from the Montana School Boards Association (MTSBA), the School Administrators of Montana (SAM), and Montana Rural Education Association (MREA). In addition, a letter encouraging

participation of fellow school administrators was mailed prior to the survey by a superintendent member of the Montana Association of State Superintendents (MASS). These endorsements are included in Appendix A.

School board members from all 121 high school districts in the state of Montana that enroll 10 or more students in grade 10 were invited to complete the BSAS in spring 2012. This boardsmanship survey consists of 69 items and generated five individual scores, one for each of the Standards of boardsmanship. The five board Standards measured by the BSAS are: (a) provide responsible school district governance, (b) set and communicate high expectations for student learning with clear goals and plans for meeting those expectations, (c) create conditions district-wide for student and staff success, (d) hold school district accountable for meeting student learning expectations, and (e) engage the local community and represent the values and expectations they hold for their schools. In addition, each of these five Standards is subdivided into a number of Benchmarks (there are 22 total Benchmarks) which are again subdivided into the 69 corresponding Key Indicators. There are six Benchmarks for Standard one, four Benchmarks for Standard two, five for Standard three, three for Standard four, and four for Standard five, for a total of 22 Benchmarks that detail the five Standards for boardsmanship. Each Benchmark is further divided into numerous Key Indicators represented by individual survey items. The survey was available online through SurveyMonkey© (researcher preferred) or in paper form upon request.

Student achievement scores were obtained from the stat of Montana's Office of Public Instruction (OPI) and comprised the quantitative CRT scores for each district. The CRT data included three discipline specific scores for math, reading, and science plus one

mean composite score (calculated by the researcher). Student CRT data was collected from OPI for students in 10th grade from those districts reporting 10 or more students for AY 2011-2012.

Instrumentation

WSSDA has long recognized the role of the school board in student achievement and, spurred into action by the Washington State Education Reform Act of 1993 and federal NCLB in 2001, worked to identify a number of essential principles associated with student achievement. Guided by research from Waters and Marzano (2006) of The Mid-continental Research for Education and Learning (McREL), the Lighthouse Inquiry (2000) of the Iowa Association of School Boards (IASB), and National School Board Association's (NSBA) *Key Work of School Boards* (2000), the Washington Board Standards Task Force identified five essential principles, or Standards, in 2009. These became known as "The School Board Standards" in the state of Washington and school boards in Washington State were encouraged to embrace the Standards as the means to improve student achievement. Each of the five board Standards was further defined by more specific Benchmarks and Key Indicators to help boards translate each Standard into practice (WSSDA, 2009). Using these five School Board Standards WSSDA began the process of developing the BSAS. Permission was obtained from WSSDA to use the BSAS in this study (Appendix J).

Validity of the BSAS

The development of the BSAS involved a rigorous set of quantitative procedures designed to ensure face, content, and construct validity. This process began with the realization that (a) boardsmanship can impact student achievement, (b) school boards

need differentiated training in order to effect desired change, and (c) the current state of affairs regarding board training is insufficient to respond. Prior to May 2010 the WSSDA staff conducted an audit of their current board training curriculum. A grant from The Stuart Foundation supported the process whereby new and emerging curriculum was supplemented from NSBA's Key Works (Gemberling, Smith & Vallani, 2000), The Iowa Lighthouse Project (IASB, 2000), and McREL (Waters & Marzano, 2006), in order to align the updated curriculum with WSSDA's Benchmarks and Key Indicators within the five established board Standards (WSSDA, 2009).

Revised curriculum development began in May 2010. The first pilot was conducted in November 2010 with invited Washington state school board members, a cadre of board consultants, and school superintendents. In January 2011 WSSDA contracted with The BERC Group, an outside consultant, to conduct an exploratory factor analysis on data generated from the first pilot in order to (a) accomplish a data reduction process, and (b) reveal the degree of construct validity within each question. The original 144 questions were reduced to 87 utilizing factor analysis to identify redundant or unnecessary questions. A second pilot occurred in April 2011 with further modifications leading to a third pilot in May of 2011, resulting in the final survey of 69 questions. In September 2011 the final electronic format was designed, data collection mechanisms finalized, data storage systems designed, and secured access to surveys was completed. The project resulted in the production of the 69-item BSAS as well as the publication of a Standards based board training curriculum with valid assessment instruments for school boards to use for self-improvement.

Validity of the BSAS was established using factor analysis which was conducted on each of the five board Standards which identified components of each Standard with Eigenvalues >1.00. Four components loaded into factor one (responsible governance) for a cumulative squared loading of 65.43%. One component loaded into factor two (high student expectations) for a cumulative squared loading of 58.87%. Four components loaded into factor three (conditions for student/staff success) for a cumulative squared loading of 66.18%. Two components loaded into factor four (district accountability) for a cumulative squared loading of 73.06%, and one component loaded into factor five (engage the community) for a cumulative squared loading of 62.42%. There were a total of 12 components loading on to the five Standards demonstrating the validity of the adopted Standards. Percent of variance for individual loadings ranged from a high of 62.42% on component one of factor five, to a low of 5.93% on component four of factor three, and the range of cumulative standard loadings was between 58.87% and 73.06% on factors two and four respectively. In addition since each of the 69 questions loaded on at least one of the 12 components all were deemed worthy of inclusion in the final 69 question survey.

However, rather than using factor analysis to initially identify the components of boardsmanship WSSDA utilized factor analysis to confirm that the existing five factors (Standards) previously identified were in fact the basis for boardsmanship. The totality of the factor analysis reveals sufficient justification to conclude the five factors (or board Standards) accurately identify vital issues school boards should be encouraged to cultivate in order to positively affect student achievement.

Data Analysis

The student achievement scores were based on student proficiency levels as measured by scores on the state of Montana's CRT scores in reading, science, and math. Proficiency was determined by the combined percentage of students who scored in the *proficient* and *advanced* range. The level of CRT data was ratio and reported in percentages.

Boardsmanship was measured by scores on the BSAS. The BSAS developed by WSSDA includes a five-point Likert scale with the first choice being "don't know." Permission was obtained from WSSDA to remove this choice for this study, leaving a four-point, forced-choice condition for board members consisting of "never", "some of the time", "most of the time", and "always" and scored 1 through 4 respectively. Board members were asked to reflect on their perceptions of the collective board beginning with the prompt "To what extent does our board . . ." Agreement on an item was determined by the combined percentages of board members who answered "always" and "most of the time". The level of Likert data was ratio reported in percentages of agreement.

Pearson Product Moment Correlation Coefficient (Pearson's *r*) was utilized in establishing a correlation between each of the 5 Standards from the BSAS and the 4 student CRT scores, between each of the 22 Benchmarks and the 4 student CRT scores, and between each of the 69 Key Indicators and the 4 student CRT scores. This procedure was followed twice, once for "all districts" and again for the "quorum" districts. A total of 768 correlations were calculated. A total of 88 (11.46%) of these correlations were positive and statistically significant at $p \leq .05$. A total of 119 (15.49%) of these correlations were negative, but none statistically significant at $p \leq .05$. Pearson's *r*, which

yields a correlation coefficient between two variables, was calculated using the computer-based SPSS statistical program.

The independent variable was represented by the board's scores from the BSAS. The dependent variable was represented by the four Montana CRT scores for student achievement. A correlation matrix representing all possible pairs of independent and dependent variables and exact correlation values was reported to represent the strength of relationship. Alpha level was set at the .05% level of significance.

The collected demographic information was used to describe collective school board characteristics. The survey data on boardsmanship was used to report inferential correlations between the four measurements of student achievement and the numerous ways boardsmanship scores could be disaggregated. A more detailed, or micro, analysis of the correlational results followed in order to explore additional relationships which further explicate the relationship between student achievement and any number of board Standards, Benchmarks, and Key Indicators. Statistically significant correlations found at this most detailed level of analysis will help boards identify specific behaviors that are related to student achievement.

Assumptions for Pearson's r

Since the data for both boardsmanship and student achievement is ratio level data, Pearson's *r* correlation coefficient was utilized. Pearson's *r* assumes that the two variables measured form a bivariate normal distribution population. In addition a heteroscedastic linear association is also assumed, along with minimum outliers. Alpha level was set at the .05 level of significance.

Summary

Chapter Three articulated the research question guiding the design of the study and described the quantitative multiple correlation design that was utilized. The independent and dependent variables were operationally defined in quantitative terms and the procedures of data collection reviewed. Data was requested from a census of 121 school boards of public high schools reporting 10th grade CRT data to Montana's Office of Public Instruction, and analyzed in terms of the stated hypothesis with actual correlations reported. The macro level of analysis examined possible relationships between five dimensions of boardsmanship and four dimensions of student achievement. A more detailed analysis of the data examined the relationships between measures of student achievement and more precise measurements of boardsmanship.

CHAPTER FOUR: RESULTS

This chapter presents the results of a survey on boardsmanship designed by the Washington State School Directors Association (WSSDA) and subsequently modified for this study by the addition of several administrative (i.e. opportunities to exit the survey) and demographic questions. The survey was administered to members of high school board's in the state of Montana. The boards survey results from each district were then correlated with that district's student achievement scores, which were generated by Montana's Criterion Reference Test (CRT) in reading, science, and math, as well as a mean of the three scores (herein termed the "overall" score) calculated by the researcher. Student CRT data were collected from Montana 10th graders by Montana's Office of Public Instruction (OPI) for the 2011-2012 academic year. There are four categories of student CRT data, (a) novice, (b) nearing proficient, (c) proficient, and (d) advanced. Combining the percentages from the proficient and advanced categories gives the percentage of students in that district who are *at or above proficient* as calculated by OPI. This is the student CRT data used in this study.

The Board Self-Assessment Survey (BSAS) was administered in March, April and May of 2012 prior to annual school board elections in Montana. The election of this timing insured each participant had at least one year of experience serving as a member of that district's school board. The 69-item board survey was developed by the WSSDA in 2010-2011. It identifies five board Standards, each of which is further defined by 22 specific Benchmarks. Each of these Benchmarks is further subdivided into 69 more precise Key Indicators thought to represent particular board actions contributing to student achievement, which appear as the individual survey questions. Results from the

board survey were correlated with that district's student achievement scores in reading, science, math, and overall for 10th graders. Statistical significance levels were then examined for each Pearson *r* correlation. Using BSAS data from those board members who responded as a part of a board quorum, a standard deviation (SD) was calculated in order to assess singularity of board attitudes toward governance and then correlated with that district's CRT data. Several other demographic comparisons were also analyzed.

The first part of this chapter describes the population, data handling, and data analysis procedures. The second part reports on the demographic items of the survey. The third part reports the results of the five Standards of the BSAS by reporting Pearson's *r* correlation coefficients between the five board Standards and the four CRT scores (i.e. reading, science, math, and overall) for each district. The fourth part reports Pearson's *r* data between the 22 board Benchmarks and the four CRT scores. The fifth part reports Pearson's *r* coefficients between the 69 board Key Indicators and the four CRT scores, and the sixth part reports Pearson's *r* data between the quorum district's standard deviation (SD) scores and their CRT scores. Last is a section in which various correlations are calculated to examine the relationship between the CRT data from the quorum districts and various demographic data.

Handling of the Data

The survey contained a total of 90 questions consisting of 69 boardsmanship questions authored by WSSDA along with 12 demographic questions modified for this study with the addition of 9 process questions involving issues of informed consent, district identification, and opportunities to exit the survey. Because these 9 process questions were also numbered in sequence throughout the survey, the survey questions

relating to boardsmanship are not consecutively numbered. The item numbers as they appeared in the survey were maintained throughout the data analysis process to preserve identification of individual items.

Survey item 51 is identical to survey item 52 due to clerical error. The data generated from survey item 52 was removed prior to statistical analysis.

All 91 returned surveys were used as the basis for the demographic descriptions. The data from the 74 complete surveys were used to calculate the correlations. The data from these 74 surveys were grouped, analyzed, and reported in two ways. The first way combined survey data from all 74 board members (representing 27 school districts) who returned useable surveys. This group will be now referred to as the "all districts" group. Data were also organized by combining the survey data from only those 47 board members (representing 11 school districts) where a quorum of board members returned useable surveys. This group will be now referred to as the "quorum" group.

Data Analyses Procedures

Survey data were collected online using SurveyMonkey© between March 23, 2012, and May 16, 2012. Two postcard reminders were mailed at weeks three and five to the board chairman of those school districts who had not yet responded to the survey request. Six board members requested and returned paper surveys, which were included in the final results and added to SurveyMonkey© by the researcher as they were received. The 69 survey questions dealing with boardsmanship were organized around 5 board Standards, 22 Benchmarks, and 69 Key Indicators. Boardsmanship means were calculated for each Standard, Benchmark, and Key Indicator using Excel, and Pearson's *r*

correlations and tests for significance were calculated using IBM SPSS Statistics 20 package (SPSS).

The organizational scheme of the survey (i.e., Standard, Benchmark, and Key Indicators) allowed multiple levels of analysis progressing from the macroanalysis at the level of the 5 Standards, to a more specific analysis at the level of the 22 Benchmarks, to the microanalysis at the level of the 69 Key Indicators (or individual survey questions). Additional analyses were possible using demographic information to further disaggregate the data.

Each respondent answered the 69 boardsmanship survey items by choosing from a four-item Likert scale (never/some of the time/most of the time/always), numerically scored from 1 through 4, respectively. A mean score was calculated for each organizational subdivision (i.e., Standard, Benchmark, & Key Indicator). For example, the mean of each of the 6 Benchmarks and each of the 19 Key Indicators comprising Standard 1 was calculated for each board member, and by combining these individual scores, a district boardsmanship mean was calculated for each Standard, each Benchmark, and each Key Indicator. These board means were then correlated with that district's mean student CRT scores in reading, science, math, and overall. This strategy was used to generate correlation coefficients and *p* values for the numerous ways the data could be disaggregated for analysis.

Two-tailed tests of significance were calculated using SPSS, setting α at the .05 level of significance. This procedure was repeated for each of the five Standards using the two data sets: (a) the "all districts" set, consisting of data from 74 individual board members from 27 reporting districts, and (b) the "quorum" districts, consisting of data

from 47 individual board members from 11 reporting districts in which a quorum of board members returned the survey. The same two data sets were used for the 22 Benchmarks and the 69 Key Indicators. In addition, the standard deviation (SD) was calculated from the boardsmanship scores for each quorum district and correlated using Pearson's *r* with that district's student CRT scores.

Demographics of Survey Respondents

Bolded items appearing in the following demographic tables emphasize the item of highest response percent. Tables 4 through 6 report the results of the demographic portion of the survey. Table 4 reports the education levels and sex of Montana school board members. Of the 83 Montana school board members who responded to the survey 37.35% hold a bachelor's degree, and 95.18% report some post-secondary education. Also, 69.88% report having earned at least a 4-year college degree, while 4.82% never attended college. Females constitute the majority of school board members (56.10%).

Table 4

Educational Level and Sex of Sampled School Board Members

Education Level (n = 83)	Response Percent	Response Count
GED	0.00	0
High school graduate	4.82%	4
Some college	19.28%	16
2-year degree	6.02%	5
4-year degree	**37.35%**	**31**
Masters degree	21.69%	18
Professional degree	8.43%	7
Doctoral degree	2.41%	2
Sex (n = 82)		
Male	43.90%	36
Female	56.10%	46

Table 5 shows the age and length of board service of surveyed Montana board members and reports nearly equal numbers of board members younger than 50 (n = 42) and older than 50 (n = 40) years of age. Of surveyed board members, 71.95% were between the ages of 41 and 60 years. There were no reporting school board members under 30 years of age, while 9.76% were 40 or younger, and 18.29% are over 60 years of age. In addition, 65.06% of school board members have served 6 years or less on their board, and 37.35% have served on the school board 3 years or less.

Table 5

Age and Length of Board Service of Surveyed School Board Members

Age (n = 82)	Response Percent	Response Count
18-30	0	0
31-40	9.76%	8
41-50	**41.46%**	**34**
51-60	30.49%	25
> 60	18.29%	15
Length of Board Service (n = 83)		
less than one year	8.43%	7
1 to 3 years	**28.92%**	**24**
3 to 6 years	27.71%	23
6 to 9 years	18.07%	15
more than 9 years	16.87%	14

Table 6 reports on various aspects of board training. For example 95.06% of school board members participated in some form of board training, and 40.74% report having attended 7 or more training events. In the 12 months prior to the survey, 86.49% report having attended training, with a state-sponsored conference or event the most frequent experience (53.06%). Very few (4.08%) attended a national event or conference.

Table 6

Most Recent Training, Sponsor of Board Training, and Number of Training Events Attended of Surveyed School Board Members

Number Training Events Attended (n = 81)	Response Percent	Response Count
None	4.94%	4
One to three	**30.86%**	**25**
Three to five	14.81%	12
Five to seven	8.64%	7
More than 7	40.74%	33
Most Recent Training (n = 74)		
< 12 months	**86.49%**	**64**
12-24 months	10.81%	8
24-36 months	2.69%	2
Sponsor of Board Training (n = 49)		
a district event	42.86%	21
a state conference or event	**53.06%**	**26**
a national conference or event	4.08%	2

Table 7 aggregates combined demographic data by the sex of board members in relation to their board experience, age, and educational levels. Forty-five of the 81 board members who responded to this survey question were female (55.55%), with the largest percentage having served on the board between 3-6 years. The estimated average length of a female's board service is 4.84 years, while the estimated average length of a male's board service is slightly longer at 5.08 years. Female board members tend to be younger than male board members (49.40 years and 52.60 years, respectively) and have completed slightly fewer average years of secondary and post-secondary education than male board members, with females having attended an estimated average of 7.89 years of

combined secondary and post-secondary education, while males attended an estimated 8.01 years of combined secondary and post-secondary education. It should also be noted that 73.30% of females have at least a 4-year degree or higher, while 69.50% of males have at least a 4-year degree. Overall, male board members who responded to the survey were older, have served on the board longer, and have attended more years of post-secondary education than females, although the differences are minimal.

Table 7

Board Members' Sex in Relation to Board Experience, Age, and Education

Board Demographic (n = 81)	Male n = 36	Female n = 45
Board Experience		
<1 year	5.60%	10.90%
1-3 years	**30.60%**	26.90%
3-6 years	27.80%	**28.30%**
6-9 years	16.69%	19.60%
>9 years	19.40%	15.20%
Mean Experience (est.)	5.08 years	4.84 years
Age		
18-30	0.00%	0.00%
31-40	2.80%	15.20%
41-50	**47.20%**	**37.00%**
51-60	22.20%	**37.00%**
>60	27.80%	10.90%
Mean Age (est.)	52.6 years	49.4 years
Education		
GED	0.00%	0.00%
High School	11.10%	0.00%
Some College	13.90%	24.40%
2-year Degree	8.30%	4.40%
4-year Degree	**33.30%**	**42.20%**
Masters Degree	16.69%	26.69%
Professional Degree	13.90%	4.40%
Doctorate	5.60%	0.00%
Mean years beyond H.S. (est.)	8.01 years	7.89 years

Table 8 aggregates the data by education level of surveyed board members. Males have a wider range of educational experiences (i.e. from high school to doctorate) than females, while all female board members have at least some college experience. Age and educational level of board members do not appear to produce any noteworthy trends.

