Pennsylvania Public School Board Effectiveness: Does It Influence Student Performance?

Aiko M. Maurer

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PENNSYLVANIA PUBLIC SCHOOL BOARD EFFECTIVENESS: DOES IT INFLUENCE STUDENT PERFORMANCE?

A Dissertation
Submitted to the School of Graduate Studies and Research
in Partial Fulfillment of the
Requirements for the Degree
Doctor of Education

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May 2017
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According to the National School Board Association (2017b), school boards have a responsibility to foster high student achievement in their districts. The percentage of Pennsylvania public schools meeting student performance targets has steadily declined since the 2010-2011 school year. While many factors contribute to student achievement, the Pennsylvania School Board Association (2017b) reports that a school board that governs effectively has a positive effect on student achievement. Using Smoley’s (1999) Board Self-Assessment Questionnaire, this study incorporated the Pearson product moment correlation coefficient between the school board effectiveness rating and the school performance profile (SPP) score for each participating district and charter school. This study compared the board effectiveness ratings between district school boards and charter school boards as well as the correlations between school boards and their SPP scores. Each rating consists of six subsets of ratings: making decisions, functioning as a group, exercising authority, connecting to the community, working toward board improvement, and acting strategically. A comparison of subset data also occurred between district and charter schools. This study showed significant correlations between SPP scores and actions performed by school boards. This study also discovered specific actions by charter school boards with strong correlations between the SPP score and the board effectiveness rating as well as between five of the six subsets and the SPP score.
ACKNOWLEDGMENTS

HOPE

The future depends on the impact we have on today’s youth. With the advent of charter schools and technology that allows for innovation in teaching and learning anytime, anywhere, public education has the opportunity to grow beyond the mindset of the industrial age and the agendas of special interest groups. A great responsibility falls upon educators of our generation to equip children with the tools they need in the world. For those who govern, the responsibility falls to ensure educators have the supports in place to meet the needs of all learners.

The idea for this study came from my desire to improve educational processes and to provide hope for all learners. Thank you, family and friends, for your support and understanding as this work kept me away from you for long periods of time; I have missed you all! Thank you, Dr. Piper, for reading—and rereading—my dissertation as I prepared to defend my work. I also thank Dr. Judy DiLeo whose edits helped explain my findings to others who seek improvement in the practices of school boards. Finally, I thank the former superintendents and superintendents who understand the complexity of education and who encouraged me to complete this study as part of my continued commitment to transformational education.

Thank you to Almighty God who has given me hope to press on.

Help to transform education

Opportunities for all learners

Passion to learn

Empowerment to personalize and customize learning
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CHAPTER 1

INTRODUCTION

The development of public education as a structured entity, formalized in Massachusetts as early as 1826, resulted in the K-12 structure familiar to most Americans. Since that time, the governance of public school systems has fallen to locally elected school boards. Over time, the academic outcomes of the district’s students have also become the direct responsibility of the school boards. According to the National School Board Association (NSBA), an effective school board is one whose data reflect high student achievement (National School Board Association, 2017b). The Pennsylvania School Board Association (PSBA) reported that the research conducted to this point indicates that a school board that governs effectively has a positive impact on student achievement (Pennsylvania School Board Association, 2017b). The Education Policy and Leadership Center (2004) stated that it is the responsibility of the school board to ensure that a strong educational system exists to provide a quality education for all the children in the school. Given these responsibilities, it is necessary to examine the relationship between the ability of the school board to operate effectively and the performance of the school. Even though a myriad of factors contribute to student achievement, it remains the responsibility of the school board to govern schools in ways that promote high student achievement.

This chapter first presents the problem and the purpose of the study. Background information follows detailing the theoretical framework that provided guidance for this study as well as the significance of the study. Also presented in this chapter is an overview of the research design as well as the research questions and hypotheses, as is an
outline of the assumptions, limitations, and delimitations related to the study. Finally, this chapter provides the definition of terms for this study.

Statement of the Problem

Every year the Pennsylvania Department of Education (PDE) evaluates all district and charter schools to determine whether or not they are meeting state and federal accountability standards. Since the 2010-2011 school year, the percentage of schools with acceptable school performance scores has been decreasing (Table 1) despite the increased focus on student achievement by school boards as reported by Hess (2002).

Table 1

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\(^a\)District school numbers are comprised of every school building operating in the district. Charter schools count as one school regardless of the number of buildings they encompass. \(^b\)Only schools with a Grade 11 cohort were given an SPP score in the 2014-2015 school year.

Additional observations from Table 1 include the vast differences between district and charter school percentages of acceptable school performance scores and the sharp
decline in the percentage of district and charter schools with acceptable school performance scores. While each individual school receives the school performance score, according to The Education Policy and Leadership Center (2004), it is ultimately the responsibility of the school board to ensure that the school meets the requirements set for them by PDE. This leads to two questions that present the statement of the problem for this study.

1. Are school boards effectively fulfilling their responsibility to ensure students are effectively achieving academic progress?
2. Does an effective school board positively affect school performance scores?

**Purpose of the Study**

This study focused on the impact of Pennsylvania’s public school boards, in both district and charter schools, on student achievement. The purpose of this study was to determine if a correlation exists between the overall effectiveness rating for the school board, derived from a questionnaire completed by the chief school administrator or his or her designee, and the School Performance Profile (SPP) score as determined by the Pennsylvania Department of Education (PDE).

**Background Information**

Over the past five years, in addition to changing its process for measuring performance and accountability among schools, the Pennsylvania Department of Education (PDE) also changed the standards taught as well as the assessment that measures learning. The following describes these changes:

- Accountability and performance measures. In previous years, PDE had used the adequate yearly progress (AYP) system to calculate school performance
However, as of the 2012-2013 school year, PDE has used the School Performance Profile (SPP) (Pennsylvania Department of Education, 2016f).

- Teaching standards. PDE implemented the PA Core Standards in 2013 (Pennsylvania Department of Education, 2016e).

- Assessments that measure learning. In 2015, PDE administered an updated Pennsylvania System of School Assessments (PSSA) for grades 3 through 8 that were previously in alignment with the PA standards (Pennsylvania Department of Education, 2016e).

In spite of the updated standards and the change in the way school performance is measured, the data for school performance has continued to show a decline in student achievement (Table 1).

Table 1 shows a sharper decline in acceptable school performance scores among charter schools than among district schools. In the four academic years from 2010-11 to 2013-14, the percentage of district schools making AYP or scoring 80 or above on their SPP declined 30 percent, dropping from 76 to 46 percent. In the same period of time, the percentage of charter schools making AYP or scoring 80 or above on their SPP fell from 60 to 14 percent, a 46 percent decline.

Even more alarming is the drop in the percentage of schools with a SPP score of 80 or above from the 2013-2014 school year to the 2014-2015 school year (Table 1). After falling 14 percent, only 32 percent of district schools showed acceptable school performance scores. Even smaller was the outcome among charter schools; with a 13 percent decline from 14 percent, just one percent of these schools showed acceptable
school performance scores. Of note in this discussion is the fact that, because only those schools with Grade 11 cohorts received an SPP score based on banked Keystone Exam scores, the actual number of schools with an SPP score dropped drastically in 2014-2015. However, if the effectiveness of the schools is consistent across grade levels, the percentages should have remained somewhat similar. In 2014-2015, because alignment of the PSSAs to the PA Core Standards caused the scores for the Pennsylvania System of School Assessment (PSSA) in English Language Arts (ELA) and Math for grades 3 through 8 to drop dramatically, PSSA results were not included in the SPP. As a result, schools with PSSA results but without Grade 11 cohorts did not receive SPP scores (Pennsylvania Pressroom, 2015).

**Theoretical Framework**

Eugene Smoley (1999) created the “Board Self-Assessment Questionnaire” (Appendix A). Published in his book, *Effective School Boards: Strategies for Improving Board Performance*, Smoley used the questionnaire to derive an effectiveness rating for each participating school board. Smoley (1999) derived his work from three sources: an in-depth study of Delaware school board members, extensive knowledge of school boards across the country, and input from various experts. He adapted a non-profit board self-assessment from Chait, Holland, and Taylor (1993) to match his model of an effective school board and then developed a way to convert the results of the self-assessments of each board member into an overall board effectiveness rating.
Smoley’s (1999) model for school board effectiveness (Figure 1) identifies six areas in which school boards must be proficient in order to be effective:

- **Making decisions** - A board’s most important function is to make decisions. Board members must gather and use relevant information to discuss and deliberate as they work toward a consensus.

- **Functioning as a group** - A board must work together as a team to fulfill their responsibilities. There must be an established set of norms and values in place as members exercise leadership within their school and community. Board members must respect individual opinions during discussions but, upon
completion of a vote, they must act as a team to support the final decision both in the boardroom and when interacting with the community.

- Exercising authority – A board must maintain a proper balance between using its own authority and supporting the authority of the school’s chief school administrator. Defined roles must exist for the board and the chief school administrator; both groups must exercise authority within their roles; at the same time, board members must be courageous and take the initiative to move the district forward, at times overruling the chief school administrator if the team does not agree with the chief school administrator’s recommendation. All this must be done while resisting pressure from the community, staff members, the state, and other outside entities.

- Connecting to the community – A board is to be the liaison between the school and the community. It determines the ways in which both internal and external community members receive/input information, and participate in the planning and governing process of the district. At times, the board may also need to explain its actions to members of the community.

- Working toward board improvement – Board members must continually be working on improving their processes and procedures so they can become a more effective as a team. By encouraging and building leadership within the team as well evaluating their own competence and reaching out for assistance when needed, a strong, effective team of board members can be built.

- Acting strategically – Because they are responsible for planning systems and programs in the present and for the long term, board members must learn to
act strategically. This requires them to address critical issues while considering all the stakeholders involved. The board must organize its approach to making decisions and take into account any factors that will affect the district’s long-range goals and system planning. These plans must then be implemented, monitored, and evaluated in order for them to be effective over time.

Smoley (1999) concluded that school boards that perform effectively in each of the six areas do indeed govern schools in ways that lead to high student achievement. It is important for school boards to take the time to assess themselves and identify areas of weakness upon which to focus board development. He encouraged all board members to analyze their individual results against his Model for School Board Effectiveness in order to identify areas for individual improvement; he affirmed that this method supports continued growth as an effective team.

Although the design of the survey was to have the board members complete it themselves, this study used responses from chief school administrators or his or her designee to provide a perceived effectiveness from his or her point of view. This action supports Woodward’s (2006) use of Smoley’s (1999) “Board Self-Assessment Questionnaire” as the instrument to collect responses from superintendents of public schools and charter schools in Ohio. The purpose of Woodward’s (2006) study was to learn whether or not there were differences in the six subsets that comprise the overall board effectiveness rating between public schools and charter schools. Support for this variation of participants for the survey was presented by Woodward (2006) using the studies conducted by Jacqueline Danzberger and the Institute of Educational Leadership
which compared the responses of school board members to the responses of superintendents. Danzberger (as cited by Woodward, 2006) reported that the research indicated that superintendents’ responses were the same or slightly higher with regard to the effectiveness of the school board.

Both the NSBA and the PSBA have provided guidelines for school boards to follow in order to be effective in meeting their responsibilities. The NSBA identifies eight comportments of effectiveness among school boards that lead to improved student achievement. These behaviors are:

- Possess a clear vision.
- Share beliefs and values.
- Demonstrate accountability.
- Communicate effectively and collaborate.
- Make data-driven decisions.
- Allocate appropriate resources.
- Operate as a team.
- Participate in board development (Devarics & O’Brien, 2011).

Devarics and O’Brien (2011) indicated that their research demonstrated a marked difference in the characteristics of high achieving school districts and low-achieving school districts. In a study of school boards, Shober and Hartney (2014) reported evidence indicating that school boards that focus on academics and spend hours on board services are “more likely to govern school districts that ‘beat the odds’ – that is, districts whose students perform better academically than one would expect, given their demographics and financial characteristics” (p. 6). Black (2008), throughout her article,
reinforced former school board president Frank’s statement, “…excellence in the classroom begins with excellence in the boardroom” (p. 34). Legon (2014) stressed that boards should themselves strive to be high performing, working strategically in order to meet the challenges facing educational institutions today, in order to reach the goal of building academically high-achieving schools. Ewell, as stated by Legon (2014), pointed out that the governance of the academics of an institution is as critical as the governance of its financials. Clearly, evidence exists that boards are responsible for supporting and governing an educational system with high-quality academic programs.

In 2015, the PSBA updated its “Principles for Governance and Leadership” to embrace six standards for board effectiveness. They are now asking school boards to adopt these principles in order to provide all students with opportunities for continued growth. These principles describe the actions that school boards should take in order to be effective:

- Advocate earnestly.
- Lead responsibly.
- Govern effectively.
- Plan thoughtfully.
- Evaluate continuously.

The corporate world has also studied the importance of an effective board of directors. Dutra (2012) noted that the factors that define board effectiveness have changed over time. Since the downfall of major corporations such as Adelphia, Enron and WorldCom, the ways that corporate boards operate and the pieces of effective board
governance that are viewed as being essential have come under scrutiny (Sonnenfeld, 2002; Useem, 2006). Dutra pointed out that what boards need to be effective today is the ability to work as a team with a well-defined role and purpose.

Sonnenfeld (2002) stressed the importance of a “robust, effective social system” (The Importance of the Human Element section, para. 1) in building an exemplary board. Board members need to build a culture of trust and open-mindedness in order to fully question and discuss the intricate details of the effects their choices may have on those entities for which they are responsible. The resultant exposure of the nuances surrounding the issues at hand leads to the formation of educated decisions leading to a positive result. Sonnenfeld (2002) also stated that assessing board performance is essential as both “behavioral psychologists and organizational learning experts agree that people and organizations cannot learn without feedback” (Performance Evaluation section, para. 1).