Table 8

Board Members' Level of Education in Relation to Experience, Sex, and Age

	High School	Some College	2-Year Degree	4-Year Degree	Master's	Professional	Doctorate
	n = 4	n = 16	n = 5	n = 31	n = 18	n = 7	n = 2
	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Board Experience							
< 1 year	0.00(0)	6.25(1)	20.00(1)	9.68(3)	11.11(2)	14.29(1)	0.00(0)
1-3 years	0.00(0)	12.50(2)	0.00(0)	**38.71(12)**	22.22(4)	**42.86(3)**	**100.00(2)**
3-6 years	25.00(1)	**43.80(7)**	**40.00(2)**	16.13(5)	**44.44(8)**	14.29(1)	0.00(0)
6-9 years	**50.00(2)**	12.50(2)	0.00(0)	19.35(6)	22.22(4)	14.29(1)	0.00(0)
>9 years	25.00(1)	25.00(4)	**40.00(2)**	16.13(5)	5.56(1)	14.29(1)	0.00(0)
Sex							
Male	**100.00(4)**	31.25(5)	**60.00(3)**	38.71(12)	33.33(6)	**71.43(5)**	**100.00(2)**
Female	0.00(0)	**68.75(11)**	40.00(2)	**61.29(19)**	**66.67(12)**	28.57(2)	0.00(0)
Age							
18-30 years	0.00(0)	0.00(0)	0.00(0)	0.00(0)	0.00(0)	0.00(0)	0.00(0)
31-40 years	0.00(0)	6.30(1)	0.00(0)	12.90(4)	11.11(2)	14.29(1)	**50.00(1)**
41-50 years	25.00(1)	**62.50(10)**	**60.00(3)**	**48.39(15)**	11.11(2)	14.29(1)	**50.00(1)**
51-60 years	**75.00(3)**	25.00(4)	20.00(1)	29.03(9)	**38.89(7)**	14.29(1)	0.00(0)
> 60 years	0.00(0)	6.30(1)	20.00(1)	9.68(3)	**38.89(7)**	**57.14(4)**	0.00(0)

Table 9 aggregates the demographic information in relation to the age of board members. A board member's age does not appear to be a factor with respect to either board experience or education levels. However, female board members tend to be somewhat younger, and older males somewhat more educated.

Table 9

Board Members' Age in Relation to Board Experience, Sex, and Education Level

	18-30 years % (n)	31-40 years % (n)	41-50 years % (n)	51-60 years % (n)	> 60 years % (n)
Board Experience	n = 0	n = 8	n = 34	n = 26	n = 15
<1 year	0.00(0)	12.50(1)	11.76(4)	8.00(2)	0.00(0)
1-3 years	0.00(0)	25.00(2)	**35.29(12)**	20.00(5)	**33.30(5)**
3-6 years	0.00(0)	**50.00(4)**	**35.29(12)**	16.00(4)	20.00(3)
6-9 years	0.00(0)	12.50(1)	8.82(3)	**32.00(8)**	20.00(3)
>9 years	0.00(0)	0.00(0)	8.82(3)	28.00(7)	26.69(4)
Sex	n = 0	n = 8	n = 34	n = 25	n = 15
Male (est. age = 52.6 yrs)	0.00(0)	12.50(1)	**50.00(17)**	32.00(8)	**66.69(10)**
Female (est. age = 49.4 yrs)	0.00(0)	**87.50(7)**	**50.00(17)**	**68.00(17)**	33.30(5)
Education	n = 0	n = 9	n = 33	n = 25	n = 17
High School	0.00(0)	0.00(0)	3.03(1)	12.00(3)	0.00(0)
Some College	0.00(0)	11.11(1)	30.30(10)	16.00(4)	5.88(1)
2-year Degree	0.00(0)	0.00(0)	9.09(3)	4.00(1)	5.88(1)
4-year Degree	0.00(0)	**44.44(4)**	**45.45(15)**	**36.00(9)**	17.65(3)
Master's Degree	0.00(0)	22.22(2)	6.06(2)	28.00(7)	**41.18(7)**
Professional Degree	0.00(0)	11.11(1)	3.03(1)	4.00(1)	23.53(4)
Doctorate	0.00(0)	11.11(1)	3.03(1)	0.00(0)	0.00(0)

Table10 aggregates the demographic information by years of board experience. Experienced and inexperienced board members are fairly equally distributed across all ages and education levels. However, there appears to be a slight trend in which more-experienced board members are less educated, and, conversely, less-experienced board members tend to be more educated. Most board members are between 40 and 60 years of age, and the less-experienced board members tend to be female.

Table 10

Board Members' Experience in Relation to Age, Sex, and Education Levels

	< 1 year % (n)	1-3 years % (n)	3-6 years % (n)	6-9 years % (n)	> 9 years % (n)
Age	n = 7	n = 23	n = 23	n = 15	n = 14
18-30 years	0.00(0)	0.00(0)	0.00(0)	0.00(0)	0.00(0)
31-40 years	14.29(1)	8.70(2)	17.39(4)	6.67(1)	0.00(0)
41-50 years	**57.14(4)**	**47.83(11)**	**52.17(12)**	20.00(3)	21.43(3)
51-60 years	28.57(2)	21.74(5)	17.39(4)	**53.33(8)**	**50.00(7)**
>60 years	0.00(0)	21.74(5)	13.04(3)	20.00(3)	28.57(4)
Sex	n = 7	n = 24	n = 23	n = 15	n = 14
Male	28.60(2)	45.83(11)	43.48(10)	40.00(6)	**50.00(7)**
Female	**71.40(5)**	**54.17(13)**	**56.52(13)**	**60.00(9)**	**50.00(7)**
Education	n = 8	n = 23	n = 24	n = 15	n = 14
High School	0.00(0)	0.00(0)	4.17(1)	13.33(2)	7.14(1)
Some College	12.50(1)	8.70(2)	29.17(7)	13.33(2)	28.58(4)
2-year Degree	12.50(1)	0.00(0)	8.33(2)	0.00(0)	14.29(2)
4-year Degree	**37.50(3)**	**52.17(12)**	20.83(5)	**40.00(6)**	**35.71(5)**
Master's Degree	25.00(2)	17.39(4)	**33.33(8)**	26.67(4)	7.14(1)
Professional	12.50(1)	13.04(3)	4.17(1)	6.67(1)	7.14(1)
Doctoral	0.00(0)	8.70(2)	0.00(0)	0.00(0)	0.00(0)

A Model for the Analysis of the Boardsmanship Survey

The model describing the organizational scheme of Standard 1 of the BSAS is shown in Table 11. Each of the 5 Standards and 22 Benchmarks was organized in a similar fashion. Standard 1, for example, was subdivided into 6 Benchmarks, in this case labeled Benchmarks A through F, which described the elements of Standard 1. Likewise, each Benchmark was further subdivided into several Key Indicators, or survey items, numbered 5 through 24, which further detailed the elements describing the corresponding

Benchmark. In the complete boardsmanship portion of the survey, there are 5 Standards, 22 Benchmarks, and 69 Key Indicators.

Key Indicator 19 (or survey item 19), and survey items 35, 48, and 65 were removed from data analysis because they offered respondents the option to exit the survey at that point. Correlations were calculated between district board means for each Standard, Benchmark, and Key Indicator and the mean student CRT scores. Such a strategy made analysis possible at several levels of detail, from the macro analysis at the level of the board Standards, to the intermediate analysis of the Benchmarks, to the microanalysis at the level of the Key Indicators. Statistical analysis served to identify which board Standard, Benchmark, or Key Indicators were significantly correlated with student CRT scores at a statistically significant level.

Table 11

Sample Organizational Scheme of the BSAS for Standard 1

Standard 1	Benchmark A	Key Indicator 5
		Key Indicator 6
	Benchmark B	Key Indicator 7
		Key Indicator 8
		Key Indicator 9
		Key Indicator 10
	Benchmark C	Key Indicator 11
		Key Indicator 12
		Key Indicator 13
	Benchmark D	Key Indicator 14
		Key Indicator 15
		Key Indicator 16
	Benchmark E	Key Indicator 17
		Key Indicator 18
		Key Indicator 20
	Benchmark F	Key Indicator 21
		Key Indicator 22
		Key Indicator 23
		Key Indicator 24

Inferential Statistical Analyses

The following section reports on the analysis of the boardsmanship portion of the survey using inferential statistics, and is divided into three parts. Part One reports on the relationship between student CRT scores and the 5 board Standards. Part Two reports on the relationship between student CRT scores and the 22 board Benchmarks, and Part Three reports on the relationship between student CRT scores and the 69 board Key Indicators. The data reported in this section of the data analysis are limited to the statistically significant relationships. The complete set of statistical data can be found in Appendix D.

The BSAS Standards

The 69-item boardsmanship portion of the BSAS is organized around five board Standards identified in Table 12. Standard 1 describes the elements of school district governance. Standard 2 describes how a board might communicate high expectations for student learning, and Standard 3 addresses district-wide conditions for student and staff success. Standard 4 describes how a board might hold the school district accountable for student learning, and Standard 5 deals with engaging the local community and how boards strive to represent the values and expectations they hold for their schools.

Table 12

The Five Standards of the BSAS

Standard 1	Provide responsible school district governance
Standard 2	Set and communicate high expectations for student learning with clear goals and plans for meeting those expectations
Standard 3	Create conditions district-wide for student and staff success
Standard 4	Hold school district accountable for meeting student learning expectations
Standard 5	Engage local community and represent the values and expectations they hold for their schools

Table 13 presents data from all districts and reports Pearson's *r* and *p* values for each of the five board Standards that were correlated with the student CRT scores in each district for reading, science, math, and overall. The student CRT score represents the combined percentage of students who scored in the *proficient* and *advanced* ranges as defined and reported by OPI. This student CRT score was correlated with the board BSAS score to examine the relationship between student achievement, as measured by the CRT score, and board performance, as measured by the BSAS Standard score. Statistically significant correlations were found in Standards 1, 2, 3, and 4. Of the six statistically significant correlations in Table 13, four are in science, two are in overall, and one is in math.

Table 13

Pearson's r Correlations and p values Between Five BSAS Standards of Boardsmanship for All 27 Reporting Districts (representing 74 board members) and Student CRT Scores

	Reading *r* (*p*)	Science *r* (*p*)	Math *r* (*p*)	Overall *r* (*p*)
Standard 1	0.012 (.995)	**0.388 (.050)***	0.284 (.160)	0.292 (.147)
Standard 2	0.061 (.769)	**0.419 (.033)***	0.266 (.189)	0.312 (.121)
Standard 3	0.137 (.501)	**0.467 (.016)***	0.359 (.072)	**0.390 (.049)***
Standard 4	0.165 (.421)	**0.517 (.007)***	**0.427 (.030)***	**0.448 (.022)***
Standard 5	0.002 (.991)	0.363 (.069)	0.259 (.201)	0.296 (.184)

*p $\leq$ .05 = .381 (2-tailed test), 25 df

Table 14 presents data from the quorum districts and shows Pearson's *r* and *p* values for each of the five board Standards which were correlated with the student CRT scores in each district for reading, science, math, and overall. There are no statistically significant relationships reported. However, 9 of the 10 relationships between the student CRT scores in reading and science show a moderately strong (correlations ranging between +0.40 and +0.60 *in italics*) positive correlation with boardsmanship ranging from +0.572 for reading and Standard 5, to +0.441 for science and Standard 4. There are consistent negative correlations with regard to math and Standards 1 through 4.

Table 14

Pearson's r Correlations and p values Between Five BSAS Standards of Boardsmanship for 11 Quorum Districts (representing 47 board members) and Student CRT Scores

	Reading	Science	Math	Overall
	r (*p*)	*r* (*p*)	*r* (*p*)	*r* (*p*)
Standard 1	*0.492 (.122)*[a]	*0.457 (.156)*	-0.042 (.905)	0.356 (.283)
Standard 2	*0.561 (.073)*	*0.473 (.142)*	-0.229 (.499)	0.305 (.363)
Standard 3	*0.521 (.099)*	0.374 (.255)	-0.120 (.731)	0.287 (.392)
Standard 4	*0.542 (.085)*	*0.441 (.175)*	-0.037 (.919)	0.360 (.276)
Standard 5	*0.572 (.066)*	*0.447 (.168)*	0.014 (.962)	0.392 (.233)

[a]*Italics represent moderate correlations*
*$p \leq .05 = .602$ (2-tailed test), 9 df

The BSAS Benchmarks

Each of the five board Standards is further sub-divided into several Benchmarks according to an organizational scheme similar to the one outlined in Table 11. Tables 15 through 20 list the Benchmarks under each of the 5 board Standards. Table 15 reports the six Benchmarks of Standard 1.

Table 15

Standard 1 and the Six Benchmarks of Standard 1

Standard 1	**Provide responsible school district governance**
Benchmark A	Conducting board and district business in a fair, respectful and responsible manner
Benchmark B	Ensuring the board is accountable and open to the public including seeking divergent perspectives in its decision making process
Benchmark C	Respecting and advocating mutual understanding of the roles and responsibilities of board members and the superintendent
Benchmark D	Adopting policies based on well-researched practices that emphasize a belief that all students can achieve at high levels and that support continuous improvement of student achievement
Benchmark E	Promoting healthy relationships by communicating supportively, inspiring, motivating and empowering others, and exercising influence in a positive manner
Benchmark F	Working as an effective and collaborative team

Table 16 reports the four Benchmarks of Standard 2.

Table 16

Standard 2 and the Four Benchmarks of Standard 2

Standard 2	**Set and communicate high expectations for student learning with clear goals and plans for meeting those expectations**
Benchmark A	Articulating the conviction that all students can learn and the belief that student learning can improve regardless of existing circumstances or resources
Benchmark B	Leading the development, articulation and stewardship of a vision of learning that is shared by schools and community
Benchmark C	Adopting a collaboratively developed district plan focused on learning and achievement outcomes for all students
Benchmark D	Ensuring non-negotiable goals for student achievement are established and align with the district's plan

Table 17 reports the five Benchmarks of Standard 3.

Table 17

Standard 3 and the Five Benchmarks of Standard 3

Standard 3	**Create conditions district-wide for student and staff success.**
Benchmark A	Providing for the safety and security of all students and staff
Benchmark B	Employing and supporting quality teachers, administrators and other staff and providing for their professional development
Benchmark C	Providing for learning essentials, including rigorous curriculum,

	technology and high quality facilities
Benchmark D	Ensuring management of the organization, operations, and resources for an efficient and effective learning environment
Benchmark E	Adopting and monitoring an annual budget that allocated resources based on the districts goals and priorities for student learning

Table 18 reports the three Benchmarks of Standard 4.

Table 18

Standard 4 and the Three Benchmarks of Standard 4

Standard 4	**Hold school district accountable for meeting student learning expectations by**
Benchmark A	Committing to continuous improvement in student achievement in each school and throughout the district
Benchmark B	Evaluating the superintendent on clear and focused expectations
Benchmark C	Measuring student academic progress and needs based on valid and reliable assessments

Table 19 reports the four Benchmarks of Standard 5.

Table 19

Standard 5 and the Four Benchmarks of Standard 5

Standard 5	**Engage local community and represent the values and expectations they hold for their schools by**
Benchmark A	Collaborating with families and community members, responding to diverse interests and needs and mobilizing community resources
Benchmark B	Ensuring school board and district transparency through a process that is open and accountable
Benchmark C	Ensuing district information and decisions are communicated community-wide
Benchmark D	Soliciting input from staff and a wide spectrum of the community so that a diverse range if interests and perspectives on issues is considered

Table 20 reports the statistically significant data from all districts and shows Pearson's *r* and corresponding *p* values for the Benchmarks correlated with student CRT scores in reading, science, math, and overall. The results included in this section of the data analysis are limited to reporting only the statistically significant relationships. (NOTE: The complete set of data for all 22 Benchmarks can be found in Appendix D.) Fifteen statistically significant correlations were found, which range between +0.585 (between Standard 4, Benchmark B, and math) and +0.390 (between Standard 3, Benchmark E, and overall). Of the 15 correlations that are statistically significant at $p \leq .05$, nine are in science, two are in math, and five are in overall.

Table 20

Statistically Significant Correlations between BSAS Benchmarks of Boardsmanship From All 27 Responding Districts (representing 74 board members) and CRT Scores

	Reading	Science	Math	Overall
	r (*p*)	*r* (*p*)	*r* (*p*)	*r* (*p*)
S1BA[a]	-1.690 (0.499)	**0.411 (0.018)***	0.282 (0.082)	0.299 (0.138)
S1BC	0.117 (0.285)	**0.407 (0.019)***	0.302 (0.067)	0.335 (0.094)
S1BD	0.136 (0.254)	**0.435 (0.013)***	0.278 (0.085)	0.343 (0.086)
S2BC	0.232 (0.127)	**0.533 (0.003)***	**0.439 (0.012)***	**0.477 (0.014)***
S3BC	0.151 (0.231)	**0.460 (0.009)***	0.344 (0.042)	0.385 (0.052)
S3BE	0.128 (0.267)	**0.464 (0.017)***	0.367 (0.065)	**0.390 (0.049)***
S4BA	0.203 (0.160)	**0.564 (0.001)***	0.500 (0.005)	**0.508 (0.008)***
S4BB	0.277 (0.085)	**0.548 (0.002)***	**0.585 (0.001)***	**0.553 (0.003)***
S5BD	0.114 (0.290)	**0.507 (0.004)***	0.269 (0.092)	0.367 (0.065)

[a]Code - **S1BA** – **S**tandard **1**, **B**enchmark **A**
*p ≤ .05 = .381 (2-tailed test), 25 df

Table 21 shows similar analysis of data from the 11 school boards represented by a quorum of board members and shows Pearson's *r* and corresponding *p* values for each of the statistically significant Benchmarks correlated with student CRT scores in reading, science, math, and overall. Two statistically significant correlations are reported, one between Standard 2, Benchmark C and science, and one between Standard 4, Benchmark B, and reading.

Table 21

Statistically Significant Correlations Between BSAS Benchmarks of Boardsmanship From the 11 Quorum Districts (representing 47 board members, and CRT Scores

	Reading	Science	Math	Overall
	r (*p*)	*r* (*p*)	*r* (*p*)	*r* (*p*)
S2BC[a]	0.510 (0.108)	**0.619 (0.042)***	-0.125 (0.716)	0.414 (0.206)
S4BB	**0.679 (0.021)***	0.534 (0.090)	0.308 (0.354)	0.585 (0.058)

[a]Code – **S2BC** – **S**tandard **2**, **B**enchmark **C**
*p ≤ .05 = .602 (2-tailed test), 9 df

The BSAS Key Indicators

Each of the 69 individual survey items is called a Key Indicator by WSSDA. Again, each of the five board Standards is sub-divided into numerous Benchmarks designed to further explicate the more general statement of the Standard, and each Benchmark is further sub-divided into various Key Indicators represented by the individual survey items which are stated as specific action statements. The results included in this section of Chapter Four are limited to reporting only the statistically significant relationships. The complete statistical data can be found in Appendix D.

Table 22 shows data from all board members who responded to the survey representing 27 school districts. The mean was calculated for each board survey item or Key Indicator. This mean statistic was correlated with that district's student CRT scores for reading, science, math, and overall. Statistically significant correlations were found for 1 Key Indicators in reading, 19 Key Indicators in science, 11 Key Indicators in math, and 15 Key Indicators overall.

Table 22

Correlations between BSAS Key Indicators of Boardsmanship for All 27 Reporting Districts (representing 74 board members) and CRT Scores

Key Indicator	Reading *r* (p)	Science *r (p)*	Math *r (p)*	Overall *r (p)*
6	0.137 (0.503)	**0.543 (0.004)***	**0.429 (0.029)***	**0.453 (0.020)***
13	0.251 (0.216)	**0.521 (0.006)***	0.338 (0.091)	**0.436 (0.026)***
15	0.106 (0.607)	**0.484 (0.012)***	0.306 (0.128)	0.369 (0.063)
22	0.106 (0.605)	0.351 (0.079)	**0.407 (0.039)***	0.349 (0.081)
26	0.107 (0.604)	**0.447 (0.022)***	0.340 (0.089)	0.366 (0.066)
30	0.236 (0.247)	**0.507 (0.008)***	0.304 (0.131)	**0.412 (0.036)***
31	0.181 (0.375)	**0.469 (0.015)***	**0.452 (0.020)***	**0.453 (0.020)***
32	0.226 (0.266)	**0.469 (0.015)***	**0.445 (0.023)***	**0.449 (0.021)***
44	**0.448 (0.022)***	**0.557 (0.003)***	0.371 (0.062)	**0.516 (0.007)***
45	0.209 (0.306)	**0.430 (0.028)***	0.294 (0.144)	0.367 (0.066)
50	0.185 (0.366)	0.348 (0.082)	**0.400 (0.043)***	0.365 (0.067)
53	0.352 (0.077)	**0.479 (0.013)***	0.341 (0.088)	**0.444 (0.023)***
56	0.144 (0.483)	**0.535 (0.005)***	0.383 (0.054)	**0.433 (0.027)***
57	0.268 (0.185)	**0.608 (0.001)***	**0.469 (0.016)***	**0.532 (0.005)***
58	0.253 (0.213)	**0.563 (0.003)***	**0.538 (0.005)***	**0.535 (0.005)***
59	0.238 (0.242)	**0.526 (0.006)***	**0.546 (0.004)***	**0.517 (0.007)***
61	0.208 (0.307)	**0.567 (0.003)***	**0.459 (0.018)***	**0.494 (0.010)***
62	0.239 (0.240)	0.350 (0.080)	**0.471 (0.015)***	**0.408 (0.038)***
63	0.289 (0.152)	**0.530 (0.005)***	**0.626 (0.001)***	**0.564 (0.003)***
74	0.150 (0.464)	**0.427 (0.030)***	0.269 (0.183)	0.340 (0.089)
77	0.007 (0.974)	**0.409 (0.042)***	0.179 (0.392)	0.268 (0.196)
78	0.201 (0.326)	**0.542 (0.006)***	0.324 (0.106)	**0.419 (0.033)***

*$p \leq .05 = .381$ (2-tailed test), 25 df

Table 23 provides data from the board members representing the 11 districts where a quorum of members responded to the survey. Statistically significant correlations were found for 10 Key Indicators in reading, 4 Key Indicators in science, 1 Key Indicator in math, and 1 Key Indicator overall.

Table 23

Correlations Between BSAS Key Indicators of Boardsmanship for the 11 Quorum Districts (representing 47 board members) and CRT Scores

Key Indicator	Reading *r* (*p*)	Science *r* (*p*)	Math *r* (*p*)	Overall *r* (*p*)
10	**0.741 (0.009)***	0.591 (0.055)	-0.086 (0.803)	0.471 (0.143)
18	**0.618 (0.042)***	0.462 (0.153)	-0.175 (0.605)	0.334 (0.315)
21	0.444 (0.173)	0.407 (0.217)	**0.603 (0.050)***	0.575 (0.065)
23	**0.680 (0.021)***	**0.661 (0.026)***	0.135 (0.692)	0.583 (0.059)
27	**0.602 (0.050)***	0.372 (0.260)	-0.164 (0.632)	0.286 (0.393)
30	0.549 (0.080)	**0.718 (0.013)***	-0.120 (0.726)	0.479 (0.136)
46	**0.669 (0.024)***	0.473 (0.141)	0.071 (0.835)	0.452 (0.162)
47	**0.630 (0.037)***	0.533 (0.091)	0.047 (0.892)	0.466 (0.149)
56	**0.733 (0.010)***	0.432 (0.185)	0.048 (0.892)	0.436 (0.181)
61	**0.726 (0.011)***	0.583 (0.060)	0.127 (0.709)	0.549 (0.080)
62	**0.647 (0.032)***	**0.605 (0.049)***	0.309 (0.355)	**0.615 (0.044)***
70	**0.630 (0.037)***	**0.646 (0.031)***	0.119 (0.726)	0.557 (0.075)

*$p \leq .05 = .602$, 2-tailed, 9 df

Table 24 is a summary of all the data from all board members who responded to the boardsmanship portion of the survey and shows a tally of the number and percentages of statistically significant correlations by Standard, Benchmark, and Key Indicator. The top quartile of percentages is bolded. The highest percentages of statistically significant correlations, with percentages of 40.00%, 37.50%, 18.75%, and 15.00%, occur in Standards 1, 2, 4, and 5.

Table 24

A Tabulation of the Number and Percentages of Significant Correlations by Standard, Benchmark, and Key Indicator From All District Members who Responded to the Survey

By Standard, Benchmark, and Key Indicator	Number of Significant Correlations	Number of Possible Correlations	Percentage of Significant Correlations
S1BA, K5-6[a]	**3**	**16**	**18.75%**
S1BB, K7-10	1	24	4.17%
S1BC, K11-13	**3**	**20**	**15.00%**
S1BD, K14-16[1]	1	20	5.00%
S1BE, K17-20	0	20	0.00%
S1BF, K21-24	1	24	4.17%
S2BA, K25-27	1	20	5.00%
S2BB, K28-29	0	16	0.00%
S2BC, K30-32	**8**	**20**	**40.00%**
S2BD, K33-34	0	16	0.00%
S3BA, K36-37	0	16	0.00%
S3BB, K38-40	0	20	0.00%
S3BC, K41-47	4	36	11.11%
S3BD, K49-50	1	16	6.25%
S3BE, K51-56	4	28	14.29%
S4BA, K57-60	**9**	**24**	**37.50%**
S4BB, K61-63	**8**	**20**	**40.00%**
S4BC, K64-68	0	24	0.00%
S5BA, K69-72	0	24	0.00%
S5BB, K73-74	1	16	6.25%
S5BC, K75-76	0	16	0.00%
S5BD, K77-78	**3**	**16**	**18.75%**

[a] Code – **S1BA**, **K5-6** – **S**tandard**1**, **B**enchmark **A, K**ey Indicators **5-6**
[1] Bolded items identify the top quartile of significant correlations

Table 25 is a summary of the data from the board members representing the 11 districts where a quorum of members responded to the survey and shows the number and percentages of significant correlations by Standard, Benchmark, and Key Indicator. The

top quartile of percentages is bolded. The highest percentages of significant correlations, with percentages ranging from 5.00% to 20.00% occur in Standards 1, 2, 3, 4, and 5.

Table 25

The Number and Percentages of Significant Correlations by Standard, Benchmark, and Key Indicator for 11 Reporting Quorum Districts

By Standard, Benchmark, and Key Indicator	Number of Significant Correlations	Number of Possible Correlations	Percent of Significant Correlations
S1BA, K5-6[a]	0	16	0.00%
S1BB, K7-10	1	24	4.17%
S1BC, K11-13	0	20	0.00%
S1BD, K14-16	0	20	0.00%
S1BE, K17-20	1	20	5.00%
S1BF, K21-24[1]	**3**	**24**	**12.50%**
S2BA, K25-27	**1**	**20**	**5.00%**
S2BB, K28-29	0	16	0.00%
S2BC, K30-32	**1**	**20**	**5.00%**
S2BD, K33-34	0	16	0.00%
S3BA, K36-37	0	16	0.00%
S3BB, K38-40	0	20	0.00%
S3BC, K41-47	**2**	**36**	**5.56%**
S3BD, K49-50	0	16	0.00%
S3BE, K51-56	1	28	3.57%
S4BA, K57-60	0	24	0.00%
S4BB, K61-63	**4**	**20**	**20.00%**
S4BC, K64-68	0	24	0.00%
S5BA, K69-72	**2**	**24**	**8.33%**
S5BB, K73-74	0	16	0.00%
S5BC, K75-76	0	16	0.00%
S5BD, K77-78	0	16	0.00%

[a] Code – **S1BA**, **K5-6** – **S**tandard**1**, **B**enchmark **A, K**ey Indicators **5-6**
[1] Bolded items identify the top quartile of significant correlations

Table 26 is a summary of the significant findings of the study by combining data from Tables 24 and 25. The top quartile of percentages is bolded. All board Standards,

Benchmarks, and Key Indicators are listed in order in the following paragraph, along with a tally of the total number of times each was identified as statistically significant, as well as the success rate expressed as a percentage.

For example, the 20 items within Standard 4, Benchmark B, Key Indicators 61-63 (S4BB, K61-63) were each tested for statistical significance, and 12 were found to generate statistically significant correlations (12 identified / 20 possible), for a 60.00% identification rate. Standard 2 Benchmark C, Key Indicators 30-32 (S2BC, K30-32) contains 9 significant correlations out of a possible 20, which identified this item as statistically significant 45.00% of the time. Standard 4, Benchmark A, Key Indicators 57-60 (S4BA, K57-60) contain 9 statistically significant correlations out of a possible 24 which identified this item as significant 37.50% of the time. Standard 1, Benchmark A, Key Indicators 5-6 (S1BA, K 5-6) contain 3 statistically significant correlations out of a possible 16 which identified this item as significant 18.75% of the time. Standard 5, Benchmark D, Key Indicators 77-78 (S5BD, K77-78) contain 3 statistically significant correlations out of a possible 16 which identified this item as significant 18.75% of the time. Standard 1, Benchmark F, Key Indicators 21-24 (S1BF, K21-24) was identified 4 out of 24 possible times for a 16.67% rate. Standard 3, Benchmark C, Key Indicators 41-47 (S3BC, K41-47) was identified 6 out of 36 possible times for a 16.67% rate. Standard 3, Benchmark C, Key Indicators 41-47 (S3BC, K41-47) was identified 6 out of 36 possible times for a 16.67% rate. Six items did not generate any statistically significant correlations, and nine items were identified less than 16.00% of the time.

Table 26

A Summary Table Combining the Number of Significant Correlations by Standard, Benchmark, and Key Indicator for All Districts plus Quorum Districts

By Standard, Benchmark, and Key Indicator	Number of Significant Correlations: All Districts	Number of Significant Correlations: Quorum Districts	Total of All Districts Plus Quorum Districts	Number of Possible Correlations	Percentage of Possible Correlations
S1BA, K5-6[a]	**3**	**0**	**3**	**16**	**18.75%**
S1BB, K7-10	1	1	2	24	8.33%
S1BC, K11-13	3	0	3	20	15.00%
S1BD, K14-16	1	0	1	20	5.00%
S1BE, K17-20	0	1	1	20	10.00%
S1BF, K21-24[1]	**1**	**3**	**4**	**24**	**16.67%**
S2BA, K25-27	1	1	2	20	10.00%
S2BB, K28-29	0	0	0	16	0.00%
S2BC, K30-32	**8**	**1**	**9**	**20**	**45.00%**
S2BD, K33-34	0	0	0	16	0.00%
S3BA, K36-37	0	0	0	16	0.00%
S3BB, K38-40	0	0	0	20	0.00%
S3BC, K41-47	**4**	**2**	**6**	**36**	**16.67%**
S3BD, K49-50	1	0	1	16	6.25%
S3BE, K51-56	4	1	5	32	15.63%
S4BA, K57-60	**9**	**0**	**9**	**24**	**37.50%**
S4BB, K61-63	**8**	**4**	**12**	**20**	**60.00%**
S4BC, K64-68	0	0	0	24	0.00%
S5BA, K69-72	0	2	2	24	8.33%
S5BB, K73-74	1	0	1	16	6.25%
S5BC, K75-76	0	0	0	16	0.00%
S5BD, K77-78	**3**	**0**	**3**	**16**	**18.75%**

[a] Code – **S1BA**, **K5-6** – **S**tandard**1**, **B**enchmark **A, K**ey Indicators **5-6**
[1] Bolded items identify the Standard, Benchmark, and Key Indicator with the highest percentage of significant correlations (the top quartile)

The Boardsmanship Standard Deviation of Quorum Districts

Board consensus or lack of consensus on issues of boardsmanship can be surmised by the size of the standard deviation calculated from the board BSAS scores for each quorum district. Table 27 shows the standard deviation for each of the 11 school board districts in which a quorum of board members responded to the survey, as well as that district's CRT scores for reading, science, math, and overall.

Table 27

The Overall Standard Deviation Score for each of the 11 Quorum Districts and Each District's Scores in Reading, Science, Math, and Overall CRT

District	Overall SD	Reading CRT	Science CRT	Math CRT	Overall CRT
1	0.446	0.830	0.420	0.740	0.660
2	0.510	0.930	0.610	0.690	0.750
3	0.302	0.920	0.650	0.750	0.769
4	0.440	0.820	0.390	0.550	0.580
5	0.583	0.760	0.290	0.710	0.590
6	0.396	0.869	0.480	0.650	0.669
7	0.572	0.810	0.420	0.510	0.580
8	0.238	0.840	0.490	0.650	0.660
9	0.460	0.850	0.490	0.660	0.669
10	0.515	0.900	0.350	0.580	0.610
11	0.474	0.869	0.590	0.740	0.730

Table 28 reports Pearson's *r* and *p* values for each of these student CRTs. The overall negative correlations reflect the relationship between low student CRT scores and a board's large variation on issues of boardsmanship as measured by the standard deviation of the BSAS. Both science and overall correlations show a moderate negative relationship, and both show an effect size of more than 20%.

Table 28

Pearson's r Correlation and p Values between Each Districts Board Standard Deviation Score and Each District's Student CRT Scores

	Reading CRT/SD	Science CRT/SD	Math CRT /SD	Overall CRT/SD
Pearson *r*	-0.332	-0.472	-0.269	-0.449
Significance (p)	0.159	0.071	0.211	0.083
Effect Size (r^2)	0.110	0.223	0.073	0.202

Research and Null Hypothesis

The one overall research hypothesis for this study was that there is a relationship between boardsmanship as measured the BSAS and 10th grade student achievement as measured by Montana's CRT scores. The null hypothesis was that there is no relationship between boardsmanship as measured by BSAS and 10th grade student achievement as measured by Montana's CRT scores. There were 69 items measuring boardsmanship on the BSAS, and 4 items measuring student achievement on the CRT.

Pearson's *r* correlation coefficients were calculated between all combinations of boardsmanship scores and CRT scores. A two-tailed test of significance was calculated and reported. A statistically significant relationship ($p \leq .05$) was found between 30 Key Indicators and various CRT scores. In these 30 cases the null hypothesis was rejected. In addition, a statistically significant relationship ($p \leq .05$) was not found between 39 Key Indicators and various CRT scores. In these 39 cases the null hypothesis is not rejected. All calculated Pearson's *r* correlations can be found in Appendix D (statistically

significant correlations are in bold), and their corresponding Key Indicators can be found in Appendix G (statistically significant correlations are in bold).

Other Comparisons

Table 29 represents a comparison of the average CRT scores between three available data sets. The "State-wide" row represents the average student CRT scores of all 121 districts reported by the Montana's Office of Public Instruction for reading, science, math, and overall. The overall CRT score is a mean of these three reported CRT scores. The "All Surveys" row represents the combined data from all 74 BSAS survey respondents representing 27 districts, and the "Quorums" row represents the combined data from those 47 board members from 11 districts where a quorum of board members responded to the survey. The "Quorums" reading CRT and math CRT scores are higher than both the state average and all surveys average, while the science CRT scores are between the state-wide average and the all surveys score.

Table 29

A Comparison Between OPI Mean CRT Scores (Reading, Science, Math, Overall) and Averages State-wide, All Surveys, and Quorum Districts

	Reading CRT	Science CRT	Math CRT	Overall CRT	
State-wide	74.46%	55.28%	47.67%	59.14%	n = 121 districts
All Surveys	84.25%	45.07%	61.37%	63.56%	n = 36 districts
Quorums	85.44%	47.02%	65.72%	66.06%	n = 11 districts

Summary

Chapter Four presented the results of the study that examined the relationship between boardsmanship and student achievement. The study was designed to answer the question of how the actions of school boards (i.e., boardsmanship) relate to student achievement by studying the correlation between boardsmanship scores, measured by a board survey, with student achievement scores measured by state-reported CRT scores. The data demonstrate that a relationship does exist between certain dimensions of boardsmanship and student achievement. At the macro level of analysis, the board Standards can be listed in order from the highest to lowest percentages of statistically significant correlations with student achievement. The Standard with the highest percentage of statistically significant correlations is (a) Standard 4-holding the school district accountable for meeting student learning expectations, followed by (b) Standard 2-setting and communicating high expectations for student learning with clear goals and plans for meeting those expectations, and (c) Standard 1-providing responsible school district governance. Next is (d) Standard 3-creating the conditions district-wide for student and staff success, and last is (e) Standard 5-engaging the community and representing the values and expectations they hold for their schools.

Numerous other Benchmarks and Key Indicators were also correlated with student CRT scores to a statistically significant level. A more through examination of the results of this study are discussed in Chapter 5, along with a number of observations and suggestions for further research.

CHAPTER FIVE: FINDINGS AND CONCLUSIONS

This chapter is organized into seven sections. Part One briefly reviews the purpose and research question that guided the study and describes the organizational scheme. Part Two summarizes the major findings. Part Three provides the actual language from the items on the BSAS that had statistically significant relationships with student CRT scores. Part Four briefly discusses several observations of school boards and board members who responded to the survey including the implications of the observation that diversity of opinion regarding issues of boardsmanship on a school board is related to lower student achievement scores. Part Five contains a discussion of the relationship between the quantitative findings of this study and the more numerous qualitative reports currently in print. Part Six contains a comparison of the demographic findings of four studies on school boards, and Part Seven is a discussion of possible implications and suggestions for future studies.

Purpose, Research Question, and Organizational Scheme

The purpose of this study was to examine the relationship between boardsmanship, defined by the school boards score on the Board Self-Assessment Survey (BSAS) authored by the Washington State School Directors Association (WSSDA), and that district's student achievement scores. Student achievement was defined by scores *at or above proficient* on the Montana Criterion Reference Test (CRT), which tested 10th graders in reading, science, and math. Analysis of the data demonstrated that a relationship does exist between certain aspects of boardsmanship and student achievement.

The research question that guided this study was, How do the actions of school boards and school board members (i.e., boardsmanship) relate to student achievement? Actions of school board members were measured by the BSAS. Student achievement was measured by student CRT scores. The question of relationship was partially addressed through the organizational scheme of the BSAS which allowed analysis at multiple levels of organizational detail (i.e., Standards, Benchmarks, and Key Indicators). Each of the measures of boardsmanship was correlated with that district's student CRT scores by calculating Pearson's *r* and its corresponding *p* value. All BSAS items with a calculated $p \leq .05$ satisfied the *a priori* condition of significance and are reported in this study as being in relationship with student achievement. Each of those factors could then be transformed back into the language of the BSAS survey giving boards' access to pragmatic recommendations of how to conduct board business based in established quantitative relationships. Several correlations between board Standards and student CRT scores for quorum districts are noted in this study but failed to reach the *p* value of .05 (Table 14). This data was included in order to provide a complete summary of findings at all levels of organizational detail.

Findings of the Study

The actions of school boards matter. This study focused on identifying those actions related to student achievement that only a school board can accomplish. No other entity in the public school system is legally or organizationally positioned to undertake things like providing responsible governance, setting high expectations for student learning, creating the conditions district-wide for student and staff success, holding the teachers and administrators accountable for student success, and engaging the local

community. If the board fails to understand and accomplish these critical tasks they do not get accomplished and the district goes without.

When there is a failure to embrace these exclusive board responsibilities, or when boards are not aware that these are included in their primary duties, boards often experience mission drift and begin appropriating duties of the superintendent, all the while believing they are acting properly: "When board members and superintendents are unclear about who is responsible for what duties, conflict, inefficiency, and frustration are inevitable" (Goodman & Zimmerman, 2000, p. 17). This all-too-common scenario leads to administrative complaints of micromanagement. If school boards were to work to accomplish the recommended actions described in the BSAS Standards, Benchmarks, and Key Indicators especially those found to have statistically significant relationships with student achievement, they would be carrying out their exclusive duties and governing the district in a more effective manner.