Useem (2006), in his article about the importance of good decision making processes in the development of effective boards, relayed the events the board of directors at Boeing went through as they governed the design of the new 787 aircraft. The review of this decision-making process indicated that management should present items for strategic decisions in sequential parts so the board can devote the appropriate amount of attention to each part. Follow-up by the board of directors is also crucial to the success of the overall process. Upon the arrival at a decision, directors need to monitor management continuously to ensure fidelity in the implementation of the directives and to address properly any difficulties that arise. As evidenced by the literature on boards of directors in the corporate world, the characteristics of an effective board are similar
between the corporate world and the world of education. Without effective boards, the success of organizations is unpredictable.

**Significance of the Study**

This study investigated the effectiveness of school boards, as assessed by their chief school administrators or his or her designee; the study compared the effectiveness rating to the school’s performance profile score to determine whether or not a relationship exists between the two data points. Given that school performance scores have been decreasing (Table 1) and that the purpose of school boards is to govern effectively educational institutions in ways that lead to high student achievement, one significance of this study rests in its potential to reveal areas in which school boards can improve and promote achievement among the students in their care. While there are many factors that comprise the SPP score of a school, the school board is ultimately responsible for ensuring that appropriate policies and programs, as well as the personnel to implement them, are in place (The Education Policy and Leadership Center, 2004).

Another significance of this study is that the information it yields may help the PSBA and similar organizations in their efforts to improve and focus school board training sessions. Falling numbers of public and charter schools with acceptable school performance scores, and the differences in percentages between these two types of districts, indicates a problem in need of investigation. The results of this study may support school boards in their effort to ensure that all students have the opportunity for a quality education. The significance of this study is its potential to identify the areas in which district and charter school boards differ; such understanding may be helpful in closing the achievement gap between the two types of educational institutions.
The intended beneficiaries of the results of this study are district boards of directors, charter school boards of trustees, chief school administrators, policymakers and lawmakers, and community members. As the study will be beneficial to Pennsylvania Association of School Administrators (PASA) members as they work toward improving their educational systems, the researcher obtained support for this study from the PASA Research Fellowship (Appendix B).

**Research Design**

This study utilized a quantitative approach for data collection and analyzation. The study collected and compared two different sets of data. An invitation to PA district superintendents and charter school CEOs asked them to complete a questionnaire that assessed the effectiveness of their school boards. The average of the responses comprised the overall school board effectiveness rating. A comparison of the school board effectiveness rating to the 2015-2016 SPP score of each school district or charter school determined whether or not a correlation existed between these two factors. A positive correlation between the board effectiveness rating and the SPP of school boards would exist if school boards were fulfilling their purpose as set out by the NSBA and the PSBA. The researcher also compared each of the six-subset scores, derived from responses to items on the questionnaire that related to the characteristics of each subset, to the 2015-2016 SPP score to determine if a correlation existed. Finally, this study sought to determine whether or not a difference existed between district and charter school data both in terms of board effectiveness ratings and in the effectiveness ratings and SPP score correlations between the districts and charter schools.
Research Questions and Hypotheses

The following questions guided this study:

1. Is there a correlation between the effectiveness rating of school boards and the School Performance Profile scores?

2. Is there a correlation between each of the six subset ratings (making decisions, functioning as a group, exercising authority, connecting to the community, working towards board improvement, and acting strategically) of school boards and the School Performance Profile scores?

3. Is there a difference between the correlation of the district school board effectiveness rating and School Performance Profile score and the correlation of the charter school board effectiveness rating and School Performance Profile score?

4. Is there a difference in the overall board effectiveness ratings between districts and charter schools?

5. Is there a difference between the district and charter school correlations in each of the six-subset ratings (making decisions, functioning as a group, exercising authority, connecting to the community, working towards board improvement, and acting strategically) and the School Performance Profile score?

Since the primary objective of this study was to determine if there was a correlation between a school’s SPP score and the effectiveness rating of the school board of directors, the null hypothesis was that there is no correlation between the school’s SPP score and the school board effectiveness rating. This would suggest that no correlation
exists between each of the six subsets and the school’s SPP score. If no correlations
exist, a difference in the correlations between the district and charter schools will not
exist either. The null hypothesis for the difference in overall board effectiveness ratings
of district and charter schools is that there is no difference.

Assumptions and Limitations

An electronic administration of the board self-assessment questionnaire, sent to
district superintendents and charter school CEOs, limited the number of outside
influences that might affect results; however, it did not eliminate all factors. The
relationship between the superintendent or CEO and the school board may affect the
superintendent or CEO’s ability to assess objectively the effectiveness of the school
board. In addition, this study relied on the honesty and integrity of the individual
completing the questionnaire. The original design of the questionnaire required each of
the board members to complete the questionnaire; the researcher then averaged scores to
arrive at the overall effectiveness rating. In this study, the assumption was that the
responses were the superintendent or CEO’s perception of the board and this perception
was representative of the board members.

Delimitations

In addition to the state’s changes to the school accountability measures over the
past five years, the composition of public school boards has changed as well. According
to the PSBA, to become a member of a district school board of directors, there must be an
election of an individual by members of the community to serve in that capacity for a
four-year term (Pennsylvania School Board Association, 2017b). This method leaves the
composition of members up to chance depending on who wants to run for school board
member and who has more influence on the public. This composition has the potential to change frequently as board members’ terms ends and as they do or do not return to the board for another four-year term.

In contrast to the process for becoming a member of a district school board, the bylaws of the charter school organization provide the guidelines for membership on a charter school board of trustees (Pennsylvania General Assembly, n.d.). Unlike district boards of directors, the public does not elect potential members of a charter school board of trustees. The existence of limitations on the composition of the board, as well as the length of time a board member can serve, are contingent on each charter school’s guidelines and may vary between charter schools. Even so, the expectation is that, over the course of the past five years, the composition of charter school boards has changed in ways similar to the changes among district schools. This study did not investigate how changes in board members affect the effectiveness of the board, nor did the study examine the way in which these changes affect the schools’ ability to perform. It also did not assess how the combination of demographics and characteristics of board members, as well as their actions, affects the schools’ performance score.

Among the 176 PA charter schools in operation during the 2016-2017 school year, there were many different school board models in use. This study did not take into account the effect these different models may have had on school board effectiveness. Because there was only one administration of the survey, it is not possible to see whether or not school board effectiveness changed from year to year. Capturing a snapshot of this data to determine the existence of a correlation between board effectiveness and SPP scores may not be a true reflection of whether or not the board is affecting the SPP.
Although input from teachers or the administration would have provided another perspective of the school board’s effectiveness, no collection of data from either of these groups occurred. Additionally, as Smoley (1999) stated, the relationship between the board and the superintendent can have an affect on the effectiveness of the board. This study did not consider the relationship between the superintendent and the board.

This study did not investigate whether or not PDE’s measurement of school performance truly represents the effectiveness of a school’s educational program nor did it take into account the fact that some charter schools may serve a certain student demographic; these variables may account for some of the differences in overall school performance that exist between charter and district schools.

**Definition of Terms**

Annual Yearly Progress (AYP) – Pennsylvania (PA) state determined goals for school districts and charter schools that keep schools accountable (Pennsylvania State Board of Education, 2017).

Board of Directors – The governing board of a district school. Publicly elected members serve for four-year terms (Pennsylvania Public School Code, 1949).

Board of Trustees – The governing board of a charter school. Bylaws of the organization outline the composition and placement of the board members. The Board of Trustees follows many but not all of the same PA school district board requirements (Charter School Law, 1997).

Charter School – An independent public school that has the freedom to be more innovative, while being held accountable for improved student achievement (Charter School Law, 1997).
National Alliance of Public Charter Schools (NAPC) – “The leading national nonprofit organization committed to advancing the charter school movement” (National Alliance for Public Charter Schools, 2017b).

National School Board Association (NSBA) – An organization that provides resources and training for school boards across the nation (National School Board Association, 2017a).

Pennsylvania Department of Education (PDE) – The department charged with overseeing the education of Pennsylvanians by the State Board of Education (Pennsylvania Public School Code, 1949).


Pennsylvania System of School Assessment (PSSA) – The PA standardized assessment used to measure student achievement in grades 3 through 8 in Math, Reading, Writing, and Science (Pennsylvania Department of Education, 2016e).

School Performance Profile (SPP) – A score assigned to each school in Pennsylvania that is determined by a number of factors. These include achievement scores in Math, Reading, Writing, and Science; attendance rates, graduation rates, growth rates and evidence of narrowing the achievement gap between groups (Pennsylvania Department of Education, 2016f).
Expected Findings

The expectation was that the results of the study would present information that would be useful for improving board performance. An expectation existed for the discovery of a positive correlation between the board effectiveness rating and the school performance profile score for both district and charter schools. With a high percentage of schools performing below the acceptable level, examining the ratings of each of the subsets would reveal areas in need of improvement on which school boards should concentrate. With the significant difference in acceptable school performance profile scores between district and charter schools, it was expected that there would be a concurrent and significant difference in board effectiveness ratings between school types. Again, examining the ratings of each of the subsets between district and charter schools would result in a revelation of areas in which charter school boards can focus their professional development.

Summary

While there are many factors that can affect student achievement, school boards are ultimately responsible for ensuring that the goal of high student achievement is attained. Data from the past five years show that district and charter schools are not meeting the standards of high student achievement and school performance scores are dropping. According to the NSBA and the PSBA, it is the responsibility of the school board to govern effectively, thus positively affecting student achievement (National School Board Association, 2017b; Pennsylvania School Board Association, 2017b).

Smoley (1999) created a model of an effective school board from a study of Delaware school board members and by using input from school board members from
across the country. Using this model, comprised of six areas in which a board needs to be effective, he adapted the non-profit board self-assessment from Chait, Holland, and Taylor (1993) into his “Board Self-Assessment Questionnaire”. This questionnaire will be used by district superintendents and charter school CEOs to assess their school boards. A tabulation of the results from this questionnaire will produce a rating for each of the six subsets in the model as well as an overall school board effectiveness rating. This quantitative study sought to determine if there was a correlation between the overall school board effectiveness rating and the school’s SPP score. It also investigated the relationship of the overall school board effectiveness ratings between district and charter schools as well as differences that might exist between the two entities in terms of the correlations between school board effectiveness ratings to school SPP score. This study conducted a comparison of the six-subset scores of district and charter school boards to determine what similarities and differences existed between the two types of public school boards. This comparison was essential to determine if areas of difference have an effect on school performance.

All 499 school districts and 176 charter schools operating in PA during the 2016-2017 school year were asked to participate in this study included only those whose superintendents or CEOs chose to complete the assessment. The data and results of this study may be used by school boards and chief school administrators of district and charter schools to focus on areas in need of school board improvement. Those who create policy and establish laws may also find the information in the study helpful in improving the overall guidance and regulations for school districts and charter schools. Further, this study offers insight to community members about the responsibilities of the
school board; such information may influence the decision to become a school board member or to work with school board members.

The limitations and delimitations of this study narrowed the focus of this study as the assumption was that the district superintendent and charter school CEO completed the questionnaire with integrity; however, the relationship between the chief school administrator and the school board could affect their responses; this factor was not taken into account in this study. The effectiveness of the school board included only the perception of the chief school administrator thus providing only one viewpoint. This study also did not account for student demographics, characteristics of boards, composition of boards, governance models of the school board, trends over a period of time, or any other factors that may have an effect on the overall performance of the school.

In the next chapter, the history of school boards and literature related to this study will lay a foundation for this study.
CHAPTER 2

LITERATURE REVIEW

According to the National School Board Association (NSBA), an effective school board is one whose data reflect high student achievement (National School Board Association, 2017a). Schreck (2010) pointed out that “Even though school boards do not directly instruct students, their actions can have a profound effect on the quality of education they receive” (p. iv). This chapter presents a summary of the history of district and charter school boards to provide a foundation for this study as well as explains how the Pennsylvania Department of Education (PDE) determines school performance. Finally, this chapter presents the research and literature related to effective school boards.

Pennsylvania Public School Boards

According to the Merriam-Webster Online Dictionary, public schools possess two characteristics. First, they receive funding from state and federal sources. Second, local school boards direct their policies and procedures (Public School, n.d.). In Pennsylvania (PA), public schools include district schools, charter schools, career and technology centers, intermediate units, special program jointures, and schools in state juvenile correctional institutions (Pennsylvania Department of Education, 2016d). The tracking of student achievement and school performance as accountability measures exist only in district schools, charter schools, and career and technology centers. Because the boards of career and technology centers are comprised of board members of participating school districts, this study includes only district and charter schools.
District Schools Historical Summary

As reported by the NSBA, public schools have existed in the United States since 1647 when Massachusetts Bay Colony regulated that schools be established and maintained in towns (National School Board Association, 2017b). In the beginning, citizens made the operational decisions about the school as part of town meetings. When the process became too complex, citizens elected representatives called selectmen to oversee school business. The process evolved into committees of townspeople who managed the hiring of the schoolmaster and other matters related to the school; this group was also responsible for determining the location of the school. In 1826, these committees officially became the system by which each town was required to have a separate school committee to maintain “general charge and superintendence” (National School Board Association, 2017b, The establishment of school committees section, para. 2) of the town’s public school. These local school committees referred to as the Board of Directors consist mostly of community members, elected by their peers, who may or may not have backgrounds in education or business.