Whether at the macro (Standard), intermediate (Benchmark), or micro (Key Indicator) level of analysis, and whether by actions of the collective board or individual board member, boardsmanship always involves a choice as to how to act. As a result of this study if school boards, or individual board members, were to more closely adhere to the statements of the BSAS identified as having statistically significant relationships to the student achievement CRT scores, they would be acting in a fashion similar to those board members who govern districts with the highest student achievement scores. By following the principles of good governance and effective board leadership described in the survey, boards could more effectively join efforts of parents, teachers, principals, and superintendents aimed at raising student achievement scores for their district.

Since much of the information in the literature, reviewed in Chapter Two, related to the board's role in student achievement is qualitative and anecdotal, the present study was designed to establish quantitative relationships between certain board actions and student achievement. This purpose was successfully achieved by the identification of a number of elements of boardsmanship found to have statistically significant relationships with student achievement. If student achievement is to continue to improve as schools respond to mandates for school reform, all relevant factors related to student achievement must be identified, employed, and aligned in service. The role of the effective board in this regard has become clearer as a result of this study.

The BSAS Board Standards, Benchmarks, and Key Indicators

It should be noted that this study articulated where boards should focus their efforts as they attempt to positively influence student achievement. School boards should first embrace the elements of good boardsmanship articulated by those Standards, Benchmarks, and Key Indicators showing highest percentages of statistically significant relationships with high student achievement. All five board Standards were related to high student achievement to a statistically significant level, as were 16 of the 22 Benchmarks, and 30 of the 69 Key Indicators (See Appendix G). These, then, are the select elements of the BSAS which are most relevant to the discussion of board actions related to raising student achievement. Second, boards could then pursue those statistically significant elements that were outside the top quartile (Table 26). Third boards should direct their initial efforts on implementing those elements of boardsmanship showing a moderate-to-strong correlation with student achievement. Last, school boards should focus on those areas of governance with particular relevance to

their home district. The reality is that boards are often so overwhelmed with urgent local matters of apparent consequence they fail to recognize the important issues of sound governance and boardsmanship which have real consequence for student achievement.

The overall conclusions of this study were summarized in Table 26 located in Chapter Four. Bolded items represent the top quartile of percentage scores when listed from highest to lowest. Those Standards, Benchmarks, and Key Indicators that were significantly correlated with student achievement can now be re-stated using the language of the specific survey items they refer to, thus translating statistically significant correlational data back into the language of the respective survey items. These findings are presented in an ordinal arrangement in the next seven paragraphs, beginning with the Standards containing the largest number of significant Benchmarks and Key Indicators. For a complete listing of the statistical analysis of all Standards, Benchmarks, and Key Indicators see Appendix D. For a complete listing of the Standards, Benchmarks and Key Indicators that achieved statistical significance see Appendix G.

First, 60% (12 / 20) of the items in Standard 4, Benchmark B, Key Indicators 61-63 were statistically significant (see Table 26). These survey items deal with holding the school district accountable for meeting student learning expectations (Standard 4), by evaluating the superintendent on clear and focused expectations (Benchmark B). This is accomplished when the district has written goals for the superintendent to focus on specific outcomes for student learning (Key Indicator 61), communicates performance expectations for the superintendent to the community (Key Indicator 62), and bases decisions about the superintendent's contract on objective evaluation of his or her performance and achievement goals (Key Indicator 63).

Second, 45% (9 / 20) of the items in Standard 2, Benchmark C, Key Indicators 30-32 were statistically significant (see Table 26). These items refer to setting and communicating high expectations for student learning with clear goals and plans for meeting those expectations (Standard 2), by adopting a collaboratively developed district plan focused on learning and achievement outcomes for all students (Benchmark C). This is accomplished by collaborating with staff and the community to formulate and maintain a district plan with goals and outcomes (Key Indicator 30), basing it's ongoing work, such as policy development, decision-making, and budgeting (Key Indicator 31), on the district goals, and continually monitoring progress toward the goals and outcomes of the district plan (Key Indicator 32).

Third, 37.50% (9 / 24) of the items in Standard 4, Benchmark A, Key Indicators 57-59 were statistically significant (see Table 26). These items also deal with holding the school district accountable for meeting student learning expectations (Standard 4), by committing to continuous improvement in student achievement at each school and throughout the district (Benchmark A). This is accomplished by following a schedule for the timely review of the district plan (Key Indicator 57), ensuring a high degree of coherence between the district plan and school improvement plans (Key Indicator 58), and annually reviewing and making recommendations to the district plan and school improvement plans (Key Indicator 59).

Fourth, 18.75% (3 / 16) of the items in Standard 1, Benchmark A, Key Indicator 6 were statistically significant (see Table 26). These items deal with providing responsible school district governance (Standard 1), by conducting board and district business in a

fair, respectful and responsible manner (Benchmark A). This is accomplished by committing to a clear and shared purpose (Key Indicator 6).

Fifth, 18.75% (3 / 16) of the items in Standard 5, Benchmark D, Key Indicators 77-78 were statistically significant (see Table 26). These items deal with engaging the local community and represent the values and expectations they hold for their schools (Standard 5), by soliciting input from staff and a wide spectrum of the community so that a diverse range of interests and perspectives on issues is considered (Benchmark D). This is accomplished by seeking community and staff input in its decision-making to gain community and staff support (Key Indicator 77), and carefully considering community and staff input in its decision-making (Key Indicator 78).

Sixth, 16.67% (4 / 24) of the items in Standard 1, Benchmark F, Key Indicators 21-23 were statistically significant (see Table 26). These items deal with providing responsible school district governance (Standard 1), by working as an effective and collaborative team (Benchmark F). This is accomplished by working with the superintendent to achieve mutual trust and commitment (Key Indicator 21), pursuing professional development to improve board members' knowledge and skills by attending conferences, holding study sessions, etc. (Key Indicator 22), and using collaborative processes that result in well-informed problem-solving and decision making (Key Indicator 23).

Seventh, 16.67% (6 / 36) of the items in Standard 3, Benchmark C, Key Indicators 44-47 were statistically significant (see Table 26). These items deal with creating conditions district-wide for student and staff success (Standard 3), by providing for learning essentials, including rigorous curriculum, technology and high quality facilities

(Benchmark C). This is accomplished by having a process that includes community and parent involvement in selecting curriculum (Key Indicator 44), having policy that requires rigorous and regular evaluation of curriculum and supplemental materials to ensure they align with state and district standards (Key Indicator 45), have a process in place to support evaluation and updating of technology (Key Indicator 46), and have a long-term facilities plan in place for construction and maintenance (Key Indicator 47).

Ten other Standards, Benchmarks, and Key Indicators produced statistically significant relationships (see Table 26), but are outside the top quartile of scores. These could also be converted into their respective statements. However, only the top quartile of items is highlighted here. An additional six items produced no statistically significant correlations.

Standard Deviations of Quorum Districts and the BSAS

Table 28 in Chapter Four reveals an interesting, albeit statistically insignificant, finding. The standard deviation (SD) was calculated from BSAS scores for each quorum school district. The size of the SD arguably represents the degree of agreement or disagreement between individual board members on issues of boardsmanship. A large SD would represent wide variation of opinion with regard to the governance and leadership issues reflected in the BSAS. When the board's SD was correlated with that district's student achievement scores, the Pearson's *r* correlation coefficient was consistently negative, in two cases rising to a moderate level. This data provides evidence that student achievement was depressed in those districts where board members held disparate opinions regarding issues of boardsmanship as measured by the BSAS. Conversely, the student achievement was higher in those districts with a smaller boardsmanship SD,

reflecting a greater degree of agreement between board members on issues of boardsmanship. An argument could be made that agreement on boardsmanship issues between board members leads to less friction between board members, leading perhaps to a smoother functioning board and district, and conversely that greater disagreement on boardsmanship issues leads to more friction between board members, resulting in a district characterized by some degree of acrimony and lower student achievement. If this is true, it offers compelling justification for board members to come to agreement on issues of governance for the good of the students in the district. Admittedly, others have suggested as much based on qualitative grounds, but this study provided quantitative data suggesting board consensus on issues of governance and boardsmanship plays a pivotal role in a district's ability to improve student achievement scores. It is not known how board discord might be transferred to the classroom and depresses student achievement.

It is not hard to imagine that boards who continue to overtly express conflict and discord could undermine efforts by parents, teachers, principals, and superintendents designed to raise achievement scores. This study provides evidence that when poor student achievement scores occur in a district, boards can no longer assume responsibility lies elsewhere and demand someone other than the board do something. When a district's student achievement scores are low, boards are not immune from responsibility. This study suggests boards would be well advised to acknowledge their own culpability and take action by behaving in ways consistent with the Standards, Benchmarks, and Key Indicators in the BSAS determined to have statistically significant relationships with student CRT scores. Boards do in fact have a role in student achievement.

In addition, were a board to focus on the issues identified in the BSAS, together with a better resolve to address governance disagreements, little time would be left to meddle in administrative and management issues, which only serves to frustrate administrators, lead to district-wide strife, and, as the present study suggests, reduce student achievement.

Qualitative and Quantitative Agreement on Elements of Boardsmanship

Table 2, located in Chapter 2, presented information pertaining to the characteristics of effective boards from 10 select reports, all of which generated conclusions from qualitative or anecdotal sources. More than 20 different characteristics of board effectiveness were identified. The 6 most frequently identified characteristics include (in descending order) (a) community engagement, (b) setting/supporting the district vision, (c) working as a team, (d) professional development, (e) managing the budget, (f) setting high student expectations, and (g) board leadership.

Although couched in different terms and arranged in a different order, the ideas are generally consistent with the quantitative data generated by this study which would recommend (in descending order), (a) Standard 4-holding the school district accountable for meeting student learning expectations, (b) Standard 2-setting and communicating high expectations for student learning with clear goals and plans for meeting those expectations, (c) Standard 1-providing for responsible school district governance, (d) Standard 5-engaging the local community and representing the values and expectations they hold for their schools and, (e) Standard 3-creating the conditions district-wide for student and staff success through managing curriculum, budget, facilities, and technology. Strong agreement exists between the qualitative ideas from the 10 studies

and the quantitative ideas generated in the present study. Conceptual agreement between qualitative and quantitative data arguably serves to better inform the issue at hand.

Table 3 in Chapter 2 presented information describing the most commonly identified characteristics of poorly performing boards. Although a wide range of concerns is listed, the most frequently mentioned include (a) personal agendas, (b) micromanagement, (c) rubber-stamping, (d) being reactive, and (e) deflection of responsibility, among others. Boards also need information that tells them what not to do.

Without research-based ideas to help guide board actions, well intentioned but ill-informed community members will continue to be elected to boards, and, left to their own intentions, preconceptions, and grievances, these members may unintentionally proceed to undermine board effectiveness and student achievement. Unless addressed, many preconceptions of board members may prove to be a district liability. Providing boards with student achievement-enhancing characteristics they should embrace, as evidenced by the findings of this study, along with characteristics they should avoid, would provide boards with information comparable to the empirically-based information teachers and administrators have readily available.

Similarly, Paul Houston (2001), as reported in Chapter One, advised school leaders to avoid the "killer B's – busses, buildings, books, budgets, bonds, and the like" (p. 431), and pursue instead the "crucial C's . . . like connection, communication, collaboration, community building, child advocacy, and curricular choices" (p. 431). Once again, the qualitative and anecdotal information Houston (2001) gleaned through informed observation appears to parallel the quantitative findings of this study.

Overlapping agreements between the qualitative and quantitative reports serve to reinforce the most salient issues.

Board Demographics and Student Achievement

Although there is no definitive way to equate school boards across America, Table 30 presents demographic information that may serve to assess comparability along several dimensions. Nylander (2009) conducted a nation-wide survey of school boards, as did Hess (2010). WSSDA (2010) collected similar information in Washington State, and the current study collected comparable data from the state of Montana. Since survey questions were not identical between the four studies, comparability is limited to descriptive observations that arguably suggest ample similarities between surveyed school boards. From these four studies, it does not appear that the surveyed school boards in the state of Montana differ appreciably from the surveyed boards in the state of Washington or across the United States in terms of board experience, education, or age. The main difference might be that a larger proportion of females are presently serving on Montana school boards.

Table 30

A Four Study Comparison of Board Characteristics

	Current Study (2012) Montana n=91	BSAS (2010) Washington n=300	Hess (2010) Nationwide n=1,020	Nylander (2009) Nationwide n=1,913
Gender (male/female)	44% / 56%	61% / 39%	56% / 44%	55% / 45%
Age				
<30	0	0.02%	0.40%	1.00%
31-40	9.80%	11.00%	4.20%	7.00%
41-50	**41.50%**	29.00%	25.50%	34.00%
51-60	30.50%	**33.00%**	**35.90%**	**39.00%**
>60	18.30%	26.30%	34.00%	20.00%
Experience (years)				
	(<1) - 8.5%	(<1) - 14%	**(**0-2) - 21.7%	(<1) - 13%
	(1-3) **- 29.3%**	(1-3) - 22%	(2-5) **- 28.4%**	(1-4) **- 38%**
	(3-6) - 28%	(3-5) - 22%	(5-1) - 27.1%	(5-9) - 30%
	(6-9) - 18.3%	(>5) **- 42%**	(>10) - 22.9%	**(**10-14) - 12%
	(>9**)** - 17.1%			(>15) - 8%
Education				
GED	0.00%	1.00%	0.10%	0.00%
High School	4.90%	7.00%	5.10%	3.00%
Some College	19.80%	16.00%	20.60%	13.00%
2-year degree	6.20%	12.00%	*	7.00%
4-year degree	**38.30%**	**26.00%**	27.70%	33.00%
Masters Degree	22.20%	25.00%	**46.50%**	**43.00%**
Professional	8.60%	7.00%	*	*
Doctorate	2.50%	6.00%	*	*

* data not collected in this category in this study

Cubberley (1916) expressed his ideas on boardsmanship nearly a century ago. To quote him once again, those persons who were likely to make good and poor board members were

> men who are successful in the handling of large, business undertakings – manufacturers, merchants, bankers, contractors, and professional men of large practice. . . . Such men are accustomed to handling business rapidly, are usually

> wide awake, sane and progressive, are in the habit of depending upon experts for advice, and have tact and perseverance. . . . On the other hand the list of those who usually do not make good school-board members is much larger. Inexperienced young men, unsuccessful men, old men who have retired from business, politicians, saloon-keepers, uneducated or relatively ignorant men, men in minor business positions, and women. (Cubberley, 1916, pp. 124-125)

Of course the statement reflects some of the cultural bias of the era.

If this statement were re-written today using the quantitative demographic information from this study, it could be stated as follows: Persons likely to make good board members would sit on boards where there is general consensus between the members as to their proper governance role, would have between 3-6 years experience on the board, would have attended college and preferably earned a 4-year degree, would have attended a state- or nationally-sponsored board training event within the last 2-3 years, and as a result would govern districts exhibiting student achievement scores higher than average. Demographic factors that were not related to higher achievement included the gender and the age of the board member, while a factor related to lower student achievement scores was intra-board disagreement and conflict.

Observations From the Present Study

Figure 1 presents a conceptual model of an organizational scheme where separate but overlapping roles exist between various elements in a school. A sequential rationale for, and detailed description of, the model is contained in the following section.

First, the school board is a part of the educational team. Mention *public education* and the most obvious elements which come to mind include students, teachers, and

administrators along with things like textbooks and homework, school buildings, and perhaps a sports team or music performance. Seldom does the school board come to mind. Thumb through any number of textbooks on teacher education, or curriculum, or educational leadership and again you will find limited coverage on the role of the school board, if it is mentioned at all. Thinking that public education consists solely of students, teachers, and administrators renders the system incomplete. The reason the school board has largely been overlooked is hard to explain. Only when the board joins with administrators and teachers can the system operate fully allowing students their full benefit. It is important that the board be recognized as a part of the educational team.

Second, boards contribute to student achievement. The results of this study established a quantitative basis for stating that student achievement has a relationship with certain aspects of board behavior as described in the BSAS. The survey was specifically designed to be a tool school boards could use to not only evaluate their own performance but also to encourage board members to focus on governance behaviors related to student achievement. It is important that the board *be* involved. It is just as important to determine *how* the board is involved.

Third, a systems approach best describes the highly functioning school system. Highly complex organizations maximize their effectiveness when each component contributes in appropriate ways, whether it's the symphony, or the military, or a sports team. The system functions best as a whole, and if some element fails or is ignored the performance of the organization is compromised. Educational systems seem to have failed to perceive the board as an educational partner. A baseball team is not successful without the shortstop, and the symphony is compromised without the French horns, and a

school district is incomplete without viewing the board as an educational partner in this fragile and highly complex educational system.

Fourth, appropriate relationships between the players is vital, especially the relationship between the board and the superintendent. "When board members and superintendents are unclear about who is responsible for what duties, conflicts, inefficiency, and frustration are inevitable" (Goodman & Zimmerman, 2000, p. 18). Only the board, they argue, can develop policy, allocate resources, select, work with, and evaluate the superintendent, adopt policy and budget that puts kids first, delegate the day-to-day administration of the district to the superintendent, and evaluate their own leadership, governance and teamwork. In addition the board collaborates with the superintendent to advocate for high student achievement, develop a vision for the schools that reflect the community's values, plan long-range for district development, ensure safety for students and staff, and allocate resources for professional development. The superintendent is solely responsible to serve a chief executive officer of the district, provide the board good information for decision making and policy development, oversee the educational program, take responsibility for all personnel matters, develop and administer the approved budget, manage the business affairs, and be responsible for student discipline. This principle of separate but overlapping collaborative roles can be extrapolated throughout the school, and understanding and respecting proper boundaries is essential.

Last, given the separate but overlapping roles of the high functioning board and superintendent, it is not unreasonable to think a similar relationship exists between other players in the educational system. Too large an overlap results in charges of

micromanagement. Too little overlap results in aloof disengagement. Just the right amount of overlap represents a collaborative relationship at any organizational level. The present study serves to describe in pragmatic terms (e.g. the BSAS Key Indicators) how the board can participate in district efforts to raise student achievement.

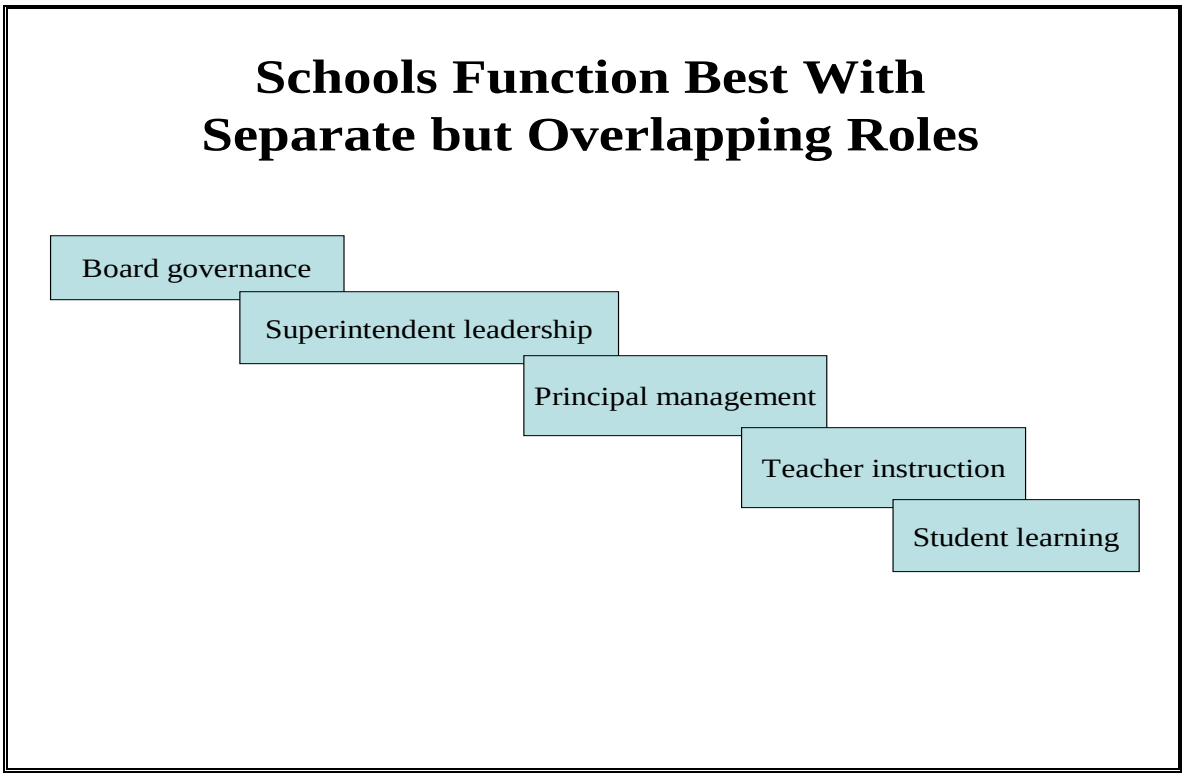

Figure 1: A model, created by the researcher, representing the concept that schools function best with separate but overlapping roles. Goodman and Zimmerman (2000) argue there are some things only the board can do, some things the board and superintendent need to collaborate on, and some things only the superintendent can do. The same idea can be extended throughout the school system to illustrate levels of appropriate collaboration.

Also of interest are the items on the survey where no statistically significant relationships were found, where negative correlations occurred, and where general

observations of the data can be made. Six Benchmarks and thirty-nine Key Indicators yielded no statistically significant relationships with student achievement. As difficult as it is to interpret the underlying message of these statements perhaps one could argue that elected board members see themselves more as trustees of the public interest rather than as representatives of the public will due to the central themes of these non-statistically significant items (see Appendix G). It appears the boards with the highest-achieving students showed little relationship with (a) valuing the development of a district vision, (b) aligning goals for student achievement with the district plan, (c) providing for safety and security for students and staff, (d) supporting professional development, (e) valuing assessments, or (f) ensuring district information are communicated district-wide. It is of interest to note that these items are nearly identical to the items identified by Goodman and Zimmerman (2000) as "responsibilities of the board/superintendent team" (p. 18).

None of the negative correlations were statistically significant (see Appendix F). Considering all the data from all districts, there were 36 negative correlations in reading, 4 negative correlations in science, 69 negative correlations in math, and 9 negative correlations in overall. The reason for the large number of negative correlations in math is difficult to interpret and needs further study.

When utilizing Pearson's *r* correlations it can be useful to calculate the effect size, represented as r^2, which measures the magnitude of impact of one variable on another and is used as a tool in reporting effectiveness. Tables 13, 14, 20, 21, 22, and 23 present the statistically significant correlations for the Standards, Benchmarks, and Key Indicators for both the "all districts" and "quorum" data sets. The highest significant correlation of $r = .741$ can be found in Table 23 between reading and Key Indicator 10 for the quorum

districts. The calculation of $r^2 = .5491$ can be interpreted as meaning that 54.91% of the variance is shared by the two variables. The lowest significant correlation of $r = .390$ can be found in Table 13 between overall and Standard 3 for all districts. The calculation of $r^2 = .1521$ can be interpreted as meaning that 15.21% of the variance is shared by the two variables. A complete list of all the calculated correlations can be found in Appendix D.

Interactions of Demographics and Boardsmanship

Does the sex of board members make a difference? Male board members show a preference for more professional development and long-term facilities planning. Female board members show preferences for a board vision statement, more board transparency, and more frequent communications with the community and staff.

The effect of board experience appears minimal. Those who have been on the board 3 years or more show a greater interest in opening the board meetings to community presentations and want to work with the superintendent in communicating high student expectations, while those on the board 3 years or less prefer a collaborative decision-making process.

The effect of the education levels of board members revealed several trends. Those with less than a 4-year bachelor's degree showed a preference for working in the best interests of students, involving the public in board decisions, and wanting to set goals for improvement. They were also more willing to delegate authority to the superintendent, were committed to and trusted the superintendent, and were interested in evaluating the staff based on student success. Those with more than a bachelor's degree were more apt to reject the idea of evaluating the staff based on student achievement,

were more willing to challenge the superintendent on issues, and more willing to conduct the district business without public oversight.

The effect of board training on board members revealed several trends. Those board members who have attended three or fewer training sessions are more likely to prefer a collaborative decision-making process. Those who have attended more than three board training sessions prefer to honor the roles of the superintendent, adopt policies that all students can learn, and keep the community informed and involved with regard to the budget.

F*uture Studies*

The standard deviation (SD) of board scores for the quorum districts on the BSAS were moderately negatively correlated with student achievement in this study (see Table 28) which means when school board members disagree on issues of boardsmanship as measured by the BSAS student achievement is lower, and when school board members reach consensus on issues of boardsmanship student achievement is higher. This is consistent with the findings of Duvall (2005) who tested the strength of relationship between board chairs and their superintendents and found stronger relationships translated to higher student achievement. An issue needing further study would be to determine whether the strength of relationship extends beyond the superintendent and board chair and reaches throughout the entire board. This would be consistent with the present finding that higher SD scores are related to lower student achievement. Closely related would be an investigation to determine whether the source and substance of the disagreements is a factor in order to determine whether all board discord is deleterious to student achievement, or just discord over certain issues. And another area of investigation

would be to determine if school boards self-assessments are consistent with the administrator's perceptions of the board.

The present study also limited its definition of student achievement to the CRT scores of 10th graders. Would the relationship hold across all ages of students, such as 4th graders, or 8th graders? Perhaps there is a differential effect of the board on student CRT. Are younger students more or less influenced by board behavior? Perhaps elementary teachers are better, or less, able to insulate their students from deleterious influences of the board than are secondary teachers.

Another area needing further study is how district size or board size affects the relationship between boardsmanship and student achievement. Given the limited response rate of this study it is only possible to make casual observations from this data. However when board size was correlated with student CRT scores, this study found no statistically significant relationships. This might suggest that both large and small boards have the capacity to govern districts with both high and low student achievement scores, because board size appears independent of student achievement.

In addition, more research is needed to correlate a person's motivation to seek a position on the school board with student achievement. Combining the work by Mountford (2001) regarding board member motivations with board training data could result in recommended board training packages tailor-made to the motivations of board members in order to address the range of issues that that district may be facing.

As important as these findings are in identifying elements of boardsmanship that are conducive to improving student achievement, it would be equally informative to identify those board behaviors that interfere with student achievement. Having empirical

information about board behavior that both directs and constrains board actions would be valuable when a board is attempting to participate in efforts to improve student achievement.

And finally this study reinforced a very old idea. The most frequently selected factor of the BSAS that was quantitatively selected dealt with the accountability and evaluation of the district superintendent. Littlefield (1965) reported that the members of one of the first school boards organized in the United States in 1645 in Dorchester, Massachusetts, had five duties during their lifetime appointments. The first duty was to find an "able and sufficient schoolmaster" (p. 83), and the fourth was to make sure the schoolmaster "faithfully performs his duty" (p. 83). Given all the information about public education generated since 1645, it is worth noting that the single most important job of the school board remains the selection of a capable leader.

This study could add several more duties for school boards: to be accountable for continuous student improvement; to hold the district accountable for student achievement; to collaboratively set and communicate high expectations for student learning; to work effectively with the administration as a team; to create the conditions districtwide for student and staff success; and manage the budget in order to provide rigorous curriculum, technology, and facilities.

Summary: Only the Board

The essential needs of a school district in pursuit of high student achievement are becoming clearer. Attracting the best teachers and administrators is necessary in order for a school district to perform at high levels but not sufficient. Only the school board can, and must, accomplish certain needs vital to a successful school district. While there is

much qualitative and anecdotal evidence in the literature that argues for a board role in student achievement, this study reports some statistically significant quantitative relationships. School boards that adhere to the Standards, Benchmarks, and Key Indicators detailed in the BSAS govern districts with the highest achievement scores. Boards do play a role in student achievement and their actions matter.

Afterword

This study revealed that student achievement could improve and districts could benefit if the board of a local district would come to consensus regarding issues of boardsmanship and follow the suggested best practice described in the BSAS. Research on school boards is beginning to produce clear guidelines describing best practice aimed at improving student achievement. This means boards may soon have access to verifiable data suggesting how boards should conduct business in pursuit of district excellence.

The American model of public education consists of a de-centralized system of locally elected school boards. This inherently fosters educational diversity at the district level matching the distinctive character of the communities in which boards are embedded. The advantage is the community's access to, and intimate sense of control over, the education of their children. The disadvantage is the lack of uniformity of the educational enterprise between districts because the system is vulnerable to mischief from persuasive local stakeholders.

What boards lack is uniform educational expertise. What boards have is good intentions and diversity of opinion vulnerable to local influences. What boards want are excellent schools, and what boards need is strategic singularity of purpose with broad vision. This may require abandoning individual agendas. The American system of public education produces a breathtaking and unacceptable disparity between districts, some excelling spectacularly and others near collapse. This seems patently unfair to students and communities.

We know what excellent teaching looks like because highly successful teachers have been studied for decades and their characteristics have been

modeled in other schools with great success. Without disregarding the essentials of their duties, every teacher adjusts to the immediate classroom circumstance even as they adhere to proven non-negotiable essentials that are maintained for the benefit of students. Boards need a similar mindset. When board members mirror the essentials of good boardsmanship they do not have to abandon the distinctive features that reflect their constituency.

We must admit that facts now exist that could explicate enlightened boardsmanship, and provide the foundation for district progress and improved student achievement. This study provides a research-based recipe of explicit instructions for boards to follow in pursuit of improved student achievement. Ideally these skills of boardsmanship would be shared between all members of the board, with new board members trained and mentored into their accomplishment.

Some of the opinions and perspectives I have gathered from 20 years of board experience have been modified by this study. Others have been reinforced and strengthened. In the end board members need to appreciate they are but one member of a large team that encompasses the larger community and educational professionals. Being a member of a school board comes with responsibilities to behave in ways found related to student achievement. This study serves public education by identifying what those specific behaviors are.

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APPENDIXES

Appendix A

Board Self Assessment Survey

(NOTE 1: Question numbers correspond to survey items on SurveyMonkey©)
(NOTE 2: Duplicate survey item 52 removed prior to statistical analysis)

School Board Self-Assessment Survey

Introduction and Welcome

Thank you for taking the time to complete this survey.

This survey was created by the Washington State School Directors' Association © (WSSDA) in 2011. I'm using it as part of my doctoral research project investigating the relationship between boardsmanship and student achievement. My faculty adviser is William P. McCaw, Ed.D., of The University of Montana Department of Educational Leadership.

It is well known that student achievement is affected by the educational team of a school. Often overlooked is the possible role of the school board. The questions addressed in this survey concern the possible influence the school board may have on student achievement.

I am collecting data from Montana public high school board members to study this possible relationship.

Completing the survey should take 20-25 minutes.

Part One: Deals with matters of informed consent required by University research (4 items).
Part Two: Contains the survey itself (75 items).
Part Three: Asks for demographic information (12 items).

If you're ready, lets get started.

School Board Self-Assessment Survey

Part One: Study Information and Informed Consent Form

TITLE: THE RELATIONSHIP BETWEEN SCHOOL BOARD GOVERNANCE BEHAVIORS AND STUDENT ACHIEVEMENT SCORES

Principle Researcher:
Mr. Ivan Lorentzen
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Dissertation Chair:
William P. McCaw, Ed.D.
Department of Educational Leadership
The University of Montana
Missoula, MT
406-243-5395
bill.mccaw@mso.umt.edu

PURPOSE: You are being asked to participate in this study because you are a school board member of a Montana public high school. The purpose of this study is to examine the relationship between student achievement scores and the activities and characteristics of school boards.

PROCEDURES: You will be asked to offer information regarding your school board, as well as personal characteristics and demographic information. If at any time you want to withdraw from this online study for any reason, just click the "END SURVEY" button found occasionally throughout the survey. There is no penalty or consequence for doing so. Your responses will then be erased and your participation in the research project will end. If you later want to participate you must begin again.

RISKS: There are no physical risks associated with completing this survey. However, you will be asked questions about issues and activities in your school district which may cause you to think about, and reflect on, opinions and perceptions you hold which may cause some degree of emotional discomfort.

BENEFITS: There is no promise that you will receive any benefits from taking part in this study other than knowing you contributed to a greater understanding of the factors that affect student achievement.

CONFIDENTIALLY: To assure confidentiality all data will be stored on a secure server and handled only by the principle researcher and statistician. All individual and district data will be destroyed once the data analysis has been completed. The only data to be kept will be pooled data organized, for example, by district size, or board size. None of the findings of this research will be reported in any manner that would allow any person or district to be identified. The purpose of this research is to determine if there is a relationship between a variety of board characteristics or behaviors, and student achievement.

COMPENSATION FOR INJURY: Although we do not foresee any risk in taking part in this study, the following liability statement is required in all University of Montana consent forms:
In the event that you are injured as a result of this research you should individually seek appropriate medical treatment. If the injury is caused by the negligence of the University or any of its employees, you may be entitled to reimbursement or compensation pursuant to the Comprehensive State Insurance Plan established by the Department of Administration under the authority M.C.S., Title 2, Chapter 9. In the event of a claim for such injury, further information may be obtained from the University's Claims Representative or University Legal Counsel. (Reviewed by University Legal Counsel July 6, 1993).

VOLUNTARY PARTICIPATION/WITHDRAWAL: Your decision to take part in this research project is entirely voluntary. You may decide to terminate your participation at any time by clicking on the "END SURVEY" button that appears occasionally throughout the survey. There is no penalty or consequence in doing so. Your responses would then be erased and your participation in the research project would end. If you later want to participate you must begin the survey again.

QUESTIONS: If you have questions about the research project now or after completing the survey contact: Ivan Lorentzen, email:

School Board Self-Assessment Survey

Part One: Study Information and Informed Consent Form

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PROCEDURES: You will be asked to offer information regarding your school board, as well as personal characteristics and demographic information. If at any time you want to withdraw from this online study for any reason, just click the "END SURVEY" button found occasionally throughout the survey. There is no penalty or consequence for doing so. Your responses will then be erased and your participation in the research project will end. If you later want to participate you must begin again.

RISKS: There are no physical risks associated with completing this survey. However, you will be asked questions about issues and activities in your school district which may cause you to think about, and reflect on, opinions and perceptions you hold which may cause some degree of emotional discomfort.

BENEFITS: There is no promise that you will receive any benefits from taking part in this study other than knowing you contributed to a greater understanding of the factors that affect student achievement.

CONFIDENTIALLY: To assure confidentiality all data will be stored on a secure server and handled only by the principle researcher and statistician. All individual and district data will be destroyed once the data analysis has been completed. The only data to be kept will be pooled data organized, for example, by district size, or board size. None of the findings of this research will be reported in any manner that would allow any person or district to be identified. The purpose of this research is to determine if there is a relationship between a variety of board characteristics or behaviors, and student achievement.

COMPENSATION FOR INJURY: Although we do not foresee any risk in taking part in this study, the following liability statement is required in all University of Montana consent forms:
In the event that you are injured as a result of this research you should individually seek appropriate medical treatment. If the injury is caused by the negligence of the University or any of its employees, you may be entitled to reimbursement or compensation pursuant to the Comprehensive State Insurance Plan established by the Department of Administration under the authority M.C.S., Title 2, Chapter 9. In the event of a claim for such injury, further information may be obtained from the University's Claims Representative or University Legal Counsel. (Reviewed by University Legal Counsel July 6, 1993).

VOLUNTARY PARTICIPATION/WITHDRAWAL: Your decision to take part in this research project is entirely voluntary. You may decide to terminate your participation at any time by clicking on the "END SURVEY" button that appears occasionally throughout the survey. There is no penalty or consequence in doing so. Your responses would then be erased and your participation in the research project would end. If you later want to participate you must begin the survey again.

QUESTIONS: If you have questions about the research project now or after completing the survey contact: Ivan Lorentzen, email:

School Board Self-Assessment Survey

Part Two: The Board Self Assessment Survey

The following survey contains 71 items and may take 20-25 minutes to complete. Thank you for your thoughtful opinions. I will be asking your perceptions concerning the ways your board conducts its business.

Each of the survey questions follows the prompt:

T0 WHAT EXTENT DOES OUR BOARD . . . (select appropriate answer):

5. Base its decisions on what is best for students' success?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

6. Commit to a clear and shared purpose?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

7. Provide information to the public that supports board discussions and decisions?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

8. Follow a defined process for gathering input prior to making critical decisions?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

9. Carry out annual assessments of its performance?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

10. Set goals for its improvement?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

11. Delegate authority to the superintendent to manage district operations and implement policy?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

12. Honor the roles and responsibilities of the superintendent?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

13. Use written protocols for its interactions?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

14. Govern using policies that align with best practice and research?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

School Board Self-Assessment Survey

15. Focus policy decisions on what is necessary for all students to achieve at high levels?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

16. Collaborate with colleagues across the region, state, or nation regarding current and emerging trends, issues, and policy solutions?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

17. Provide an opportunity for stakeholders, such as staff, students, parents, and community members, to make presentations to the board?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

18. Promote continuous improvement throughout the organization?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

19. I would like to

☐ Continue with the survey

☐ End the survey

School Board Self-Assessment Survey

TO WHAT EXTENT DOES OUR BOARD . . .

20. Treat all individuals, including fellow board members, staff, students, and community members, with respect?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

21. Work with the superintendent to achieve mutual trust and commitment?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

22. Pursue professional development to improve board members' knowledge and skills by attending conferences, holding study sessions, etc.?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

23. Uses collaborative processes that result in well-informed problem-solving and decision-making?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

24. Together with the superintendent, share responsibility for the orientation of new board members and forming a new inclusive team?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

25. Through policies and actions expresses our belief that all students can learn?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

26. Through policies and actions, communicate high expectations for all students?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

27. Foster a culture of collaboration around the shared purpose of improving student achievement?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

28. Include stakeholders when developing and revising the district's vision?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

29. Communicate it's rationale for decisions to the community?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

School Board Self-Assessment Survey

30. In collaboration with staff and the community, formulate and maintain a district plan with goals and outcomes?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

31. Base it's ongoing work, such as policy development, decision-making, and budgeting, on the district goals?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

32. Continually monitor progress toward the goals and outcomes of the district plan?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

33. Together with the superintendent agree that high expectations for all students is the highest priority?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

34. Together with the superintendent review student achievement regularly?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

35. I would like to

☐ Continue with the survey

☐ End the survey

School Board Self-Assessment Survey

TO WHAT EXTENT DOES OUR BOARD . . .

36. Ensure that facilities comply with current health, safety, security, and accessibility standards?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

37. Policy require regular evaluation and management of safety and security risks?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

38. Have policies that ensure hiring and retention of highly qualified staff?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

39. Have policies for evaluating staff based on student success?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

40. Policy support research-based, best practices for staff development?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

41. Have an established course of study for students and graduation requirements that align with high expectations for student achievement?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

42. Policy ensure students receive the curriculum, support and supplemental materials necessary for high achievement?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

43. Adopt a budget that supports quality staff development and resources for curriculum implementation?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

44. Have a process that includes community and parent involvement in selecting curriculum?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

School Board Self-Assessment Survey

45. Policy require rigorous and regular evaluation of curriculum and supplemental materials to ensure they align with state and district standards?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

46. Have a process in place to support evaluation and updating of technology?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

47. Have a long-term facilities plan in place for construction and maintenance?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

48. I would like to

☐ Continue with the survey

☐ End the survey

School Board Self-Assessment Survey

TO WHAT EXTENT DOES OUR BOARD . . .