According to Kirst (2010), the desire to reduce the influence of special interests among certain school board members, and to separate politics and education, was the impetus behind using the general election process to name people to the board. At the same time, boards developed policies that gave to the superintendent both greater responsibility and assurances that board members would be respectful of the superintendent’s expertise. The industrial age model influenced this new structure for school governance. Kirst (2010) stated that the keywords of this reform were “efficiency, expertise, professionalism, centralization, and nonpolitical control” (p. 3).
The Pennsylvania School Journal (Schaeffer, 1911) published the Act of 1911, known as the school code, which established public school districts in every city, incorporated town, borough, or township and abolished independent school districts in PA. Based on the population of school districts and their subsequent classification, a judge determined the number of board members for each district; this number ranged from no fewer than five to no more than 15 members. The PA Public School Code of 1949 with its subsequent amendments further defined the school board of directors and the composition of school districts to what it is today. Currently, there are 498 districts, each governed by nine school board members elected by their constituents; unlike these, the mayor appoints the school board members that govern the Philadelphia school district (National School Board Association, 2009). The geographic areas governed by the local school boards vary in size; while in some instances they may encompass more than one county, other districts may be just a portion of one county (Yan, 2006). In his report on rural schools, Yan (2006) reflects on the changes in the size of districts since from the 1950s to the 1970s when many school districts were consolidating in an effort to save money and become more efficient. The research that Yan (2006) conducted does not support the belief that larger districts lead to higher student achievement and lower costs; however, the school code still allows for consolidation of school districts.

According to Kirst (2010), the nation began losing confidence in the local school boards and administration during the 1950s. The Elementary and Secondary Education Act (ESEA) of 1965 led to the involvement of the federal government in local school districts policies with mandates of special programs for neglected group in local school districts. Additional mandates from the state level showed distrust that local school
boards could conduct school business on their own (U.S. Department of Education, n.d.). By the 1970s, Kirst (2010) reported that the desegregation movement had pushed forward the need for fair and equal educational opportunities, further weakening confidence in local schools. It was also during this time that teachers began to feel cut off from the school board and community and, by 1980, the drive for teacher unions spread across the nation. The overall effect of unions in schools was a decrease in school board and administrative control in schools (Kirst, 2010).

Although the primary focus in education from the 1970s to 2000 was on increasing student achievement, lawmakers made little progress. In 2008, in an effort to promote the increase of student achievement, President Obama dedicated $5 billion to the Race to the Top (RTTT) program to stimulate growth in areas such as accountability, curriculum, effective teachers and teaching, as well as data collection and analysis (U.S. Department of Education, 2016). This resulted in increased board policies and new program initiatives by the administration, which shifted concern from the employees of the schools back to the outcomes of the students (Kirst, 2010).

**Charter Schools Historical Summary**

In 1974, the concept of charter schools was introduced by Ray Budde in New England (Chen G., 2015; Welk, 2010). Budde encouraged teachers to request “charters” or contracts from their local school boards promising to be innovative in their approach to educating their students. According to the National Alliance of Public Charter Schools (NAPCS) (2017a), not until the early 1990s was the charter school model developed; Minnesota became the first state to pass a law that allowed charters in 1991. In 1992, the first charter school opened in St Paul, Minnesota (Welk, 2010). Currently 43 states and
the District of Columbia have charter school laws that govern over 6,800 charter schools (National Alliance of Public Charter Schools, 2017b). In 1997, Pennsylvania passed the charter school law known as Act 22 (Welk, 2010). In the same year, according to Welk (2010), four charter schools opened in Philadelphia; the first Pennsylvania virtual charter school opened in 2000. By 2010, 144 charter schools existed in Pennsylvania. Since 1997, twelve charter schools have closed, most due to financial improprieties (Welk, 2010). As of September 2016, there were 162 brick-and-mortar charter schools and 14 virtual charter schools in Pennsylvania (Pennsylvania Department of Education, 2016c).

While charter school law varies from state to state, the main purpose of charter school law is to create an independent public organization outside the traditional school model that students may choose to attend free of charge. The bylaws of the charter school organization govern the Board of Trustees that operates the non-profit organization. The charter school is responsible for incorporating into its educational system new and innovative practices that will improve the overall quality of education while maintaining accountability for improving student achievement (National Alliance for Public Charter Schools, 2017a).

The Center for Research on Education Outcomes (CREDO) at Stanford University conducted a nationwide study in 2009 that found 17 percent of charter schools performed better academically than their public school counterparts and 46 percent did neither better nor worse (Center for Research on Education Outcomes, 2009; Welk, 2010). In the 2013 CREDO report, (Center for Research on Education Outcomes, 2013) it was reported that 25 percent of the charter schools in the study performed better in reading than did their public school counterparts; 29 percent of the charter schools
performed better in mathematics than did their public school counterparts. While the autonomy inherent in charter schools has created many learning opportunities for children across the nation, there has yet to be developed a governance model that charter schools could follow to ensure that the charter school board would operate effectively to positively affect school performance and student achievement.

**School Board Members**

Understanding the process for becoming a public school board member is necessary before it is possible to understand the influence that school boards can have on student achievement. It is important to know that the composition and selection process of charter school board members is slightly different from that of a district school board in several ways.

The most notable difference between a district school board and a charter school board is the process by which one becomes a member of the school board. According to the Pennsylvania School Board Association (PSBA) (2017b), to become a member of a district school board of directors, one must be elected by members of the community. A qualified candidate is a US citizen who is 18 years or older, is of good moral character, and has resided in the school district for at least one year. Community members may be ineligible to run for the office of school board if they are employed by the district or conduct business with the district in a way that does not comply with Pennsylvania’s “Public Official and Employees Act”. There are also certain public positions at the local, state, and federal levels that prevent a person from being a concurrent school board member, but those vary according to the position and the local authorities. Interested candidate must collect at least 10 signatures from qualified voters in the school district.
Candidates must then file this petition with the desired political party for placement of the candidate’s name on the ballot. While school board elections take place in November of odd-numbered years, candidates must first win the primary election in May of each year (Pennsylvania School Boards Association, 2017b).

In contrast to public schools, the charter school Board of Trustees bylaws outline guidelines for membership manages the governance of charter schools autonomously. In contrast to the state-mandated process for electing district school board members, the ways in which a person can become a charter school board member can vary from school to school. The 176 charter school boards operating as of September 2016 (Pennsylvania Department of Education, 2016c) operate under their own bylaws; they were required, however, to create these bylaws within the guidelines for non-profit organizations and the charter school law. As a result, each charter school has its own regulations for how individuals can become a board member (Pennsylvania General Assembly, n.d.).

**School Board Operations**

Both district and charter school boards operate under the Sunshine Law (Pennsylvania Freedom of Information Coalition, 2017) and district schools utilize Robert’s Rules of Order Revised, (Robert, 1915) when conducting meetings. Charter school boards; however, must also follow non-profit regulations and charter school law (Pennsylvania General Assembly, n.d.). Charter school boards have more flexibility in how an individual can become a member as well as the qualifications to become a member; however, the conduct of the meetings can be very similar to the practices of district school boards. Although most charter school boards choose to follow Robert’s Rules of Order Revised, (Robert, 1915), there are some who use other methods for
conducting public meetings. For example, the Seven Generations Charter School uses the formal consensus method of operation when conducting its public board meetings (Seven Generations Charter School, 2017). Frazier (2011), Sparks (2009), and Woodward (2006) conducted studies examining charter school board operations. In all of these studies, while the governance models utilized by charter school boards differed between charter school boards as well as from district boards, all charter school boards developed similarly to other non-profit boards.

**School Board Purpose and Responsibilities**

While the formation methods of district and charter school boards are different and their operational practices may or may not be similar, they all have the same purpose, focus, and responsibilities. The purpose of both district and charter school boards is to set policies according to federal and state public school law and to govern the overall operations of the school. The PSBA provides member districts with policies that school districts must adopt in order to meet the requirements of educational laws. However, the PSBA does not allow charter school boards to become members of its organization nor does it provide these policies to charter schools (Pennsylvania School Boards Association, 2017a). Either charter schools must hire a lawyer that keeps the school up to date with new and changing policies or it has to create and maintain its own policies. Both district and charter schools have the option of customizing their policies as long as they do not contradict the law.

Townsend, Brown, and Buster (2005) stated that school districts must base all of their decisions and set all of their goals while focusing on the mission of teaching and learning. Their belief is that an effective board is one that focuses on teaching and
learning thereby positively affecting student achievement. “As trustees, school boards have a responsibility to ensure the strength of the system of public schools and its effectiveness in educating all of the children in the communities they serve” (The Education Policy and Leadership Center, 2004, p. 6).

Smoley (1999) lists six responsibilities that summarize the work of a school board.

1. It serves as a guide for the school to meet its purpose particularly in the education of the school’s children. It accomplishes this by implementing goals, programs, and structures.

2. It screens, supports, and monitors essential projects designed to improve programs and operations as well as monitors the overall operations of the school and its programs.

3. It selects, directs, and supervises the superintendent or chief executive officer of the school.

4. It oversees the hiring, firing, and deployment of the school’s human and material resources.

5. It bridges the gap between the community and the schools, representing the community in its decision-making while also conveying the reasons behind those decisions back to the community. This also includes building relationships with other organizations to help support the school in the education of its children.

6. It holds the school accountable fiscally, legally, programmatically and with regard to human resources (pp. 4-5).
Ultimately, the school board is responsible for governing an effective educational institution that serves the needs of all the students under its care (PSBA, 2011). Since the state measures the effectiveness of the educational institution by the academic progress of the students, school boards must plan, evaluate, and legislate effectively to have a positive influence on student achievement (PSBA, 2011).

**Accountability for Schools**

In 2001, the Department of Education enacted the No Child Left Behind Act (NCLB). NCLB did the following:

- Reauthorized the Elementary and Secondary Education Act of 1965 (ESEA);
- Increased accountability for all states and schools;
- Provided for more school choice for parents and students, especially for those who attend schools that do not perform well;
- Gave states and local educational agencies (LEAs) more control over the spending of federal education monies;
- Put a stronger emphasis on reading by requiring that all students be able to read by the end of third grade (U. S. Department of Education, 2004).

All school boards in the United States are required to follow the requirements of NCLB and govern an educational institution that meets both state and federal accountability measures.

Previously, the Pennsylvania Department of Education (PDE) used student attendance and graduation rates, performance on the Pennsylvania System of School Assessment (PSSA), and participation in the PSSAs to measure achievement levels at each school and, ultimately, at each Local Education Agency (LEA) (Pennsylvania State
Board of Education, 2017). As of the 2012-2013 school year, the school performance profile (SPP) accountability system measures student achievement (Pennsylvania Department of Education, 2016f). The SPP is comprised of five weighted indicators through which a school has the opportunity to earn up to 100 points and up to seven additional points of extra credit. Although there is not an established number of points to achieve, schools aim to be in the 80-point range. Of the five indicators listed below, the first three represent 50 percent of the total 100 points possible, the fourth indicator represents 40 percent and the last indicator represents 10 percent of the total score.

1. Academic Achievement Indicators - Standardized test scores including PSSA, Pennsylvania Alternate System of Assessment (PASA), Keystone exams, industry standards-based competency assessments, percentage of students reaching proficient or advanced levels in grade three reading, as well as the Scholastic Aptitude Test and the American College Test college-ready benchmarks.

2. Closing the Achievement Gap Indicators – Percentage of students closing the gap between the baseline year and 100 percent proficiency over a 6-year period in each of the tested areas.

3. Closing the Achievement Gap for Historically Underperforming Students Indicator – Percentage of groups of students, who have historically been underperforming, that are closing the gap between the baseline year and 100 percent proficiency over a six-year period in each of the tested areas (historically underperforming groups include students in special education, economically disadvantaged students, and English-language learners).
4. Academic Growth/PVAAS Indicators – Percentage of students in each tested area that demonstrated at least one year’s worth of academic growth according to the Pennsylvania Value-Added Assessment System (PVAAS).

5. Miscellaneous Academic Indicators – Includes graduation cohort rate, promotion rate, attendance rate, Preliminary Scholastic Aptitude Test/Plan participation, and a score for participation in four core subject areas in advanced placement (AP), international baccalaureate (IB) or college credit courses.

6. Extra Credit for Advanced Achievement – Provides the school with an opportunity to earn extra credit for those students who score advanced in any of the tested areas including the industry standards-based competency assessments and AP or IB exams (Pennsylvania Department of Education, 2016f).

It is important to note that each building in a school district receives its own score and that there is no district score while a charter school receives one score regardless of the number of buildings in its purview.

**Effective Public School Boards**

In 1940, the National School Board Association (NSBA) began to provide resources and training for school boards across the nation to help them achieve excellent board governance that promoted high student achievement (National School Board Association, 2017b). Currently, each state has an organization to educate its local school boards and to provide guidance and instruction in alignment with the NSBA. In Pennsylvania, this organization is the Pennsylvania School Board Association (PSBA).
However, as stated earlier, Pennsylvania charter school Boards of Trustees may not join the PSBA to receive either important updates from the Pennsylvania Department of Education (PDE) or much needed board training (Pennsylvania School Boards Association, 2017a). At this time, Pennsylvania charter school boards are without a centralized place to which they can turn for training and resources to help them improve their performance. If they wish to provide training to their boards, charter schools must contract for-profit businesses. Although organizations, such as the Pennsylvania Coalition of Public Charter Schools (PCPCS) and the Keystone Alliance for Public Charter Schools, exist to provide some assistance in board training and legal updates, the primary purpose of these groups is to be a voice for Pennsylvania charter schools when it comes to state legislation (Pennsylvania Coalition of Public Charter Schools, 2017; Keystone Alliance for Public Charter Schools, 2017). The National Alliance of Public Charter Schools (NAPC) is a non-profit organization that promotes the advancement of charter schools and provides reports and data on charter schools nationwide (National Alliance for Public Charter Schools, 2017a). The NAPC does not provide board trainings or even recommend a preferred board structure; however, during its annual conference, there are many sessions devoted to training board members.

Both the NSBA and the PSBA have recommendations for the formation of effective school boards. Initiated by the NSBA, the 2008 report by the Center for Public Education identified eight characteristics that school boards need to have to be effective in improving student achievement.

1. Clear Vision – Establish well-defined goals based on a vision of high expectations for student achievement and effective instruction
2. Shared Beliefs and Values – Establish a set of shared beliefs and values regarding what students are able to know and achieve

3. Accountability – Establish a system of accountability that focuses on making policies that improve what the students are able to achieve rather than on operational issues

4. Effective Communication and Collaboration- Create a system of effective communication and collaboration that keeps both internal and external stakeholders involved and informed with the creation and achievement of established goals

5. Data Driven – Obtain and use data to make informed decisions

6. Appropriate Resources - Realize the importance of sustaining resources to achieve established goals

7. Team Oriented - Work as a team with the superintendent utilizing collaboration and maintaining trust

8. Board Development - Realize the importance of continuous team development and training to maintain and build the shared knowledge, values, and commitments (Dervarics and O'Brien, 2011).

These eight characteristics became the basis for the framework *The Key Work of School Boards* that consists of eight interrelated areas on which school boards should focus and use to guide their work to improve student achievement (National School Board Association, 2017c).

In an effort to assist school boards with their duties and responsibilities, the Pennsylvania School Board Association (PSBA) has developed six standards for effective
school board governance and, in September of 2015, updated them to the “Principles for Governance and Leadership”. The PSBA is asking all district school boards to adopt these principles and follow them to govern effectively and provide every student with the opportunity for growth.

Pennsylvania school boards are committed to providing every student the opportunity to grow and achieve. The actions taken by the board ultimately have both short and long-term impact in the classroom. Therefore, school directors collectively and individually will…

**Advocate Earnestly**
- Promote public education as a keystone of democracy
- Engage the community by seeking input, building support networks, and generating action
- Champion public education by engaging members of local, state and federal legislative bodies

**Lead Responsibly**
- Prepare for, attend and actively participate in board meetings
- Work together in a spirit of harmony, respect, and cooperation
- Participate in professional development, training, and board retreats
- Collaborate with the Superintendent as the Team of 10

**Govern Effectively**
- Adhere to an established set of rules and procedures for board operations
- Develop, adopt, revise and review policy
- Align decisions to policy
- Differentiate between governance and management, delegating management tasks to administration
- Allocate finances and resources
- Ensure compliance with local, state and federal laws

**Plan Thoughtfully**
- Adopt and implement a collaborative comprehensive planning process, including regular reviews
- Set annual goals that are aligned with the comprehensive plan
- Develop a financial plan that anticipates both short and long-term needs
- Formulate a master facilities plan conducive to teaching and learning

**Evaluate Continuously**
- Utilize appropriate data to make informed decisions
- Use effective practices for the evaluation of the superintendent
- Assess student growth and achievement
- Review effectiveness of the comprehensive plan

**Communicate Clearly**
- Promote open, honest and respectful dialogue among the board, staff and community
• Encourage input and support for the district from the school community
• Protect confidentiality
• Honor the sanctity of executive session

**Act Ethically**
• Never use the position for improper benefit to self or others
• Act to avoid actual or perceived conflicts of interest
• Recognize the absence of authority outside of the collective board
• Respect the role, authority, and input of the superintendent
• Balance the responsibility to provide educational programs with being stewards of community resources
• Abide by the majority decision (Pennsylvania School Boards Association, 2017c, para. 1-8).

In its board member training manual (PSBA, 2011), the PSBA referenced five ways, originally described by the American School Board Journal, in which a school board member can contribute to an effective school board. According to the American School Board Journal, effective school boards are:

- Educated;
- Respectful of the boundaries between making policy and administration;
- Aware of school plans;
- Willing to ensure that the school adheres to these plans;
- Educational leaders in the community (PSBA, 2011).

Even though charter school boards cannot utilize the training provided by the PSBA, using the PSBA standards as a foundation for its work can be helpful in providing what is necessary to be an effective school board.

Eugene Smoley’s (1999) book *Effective School Boards: Strategies for Improving Board Performance* that contains his “Model for School Board Effectiveness” resulted from the melding of an in-depth study of Delaware school board members, extensive knowledge of school boards across the country and input from various experts. Smoley
(1999) identifies six areas in which school boards must be proficient in order to be effective:

1. **Making decisions** - A board’s most important function is to make decisions. Board members must gather and use relevant information, which results in discussion and deliberation as they work toward a consensus.

2. **Functioning as a group** - A board must work together as a team to fulfill their responsibilities. There must be an established set of norms and values in which to operate as they demonstrate leadership to their school and community. Board members must respect the opinions of each individual during discussions but upon voting, they act as a team supporting the final decision both in the boardroom and in the community.

3. **Exercising authority** – A board must maintain a proper balance between using its authority and supporting the authority of the school’s chief executive. The board must define roles for the board and the chief executive and exercise authority within those roles; however, members must also be courageous and take the initiative to move the district forward as well as overrule the chief executive if the team does not agree with the chief executive’s recommendation. All this must be done while resisting pressure from the community, staff members, the state, and other outside entities.

4. **Connecting to the community** – A board is to be the liaison between the school and the community. They lay the foundation for the ways in which the community, both externally and internally, receives and offers information,
and participates in the planning and governing process. At times, they may also need to explain their actions to members of the community.

5. Working toward board improvement – Board members must continually work to improve their processes and procedures so they can become a more effective team. This can be done by encouraging and building leadership within the team, by evaluating their own competence, and by reaching out for assistance when needed.

6. Acting strategically – Board members must learn to act strategically as they are responsible for planning systems and programs in the present and for the long term. This requires them to address critical issues while considering all the stakeholders involved. They must consider any factors that could affect the outcome of long-range goals and system planning. These plans must then be implemented, monitored, and evaluated in order for them to be effective.

The researcher created Table 2 to provide a cross-reference between Smoley’s model, the NSBA characteristics and the PSBA principles; the table also provides literary evidence supporting each area. The first three columns of Table 2 show a comparison between Smoley’s Model for Board Effectiveness (Smoley, 1999), the Center for Public Education’s (NSBA) eight characteristics of an effective board (Devarics and O’Brien, 2011), and the PSBA principles (Pennsylvania School Board Association, 2017c). It is important to note that there is not a one-to-one match for all three and that others may place them differently than that shown in Table 2. The fourth column of Table 2 provides evidence of each subset leading to successful outcomes in educational situations as well as corporate settings.
<table>
<thead>
<tr>
<th>Smoley’s model</th>
<th>NASB characteristics</th>
<th>PSBA principles</th>
<th>Evidence of effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making decisions</td>
<td>Clear vision and goals</td>
<td>Govern effectively</td>
<td>Useem (2006) Boeing board of directors addressed critical decision points during the design of the 787</td>
</tr>
<tr>
<td></td>
<td>Data-driven</td>
<td>Plan thoughtfully</td>
<td>Shober &amp; Hartney (2014) Boards of schools with higher than expected student achievement focus on student learning</td>
</tr>
<tr>
<td>Functioning as a group</td>
<td>Shared beliefs and values</td>
<td>Lead responsibly</td>
<td>Rice, Delagardelle, Buckton, Jons, Lueders, Vens, Joyce, Wolf, Weathersby (2000) Boards of high achieving schools demonstrate strong leadership as a team</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evaluate continuously</td>
<td>Useem (2006) Actions of Boeing Board during the design of the 787 led to a successful design and launch</td>
</tr>
<tr>
<td>Exercising authority</td>
<td>Team oriented</td>
<td>Lead responsibly</td>
<td>Crum &amp; Hellman (2009) relationship between board and staff is important</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Govern effectively</td>
<td>Useem (2006) Universal Investments directors’ involvement in fact gathering produced a better solution for customers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plan thoughtfully</td>
<td></td>
</tr>
<tr>
<td>Board improvement</td>
<td>Board development</td>
<td>Lead responsibly</td>
<td>Rice et al. (2000) Boards of high achieving schools look for ways to improve their effectiveness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evaluate continuously</td>
<td>Sonnenfeld (2002) PepsiCo spend time with annual evaluations</td>
</tr>
<tr>
<td>Act strategically</td>
<td>Accountability</td>
<td>Govern effectively</td>
<td>Rice et al. (2000) School boards of successful schools build systems that create and sustain initiatives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plan thoughtfully</td>
<td>Sonnenfeld (2002) UPS board of directors openly debate strategic decisions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evaluate continuously</td>
<td></td>
</tr>
</tbody>
</table>
Smoley (1999) devoted much time and effort to determining the characteristics that are evident in an effective board that positively affects students’ achievement; however, Land (2002), after reviewing the current research available, points out that literature linking effective board characteristics to positive student achievement is lacking. Land (2002) recommends conducting solid research that will clearly identify the key characteristics of an effective school board that link to high student academic achievement in order for school boards to survive.

Osborne (2007), Seifert (2009), and Sell (2005) also support the notion that there is a dearth of research connecting student achievement and school board practices. Osborne (2007) conducted a study to determine if the recommendations from the NSBA in *The Key Work of School Boards* had a positive effect on student achievement. The results of that study indicate that there was not a significant amount of evidence available to draw a direct correlation between how the board operated and how it affected the academic success of the students. Osborne (2007) noted that this area needs further research using different instruments to collect a variety of data on the behaviors of the board. In the 2007-2008 school year, Seifert (2009) studied the topics discussed by the school boards of thirteen randomly selected school districts of varying sizes across the state of Tennessee to determine their areas of focus. The conclusion was that this topic needs additional study and, if improving student achievement is going to be the focus of school boards, boards will need training on how to reach that goal. Sell (2005) questioned the continued existence of school boards and recommended that future research should attempt to connect student achievement to school boards, thus establishing the need for school boards. Sell’s (2005) point was that the viability of
School boards should be contingent on clearly defined roles and responsibilities that positively correlate to student achievement.

On the other hand, Maeroff (2010) defends the importance of school boards. The formation of the first school boards in New England was the true picture of a democracy at work within an educational system. Over the years, though, instead of operating autonomously, federal and state regulations, combined with demands from teachers’ unions, have dictated the actions of school boards, thus reducing their ability to make autonomous decisions as the districts’ governing bodies. In essence, some boards have bargained away their power and all that remains is superficial legal action; however, those that still have the power to do such things as determine the professional development needed to improve staff effectiveness, or make decisions about class sizes and length of school days, can positively affect student achievement. Resnick and Bryant (2010) provided support for the fact that school boards can positively affect student achievement when they stated that, although school boards have much room for improvement, they are making a difference in the governing of a strong and effective educational institution.

The growing research on public school boards has many areas of focus, one of them being their effectiveness as agents of change and improvement (Connor, 2009; Feuerstein, 2009; Foust, 2009; Frazier, 2011; Woodward, 2006). Some of these studies include charter schools (Frazier, 2011; Woodward, 2006) and some refer to Smoley’s (1999) work on effective boards, using his board survey as one of their data collection tools (Connor, 2009; Feuerstein, 2009; Foust, 2009; Woodward, 2006). In studies focused on student achievement and school boards, the Iowa Lighthouse Study (Rice,
Delagardelle, Buckton, Jons, Lueders, Vens, Joyce, Wolf, Weathersby, 2000) is widely referenced along with Land’s (2002) work. Because this study references the Lighthouse Study frequently, a summary of the study follows:

In September 2000, the Iowa Association of School Boards (IASB) released the Lighthouse Study: School Boards and Student Achievement (Rice et al., 2000) in which they revealed that school boards of high achieving schools are different from school boards of low-achieving schools. The study selected six different school districts to represent all the districts in Iowa in terms of enrollment, poverty percentage, spending per student, household and other factors. The study used these districts because one or more of the schools in the district ranked very high or very low for three academic years, 1995-1996, 1996-1997, and 1997-1998, on standardized achievement test data. A five-member research team and one consultant interviewed 159 representative board members, superintendents, central office administrators, principals, or teachers from the six districts. The team analyzed results based on patterns in the interview answers. Once patterns emerged, the team considered connections to achievement ratings. While there were many similarities between all the districts studied, there were also marked differences between high-achieving and low-achieving districts. Table 3 shows the Lighthouse Study (Rice et al., 2000) comparison of board member comments and beliefs from high and low-achieving districts.
Table 3
*High-Low Achieving District Board Member Comment and Belief Comparison*

<table>
<thead>
<tr>
<th>High-achieving district board members</th>
<th>Low-achieving district board members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believe students are emerging and flexible</td>
<td>Believe students are limited by circumstances</td>
</tr>
<tr>
<td>View the role of the school is to release the student’s potential</td>
<td>View the role of the school is to manage what they are given</td>
</tr>
<tr>
<td>View socio-economics as a challenge</td>
<td>Accept socio-economics as a limitation</td>
</tr>
<tr>
<td>Understand and are involved in school renewal</td>
<td>Show no evidence of focus on school renewal</td>
</tr>
<tr>
<td>Are able to identify the board’s role in school improvement initiatives</td>
<td>Are vaguely aware of school improvement initiatives</td>
</tr>
<tr>
<td>Are able to describe the implementation of initiatives by administration and school personnel</td>
<td>Are seldom able to describe implementation of initiatives by school personnel</td>
</tr>
</tbody>
</table>

In all districts, these similarities emerged:

- The people interviewed cared about the children;
- There was a peaceable board/superintendent relationship;
- All boards were satisfied with their superintendent;
- There was tension in trying to obtain building–level autonomy in site-based management systems;
- Districts had not been successful in closing the learning gap with students with special needs;
- The backgrounds of 75 percent to 80 percent of the board members and staff were similar.

and how it relates to student achievement. Connor (2009) studied eight South Carolina school boards and found that 37.5 percent had effective school boards that aligned to student achievement; the remaining showed neither a positive nor a negative alignment to student achievement. The study revealed that school boards operated in the area of working toward board improvement more than in the other areas; the area of functioning as a group was least referenced. Connecting to the community was an area in which all the school boards operated. Foust (2009) wanted to determine if a relationship exists between Pennsylvania school board governance practices and student achievement as evidenced in the school’s Annual Yearly Progress (AYP) scores in math and Reading. With the help of Smoley’s (1999) framework for effective school boards, Foust assessed the board effectiveness of an urban, a suburban, a rural, and a charter school in Western Pennsylvania. The study found that a positive correlation did not exist between board effectiveness and AYP score. Woodward (2006) conducted a study of 59 public community/charter schools and 17 traditional schools in Ohio and found that “community/charter school boards were found to be more effective than traditional public school boards in which they are geographically located in the areas of Making Decisions, Functioning as a Group, and Acting Strategically” (p. ii). Woodward concluded that both traditional and charter schools need to develop strengths that provide leadership and they need to reflect on their weaknesses in order to improve.