49. Communicate an expectation that all classrooms will implement effective instructional practices?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

50. Provide for evaluation of district operations to ensure there is an efficient and effective learning environment?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

51. Keep the community informed about the district's financial status?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

52. Keep the community informed about the district's financial status?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

53. Seek public input during the budget process?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

54. Provide guidelines for budget development, including a clearly defined expectation for a reasonable ending fund balance?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

55. Adopt a fiscally responsible annual budget that is aligned with the district's vision and plan?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

56. Regularly monitor the budget and fiscal status of the district?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

57. Follow a schedule for the timely review of the district plan?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

58. Ensure a high degree of coherence between the district plan and school improvement plans?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

School Board Self-Assessment Survey

59. Annually review and make recommendations to the district plan and school improvement plans?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

60. Publicly recognize the efforts of schools in improving student learning?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

61. Have written goals for the superintendent that focus on specific outcomes for student learning?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

62. Communicate performance expectations for the superintendent to our community?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

63. Base decisions about the superintendents contract on objective evaluation of his or her performance and achievement goals?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

64. Require the effective use of data throughout the system to monitor student achievement and district performance?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

65. You are three-quarters done. Thanks for your time.

☐ I would like to continue with the survey

☐ End the survey

School Board Self-Assessment Survey

TO WHAT EXTENT DOES OUR BOARD . . .

66. Regularly review and understand the criteria, assessment tools, and methods that measure student achievement and district performance?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

67. Regularly review data, including disaggregated student achievement data, to measure progress toward district goals?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

68. Regularly evaluate and adjust resources and strategies for closing achievement gaps to maximize their effectiveness?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

69. Advocate at the local, state, and federal levels on behalf of students and the district?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

70. Model cultural, racial, and ethnic understanding and sensitivity?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

71. Establish policies and partnerships that promote and expand educational opportunities for all students?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

72. Follow an effective process for responding to questions, concerns, comments, or feedback from citizens?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

73. Ensure the public is well informed of the board's roles and responsibilities?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

74. Conducts its business in a transparent and accountable manner?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

School Board Self-Assessment Survey

75. Communicate proactively to disseminate information that addresses issues throughout the system and community?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

76. Communicate district performance to the public in clear and understandable ways?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

77. Seek community and staff input in its decision-making to gain community and staff support?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

78. Carefully consider community and staff input in its decision-making?

☐ Never ☐ Some of the time ☐ Most of the time ☐ Always

YOU'RE FINISHED WITH PART 2: THANK YOU FOR YOUR TIME AND THOUGHTFUL IDEAS!
JUST A FEW MORE QUESTIONS AND WE'RE DONE!

School Board Self-Assessment Survey

Part Three: Demographic Information

The following 12 questions ask for demographic information and is being collected to increase knowledge regarding school boards and their effectiveness. Your responses are confidential.

79. How long have you been a member of this school board?

- ☐ less than one year
- ☐ 1 to 3 years
- ☐ 3 to 6 years
- ☐ 6 to 9 years
- ☐ more than 9 years

80. Have you been a member of another school board?

- ☐ NO
- ☐ Yes - for 1-3 years
- ☐ Yes - for 3-6 years
- ☐ Yes - for 6-9 years
- ☐ Yes - for 9 or more years

81. What is your age?

- ☐ 18-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ more than 60

82. Are you male or female?

- ☐ Male
- ☐ Female

School Board Self-Assessment Survey

83. What is your highest level of education?

- ☐ GED
- ☐ High school graduate
- ☐ Some college
- ☐ 2-year degree
- ☐ 4-year degree
- ☐ Masters degree
- ☐ Professional degree
- ☐ Doctoral degree

84. Which of the following does the board use to study and gain a deeper understanding of issues? Check all that apply.

- ☐ Work study sessions
- ☐ Work groups/Committees
- ☐ Board training and Conferences
- ☐ Public forums
- ☐ None of the above
- ☐ Other

85. Prior to making critical decisions, our board systematically gathers input from: (Check all that apply)

- ☐ Students
- ☐ Staff
- ☐ Parents
- ☐ Community members
- ☐ Other stakeholders
- ☐ Our board does not gather input
- ☐ Other

School Board Self-Assessment Survey

86. To ensure input from a wide spectrum of the community, our board provides ongoing opportunities for input from: (Check all that apply)

- [ ] Parents
- [ ] Students
- [ ] Staff
- [ ] Community groups
- [ ] Service Organizations
- [ ] Local governing bodies
- [ ] None of the above
- [ ] Other

87. In our district planning process, the board incorporates: (Check all that apply)

- [ ] Educational research
- [ ] Local issues
- [ ] District data
- [ ] Educational legislative initiatives
- [ ] National trends
- [ ] Global trends
- [ ] None of the above
- [ ] Other

88. Our board uses the district vision and mission to guide and drive efforts in: (Check all that apply)

- [ ] Planning
- [ ] Decision-making
- [ ] Evaluation of district programs
- [ ] Evaluating district progress
- [ ] None of the above
- [ ] Other

School Board Self-Assessment Survey

86. To ensure input from a wide spectrum of the community, our board provides ongoing opportunities for input from: (Check all that apply)

- ☐ Parents
- ☐ Students
- ☐ Staff
- ☐ Community groups
- ☐ Service Organizations
- ☐ Local governing bodies
- ☐ None of the above
- ☐ Other

87. In our district planning process, the board incorporates: (Check all that apply)

- ☐ Educational research
- ☐ Local issues
- ☐ District data
- ☐ Educational legislative initiatives
- ☐ National trends
- ☐ Global trends
- ☐ None of the above
- ☐ Other

88. Our board uses the district vision and mission to guide and drive efforts in: (Check all that apply)

- ☐ Planning
- ☐ Decision-making
- ☐ Evaluation of district programs
- ☐ Evaluating district progress
- ☐ None of the above
- ☐ Other

School Board Self-Assessment Survey

89. The last board training I attended was: (check all that apply)

- [ ] within the last 12 months
- [ ] between 12-24 months ago
- [ ] between 24-36 months ago
- [ ] more than 36 months ago
- [ ] a district event
- [ ] a state conference or event
- [ ] a national conference or event

90. How many board training events have you participated in during your tenure on this board?

- [ ] isnone
- [ ] 1-3
- [ ] 3-5
- [ ] 5-7
- [ ] more than 7

School Board Self-Assessment Survey

Thank you for participating!!

You have chosen to end your participation in this survey. All responses previously entered will be erased. If you choose to complete the survey at a later time you will need to start from the beginning. Thanks for your time.

School Board Self-Assessment Survey

You're Finished!!

Thank you for completing this survey!! Your time and thoughtful information is sincerely appreciated.

Appendix B

Endorsements

School Administrators of Montana

Montana Rural Education Association

Montana School Boards Association

From: Darrell Rud [mailto:samdr@sammt.org]
Sent: Monday, August 23, 2010 8:32 AM
To: 'Ivan Lorentzen'
Cc: Bill McCaw; 'Lance Melton'; 'Dan Johnston'
Subject: RE: Request for study endorsement

Ivan,

On behalf of the Board and members of the School Administrators of Montana, I would be please to "endorse this study in principle" and to assist in whatever ways are feasible to make it as complete and successful as possible.

I'm sure that you and Dr. McCaw are aware of McRel's research as well as they, too, confirmed the importance of Superintendents, Boards, and leadership teams working together to maximize student achievement. But, just in case, I offer that to you to be used as desired.

I look forward to hearing more about your study and how I can be of assistance.

Darrell

From: Dave Puyear [mailto:dpuyear@mrea-mt.org]
Sent: Sunday, September 19, 2010 8:12 PM
To: McCaw, Bill
Cc: ilnorway@centurytel.net
Subject: Re: MREA Support on Research

Bill and Ivan:

MREA would be excited and enthusiastic about helping with the proposal....

I am currently over in Bozeman for our fall MREA and MASS meetings, so things are hectic....

Please let me know what kind of written confirmation you need....MREA is eager to help in any way that we can...

Dave

Dave Puyear
Executive Director
Montana Rural Education Assoc. (MREA)
P.O. Box 1612
Helena MT 59624

Office: 406.443.2629
Fax 406.449.0985
Web : www.mrea-mt.org
----- Original Message -----

From: Lance Melton [mailto:lmelton@mtsba.org]
Sent: Monday, August 30, 2010 8:20 AM
To: 'Ivan Lorentzen'
Subject: RE: Study Endorsement

We can endorse the study. Thanks

Lance L. Melton
Executive Director
Montana School Boards Association
863 Great Northern Blvd., Suite 301
Helena, MT 59601
(406) 442-2180
(406) 439-2180 (Cell)
(406) 442-2194 (Fax)

Appendix C

The Organizational Scheme of the Boardsmanship Portion of the BSAS: Standards, Benchmarks, and Key Indicators

(NOTE: The following survey items are not included in the boardsmanship portion of the survey:

1. Agree to consent to take the survey
2. Security code
3. Position in the district
4. Name of the school district
19. I would like to continue the survey
35. I would like to continue the survey
48. I would like to continue the survey
52. Duplicate item removed prior to statistical analysis
65. You are three-quarters done. Thanks for your time.
79-90. Demographic questions.

BSAS - Standards/Benchmarks/Key Indicators

Standard 1 – Provide responsible school district governance

Benchmark A – Conducting board and district business in a fair, respectful and responsible manner.

Q5 – Base its decision on what is best for students' success

Q6 – Commit to a clear and shared purpose

Benchmark B – Ensuring the board is accountable and open to the public including seeking divergent perspectives in its decision making process.

Q7 – Provide information to the public that supports board discussions and decisions

Q8 – Follow a defined process for gathering input prior to making critical decisions

Q9 – Carry out annual assessments of its performance

Q10 – Set goals for its improvement

Benchmark C – Respecting and advocating mutual understanding of the roles and responsibilities of board members and the superintendent

Q11 – Delegate authority to the superintendent to manage district operations and implement policy

Q12 – Honor the roles and responsibilities of the superintendent

Q13 – Use written protocols for its interactions

Benchmark D – Adopting policies based on well-researched practices that emphasize a belief that all students can achieve at high levels and that support continuous improvement of student achievement

Q14-Govern using policies that align with best practice and research

Q15 – Focus policy decisions on what is necessary for all students to achieve at high levels

Q16 – Collaborate with colleagues across the region, state, or nation regarding current and emerging trends, issues, and policy solutions

Benchmark E – Promoting healthy relationships by communicating supportively, inspiring, motivating and empowering others, and exercising influence in a positive manner

Q17 – Provide an opportunity for stakeholders, such as staff, students, parents, and community members, to make presentations to the board

Q18 – Promote continuous improvement throughout the organization

Q20 – Treat all individuals, including fellow board members, staff, students, and community members, with respect

Benchmark F – Working as an effective and collaborative team

Q21 – Work with the superintendent to achieve mutual trust and commitment

Q22 – Pursue professional development to improve board members' knowledge and skills by attending conferences, holding study sessions, etc.

Q23 – Uses collaborative processes that result in well-informed problem-solving and decision making

Q24 – Together with the superintendent, share responsibility for the orientation of new board members and forming a new inclusive team

Standard 2 – Set and communicate high expectations for student learning with clear goals and plans for meeting those expectations by:

Benchmark A – Articulating the conviction that all students can learn and the belief that student learning can improve regardless of existing circumstances or resources

Q25 – Through policies and actions expresses our belief that all students can learn

Q26 – Through policies and actions, communicate high expectations for all students

Q27 – Foster a culture of collaboration around the shared purpose of improving student achievement

Benchmark B – Leading the development, articulation and stewardship of a vision of learning that is shared by schools and community

Q28 – Include stakeholders when developing and revision the district's vision

Q29 – Communicate it's rationale for decisions to the community

Benchmark C – Adopting a collaboratively developed district plan focused on learning and achievement outcomes for all students

Q30 – In collaboration with staff and the community, formulate and maintain a district plan with goals and outcomes

Q31 – Base its ongoing work, such as policy development, decision-making, and budgeting, on the district goals

Q32 – Continually monitor progress toward the goals and outcomes of the district plan

Benchmark D – Ensuring non-negotiable goals for student achievement are established and align with the district's plan

Q33 – Together with the superintendent agree that high expectations for all students is the highest priority

Q34 – Together with the superintendent review student achievement regularly

Standard 3 – Create conditions district-wide for student and staff success by:

Benchmark A – Providing for the safety and security of all students and staff

Q36 – Ensure that facilities comply with current health, safety, security, and accessibility standards

Q37 – Policy require regular evaluation and management of safety and security risks

Benchmark B – Employing and supporting quality teachers, administrators and other staff and providing for their professional development

Q38 – Have policies that ensure hiring and retention of highly qualified staff

Q39 – Have policies for evaluating staff based on student success

Q40 – Policy support research-based, best practices for staff development

Benchmark C – Providing for learning essentials, including rigorous curriculum, technology and high quality facilities

Q41 – Have an established course of study for students and graduation requirements that align with high expectations for student achievement

Q42 – Policy ensure students receive the curriculum, support and supplemental materials necessary for high achievement

Q43 – Adopt a budget that supports quality staff development and resources for curriculum implementation

Q44 – Have a process that includes community and parent involvement in selecting curriculum

Q45 – Policy require rigorous and regular evaluation of curriculum and supplemental materials to ensure they align with state and district standards

Q46 – Have a process in place to support evaluation and updating of technology

Q47 – Have a long-term facilities plan in place for construction and maintenance

Benchmark D – Ensuring management of the organization, operations, and resources for an efficient and effective learning environment

Q49 – Communicate an expectation that all classrooms will implement effective instructional practices

Q50 – Provide for evaluation of district operations to ensure there is an efficient and effective learning environment

Benchmark E - Adopting and monitoring an annual budget that allocated resources based on the districts goals and priorities for student learning

Q51 – Keep the community informed about the district's financial status

Q52 – Keep the community informed about the district's financial status

Q53 – Seek public input during the budget process

Q54 – Provide guidelines for budget development, including a clearly defined expectation for a reasonable ending fund balance

Q55 – Adopt a fiscally responsible annual budget that is aligned with the districts vision and plan

Q56 – Regularly monitor the budget and fiscal status of the district

Standard 4 – Hold school district accountable for meeting student learning expectations by:

Benchmark A – Committing to continuous improvement in student achievement at each school and throughout the district

Q57 – Follow a schedule for the timely review of the district plan

Q58 – Ensure a high degree of coherence between the district plan and school improvement plans

Q59 – Annually review and make recommendations to the district plan and school improvement plans

Q60 – Publicly recognize the efforts of schools in improving student learning

Benchmark B – Evaluating the superintendent on clear and focused expectations

Q 61 – Have written goals for the superintendent that focus on specific outcomes for student learning

Q 62 – Communicate performance expectations for the superintendent to our community

Q 63 – Base decisions about the superintendents contract on objective evaluation of his or her performance and achievement goals

Benchmark C – Measuring student academic progress and needs based on valid and reliable assessments

Q64 – Require the effective use of data throughout the system to monitor student achievement and district performance

Q 66 – Regularly review and understand the criteria, assessment tools, and methods that measure student achievement and district performance

Q 67 – Regularly review data, including disaggregated student achievement data to measure progress toward district goals

Q68 – Regularly evaluate and adjust resources and strategies for closing achievement gaps to maximize their effectiveness

Standard 5 – Engage local community and represent the values and expectations they hold for their schools by:

Benchmark A – Collaborating with families and community members, responding to diverse interests and needs, and mobilizing community resources

Q69 – Advocate at the local, state, and federal levels on behalf of students and the district

Q70 – Model cultural, racial and ethnic understanding and sensitivity

Q71 – Establish policies and partnerships that promote and expand educational opportunities for all students

Q72 – Follow an effective process for responding to questions, concerns, comments, or feedback from citizens

Benchmark B – Ensuring school board and district transparency through a process that is open and accountable

Q73 – Ensure the public is well informed of the board's roles and responsibilities

Q74 – Conducts its business in a transparent and accountable manner

Benchmark C – Ensuring district information and decisions are communicated community-wide

Q75 – Communicate proactively to disseminate information that addresses issues throughout the system and community

Q76 – Communicate district performance to the public in clear and understandable ways

Benchmark D – Soliciting input from staff and a wide spectrum of the community so that a diverse range of interests and perspectives on issues is considered

Q77 – Seek community and staff input in its decision-making to gain community and staff support

Q78 – Carefully consider community and staff input in its decision-making

Appendix D

All Inferential Statistical Calculations for

Board Standards and All Districts

Board Standards and Quorums

Board Benchmarks and All Districts

Board Benchmarks and Quorums

Board Key Indicators and All Districts

Board Key Indicators and Quorums

All Statistical Calculations for:

Board Standards and All Districts

	Reading *r* (*p*)	Science *r* (*p*)	Math *r* (*p*)	Overall *r* (*p*)
Standard 1	0.012 (.955)	**0.388 (.050)***	0.284 (.160)	0.292 (.147)
Standard 2	0.061 (.769)	**0.419 (.033)***	0.266 (.189)	0.312 (.121)
Standard 3	0.137 (.501)	**0.467 (.016)***	0.359 (.072)	**0.390 (.049)***
Standard 4	0.165 (.421)	**0.517 (.007)***	**0.427 (.030)***	**0.448 (.022)***
Standard 5	0.002 (.991)	0.363 (.069)	0.259 (.201)	0.296 (.184)

*p $\leq$ .05 = .381 (2-tailed test), 25 df

All Statistical Calculations for:

Board Standards and Quorums

	Reading *r* (*p*)	Science *r* (*p*)	Math *r* (*p*)	Overall *r* (*p*)
Standard 1	*0.495 (.122)*[a]	*0.458 (.156)*	-0.041 (.905)	0.356 (.283)
Standard 2	*0.561 (.073)*	*0.473 (.142)*	-0.229 (.499)	0.305 (.363)
Standard 3	*0.523 (.099)*	0.376 (.255)	-0.118 (.731)	0.287 (.392)
Standard 4	*0.543 (.085)*	*0.441 (.175)*	-0.035 (.919)	0.360 (.276)
Standard 5	*0.572 (.066)*	*0.447 (.168)*	0.016 (.962)	0.392 (.233)

[a]*Italics represent moderate correlations*
*p $\leq$ .05 = .602 (2-tailed test), 9 df

All Statistical Calculations for:

Board Benchmarks and All Districts

	Reading	Science	Math	Overall
	r (*p*)	*r* (*p*)	*r* (*p*)	*r* (*p*)
S1BA[a]	-1.700 (0.499)	**0.411 (0.018)***	0.282 (0.082)	0.299 (0.138)
S1BB	-0.097 (0.318)	0.277 (0.085)	0.173 (0.200)	0.170 (0.407)
S1BC	0.117 (0.285)	**0.407 (0.019)***	0.302 (0.067)	0.335 (0.094)
S1BD	0.136 (0.254)	**0.435 (0.013)***	0.278 (0.085)	0.343 (0.086)
S1BE	-0.016 (0.937)	0.329 (0.050)	0.211 (0.150)	0.230 (0.259)
S1BF	-0.013 (0.475)	0.275 (0.087)	0.288 (0.076)	0.236 (0.245)
S2BA	-0.013 (0.475)	0.359 (0.036)	0.225 (0.135)	0.249 (0.219)
S2BB	-0.164 (0.212)	0.106 (0.304)	-0.102 (0.310)	-0.035 (0.867)
S2BC	0.232 (0.127)	**0.533 (0.003)***	**0.439 (0.012)***	**0.477 (0.014)***
S2BD	0.029 (0.445)	0.334 (0.048)	0.186 (0.181)	0.233 (0.251)
S3BA	-0.005 (0.490)	0.229 (0.130)	0.197 (0.167)	0.182 (0.375)
S3BB	0.141 (0.247)	0.359 (0.036)	0.263 (0.097)	0.304 (0.131)
S3BC	0.151 (0.231)	**0.460 (0.009)***	0.344 (0.042)	**0.385 (0.052)***
S3BD	0.059 (0.387)	0.242 (0.117)	0.188 (0.179)	0.200 (0.327)
S3BE	0.137 (0.256)	**0.464 (0.017)***	0.367 (0.065)	**0.390 (0.049)***
S4BA	0.203 (0.160)	**0.564 (0.001)***	0.500 (0.005)	**0.508 (0.008)***
S4BB	0.277 (0.085)	**0.548 (0.002)***	**0.585 (0.001)***	**0.553 (0.003)***
S4BC	-0.008 (0.484)	0.301 (0.067)	0.111 (0.295)	0.179 (0.382)
S5BA	0.002 (0.495)	0.300 (0.068)	0.287 (0.077)	0.251 (0.215)
S5BB	-0.065 (0.376)	0.265 (0.095)	0.164 (0.212)	0.169 (0.409)
S5BC	-0.015 (0.471)	0.304 (0.065)	0.206 (0.156)	0.217 (0.288)
S5BD	0.114 (0.290)	**0.507 (0.004)***	0.269 (0.092)	0.367 (0.065)

[a]Code - S1BA – **S**tandard **1**, **B**enchmark **A**
*$p \leq .05 = .381$ (2-tailed test), 24 df

All Statistical Calculations for:

Board Benchmarks and Quorum Districts

	Reading	Science	Math	Overall
	r (*p*)	*r* (*p*)	*r* (*p*)	*r* (*p*)
S1BA[a]	0.346 (0.293)	0.372 (0.260)	0.021 (0.951)	0.298 (0.374)
S1BB	0.462 (0.151)	0.449 (0.164)	0.032 (0.930)	0.348 (0.294)
S1BC	0.354 (0.284)	0.384 (0.240)	0.001 (0.996)	0.299 (0.371)
S1BD	0.524 (0.100)	0.434 (0.184)	-0.092 (0.786)	0.327 (0.326)
S1BE	0.435 (0.182)	0.343 (0.304)	-0.172 (0.609)	0.224 (0.509)
S1BF	0.509 (0.109)	0.473 (0.141)	0.048 (0.894)	0.403 (0.219)
S2BA	0.588 (0.057)	0.403 (0.219)	-0.181 (0.596)	0.293 (0.382)
S2BB	0.505 (0.108)	0.352 (0.284)	-0.301 (0.346)	0.195 (0.598)
S2BC	0.510 (0.108)	**0.619 (0.042)***	-0.125 (0.716)	0.414 (0.206)
S2BD	0.557 (0.075)	0.307 (0.360)	-0.307 (0.366)	0.183 (0.561)
S3BA	0.178 (0.606)	-0.088 (0.790)	-0.470 (0.142)	-0.197 (0.560)
S3BB	0.403 (0.215)	0.305 (0.357)	-0.213 (0.531)	0.183 (0.590)
S3BC	0.563 (0.074)	0.496 (0.123)	0.030 (0.928)	0.395 (0.229)
S3BD	0.562 (0.072)	0.420 (0.199)	-0.176 (0.611)	0.298 (0.374)
S3BE	0.524 (0.098)	0.344 (0.301)	-0.015 (0.965)	0.311 (0.352)
S4BA	0.388 (0.236)	0.416 (0.201)	-0.065 (0.849)	0.298 (0.373)
S4BB	**0.679 (0.021)***	0.534 (0.090)	0.308 (0.354)	0.585 (0.058)
S4BC	0.386 (0.243)	0.241 (0.476)	-0.310 (0.351)	0.101 (0.768)
S5BA	0.592 (0.055)	0.418 (0.200)	-0.004 (0.995)	0.374 (0.257)
S5BB	0.478 (0.137)	0.248 (0.463)	-0.102 (0.759)	0.211 (0.533)
S5BC	0.565 (0.072)	0.429 (0.089)	-0.001 (0.996)	0.373 (0.216)
S5BD	0.491 (0.066)	0.553 (0.078)	0.090 (0.795)	0.459 (0.156)

[a]Code - S1BA – **S**tandard **1**, **B**enchmark **A**

*$p \leq .05 = .602$ (2-tailed test), 9 df

All Statistical Calculations for:

Board Key Indicators and All Districts

Key Indicator	Reading *r* (p)	Science *r* (p)	Math *r* (p)	Overall *r* (p)
5	-0.137 (0.505)	0.233 (0.252)	0.102 (0.621)	0.111 (0.589)
6	0.137 (0.503)	**0.543 (0.004)***	**0.429 (0.029)***	**0.453 (0.020)***
7	0.041 (0.844)	0.215 (0.292)	0.162 (0.430)	0.172 (0.399)
8	-0.271 (0.181)	-0.028 (0.891)	0.058 (0.779)	-0.059 (0.774)
9	-0.148 (0.471)	0.305 (0.130)	0.190 (0.354)	0.176 (0.389)
10	0.085 (0.681)	**0.348 (0.081)***	0.129 (0.530)	0.231 (0.255)
11	-0.199 (0.331)	0.183 (0.372)	0.066 (0.748)	0.059 (0.777)
12	0.181 (0.378)	0.268 (0.185)	0.325 (0.105)	0.298 (0.140)
13	0.251 (0.216)	**0.521 (0.006)***	0.338 (0.091)	**0.436 (0.026)***
14	-0.017 (0.935)	0.253 (0.213)	0.118 (0.565)	0.158 (0.442)
15	0.106 (0.607)	**0.484 (0.012)***	0.306 (0.128)	0.369 (0.063)
16	0.254 (0.211)	0.374 (0.059)	0.281 (0.164)	0.347 (0.082)
17	0.080 (0.698)	0.324 (0.107)	0.302 (0.134)	0.288 (0.154)
18	-0.063 (0.758)	0.139 (0.499)	0.078 (0.705)	0.078 (0.706)
20	-0.063 (0.761)	0.363 (0.068)	0.144 (0.484)	0.206 (0.312)
21	-0.078 (0.703)	0.114 (0.579)	0.181 (0.375)	0.105 (0.613)
22	0.106 (0.605)	0.351 (0.079)	**0.407 (0.039)***	0.349 (0.081)
23	-0.009 (0.966)	0.184 (0.367)	0.089 (0.664)	0.117 (0.569)
24	-0.053 (0.796)	0.220 (0.279)	0.230 (0.259)	0.178 (0.384)
25	-0.227 (0.264)	0.176 (0.388)	0.006 (0.977)	0.025 (0.906)
26	0.107 (0.604)	**0.447 (0.022)***	0.340 (0.089)	0.366 (0.066)
27	0.020 (0.922)	0.340 (0.089)	0.226 (0.268)	0.249 (0.219)
28	-0.157 (0.445)	0.140 (0.494)	-0.022 (0.917)	0.014 (0.942)
29	-0.117 (0.571)	0.044 (0.832)	-0.134 (0.513)	-0.064 (0.758)
30	0.236 (0.247)	**0.507 (0.008)***	0.304 (0.131)	**0.412 (0.036)***
31	0.181 (0.375)	**0.470 (0.009)***	**0.452 (0.020)***	**0.453 (0.020)***
32	0.226 (0.266)	**0.470 (0.015)***	**0.445 (0.023)***	**0.449 (0.021)***
33	-0.089 (0.667)	0.303 (0.133)	0.160 (0.435)	0.179 (0.383)
34	0.161 (0.432)	0.309 (0.125)	0.182 (0.375)	0.254 (0.211)
36	0.063 (0.758)	0.303 (0.132)	0.264 (0.193)	0.259 (0.201)
37	-0.059 (0.774)	0.129 (0.530)	0.110 (0.594)	0.087 (0.672)
38	0.256 (0.207)	0.305 (0.13)	0.265 (0.191)	0.309 (0.124)
39	0.058 (0.779)	0.284 (0.159)	0.145 (0.479)	0.202 (0.323)
40	0.078 (0.704)	0.307 (0.127)	0.262 (0.195)	0.264 (0.192)
41	-0.040 (0.845)	0.303 (0.133)	0.309 (0.124)	0.250 (0.217)
42	-0.020 (0.922)	0.219 (0.283)	0.249 (0.220)	0.193 (0.344)
43	-0.205 (0.314)	0.126 (0.547)	0.137 (0.505)	0.059 (0.775)
44	**0.448 (0.022)***	**0.557 (0.003)***	0.371 (0.062)	**0.516 (0.007)***
45	0.209 (0.306)	**0.430 (0.028)***	0.294 (0.144)	0.367 (0.066)
46	0.217 (0.287)	0.340 (0.089)	0.154 (0.453)	0.272 (0.180)
47	0.103 (0.660)	0.358 (0.072)	0.261 (0.197)	0.293 (0.146)

Key Indicator	Reading *r* (p)	Science *r* (p)	Math *r* (p)	Overall *r* (p)
49	-0.085 (0.680)	0.076 (0.713)	-0.078 (0.706)	-0.018 (0.929)
50	0.185 (0.366)	0.348 (0.082)	**0.400 (0.043)***	0.365 (0.067)
51	0.060 (0.771)	0.205 (0.314)	0.204 (0.316)	0.190 (0.352)
53	0.352 (0.077)	**0.479 (0.013)***	0.341 (0.088)	**0.444 (0.023)***
54	-0.084 (0.683)	0.376 (0.059)	0.263 (0.195)	0.254 (0.211)
55	0.037 (0.859)	0.333 (0.096)	0.297 (0.141)	0.279 (0.167)
56	0.144 (0.483)	**0.535 (0.005)***	0.383 (0.054)	**0.433 (0.027)***
57	0.268 (0.185)	**0.608 (0.001)***	**0.469 (0.016)***	**0.532 (0.005)***
58	0.253 (0.213)	**0.563 (0.003)***	**0.538 (0.005)***	**0.535 (0.005)***
59	0.238 (0.242)	**0.526 (0.006)***	**0.546 (0.004)***	**0.517 (0.007)***
60	-0.073 (0.723)	0.326 (0.104)	0.217 (0.287)	0.216 (0.289)
61	0.208 (0.307)	**0.567 (0.003)***	**0.459 (0.018)***	**0.494 (0.010)***
62	0.239 (0.240)	0.350 (0.080)	**0.471 (0.015)***	**0.408 (0.038)***
63	0.289 (0.152)	**0.530 (0.005)***	**0.626 (0.001)***	**0.564 (0.003)***
64	-0.048 (0.815)	0.286 (0.157)	0.151 (0.462)	0.178 (0.385)
66	0.043 (0.836)	0.331 (0.099)	0.082 (0.691)	0.194 (0.342)
67	0.052 (0.802)	0.275 (0.174)	0.128 (0.534)	0.189 (0.355)
68	-0.077 (0.708)	0.238 (0.243)	0.067 (0.744)	0.115 (0.576)
69	0.126 (0.540)	0.210 (0.303)	0.265 (0.191)	0.233 (0.251)
70	-0.065 (0.753)	0.294 (0.145)	0.124 (0.545)	0.167 (0.416)
71	-0.073 (0.723)	0.193 (0.346)	0.191 (0.349)	0.145 (0.480)
72	0.018 (0.929)	0.207 (0.309)	0.327 (0.103)	0.229 (0.260)
73	-0.186 (0.362)	0.123 (0.548)	0.073 (0.722)	0.038 (0.855)
74	0.150 (0.464)	**0.427 (0.030)***	0.269 (0.183)	0.340 (0.089)
75	-0.067 (0.746)	0.324 (0.106)	0.110 (0.593)	0.174 (0.395)
76	0.038 (0.854)	0.227 (0.266)	0.264 (0.193)	0.218 (0.285)
77	0.007 (0.974)	**0.409 (0.042)***	0.179 (0.392)	0.268 (0.196)
78	0.201 (0.326)	**0.542 (0.006)***	0.324 (0.106)	**0.419 (0.033)***

*$p \leq .05 = .388$ (2-tailed test), 25 df

All Statistical Calculations for:

Board Key Indicators and Quorum Districts

Key Indicator	Reading *r* (p)	Science *r* (p)	Math *r* (p)	Overall *r* (p)
5	0.408 (0.213)	0.347 (0.294)	-0.002 (0.996)	0.289 (0.387)
6	0.269 (0.421)	0.374 (0.256)	0.041 (0.907)	0.287 (0.391)
7	0.314 (0.345)	0.330 (0.318)	0.093 (0.784)	0.295 (0.375)
8	0.278 (0.410)	0.142 (0.677)	-0.155 (0.650)	0.084 (0.807)
9	0.239 (0.480)	0.397 (0.228)	0.024 (0.944)	0.285 (0.396)
10	**0.741 (0.009)***	0.591 (0.055)	-0.086 (0.803)	0.471 (0.143)
11	0.106 (0.761)	0.142 (0.685)	-0.041 (0.901)	0.087 (0.807)
12	0.214 (0.529)	0.256 (0.452)	0.422 (0.197)	0.363 (0.276)
13	0.465 (0.147)	0.466 (0.147)	-0.311 (0.352)	0.244 (0.467)
14	0.333 (0.319)	0.277 (0.410)	-0.299 (0.372)	0.113 (0.742)
15	0.539 (0.086)	0.398 (0.226)	-0.119 (0.726)	0.302 (0.366)
16	0.497 (0.119)	0.447 (0.169)	0.066 (0.846)	0.393 (0.231)
17	0.231 (0.491)	0.031 (0.924)	-0.248 (0.460)	-0.026 (0.942)
18	**0.618 (0.042)***	0.462 (0.153)	-0.175 (0.605)	0.334 (0.315)
20	0.111 (0.745)	0.296 (0.378)	0.014 (0.965)	0.195 (0.566)
21	0.444 (0.173)	0.407 (0.217)	**0.603 (0.05)***	0.575 (0.065)
22	0.372 (0.258)	0.236 (0.482)	-0.463 (0.153)	0.034 (0.917)
23	**0.680 (0.021)***	**0.661 (0.026)***	0.135 (0.692)	0.583 (0.059)
24	0.116 (0.734)	0.169 (0.620)	-0.121 (0.722)	0.072 (0.834)
25	0.531 (0.093)	0.468 (0.148)	-0.247 (0.462)	0.287 (0.394)
26	0.566 (0.069)	0.344 (0.299)	-0.131 (0.701)	0.275 (0.413)
27	**0.602 (0.050)***	0.372 (0.26)0	-0.164 (0.632)	0.286 (0.393)
28	0.264 (0.430)	0.241 (0.471)	-0.449 (0.167)	0.016 (0.959)
29	0.533 (0.092)	0.330 (0.320)	-0.209 (0.539)	0.228 (0.499)
30	0.549 (0.080)	**0.718 (0.013)***	-0.120 (0.726)	0.479 (0.136)
31	0.465 (0.150)	0.542 (0.085)	0.078 (0.818)	0.442 (0.173)
32	0.421 (0.197)	0.468 (0.147)	-0.283 (0.398)	0.245 (0.468)
33	0.408 (0.213)	0.287 (0.392)	-0.221 (0.511)	0.168 (0.662)
34	0.574 (0.065)	0.262 (0.436)	-0.310 (0.353)	0.160 (0.638)
36	0.049 (0.883)	-0.141 (0.681)	-0.428 (0.186)	-0.237 (0.482)
37	0.246 (0.468)	-0.043 (0.899)	-0.445 (0.170)	-0.142 (0.675)
38	0.500 (0.118)	0.189 (0.578)	-0.078 (0.820)	0.196 (0.565)
39	0.175 (0.607)	0.191 (0.575)	-0.152 (0.658)	0.086 (0.801)
40	0.360 (0.277)	0.372 (0.260)	-0.287 (0.392)	0.176 (0.605)
41	0.439 (0.178)	0.596 (0.054)	-0.004 (0.988)	0.432 (0.186)
42	0.597 (0.052)	0.441 (0.174)	-0.223 (0.512)	0.298 (0.371)
43	0.364 (0.272)	0.282 (0.401)	-0.114 (0.742)	0.198 (0.559)
44	0.204 (0.548)	0.318 (0.340)	0.266 (0.432)	0.331 (0.321)
45	0.396 (0.227)	0.248 (0.460)	-0.225 (0.505)	0.143 (0.675)
46	**0.669 (0.024)***	0.473 (0.141)	0.071 (0.835)	0.452 (0.162)
47	**0.630 (0.037)***	0.533 (0.091)	0.047 (0.892)	0.466 (0.149)
49	0.502 (0.115)	0.432 (0.185)	-0.318 (0.340)	0.231 (0.494)
50	0.570 (0.067)	0.373 (0.259)	-0.027 (0.937)	0.333 (0.316)

Key Indicator	Reading *r* (p)	Science *r* (p)	Math *r* (p)	Overall *r* (p)
51	0.485 (0.130)	0.231 (0.494)	-0.259 (0.443)	0.141 (0.677)
53	0.413 (0.208)	0.406 (0.217)	0.368 (0.264)	0.472 (0.143)
54	0.317 (0.343)	0.273 (0.416)	-0.012 (0.969)	0.223 (0.512)
55	0.379 (0.249)	0.129 (0.702)	-0.127 (0.711)	0.113 (0.738)
56	**0.733 (0.010)***	0.432 (0.185)	0.048 (0.892)	0.436 (0.181)
57	0.434 (0.183)	0.445 (0.171)	-0.055 (0.875)	0.328 (0.325)
58	0.245 (0.469)	0.386 (0.241)	0.010 (0.978)	0.275 (0.413)
59	0.534 (0.091)	0.325 (0.330)	-0.191 (0.576)	0.232 (0.492)
60	0.145 (0.675)	0.301 (0.372)	0.006 (0.988)	0.202 (0.555)
61	**0.726 (0.011)***	0.583 (0.060)	0.127 (0.709)	0.549 (0.080)
62	**0.647 (0.032)***	**0.605 (0.049)***	0.309 (0.355)	**0.615 (0.044)***
63	0.433 (0.184)	0.203 (0.551)	0.452 (0.162)	0.400 (0.223)
64	0.370 (0.265)	0.485 (0.131)	-0.006 (0.986)	0.354 (0.287)
66	0.397 (0.228)	0.186 (0.585)	-0.405 (0.216)	0.036 (0.917)
67	0.547 (0.082)	0.324 (0.334)	-0.264 (0.433)	0.206 (0.546)
68	0.113 (0.742)	-0.107 (0.754)	-0.480 (0.135)	-0.224 (0.508)
69	0.479 (0.136)	0.233 (0.491)	-0.078 (0.820)	0.214 (0.527)
70	**0.630 (0.037)***	**0.646 (0.031)***	0.119 (0.726)	0.557 (0.075)
71	0.494 (0.124)	0.230 (0.498)	-0.257 (0.444)	0.144 (0.676)
72	0.416 (0.205)	0.358 (0.282)	0.303 (0.365)	0.421 (0.199)
73	0.509 (0.111)	0.261 (0.440)	-0.043 (0.899)	0.251 (0.459)
74	0.337 (0.314)	0.182 (0.597)	-0.203 (0.548)	0.101 (0.773)
75	0.490 (0.127)	0.492 (0.124)	0.179 (0.600)	0.462 (0.153)
76	0.598 (0.052)	0.467 (0.146)	-0.007 (0.985)	0.401 (0.222)
77	0.430 (0.188)	0.468 (0.148)	0.188 (0.578)	0.437 (0.180)
78	0.513 (0.107)	0.596 (0.053)	-0.027 (0.938)	0.441 (0.175)