While the studies presented in this chapter identify the need for more research on the effectiveness of school boards and their effect on student achievement, those that reference Smoley’s (1999) work do not refute the reliability and validity of his model or
board self-assessment tool. The next section of this chapter presents literature related to the six categories that Smoley (1999) defined as necessary for an effective school board.

**Six Subsets of Effective Boards**

Smoley (1999) identified six areas of governance in which a school board should be proficient in order to affect student achievement positively. They are making decisions, functioning as a group, connecting to the community, exercising authority, board improvement, and acting strategically. It is important to note that, because these areas of governance do not work in isolation but rather are interconnected behaviors that lead to overall effectiveness, some literature discussions presented in this section are relevant across multiple areas.

In a monthly newsletter published for superintendents, Editor Jeff Stratton shares tips and strategies, and relays information between superintendents that can help them build effective relationships with board members to work as a team focused on high student achievement (LRP Publications, 2017). The information that Stratton provides in these newsletters not only corresponds to the six areas of an effective board as outlined by Smoley (1999) but also coincides with the principles suggested by the National School Board Association (2017c) and the Pennsylvania School Board Association (2017c).

A 2009 study of 96 Pennsylvania school boards, from the perspective of the superintendent, was conducted by Schreck (2010) to identify and examine the policies and governing practices of the board as well as to determine if a relationship existed between those policies and practices and student achievement. Schreck (2010) discovered that certain governance areas affect student achievement:

- Being aware of and funding academic improvement efforts;
• Providing professional development;
• Utilizing data to make decisions and monitor results;
• Fostering a positive board and superintendent relationship;
• Taking administrative recommendations for hiring;
• Participating in annual goal-setting retreats;
• Evaluating the superintendent;
• Putting aside personal agendas;
• Focusing on what was best for student achievement.

Additional support for these governance areas appear in the following six sections on each of the subsets identified by Smoley (1999) as being essential for an effective school board.

**Making decisions.** Smoley (1999) stated that, to make rational decisions, a board must not only have access to relevant information but it must also discuss and use that information. Shober and Hartney (2014), when conducting a national study to determine if school boards should be the educational leaders of their districts, found that school boards that focus on academics are more likely to be associated with better performing schools. They found that board members who do not have a background in education are less likely to see barriers in achieving goals related to academics. Lorentzen (2013) found in a study of Montana school board practices that school boards that are focused on student learning set goals and expectations to improve student learning. The board also has systems in place to inspect the implementation of the decisions that they make and to receive/react to feedback on the results of their decisions. Lorentzen (2013) found that boards that perform these actions do positively affect student achievement. In a study
involving Indiana school boards, Shafer (2014) found that school boards that were aware and knowledgeable about their schools’ data were more likely to realize improved student achievement. Board members who had been involved in professional development were more likely to work in a collaborative environment during the decision-making process. One of Shafer’s (2014) recommendations is that, to improve student achievement, the board needs more training. Crum and Hellman (2009), in their study of the decision-making process of school boards, found that there is a need for collaboration between staff and board members when making important decisions. The conclusion was that a need exists for further exploration into the unique characteristics and the decision-making process of boards. While Smoley (1999) stresses the importance of board members working with the district staff when gathering information to make decisions, he also points out that, to be effective, school boards should discuss and deliberate over decisions publicly, and allow the public to provide input.

**Functioning as a group.** Smoley (1999) points out that, in the decision-making process, it is essential for the board to function as a group. The PSBA (2011) stresses the it is equally important that board member training devote time to the concept of acting as members of a team. In a study of 247 school board presidents and vice-presidents across the United States during the 2006-2007 school year, Chen (2008) assessed the attitudes of board members toward teamwork in the following areas: financial planning, management, and analysis; policy orientation; curriculum evaluation and investment; academic assessment; technology investment; and board effectiveness. Chen found that teamwork is a key factor in the decision-making process and governing from a policy perspective leads to board effectiveness. Holmen (2016) studied the relationship
between student achievement and school board activity. The study found that boards that work collaboratively, make decisions as a team, and do not have members who act in isolation have a positive impact on student achievement.

In a study of 184 New York school board members, Siegel (2009) studied the relationship between school board members’ attitudes toward six governance components and board effectiveness. The six components were teamwork, academic assessment, board development, financial planning, board responsibilities, and financial management. School boards from the high achieving schools showed a stronger tendency to participate in teamwork, academic assessment, board development, financial planning, board responsibility, and financial management. Teamwork was the strongest indicator of a high achieving school district and board responsibility was a strong indicator of perceived effectiveness. Siegel (2009) recommends that school boards engage in teamwork in order to be effective and positively affect student achievement.

Saatcioglu, Moore, Sargut, and Bajaj (2011) provide further support for school boards functioning as a team in their study that found that social capitalism (cohesiveness, trust, and cooperation within the group) of the school board is an important part of improving financial and academic outcomes. In this study of Pennsylvania school boards, researchers found that shared vision, information exchange, and trust have more of an effect on student achievement than ties to the outside. Lorentzen (2013) and Shafer (2014) found additional evidence in studies that substantiate the value of school boards that are able to function as a team. Lorentzen (2013) found that school boards that operate as a team conduct business fairly and respectfully thus leading to a better working environment. Shafer (2014) stressed the importance of
distributed leadership, which can only occur in a team environment. Both studies found that when school boards perform these actions, student achievement is positively affected.

**Connecting to the community.** According to the PSBA (2011), connecting to the community requires a steady flow of communication between the school and the community. The PSBA stresses that the most crucial goal for a school board is to engage the community in developing a common goal of improving student achievement. It is the responsibility of schools and school board members to educate and guide the community as well as to mobilize support for the common goal of improving student achievement. Saatcioglu et al. (2011) also reference literature to confirm that school boards are one of the oldest institutions that still play an important role in ensuring that democracy remains integral to the governance of schools and that there remains a mediator between local desires and state and federal regulations (Ehrensal & First, 2008; Iannacone & Lutz, 1970; Wirt & Kirst, 2001). Thurow, as referenced by PSBA (2011), provides an outline to building effectual education: (a) government to organize the system, (b) business to provide applicability, and (c) volunteers to expand the reach of the institution and provide a deeper connection to the community.

The purpose of the establishment of local school boards was to keep control of the school local and to create the sense that the school belonged to the community (National School Board Association, 2017b). Working with local political leaders is just one way in which school boards can connect with the community; it is also a way in which local political leaders invest in their local schools. In order to do that, they must understand what affects student achievement and what people in their roles can do to positively
affect student achievement. Leaders of school reform often overlook revamping local school governance because they do not believe that this group could be part of the problem (Usdan, 2010). However, Usdan commented that local authorities must truly understand student achievement in order to help strengthen local school boards. This contradicts what Alsbury (2008) found in the study of superintendent and board member turnover in Washington state schools. The study revealed that, when board member turnover was politically motivated, a downturn in student achievement scores followed. Smoley’s (1999) statement, “A school board is part of the community it serves,” (p. 2) explains why a conflict in the community spreads into the school, thereby affecting student achievement.

In a multi-case study of four successful charter school boards in South Carolina, Bohnstengel (2012) found that the quality of relationships between school board members, parents and community members was a key component of the school’s success. As Smoley (1999) pointed out, an effective board is one that acts as a liaison between the school and the community. Bohnstengel found that, when board members take a genuine interest in public education by involving the community and parents, teacher, student, and parent satisfaction rates are higher. A general sense of autonomy empowered teachers and principals to take ownership in the success of their schools, thus engendering a strong sense of trust between board members, principals, teachers, and community (Bohnstengel, 2012). Lorentzen (2013) and Shafer (2014) further support the importance of community engagement with research that links improved student achievement with high community engagement initiated by the school board.
Exercising authority. Another way in which school board members can connect to the community is by developing a healthy balance between being the face of authority and supporting the superintendent, the person they hired to manage the operation of the school. Smoley (1999) points out that, while in many situations the community wants to see the board as operating independent of the superintendent, board members must maintain a balanced approach to working with the superintendent to remain effective. The PSBA (2011) stresses to new board members that the role of the board member is to be a member of a team comprised of ten members: nine board members and the superintendent. No individual team member has the authority to make legal decisions without the consent of the other team members. Lorentzen (2013), Shafer (2014), and Stratton (2016) support this concept by reminding superintendents that it is the responsibility of the superintendent to teach board members their role as part of the governing body of the school. Superintendents should clearly delineate between the role of the board and the role of the superintendent. Ford (2014) and Holmen (2016) found in their studies that, when superintendents are part of a team that collaborates in the decision-making process and when there are clear boundaries for their respective roles, the result relates positively to student achievement. Siegel (2009) found that districts with high student achievement showed more respect among all stakeholders for their superintendent and for each other; therefore, they were able to work well together to achieve a common goal. Siegel suggests that board members must fully understand their roles and responsibilities, especially as they relate to student achievement.

Thompson and Holt (2016) report that trust is an essential part of a positive team environment and that the action of building a trusting relationship between the school
board and the superintendent has a positive effect on student achievement. Crum and Hellman (2009) further support this premise when they discuss the importance of a good relationship between the board and the staff, and most particularly with the chief school administrator. The Lighthouse study (Rice et al., 2000) revealed that high-achieving schools were satisfied with their superintendents and they had a peaceable board/superintendent relationship. Feuerstein (2009), at the conclusion of his study, recommended building productive relationships between the board and the superintendent to affect student achievement positively. While a good relationship between the board and the superintendent is not the only factor that leads to positive student achievement, it is the common factor in multiple studies centered on school boards and student achievement. Stratton (2014, 2015) shared that to enhance the building of strong relationships with board members, the superintendent should ensure that the board is fully informed. Communication between the board members and the superintendents prevents surprises and builds trust. Bohnstengel (2012) recommends that school boards foster and maintain a sense of relational trust by functioning as a governing body within the guidelines of the law and by avoiding the assumption of management functions.

In a case study of two charter school principals, Bickmore and Dowell (2011) found that school leaders who did not focus on improving instruction had a negative effect on student achievement. This demonstrates the importance of hiring effective school leaders who are capable of positively affecting student achievement. School boards must be aware of the type of leader they need to affect student achievement positively; a good working relationship with the superintendent can be very beneficial in
this decision-making process. This assertion is further supported by Gleason, Clark, Tuttle, and Dwoyer (2010) who reported that operations for which school leaders are responsible relate to student performance on state tests even though there was no statistically significant relationship between student achievement and the charter schools’ policy-making environment.

An example in which hiring quality school leaders can have a positive effect on student achievement exists in the case study conducted by O’Connor (2009) on the distributed leadership style of a charter school in California. Using archival documents and focus groups, O’Connor found that the charter school survived because of its ability to self-correct and restructure itself through fluid and flexible organizational management as well as the breadth and depth of leadership demonstrated by the school’s stakeholders. The use of distributed leadership contributed to increases in both academic and art education achievement.

**Board improvement.** Board development is an ongoing comprehensive process that should include collaboration and self-evaluation (Smoley, 1999). Stratton (2014) states that training for board members provides each member with guidelines to follow regarding their role and responsibilities. This training is ongoing and often includes the superintendent so that learning occurs together. Young (2011) conducted a study related to the training of governing boards to influence student achievement. The findings of the study stressed the importance of collaboration between the school board and the administration so that the board fully understands the importance of its role in improving the school. The superintendent of the school is responsible for directing the attention of the school board to its role of improving every student’s achievement. The school board
must then receive training to develop driving force policies that improve student learning and student achievement. Young (2011) recommends that boards receive specific training on how to improve student learning and student achievement and that superintendents receive training on how to lead boards and staff to focus on student achievement.

In addition, Feuerstein’s (2009) study offered three recommendations for professional development for the school board that would enhance school improvement: understanding how school districts work, developing productive relationships between the board and the superintendent, and expanding the ability of the board to think strategically. Lee and Eadens (2014), as well as Shafer (2014), found that board training needed to focus on student learning, gathering data and staying informed, group goals, and working relationships between team members. In another study, Frazier (2011) recommended mandatory board development training events centered on leadership, communication, administrative management, and fiscal management. Studies by Holdren, Majors, and Patton (2014) as well as Lorentzen (2013) provide additional support for the value of board training and development. Chen (2008) pointed out that, in order to remain effective, school boards should evaluate their governance practices and find ways to put aside personal agendas and differences to build consensus. Board development and training should include self-evaluation, an act which focuses the team on the its shared purpose and vision; self-evaluation focuses everyone on a common goal around which members can make goal-related decisions (Smoley, 1999).

**Acting strategically.** According to Smoley (1999), boards who act strategically;

- Address critical issues;
• Make plans for the future;
• Adjust organizational roles based on needs;
• Consider external and internal sources when discussing issues;
• Evaluate the systems and people they have put into place.