*$p \leq .05 = .602$, 2-tailed, 9 df

Appendix E

Exact Locations of the Statistically Significant Correlations by Standard, Benchmark, and Key Indicator

Exact Location of the Statistically Significant Correlations
by Standard

Standard	Reading	Science	Math	Overall	Total
Standard 1		1			1
Standard 2		1			1
Standard 3		1		1	2
Standard 4		1	1	1	3
Standard 5					0
Total	0	4	1	2	7

Exact Location of the Statistically Significant Correlations
by Benchmark

Benchmark	Reading	Science	Math	Overall	Total
S1BA		1			1
S1BB					0
S1BC		1			1
S1BD		1			1
S1BE					0
S1BF					0
S2BA					0
S2BB					0
S2BC		2	1	1	4
S2BD					0
S3BA					0
S3BB					0
S3BC		1			1
S3BD					0
S3BE		1		1	2
S4BA		1		1	2
S4BB	1	1	1	1	4
S4BC					0
S5BA					0
S5BB					0
S5BC					0
S5BD		1			1
Total	1	10	2	4	17

Exact Location of the Statistically Significant Correlations

by Key Indicator

Key Indicator	Reading	Science	Math	Overall	Total
S1BAKI5					0
S1BAKI6		1	1	1	3
S1BBKI7					0
SIBBKI8					0
S1BBKI9					0
S1BBKI10	1				1
S1BCKI11					0
S1BCKI12					0
S1BCKI13		1		1	2
S1BDKI14					0
S1BDKI15		1			1
S1BDKI16					0
S1BEKI17					0
S1BEKI18	1				1
S1BEKI20					0
S1BFKI21			1		1
S1BFKI22			1		1
S1BFKI23	1	1			2
S1BFKI24					0

S2BAKI25					0
S2BAKI26		1			1
S2BAKI27	1				1
S2BBKI28					0
S2BBKI29					0
S2BCKI30		2		1	3
S2BCKI31		1	1	1	3
S2BCKI32		1	1	1	3
S2BDKI33					0
S2BDKI34					0
S3BAKI36					0
S3BAKI37					0
S3BBKI38					0
S3BBKI39					0
S3BBKI40					0
S3BCKI41					0
S3BCKI42					0
S3BCKI43					0
S3BCKI44	1	1		1	3
S3BCKI45		1			1
S3BCKI46	1				1
S3BCKI47	1				1

S3BDKI49					0
S3BDKI50			1		1
S3BEKI51					0
S3BEKI53		1		1	2
S3BEKI54					0
S3BEKI55					0
S3BEKI56	1	1		1	3
S4BAKI57		1	1	1	3
S4BAKI58		1	1	1	3
S4BAKI59		1	1	1	3
S4BAKI60					0
S4BBKI61	1	1	1	1	4
S4BBKI62	1	1	1	2	5
S4BBKI63		1	1	1	3
S4BCKI64					0
S4BCKI66					0
S4BCKI67					0
S4BCKI68					0
S5BAKI69					0
S5BAKI70	1	1			2
S5BAKI71					0
S5BAKI72					0
S5BBKI73					0
S5BBKI74		1			1

S5BCKI75					0
S5BCKI76					0
S5BDKI77		1			1
S5BDKI78		1		1	2
TOTAL	11	23	12	16	62

Appendix F

A Tally of the Number of Negative Correlations Between Student CRT and Board BSAS Scores

	Reading CRT	Science CRT	Math CRT	Overall CRT	Total
Standards	0	0	4	0	4
Benchmarks	10	1	16	2	29
Key Indicators	27	4	48	7	86
Total	37	5	68	9	139

Appendix G

Statistically Significant Items in the

Board Self Assessment Survey

Board Self-Assessment Survey
Standards, Benchmarks, and Key Indicators

***Bolded items indicate statistically significant relationships with student achievement**

Standard 1 – Provide responsible school district governance

- **Benchmark A – Conducting board and district business in a fair, respectful and responsible manner.**
  - Q5 – Base its decision on what is best for students' success
  - **Q6 – Commit to a clear and shared purpose**
- **Benchmark B – Ensuring the board is accountable and open to the public including seeking divergent perspectives in its decision making process**.
  - Q7 – Provide information to the public that supports board discussions and decisions
  - Q8 – Follow a defined process for gathering input prior to making critical decisions
  - Q9 – Carry out annual assessments of its performance
  - **Q10 – Set goals for its improvement**
- **Benchmark C – Respecting and advocating mutual understanding of the roles and responsibilities of board members and the superintendent**
  - Q11 – Delegate authority to the superintendent to manage district operations and implement policy
  - Q12 – Honor the roles and responsibilities of the superintendent
  - **Q13 – Use written protocols for its interactions**
- **Benchmark D – Adopting policies based on well-researched practices that emphasize a belief that all students can achieve at high levels and that support continuous improvement of student achievement**
  - Q14-Govern using policies that align with best practice and research
  - **Q15 – Focus policy decisions on what is necessary for all students to achieve at high levels**
  - Q16 – Collaborate with colleagues across the region, state, or nation regarding current and emerging trends, issues, and policy solutions
- **Benchmark E – Promoting healthy relationships by communicating supportively, inspiring, motivating and empowering others, and exercising influence in a positive manner**
  - Q17 – Provide an opportunity for stakeholders, such as staff, students, parents, and community members, to make presentations to the board
  - **Q18 – Promote continuous improvement throughout the organization**
  - Q20 – Treat all individuals, including fellow board members, staff, students, and community members, with respect
- **Benchmark F – Working as an effective and collaborative team**
  - **Q21 – Work with the superintendent to achieve mutual trust and commitment**

Q22 – Pursue professional development to improve board members' knowledge and skills by attending conferences, holding study sessions, etc.

Q23 – Uses collaborative processes that result in well-informed problem-solving and decision making

Q24 – Together with the superintendent, share responsibility for the orientation of new board members and forming a new inclusive team

Standard 2 – Set and communicate high expectations for student learning with clear goals and plans for meeting those expectations by:

Benchmark A – Articulating the conviction that all students can learn and the belief that student learning can improve regardless of existing circumstances or resources

Q25 – Through policies and actions expresses our belief that all students can learn

Q26 – Through policies and actions, communicate high expectations for all students

Q27 – Foster a culture of collaboration around the shared purpose of improving student achievement

Benchmark B – Leading the development, articulation and stewardship of a vision of learning that is shared by schools and community

Q28 – Include stakeholders when developing and revision the district's vision

Q29 – Communicate it's rationale for decisions to the community

Benchmark C – Adopting a collaboratively developed district plan focused on learning and achievement outcomes for all students

Q30 – In collaboration with staff and the community, formulate and maintain a district plan with goals and outcomes

Q31 – Base it's ongoing work, such as policy development, decision-making, and budgeting, on the district goals

Q32 – Continually monitor progress toward the goals and outcomes of the district plan

Benchmark D – Ensuring non-negotiable goals for student achievement are established and align with the district's plan

Q33 – Together with the superintendent agree that high expectations for all students is the highest priority

Q34 – Together with the superintendent review student achievement regularly

Standard 3 – Create conditions district-wide for student and staff success by:

Benchmark A – Providing for the safety and security of all students and staff

Q36 – Ensure that facilities comply with current health, safety, security, and accessibility standards

Q37 – Policy require regular evaluation and management of safety and security risks

Benchmark B – Employing and supporting quality teachers, administrators and other staff and providing for their professional development

Q38 – Have policies that ensure hiring and retention of highly qualified staff

Q39 – Have policies for evaluating staff based on student success

Q40 – Policy support research-based, best practices for staff development

Benchmark C – Providing for learning essentials, including rigorous curriculum, technology and high quality facilities

Q41 – Have an established course of study for students and graduation requirements that align with high expectations for student achievement

Q42 – Policy ensure students receive the curriculum, support and supplemental materials necessary for high achievement

Q43 – Adopt a budget that supports quality staff development and resources for curriculum implementation

Q44 – Have a process that includes community and parent involvement in selecting curriculum

Q45 – Policy require rigorous and regular evaluation of curriculum and supplemental materials to ensure they align with state and district standards

Q46 – Have a process in place to support evaluation and updating of technology

Q47 – Have a long-term facilities plan in place for construction and maintenance

Benchmark D – Ensuring management of the organization, operations, and resources for an efficient and effective learning environment

Q49 – Communicate an expectation that all classrooms will implement effective instructional practices

Q50 – Provide for evaluation of district operations to ensure there is an efficient and effective learning environment

Benchmark E - Adopting and monitoring an annual budget that allocated resources based on the districts goals and priorities for student learning

Q51 – Keep the community informed about the district's financial status

Q53 – Seek public input during the budget process

Q54 – Provide guidelines for budget development, including a clearly defined expectation for a reasonable ending fund balance

Q55 – Adopt a fiscally responsible annual budget that is aligned with the districts vision and plan

Q56 – Regularly monitor the budget and fiscal status of the district

Standard 4 – Hold school district accountable for meeting student learning expectations by:

Benchmark A – Committing to continuous improvement in student achievement at each school and throughout the district

Q57 – Follow a schedule for the timely review of the district plan

Q58 – Ensure a high degree of coherence between the district plan and school improvement plans

Q59 – Annually review and make recommendations to the district plan and school improvement plans

Q60 – Publicly recognize the efforts of schools in improving student learning

Benchmark B – Evaluating the superintendent on clear and focused expectations

Q 61 – Have written goals for the superintendent that focus on specific outcomes for student learning

Q 62 – Communicate performance expectations for the superintendent to our community

Q 63 – Base decisions about the superintendents contract on objective evaluation of his or her performance and achievement goals

Benchmark C – Measuring student academic progress and needs based on valid and reliable assessments

Q64 – Require the effective use of data throughout the system to monitor student achievement and district performance

Q 66 – Regularly review and understand the criteria, assessment tools, and methods that measure student achievement and district performance

Q 67 – Regularly review data, including disaggregated student achievement data to measure progress toward district goals

Q68– Regularly evaluate and adjust resources and strategies for closing achievement gaps to maximize their effectiveness

Standard 5 – Engage local community and represent the values and expectations they hold for their schools by:

Benchmark A – Collaborating with families and community members, responding to diverse interests and needs, and mobilizing community resources

Q69 – Advocate at the local, state, and federal levels on behalf of students and the district

Q70 – Model cultural, racial and ethnic understanding and sensitivity

Q71 – Establish policies and partnerships that promote and expand educational opportunities for all students

Q72 – Follow an effective process for responding to questions, concerns, comments, or feedback from citizens

Benchmark B – Ensuring school board and district transparency through a process that is open and accountable

Q73 – Ensure the public is well informed of the board's roles and responsibilities

Q74 – Conducts its business in a transparent and accountable manner

Benchmark C – Ensuring district information and decisions are communicated community-wide

Q75 – Communicate proactively to disseminate information that addresses issues throughout the system and community

Q76 – Communicate district performance to the public in clear and understandable ways

Benchmark D – Soliciting input from staff and a wide spectrum of the community so that a diverse range of interests and perspectives on issues is considered

Q77 – Seek community and staff input in its decision-making to gain community and staff support

Q78 – Carefully consider community and staff input in its decision-making

Appendix H

Invitation to Participate in the Survey

Dear District Administrator,

My name is Ivan Lorentzen, and I am a graduate student in Educational Leadership at The University of Montana and also a current board member of Kalispell Public Schools. I am conducting research for my doctoral degree by investigating the relationship between the actions and perceptions of high school district board members and student achievement.

I am seeking your help in having members of your current high school board complete an online survey on boardsmanship prior to board elections on May 8, 2012. This Board Self-Assessment Survey (BSAS) was recently developed by the Washington State School Directors' Association (WSSDA) in Olympia, Washington, for the express purpose of identifying the actions and perceptions of school boards thought to promote improved student achievement. Boardsmanship scores will be correlated with student achievement data consisting of 10th grade CRT scores in reading, math, and science.

This three-part survey is self-explanatory and should take 20-25 minutes to complete. All survey respondents remain anonymous through the use of secure identity codes. Only aggregated data will be reported, and none of the findings will be reported in such a way that would allow any school district or board member to be identified.

1. If your board might be interested in participating in this online survey, please forward the following survey link and/or this entire email to them and encourage their participation.
Survey Link for Board Members: **http://www.406web.com/boardsurvey/**

2. If your district chooses not to participate, simply delete this email.

3. To learn more about the survey, please continue reading.

The relationship between boardsmanship and student achievement is undoubtedly indirect, but recent research suggests the actions of school boards can affect student achievement. While teachers and administrators have a substantial pool of research-based guidance to help them identify effective administrative, curricular, and pedagogical strategies that foster student achievement, boards suffer from a shortage of evidence-based ideas on how to conduct themselves.

This Board Self-Assessment Survey (BSAS) was informed by recent studies, such as (a) *Key Works of School Boards* by the National School Boards Association (NSBA), (b) *The Lighthouse Studies* by the Iowa Association of School Boards (IASB), and (c) numerous studies of leadership by researchers at the Mid-continent Research for Educational and Learning (McREL), such as Robert Marzano.

The three-part BSAS is self-explanatory and should take 20-25 minutes to complete. Part One contains introductory information and consent agreements (four items). Part Two is the survey itself (75 items), and Part Three asks for demographic information (12 items).

If you or members of your board would prefer a paper survey, please forward your name and address to me, and I will mail paper surveys to you.

All survey respondents remain anonymous through the use of secure identity codes. All information will be kept strictly confidential, and only a statistician and I will see the raw data aggregated by district. Only aggregated data will be reported, and none of the findings will be reported in such a way that would allow any school district or board member to be identified. All raw data will be destroyed at the conclusion of the study. The purpose of the research is to identify general characteristics of boardsmanship that either facilitate or impede student achievement.

This research project has the written support and encouragement of Lance Melton of The Montana School Boards Association (MTSBA), Dave Puyear of the Montana Rural Education Association (MREA), and Darrell Rud, former director of the School Administrators of Montana (SAM).

Thanks to you and your board for your willingness to participate in this study. If you have questions, please call me at (406) 257-2651 or send me an e-mail at ilnorway@centurytel.net.

Thank you in advance for your interest.

Ivan Lorentzen .
Doctoral Candidate
ilnorway@centurytel.net
406-257-2651

William P. McCaw, Ed.D.
Doctoral Dissertation Chair
Department of Educational Leadership
The University of Montana
bill.mccaw@mso.umt.edu
406-243-5395

APPENDIX I

Institutional Review Board Approval Documents

The University of Montana

The University of Montana

INSTITUTIONAL REVIEW BOARD
for the Protection of Human Subjects
FWA 00000078

Research & Development
University Hall 116
The University of Montana
Missoula MT 59812
Phone 406-243-6670 | Fax 406-243-6330

Date: March 22, 2012

To: Ivan Lorentzen, EDLD
William McCaw, EDLD

From: ☒ Paula Baker, IRB Coordinator
☐ Dan Corti, IRB Chair

RE: IRB 59-12: "The Relationship between School Board Governance Behaviors and Student Achievement"

Your IRB proposal cited above is **exempt** from the requirement of review by the Institutional Review Board in accordance with the Code of Federal Regulations, Part 46, section 101. The specific paragraph which applies to your research is:

___(b)(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

__X__(b)(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i)Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

___(b)(3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if: (i) The human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

___(b)(4) Research, involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

___(b)(5) Research and demonstration projects which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (i) Public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs.

___(b)(6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

University of Montana IRB policy does not require you to file an annual Continuation Report (Form RA-109) for exempt studies. However, you are required to timely notify the IRB if there are any significant changes or if unanticipated or adverse events occur during the study, if you experience an increased risk to the participants, or if you have participants withdraw from the study or register complaints about the study.

Form RA-108
(Rev. 03/12)

VP RESEARCH & DEV. MAR 22 2012 THE UNIV. OF MONTANA

THE UNIVERSITY OF MONTANA-MISSOULA
Institutional Review Board (IRB)
for the Protection of Human Subjects in Research
CHECKLIST / APPLICATION

IRB Protocol No.: 59-12

At The University of Montana (UM), the Institutional Review Board (IRB) is the institutional review body responsible for oversight of all research activities involving human subjects outlined in the U.S. Department of Health and Human Services' Office of Human Research Protection and the National Institutes of Health, Inclusion of Children Policy Implementation.

Instructions: A separate application form must be submitted for each project. IRB proposals are approved for no longer than one year and must be continued annually. Faculty and students may email the completed form as a Word document to IRB@umontana.edu, or submit a hardcopy to the Office of the Vice President for Research & Development, University Hall 116. Student applications must be accompanied by email authorization by the supervising faculty member or a signed hard copy. *All fields must be completed. If an item does not apply to this project, write in: n/a.*

1. Administrative Information

Project Title: The Relationship between School Board Governance Behaviors and Student Achievement	
Principal Investigator: Ivan James Lorentzen	UM Position: Student
Department: Educational Leadership	Office location: Flathead Valley CC
Work Phone: 406-756-3864	Cell Phone: 406-250-3701

2. Human Subjects Protection Training

(All researchers, including faculty supervisors for student projects, must have completed a self-study course on protection of human research subjects ***within the last three years*** *(http://www.umt.edu/research/complianceinfo/IRB/) and be able to supply the "Certificate(s) of Completion" upon request. Add rows to table if needed.*

Research Team Members	PI	CO-PI	Faculty Supervisor	Research Assistant	DATE COMPLETED Human Subjects Protection Course
Name: Ivan James Lorentzen Email: ilnorway@centurytel.net	☒	☐	☐	☐	3/20/2012 UM Course
Name: William P. McCaw Email: Bill.McCaw@mso.umt.edu	☐	☐	☒	☐	3/20/2012
Name: Email:	☐	☐	☐	☐	
Name: Email:	☐	☐	☐	☐	

3. Project Funding

(If federally funded, you must submit a copy of the abstract.)

Is grant application currently under review at a grant funding agency? ☐Yes *(If yes, cite sponsor on ICF if applicable)* ☒No			Has grant proposal received approval and funding? ☐Yes *(If yes, cite sponsor on ICF if applicable)* ☒No	
Agency	Grant No.	Start Date	End Date	PI

For UM-IRB Use Only

IRB Determination:

____ Not Human Subjects Research
_X_ Approved Exempt from Review, Exemption # 2 *(see memo)*
____ Approved by Expedited Review, Category #____ *(see* ***Note to PI****)*
____ Full IRB Determination
____ Approved *(see* ***Note to PI****)*
____ Conditional Approval *(see memo)* - IRB Chair Signature/Date: _____
____ Conditions Met *(see* ***Note to PI****)*
____ Resubmit Proposal *(see memo)*
____ Disapproved *(see memo)*

Risk Level: Minimal

Final Approval by IRB ~~Chair~~/Coordinator: [signature] Date: 3/22/12 Expires: N/A

*** Note to PI:** Study is approved for one year. Use any attached IRB-approved forms (signed/dated) as "masters" when preparing copies. If continuing beyond the expiration date, a continuation report must be submitted. Notify the IRB if any significant changes or unanticipated events occur. Notify the IRB in writing when the study is terminated

Appendix J

Permission from WSSDA to use the BSAS

October 15, 2011

Hi Ivan,

You have permission from WSSDA (The Washington State School Directors' Association) to use the WSSDA Board Self Assessment Survey for research purposes in Montana.

Phil Gore
Director of Leadership Development Services
WSSDA
Olympia, Washington