Woodward’s (2006) study on district school boards and charter school boards resulted in a revelation that the participating charter school boards performed better than the district school boards in the area of acting strategically. Holmen (2016) found that when school boards focus on advocacy and look at the big picture they are able to create shared solutions that work in multiple areas and address multiple issues, thus producing results that are more likely to produce positive changes in student performance. Additional support for Holmen’s study can be found in Ford’s (2014) provided additional support for Holmen’s study by finding that school boards that focus on strategic planning and work to mitigate conflict positively affect student achievement. Lorentzen’s (2013) study breaks down strategic planning into creating goals and expectations and then making plans to meet those goals and expectations. Lorentzen (2013) found that boards that also review, monitor the progress of, and evaluate those plans are more likely to improve student achievement. Finally, Shafer (2014) pointed out that boards must also understand how to effectively initiate and sustain initiatives and provide supporting context for the policy and decision making process in order to improve student achievement. Each of the six subsets identified by Smoley (1999) do not operate in isolation; rather, the actions are intertwined and mutually supportive, the result being that all parts are present to effectively improve student achievement.
Summary

The NSBA and the PSBA have established that the purpose of the school board is to affect student achievement positively as well as to effectively govern the school organization; therefore, if the school board operates effectively, the school should be a high performing school (National School Board Association, 2017b; Pennsylvania School Board Association, 2017b). A review of the current literature revealed that while there are other factors that contribute to positive student achievement, the school board plays an important role in the ability of students to reach proficiency. For those who argue that there is no longer a need for school boards, Saatcioglu et al. (2011) state the importance of the continuation of the institution of school boards as they play an important role in ensuring that democracy remains in the governance of schools and that there remains a mediator between local desires and state and federal regulations. Support of this research is presented by Schreck (2010) who shows that, while they do not have direct contact with the students, school boards do affect student achievement.

Studies show that the work of effective boards positively affect student achievement; in addition, the characteristics and the composition of the board play a role in student achievement. Due to the intense responsibilities of boards and their varied backgrounds and experience, it is necessary to provide board members with the proper training needed to perform their duties with proficiency. From these studies, it is evident that not only is board responsibility important to student achievement but board training and relations with superintendents have significant bearing on student achievement. While there are studies, whose results were inconclusive in terms of the relationship between board efficacy and student achievement, there are also studies that show a
positive correlation between student achievement and effective board operations. More research is necessary to determine conclusively if effective school boards positively affect student achievement. Chapter 3 presents the methodology and the description of data analysis used in this quantitative study.
CHAPTER 3

METHODOLOGY

Foust (2009) pointed out that, when it comes to discussions about student success, school boards become the center of the debate. Ultimately, the school board is responsible for the creation of policies and the formation of the environment in which school administrators operate a successful educational institution. While school administrators and teachers are directly responsible for educating the students, school boards are responsible for the hiring and firing of personnel and for approving the curriculum (Smoley, 1999). This study sought to determine if there is a correlation between the effectiveness of the school board and the school performance profile score for both district and charter schools. Chapter 3 outlines the purpose of this quantitative study, the research design and the research questions. It describes the Pennsylvania (PA) district and charter school populations and the sample that volunteered to participate. This chapter concludes with a description of the instrumentation and methodology for the collection and analysis of the data.

Purpose of the Study

The purpose of this study was to determine if a correlation exists between the overall effectiveness rating of the district and charter school boards, derived from an assessment completed by the chief school administrator or his or her designee, and the school performance profile (SPP) score as determined by the Pennsylvania Department of Education (PDE). The information calculated, compared, and analyzed included the data sets for all participating schools, district schools, and charter schools. The overall board effectiveness rating consisted of a compilation of six subsets: making decisions,
functioning as a group, exercising authority, connecting to the community, working toward board improvement, and acting strategically. The correlation between the rating from each of the six subsets and the school performance profile (SPP) score was also determined, compared and analyzed.

**Research Questions**

This study incorporated Eugene Smoley’s (1999) model for an effective school board and answered the following questions:

1. Is there a correlation between the effectiveness rating of school boards and the School Performance Profile scores?

2. Is there a correlation between each of the six-subset ratings (making decisions, functioning as a group, exercising authority, connecting to the community, working towards board improvement, and acting strategically) of school boards and the School Performance Profile scores?

3. Is there a difference between the correlation of the district school board effectiveness rating and School Performance Profile score and the correlation of the charter school board effectiveness rating and School Performance Profile score?

4. Is there a difference in the overall board effectiveness ratings between districts and charter schools?

5. Is there a difference between the district and charter school correlations in each of the six-subset ratings (making decisions, functioning as a group, exercising authority, connecting to the community, working towards board
improvement, and acting strategically) and the School Performance Profile score?

Since the primary objective of this study was to determine if there was a correlation between a school’s SPP score and the effectiveness rating of the school board, the null hypothesis was that there is no correlation between the school’s SPP score and the school board effectiveness rating. This hypothesis would also suggest that no correlation exists between each of the six-subsets and the school’s SPP score. Further, if no correlations exist, there will be no difference in the correlations between district and charter schools.

**Research Design**

This study used a quantitative approach for data collection and analysis. According to Creswell (2008), when investigating a relationship between variables, one must use quantitative research methods. Quantitative research methods apply statistical analysis to numeric data in order to identify trends or relationship among variables. Two sources will provide data for this study. First, to identify the percentage of schools who made Annual Yearly Progress (AYP) or who received a School Performance Profile Score (SPP) of 80 or above, the researcher accessed the Pennsylvania Department of Education (2016a, 2016b, 2017b) website to download data files for all Pennsylvania (PA) district and charter schools’ SPP scores; Table 1 displays this information. For districts with more than one building with an SPP score, the average of all buildings’ SPP scores represents the district’s SPP score. Second, chief school administrators from district and charter schools completed an online questionnaire whose responses provided data to calculate the board effectiveness rating and subset ratings. The chief school
administrator had the option to delegate the completion of the questionnaire to his or her
designee.

Population

In September of 2016, according to the Pennsylvania Department of Education
(2017a) website, the state was home to 499 school districts and 176 charter schools;
combined, 675 public schools comprised the population of this study. Upon completion
of the pilot study phase of this research, an email containing the informed consent letter
and the invitation to participate in the study by completing the online board questionnaire
(Appendix A) went to all district superintendents (Appendix C) and charter school CEOs
(Appendix D). Eight district emails returned as undeliverable, thus decreasing the total
of district schools to 491. Duplicated email addresses and emails returned as
undeliverable decreased the number of charter schools by 38 to 138. Overall, the
population declined to 629 schools.

Sample

The online questionnaire was completed by representatives from 137 districts for a
28 percent district participation rate and 27 charter school representatives for a 20 percent
charter school participation rate. After removing incomplete and duplicate responses, the
sample consisted of data from 128 districts and 24 charter schools. Overall, the sample
included data from 152 schools, which represents 24 percent of the population.

Instrument

The board self-assessment questionnaire (Appendix A) is from Eugene Smoley’s
Smoley’s (1999) combined an in-depth study of Delaware school board members,
extensive knowledge of school boards across the country, and interviews with various experts.

Other studies that incorporated Smoley’s (1999) questionnaire include Feuerstein (2009), Foust (2009), and Woodward (2006). Woodward (2006) administered Smoley’s (1999) questionnaire to the superintendents of the schools that were studied instead of to the board members; he cited Chait, Holland, and Taylor who indicated that using the superintendents to complete the assessment eliminated the potential for bias that accompanies self-reporting. A validation test run by Woodward (2006) used the instrument with a sample group of superintendents who commented that the tool was both understandable and relevant from the perspective of a superintendent. Table 4 displays the reliability information gathered by Woodward (2006) on the Smoley (1999) instrument as used by superintendents.

Table 4

<table>
<thead>
<tr>
<th>Subset</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making decisions</td>
<td>0.82</td>
</tr>
<tr>
<td>Functioning as a group</td>
<td>0.77</td>
</tr>
<tr>
<td>Exercising authority</td>
<td>0.70</td>
</tr>
<tr>
<td>Connecting to the community</td>
<td>0.85</td>
</tr>
<tr>
<td>Working toward board improvement</td>
<td>0.87</td>
</tr>
<tr>
<td>Acting Strategically</td>
<td>0.92</td>
</tr>
</tbody>
</table>
Table 5 presents the results of the Chronbach’s Alpha test used to determine reliability of the questionnaire used in this study.

Table 5  
Reliability Statistics of Smoley’s Questionnaire Administered to Chief School Administrators (Cronbach’s Alpha)

<table>
<thead>
<tr>
<th>Subset</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making decisions</td>
<td>0.69</td>
</tr>
<tr>
<td>Functioning as a group</td>
<td>0.70</td>
</tr>
<tr>
<td>Exercising authority</td>
<td>0.63</td>
</tr>
<tr>
<td>Connecting to the community</td>
<td>0.72</td>
</tr>
<tr>
<td>Working toward board improvement</td>
<td>0.83</td>
</tr>
<tr>
<td>Acting strategically</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Pilot

Upon approval from the Indiana University of Pennsylvania Institutional Review Board (IRB), the researcher sent the informed consent email (Appendix C) containing the link to the online questionnaire to six former chief school administrators, whom the researcher knew personally, asking them to complete the questionnaire based on their final years as a superintendent or CEO. The researcher also asked the participants to pass along the link to their acquaintances who were also former chief school administrators. The researcher chose former chief school administrators so as not to affect the sample size of the study. There were eight former chief school administrator participants in the pilot study: seven respondents served in district schools and one served in a charter school. All participants agreed that the questionnaire was suitable for chief school administrators to use as a tool for rating their board members.
Procedures

In mid-September 2016, the researcher sent two mass emails with the informed consent letter. One email went to district superintendents from the researcher’s Intermediate Unit 8 email account (Appendix C) and the other email went to charter school CEOs (Appendix D) from the researcher’s charter school email account. The informed consent letter provided a brief explanation of the study and asked chief school administrators or their designees to complete a 73 question online questionnaire related to the actions of their boards. The email provided the chief school administrator with a link to a webpage containing the online questionnaire (Appendix A). While their content was identical, the researcher coded surveys to distinguish district school responses from charter school responses. This enabled the researcher to know the number of participants in each group. In the preface to the questions, the researcher thanked the administrator for his or her time and explained that participation was confidential. The questions preceding the questionnaire asked the name of the district or charter school and the range in the number of years served by board members. A period of approximately three weeks elapsed before the researcher sent a reminder email to superintendents and charter school CEOs (Appendix E and Appendix F). After another two weeks, the researcher sent the emails again as the third and final reminder. On November 1, 2016, the researcher closed the online questionnaire and sent an email to all thanking them for their participation and notifying them of the closing of the questionnaire. Only fully completed surveys were included in this study.
Data Analysis

The researcher entered Smoley’s (1999) Board Self-Assessment Questionnaire (Appendix A) into an online survey software program called Qualtrics. This online survey tool collected all responses. At the end of the collection period, the researcher imported the data into the online Statistical Package for the Social Sciences (SPSS) software for data analysis and manually entered the SPP scores of the schools.

Table 6 provides the question numbers that comprised each subset; included is the highest possible mean score for each subset.

<table>
<thead>
<tr>
<th>Subsets</th>
<th>Question numbers</th>
<th>Highest mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making Decisions</td>
<td>1, 5, 6, 13, 24, 26, 27, 33, 38, 54, 60, 65, 69</td>
<td>3</td>
</tr>
<tr>
<td>Functioning as a Group</td>
<td>3, 17, 30, 32, 36, 37, 49, 53, 59, 64, 68, 72</td>
<td>3</td>
</tr>
<tr>
<td>Exercising Authority</td>
<td>7, 14, 15, 35, 43, 45, 48, 51, 57, 63, 67, 71</td>
<td>3</td>
</tr>
<tr>
<td>Connecting to the Community</td>
<td>4, 10, 11, 16, 18, 22, 23, 29, 39, 47, 55, 61</td>
<td>3</td>
</tr>
<tr>
<td>Working toward Board Improvement</td>
<td>2, 12, 20, 21, 25, 28, 31, 34, 40, 44, 52, 58</td>
<td>3</td>
</tr>
<tr>
<td>Acting Strategically</td>
<td>8, 9, 19, 41, 42, 46, 50, 56, 62, 66, 70, 73</td>
<td>3</td>
</tr>
</tbody>
</table>

The Pearson product-moment correlation coefficient statistical test determined if a correlation exists between the board effectiveness rating and the school’s SPP score. According to Creswell (2008), when determining the correlation between two variables, the Pearson product-moment correlation coefficient is the best test to use because it takes
two variables that may or may not change together and determines the relationship between them. In this study, the independent variable is the overall board effectiveness rating or the rating of each subset. The dependent variable is the 2015-2016 SPP score. For a district with multiple buildings with SPP scores, the average of the SPP scores of each building in the district became the SPP score used in the correlation calculation. In each of the three data sets (all participating schools, district schools, and charter schools), the researcher completed tests for correlations between (a) SPP score and board effectiveness, and (b) SPP scores and each of the six subsets. The researcher then compared the correlation data of the district schools and the charter schools.

Table 7 explains the data collection necessary to answer each research question. Table 8 provides the statistical test and variable for each research question.
Table 7  
*Data Collection by Research Question*

<table>
<thead>
<tr>
<th>Research question</th>
<th>Data collection</th>
</tr>
</thead>
</table>
| 1. Is there a correlation between school board effectiveness and the School Performance Profile | Board effectiveness rating: All questionnaire responses for each district or charter school  
SPP Scores:  
District: The average of 2015-2016 SPP scores of each building in the district  
Charter School: 2015-2016 SPP score for the school |
| 2. Is there a correlation between each of the six-subset ratings of school boards and their School Performance Profile scores? | Subset Rating: Questionnaire responses by subset for each district or charter school (See Table 6 for listing of questions for each subset)  
SPP Scores from Question #1 |
| 3. Is there a difference between the district correlation of the district and the correlation of the charter school? | Correlations by district and charter school from Question #1 |
| 4. Is there a difference in the overall board effectiveness ratings between districts and charter schools? | Board effectiveness ratings by district and charter school from Question #1 |
| 5. Is there a difference between the district and charter school correlations in each of the six-subset ratings? | Correlations from Question #2 |
Table 8
*Related Statistical Procedures and Variables by Research Question*

<table>
<thead>
<tr>
<th>Research question</th>
<th>Test used</th>
<th>Variables (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is there a correlation between school board effectiveness and the School Performance Profile</td>
<td>Pearson product moment correlation</td>
<td>$V_1 = $ Board Effectiveness Rating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_2 = $ SPP Score</td>
</tr>
<tr>
<td>2. Is there a correlation between each of the six-subset ratings of school boards and their School Performance Profile scores?</td>
<td>Pearson product moment correlation</td>
<td>$V_1 = $ Subset Rating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_2 = $ SPP Score</td>
</tr>
<tr>
<td>3. Is there a difference between the district correlation of the district and the correlation of the charter school?</td>
<td>Comparison</td>
<td>$V_1 = $ District Board Effectiveness Correlation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_2 = $ Charter School Board Effectiveness Correlation</td>
</tr>
<tr>
<td>4. Is there a difference in the overall board effectiveness ratings between districts and charter schools?</td>
<td>Comparison of Range, median, and mode</td>
<td>$V_1 = $ All District Board Effectiveness Rating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_2 = $ All Charter School Board Effectiveness Rating</td>
</tr>
<tr>
<td>5. Is there a difference between the district and charter school correlations in each of the six-subset ratings?</td>
<td>Comparison</td>
<td>$V_1 = $ District Subset Correlations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$V_2 = $ Charter School Subset Correlations</td>
</tr>
</tbody>
</table>

**Expected Findings**

Although the null hypothesis for each research question was that there would not be a correlation between the board effectiveness rating and the school performance score or each of the six subsets and the school performance score, the expectations were that the results of the study would present information that would be useful for improving board performance. The expectation was that there would be a positive correlation
between the board effectiveness rating and the school performance profile score for both district and charter schools. With the high percentage of schools below the acceptable school performance levels, the expectation was that an examination of the ratings would reveal areas in the subsets on which the school boards should concentrate. With the significant difference in acceptable school performance profile scores between district and charter schools, it was expected that a significant difference in board effectiveness rating would also be found. Again, the examination of the ratings of each of the subsets between district and charter schools would reveal areas in which charter school boards could focus their school board professional development.

Summary

Due to decreasing school performance scores and the widening gap of school performance between district and charter schools, it is necessary to look at the data to pinpoint skill areas in need of improvement. According to Foust (2009), school boards should be part of discussions related to student achievement and school performance. This study examined the relationship between the board effectiveness rating of both district and charter schools in PA.

The board effectiveness rating, derived from the chief school administrators’ responses on a questionnaire, focused on the actions of their school board members. The researcher used Smoley’s (1999) “Board Self-Assessment Questionnaire” to gather responses and the Pearson product moment correlation coefficient answered two of the five research questions in this quantitative study. One question related the overall board effectiveness rating to the school’s SPP score for district and charter schools; the other question related the subset rating to the school’s SPP score. The remaining three
questions are comparisons of the data. This study compared the board effectiveness ratings of district and charter schools; the study also compared the correlations of the overall board effectiveness ratings and the subset ratings of these two groups. Chapter 4 provides the data collected as well as the analysis of that data.
CHAPTER 4

RESULTS

The purpose of this study was to determine if a correlation exists between school board effectiveness and a school or district’s School Performance Profile (SPP) score. The School Performance Profile (SPP) score for each participating school was collected from the Pennsylvania Department of Education (PDE) 2015-2016 school year data files. For districts with more than one school with an SPP score, the SPP score used was the average of all the SPP scores for the district. A questionnaire developed by Smoley (1999) and completed by the chief school administrator of each participating school provided the information regarding the effectiveness of the school’s board. Six categories allowed for subset groupings for the responses from the chief school administrators: making decisions, functioning as a group, exercising authority, connecting to the community, working toward board improvement, and acting strategically. The mean of all the subset groups produced the overall board effectiveness score. This chapter describes the statistical tests performed and provides the results of the study.

Description of the Sample

There were 499 Pennsylvania school districts and 176 charter schools in operation in September of 2016. Of the 499 districts and 176 charter schools that comprised the target population, there were eight invalid district emails and 38 charter school emails that were either duplicated or invalid. The duplication of emails occurred when one chief school administrator was listed as the administrator of multiple charter schools. After removing invalid or duplicated contacts, 491 districts and 138 charter schools remained
from which to draw a sample. The online questionnaire in Qualtrics, an online survey tool, was completed by representatives of 137 districts for a 28 percent participation rate and 27 charter schools for a 20 percent participation rate. After removing incomplete responses, the sample consisted of data from 128 districts and 24 charter schools.

**Description of the Data**

Participants responded by choosing one of the following four ratings for each of the 73 questions: strongly disagree, disagree, agree, or strongly agree. Table 9 displays the conversion chart used to convert the text to numeric for the statistical tests used in this study.

<table>
<thead>
<tr>
<th>Response</th>
<th>Numeric value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
</tr>
<tr>
<td>Agree</td>
<td>2</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>3</td>
</tr>
</tbody>
</table>

The researcher created three sets of data on which to perform statistical tests for this study. The “all schools” set consisted of data collected from all the schools. The “district schools” set consisted of data collected from the district schools. The “charter schools” set consisted of data collected from the charter schools. The measures of central tendency and measures of dispersion calculations were calculated by data set with regard to the SPP score, board effectiveness rating, and each of the six following subgroups: making decisions, functioning as a group, exercising authority, community connection, board improvement, and acting strategically. The Pearson product-moment correlation
coefficient calculation for each data set determined if a correlation exists between the SPP score and the board effectiveness rating. Correlation tests were also conducted between the SPP and each of the six subgroups as well as to each individual question on the questionnaire. Independent sample $t$-tests were conducted to compare the means of the board effectiveness ratings, each of the six subsets, and all of the questions between the district data set and the charter school data set. The remainder of this chapter provides the analysis of each data set related to the measures of central tendency, measures of dispersion, correlation tests, and $t$-tests as well as the analysis of the results by research question.

**Analysis of Measures of Central Tendency and Measures of Dispersion**

This section provides a table for each of the sets of data with regard to the measures of central tendency and the measures of dispersion. Table 10 displays the measures of central tendency and measures of dispersion for the data set that includes all the schools ($N = 152$). Table 11 provides the measures of central tendency and measures of dispersion for the data set including all district schools ($n = 128$) and Table 12 displays the measures of central tendency and measures of dispersion for the data set including all charter schools ($n = 24$).

**All Schools Data Set**

The Pennsylvania Department of Education considers an SPP score of 70 to be an acceptable performance score. In Table 10, the mean SPP score for all the schools that participated ($N = 152$) was 69.50 with a standard deviation of 9.35. As depicted in Figure 2, a large standard deviation indicates a wide dispersion of scores from the mean even though the mean is 0.50 away from what PDE considers an acceptable score. A median
of 71.60 and a mode of 71.40 of all participating schools’ SPP scores indicates that most of the schools’ fall around the acceptable score of 70. The range of 48.90 indicates a large spread as well with the minimum being 40.90 and the maximum being 89.80.

Table 10

*Measures of Central Tendency and Measures of Dispersion for All Schools with Regard to SPP, Board Effectiveness, and the Six Subsets*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Mode</th>
<th>Mdn</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPP</td>
<td>69.50</td>
<td>9.35</td>
<td>71.40(^a)</td>
<td>71.60</td>
<td>48.90</td>
<td>40.90</td>
<td>89.80</td>
</tr>
<tr>
<td>Board effect.</td>
<td>1.70</td>
<td>0.17</td>
<td>1.62</td>
<td>1.67</td>
<td>1.32</td>
<td>0.95</td>
<td>2.26</td>
</tr>
<tr>
<td>Making dec.</td>
<td>1.69</td>
<td>0.21</td>
<td>1.69</td>
<td>1.69</td>
<td>1.31</td>
<td>1.15</td>
<td>2.46</td>
</tr>
<tr>
<td>Funct. group</td>
<td>1.74</td>
<td>0.29</td>
<td>1.83</td>
<td>1.75</td>
<td>1.75</td>
<td>0.75</td>
<td>2.50</td>
</tr>
<tr>
<td>Exerc. auth.</td>
<td>1.67</td>
<td>0.19</td>
<td>1.75</td>
<td>1.67</td>
<td>1.00</td>
<td>1.08</td>
<td>2.08</td>
</tr>
<tr>
<td>Com. connect.</td>
<td>1.74</td>
<td>0.30</td>
<td>1.67</td>
<td>1.75</td>
<td>1.92</td>
<td>0.58</td>
<td>2.50</td>
</tr>
<tr>
<td>Board improv.</td>
<td>1.68</td>
<td>0.23</td>
<td>1.67</td>
<td>1.67</td>
<td>2.00</td>
<td>0.67</td>
<td>2.67</td>
</tr>
<tr>
<td>Act. Strat.</td>
<td>1.72</td>
<td>0.29</td>
<td>1.83</td>
<td>1.75</td>
<td>1.50</td>
<td>0.83</td>
<td>2.33</td>
</tr>
</tbody>
</table>

*Note.*  eff. = effectiveness; dec. = decisions; Funct. = Functioning; Exerc. auth. = Exercising authority; Com. connect. = Community connections; improv. = improvement; Act. strat. = Acting strategically.

\(^a\)Multiple modes exist. The smallest value is shown

The board effectiveness ratings in Table 10 range from 0.95 to 2.26 with the highest possible rating being 3.00. This indicates a wide 1.32 range. The median is 1.67 and the mode is 1.62 with a mean of 1.70 and standard deviation of 0.17. Figure 3 demonstrates that many of the scores fall around the mean, an outcome consistent with a small standard deviation.
The means for each of the subsets in Table 10 are very similar to the board effectiveness rating mean of 1.70. The subset “exercising authority” has the lowest mean at 1.67 and the subsets “functioning as a group” and “community connections” have the highest mean at 1.74. The widest range of ratings occurs in the board improvement subset with 0.67 being the lowest rating and 2.67 being the highest rating for a range of 2.00.
Table 11 displays the measures of central tendency and measures of dispersion for the data set that contains all district schools \((n = 128)\). With a mean SPP score of 70.94 and a standard deviation of 7.77, the district schools’ data set has a slightly higher SPP mean than the data set for all schools \((M = 69.50, SD = 9.35)\) and the scores are grouped closer to the mean as depicted in Figure 4. The range that goes from 40.90 to 84.90, which is a smaller range than the data set for all schools, supports this compression of data. The median SPP score of 71.90 is almost the same as the median for the data set for all schools, which is at 71.60. The mode for both data sets is 71.40. The similarities

\[\text{Figure 3. Board effectiveness ratings for all schools.}\]
between the “all schools” data set and the “district schools” data set indicate that the data for all participating schools is representative of the district schools’ data.

Table 11
Measures of Central Tendency and Measures of Dispersion for District Schools with Regard to SPP, Board Effectiveness, and the Six Subsets

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Mode</th>
<th>Mdn</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPP</td>
<td>70.94</td>
<td>7.77</td>
<td>71.40</td>
<td>71.9</td>
<td>44</td>
<td>40.90</td>
<td>84.90</td>
</tr>
<tr>
<td>Board effect.</td>
<td>1.69</td>
<td>0.19</td>
<td>1.63</td>
<td>1.66</td>
<td>1.04</td>
<td>1.22</td>
<td>2.26</td>
</tr>
<tr>
<td>Making dec.</td>
<td>1.69</td>
<td>0.21</td>
<td>1.69</td>
<td>1.69</td>
<td>1.31</td>
<td>1.15</td>
<td>2.46</td>
</tr>
<tr>
<td>Funct. group</td>
<td>1.71</td>
<td>0.30</td>
<td>1.83</td>
<td>1.75</td>
<td>1.75</td>
<td>0.75</td>
<td>2.50</td>
</tr>
<tr>
<td>Exerc. auth.</td>
<td>1.68</td>
<td>0.20</td>
<td>1.75</td>
<td>1.67</td>
<td>1.00</td>
<td>1.08</td>
<td>2.08</td>
</tr>
<tr>
<td>Com. connect.</td>
<td>1.73</td>
<td>0.33</td>
<td>1.67</td>
<td>1.75</td>
<td>1.75</td>
<td>0.75</td>
<td>2.50</td>
</tr>
<tr>
<td>Board improv.</td>
<td>1.67</td>
<td>0.27</td>
<td>1.75</td>
<td>1.67</td>
<td>1.33</td>
<td>1.00</td>
<td>2.33</td>
</tr>
<tr>
<td>Act. Strat.</td>
<td>1.70</td>
<td>0.31</td>
<td>1.67</td>
<td>1.75</td>
<td>1.5</td>
<td>0.83</td>
<td>2.33</td>
</tr>
</tbody>
</table>

Note. effect. = effectiveness; dec. = decisions; Funct. = Functioning; Exerc. auth. = Exercising authority; Com. connect. = Community connections; improv. = improvement; Act. strat. = Acting strategically.

*aMultiple modes exist. The smallest value is shown

Figure 4. SPP scores for district schools.
The measures of central tendency and the measures of dispersion for the district schools’ data set (Table 11) with regard to the board effectiveness rating and the ratings of each of the six subsets are very similar to the data set for all schools (Table 10). The biggest difference is in the range for the board effectiveness ratings. The board effectiveness rating for all schools has a range of 1.32 while the board effectiveness rating for district schools has a range of 1.04. Figure 5 displays the board effectiveness ratings for the data set for all district schools; the figure is very similar to Figure 3, which displays the board effectiveness ratings for all schools.

Figure 5. Board effectiveness ratings for district schools.
Charter Schools Data Set

Table 12 displays the measures of central tendency and measures of dispersion for data set for all charter schools \((n = 24)\). The mean SPP score for all charter schools is 61.87 with a standard deviation of 12.98. The charter school mean SPP score is much lower than the district schools mean SPP score \((M = 70.94, SD = 7.77)\) and the dispersion range is also much larger.

<table>
<thead>
<tr>
<th>Variable</th>
<th>(M)</th>
<th>(SD)</th>
<th>Mode</th>
<th>(Mdn)</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPP</td>
<td>61.86</td>
<td>12.98</td>
<td>41.80(^a)</td>
<td>58.10</td>
<td>48.00</td>
<td>41.80</td>
<td>89.80</td>
</tr>
<tr>
<td>Board effect.</td>
<td>1.74</td>
<td>0.26</td>
<td>1.92</td>
<td>1.77</td>
<td>1.18</td>
<td>0.95</td>
<td>2.12</td>
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<tr>
<td>Making dec.</td>
<td>1.68</td>
<td>0.20</td>
<td>1.69</td>
<td>1.69</td>
<td>0.77</td>
<td>1.38</td>
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<td>Funct. group</td>
<td>1.88</td>
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<td>1.88</td>
<td>1.42</td>
<td>0.83</td>
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<tr>
<td>Exerc. auth.</td>
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<td>0.24</td>
<td>1.42</td>
<td>1.67</td>
<td>0.83</td>
<td>1.17</td>
<td>2.00</td>
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<td>Com. connect.</td>
<td>1.80</td>
<td>0.47</td>
<td>1.58</td>
<td>1.92</td>
<td>1.83</td>
<td>0.58</td>
<td>2.42</td>
</tr>
<tr>
<td>Board improv.</td>
<td>1.74</td>
<td>0.40</td>
<td>1.58(^a)</td>
<td>1.75</td>
<td>2.00</td>
<td>0.67</td>
<td>2.67</td>
</tr>
<tr>
<td>Act. Strat.</td>
<td>1.78</td>
<td>0.40</td>
<td>1.25(^a)</td>
<td>1.83</td>
<td>1.50</td>
<td>0.83</td>
<td>2.33</td>
</tr>
</tbody>
</table>

*Note.* effect. = effectiveness; dec. = decisions; Funct. = Functioning; Exerc. auth. = Exercising authority; Com. connect. = Community connections; improv. = improvement; Act. strat. = Acting strategically.

\(^a\)Multiple modes exist. The smallest value is shown

Figure 6 provides a visual representation of how the SPP scores are distributed to yield a large standard deviation. When Figure 6 is compared to Figure 4, the discrepancies are visually evident. Figure 6 demonstrates that more of the charter school SPP scores fall below 70 than those of district schools as can be seen in Figure 4. Of concern is the observation that the mean SPP score of the charter schools is far below the
acceptable score of 70 although the district schools data has a lower minimum of 40.90 as opposed to the charter schools minimum of 41.80. The range of the charter school SPP scores is 48 and the range of the district schools is 44, which is not a large difference. The noticeable difference is in the median, which is 58.10 for the charter schools and 71.90 for the district schools. This explains the difference in the standard deviation between the charter school mean \((SD = 12.98)\) and the district school mean \((SD = 7.77)\). The larger dispersion of the charter school SPP scores is due to both the small number and the wider range of scores represented.

![Figure 6. SPP scores for charter schools.](image)

Figure 7 displays the board effectiveness ratings for the charter schools that participated. This visual looks much different from Figures 3 and 5. The mean board effectiveness rating for charter schools is 1.74 with a standard deviation of 0.26, which is similar to the all schools mean \((M = 1.7, SD = 0.17)\) and the district schools mean \((M = 1.69, SD = 0.19)\). The reason Figure 7 looks different from Figures 3 and 5 is that the mode for charter schools is 1.92, higher than the mode for all schools (1.62) and higher than the mode for district schools (1.63). The median \((Mdn = 1.77)\) for the board effectiveness ratings of charter schools is also slightly higher than the median for all
schools ($Mdn = 1.66$) and the median for district schools ($Mdn = 1.67$). Thus, the charter school visual (Figure 7) is negatively skewed while the district school visual (Figure 5) is positively skewed. The measures of central tendency and measures of dispersion vary among the six subsets for the charter schools. The subset “board improvement” has the highest rating (2.67) while the subset “community connection” has the lowest rating (0.58). A comparison of Figures 3, 5, and 7 shows that charter school boards have higher board effectiveness ratings than do the boards of all schools or district schools.

![Figure 7](image.png)

**Figure 7.** Board effectiveness ratings of charter schools.

**Analysis of Pearson Correlations**

Pearson product-moment correlation coefficients between the SPP score and the board effectiveness rating, as well as each of the six subsets and each of the questions, were calculated on the three data sets: all schools, district schools, and charter schools. Table 13 displays the correlation data for the data set of all schools ($N = 152$). Table 14 displays the correlation data for the data set of all the district schools ($n = 128$) and Table 15 displays the correlation data for the data set of all the charter schools ($n = 24$).

**All Schools Data Set**

The correlation data for all schools is displayed in Table 13 ($N = 152$). Correlation coefficients were computed for the relationships between the SPP score and
the ratings for board effectiveness, making decisions, functioning as a group, exercising authority, community connections, board improvement, and acting strategically. Correlation coefficients were also computed for each of the individual questions on the questionnaire.

The Pearson product-moment correlation coefficient between the SPP score and the board effectiveness rating for all schools were not significant \((r (150) = 0.10, p > .05)\). The correlations between the SPP and the subsets making decisions \((r (150) = 0.03, p > .05)\), functioning as a group \((r (150) = 0.09, p > .05)\), exercising authority \((r (150) = 0.10, p > .05)\), connecting community \((r (150) = 0.11, p > .05)\), board improvement \((r (150) = 0.08, p > .05)\), and acting strategically \((r (150) = 0.01, p > .05)\) were also not significant.

While a significant correlation did not exist between the SPP score and board effectiveness rating or between the SPP score and each of the six subsets, correlations existed between the SPP score and several questions on the questionnaire. Correlations also existed between certain subsets and questions as well as correlations between different subsets.

For the data set of all schools, each of the six subsets are positively correlated at the \(p < .01\) significance level to the board effectiveness rating as well as to each other. A strong positive relationship exists between the board effectiveness rating and functioning as a group \((r (150) = .81, p < .01)\), community connections \((r (150) = .77, p < .01)\), board improvement \((r (150) = .74, p < .01)\), and acting strategically \((r (150) = .80, p < .01)\). A positive moderate relationship exists between the board effectiveness rating and making decisions \((r (150) = .61, p < .01)\) and exercising authority \((r (150) = .59, p < .01)\). Positive moderate relationships exist between functioning as a group and community
connections \((r (150) = .57, p < .01)\) and board improvement \((r (150) = .53, p < .01)\). Positive moderate relationships also exist between making decisions and exercising authority \((r (150) = .46, p < .01)\) as well as between community connections and board improvement \((r (150) = .53, p < .01)\). These correlations, with a significance level \(p < .01\), provide evidence that these groups are interrelated and positively correlate to overall board effectiveness.

Table 13 displays question 28 and question 48, two questions from the questionnaire responses of all participating schools that demonstrated a significant positive correlation with the SPP score. Question 28 (Q28) states, “When a new member joins this board, we make sure that someone serves as a mentor to help this person learn the ropes.” A significant positive correlation exists between the SPP score and Q28, \(r (150) = .17, p < .05\). There are also positive relationships significant at \(p < .01\) between Q28 and the board effectiveness rating \((r (150) = .53, p < .01)\), functioning as a group \((r (150) = .45 p < .01)\), community connections \((r (150) = .52, p < .01)\), board improvement \((r (150) = .55, p < .01)\), and acting strategically \((r (150) = .46 p < .01)\). This indicates that a positive relationship exists between assigning a mentor to a new board member and board effectiveness rate and the SPP score. A positive relationship also exists between assigning a mentor to a new board member and the subsets functioning as a group, community connections, board improvement, and acting strategically for the data set of all schools. These relationships indicate that when school boards of all participating schools incorporated this action, a positive correlation existed between board effectiveness and the SPP.
Question 48 (Q48) states, “Recommendations from the administration are usually accepted with little questioning.” A significant positive correlation exists between the SPP score and Q48, $r (150) = .20, p < .05$, for the data set of all schools. A correlation at the $p < .01$ significance level also exists between Q48 and the subset functioning as a group ($r (150) = .37, p < .01$). This indicates that when school boards of all participating schools trusted the administration enough to provide good recommendations, there existed a positive correlation to the SPP score as well as to the ability of the board to function as a group.
Table 13
Pearson Correlations between SPP and Board Effectiveness, Subsets, and Questions for All Schools

<table>
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<tr>
<td>Board effect.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making dec.</td>
<td>.03</td>
<td>.61**</td>
<td>-</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Funct. group</td>
<td>.09</td>
<td>.81**</td>
<td>.39**</td>
<td>-</td>
<td></td>
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<tr>
<td>Exerc. auth.</td>
<td>.10</td>
<td>.59**</td>
<td>.46**</td>
<td>.34**</td>
<td>-</td>
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<tr>
<td>Com. connect.</td>
<td>.11</td>
<td>.77**</td>
<td>.23**</td>
<td>.57**</td>
<td>.31**</td>
<td>-</td>
<td></td>
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<tr>
<td>Board improv.</td>
<td>.08</td>
<td>.74**</td>
<td>.28**</td>
<td>.53**</td>
<td>.26**</td>
<td>.53**</td>
<td>-</td>
<td></td>
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</tr>
<tr>
<td>Act strat.</td>
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<td>.80**</td>
<td>.34**</td>
<td>.65**</td>
<td>.33**</td>
<td>.54**</td>
<td>.57**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q28&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.17*</td>
<td>.53**</td>
<td>.14</td>
<td>.45**</td>
<td>.14</td>
<td>.52**</td>
<td>.55**</td>
<td>.46**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Q48&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.20*</td>
<td>.20*</td>
<td>.08</td>
<td>.37**</td>
<td>.10</td>
<td>.10</td>
<td>.06</td>
<td>.14</td>
<td>.14</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. effect. = effectiveness; dec. = decisions; Funct. = Functioning; Exerc. auth. = Exercising authority; Com. connect. = Community connections; improv. = improvement; Act. strat. = Acting strategically.

<sup>a</sup>When a new member joins this board, we make sure that someone serves as a mentor to help this person learn the ropes.

<sup>b</sup>Recommendations from the administration are usually accepted with little questioning.

*p < .05, two-tailed. **p < .01, two-tailed.
District Schools Data Set

The correlation data for the data set that includes all district schools is displayed in Table 14 ($n = 128$). Correlation coefficients were computed for the relationships between the SPP score and the board effectiveness ratings as well as between the SPP score and the subsets making decisions, functioning as a group, exercising authority, community connections, board improvement, and acting strategically. Correlation coefficients were also computed for each of the individual questions on the questionnaire.

The Pearson product-moment correlation coefficient calculation between the SPP score and the board effectiveness rating for all district schools was not significant indicating that a correlation does not exist ($r (126) = .07, p > .05$). The correlations between the SPP score and the subsets making decisions ($r (126) = -.05, p > .05$), functioning as a group ($r (126) = .16, p > .05$), exercising authority ($r (126) = .03, p > .05$), connecting community ($r (126) = .07, p > .05$), board improvement ($r (126) = .05, p > .05$), and acting strategically ($r (126) = .04, p > .05$) were also not significant. Although there is no correlation between the SPP score and the board effectiveness rating and as well as each of the subsets, there are correlations to the SPP at the question level as well as correlations between subsets and correlations between questions and subsets.

For the data set of district schools, each of the six subsets are positively correlated at the $p < .01$ level to the board effectiveness rating as well as to each other. A strong positive relationship exists between the board effectiveness rating and functioning as a group ($r (126) = .80, p < .01$), community connections ($r (126) = .72, p < .01$), and acting strategically ($r (126) = .77, p < .01$). A positive moderate relationship exists between the board effectiveness rating and making decisions ($r (126) = .64, p < .01$), exercising
authority \((r (126) = .55, p < .01)\), and board improvement \((r (126) = .68, p < .01)\). Positive moderate relationships exist between making decisions and functioning as a group \((r (126) = .39, p < .01)\), exercising authority \((r (126) = .42, p < .01)\), and acting strategically \((r (126) = .35, p < .01)\). Positive moderate relationships exist between functioning as a group and community connections \((r (126) = .53, p < .01)\), board improvement \((r (126) = .47, p < .01)\), and acting strategically \((r (126) = .62, p < .01)\). Positive moderate relationships exist between community connections and board improvement \((r (126) = .43, p < .01)\) and acting strategically \((r (126) = .68, p < .01)\) as well as between community connections and board improvement \((r (150) = .45, p < .01)\). Finally, a positive moderate relationship exists between board improvement and acting strategically \((r (126) = .50, p < .01)\). These correlations at a significance level \(p < .01\) provide evidence that these groups are interrelated and that they positively correlate to the overall board effectiveness.

Table 14 displays the five questions that demonstrated a significant correlation between the SPP score and the question for district schools. This indicates that, in the areas that these questions refer to, action in these areas may correlate to the SPP score. There are two questions from the exercising authority subset: question 15 (Q15) and question 48 (Q48). Two of the questions are from the functioning as a group subset: question 17 (Q17) and question 53 (Q53). The fifth question, question 52 (Q52) is from the board improvement subset.

Question 15 states, “The board is always involved in decisions that are important to the future of education in our district.” A significant positive correlation exists between the SPP score and Q15, \(r (126) = .20, p < .05\). There is also a correlation at the \(p < .01\)
significance level between Q15 and board effectiveness ($r (126) = .31, p < .01$),
functioning as a group ($r (126) = .29, p < .01$), community connections ($r (126) = .29, p < .01$),
and acting strategically ($r (126) = .28, p < .01$). This signifies that, when district
board members are involved in the decisions that affect the future of education in the
district, this action may positively correlate to the SPP score, overall board effectiveness,
functioning as a group, connecting to the community, and acting strategically. Question
48 (Q48) states, “Recommendations from the administration are usually accepted with
little questioning.” A significant positive correlation exists between the SPP score and
Q48, $r (126) = .19, p < .05$. There are also correlations at the $p < .01$ significance level
between Q48 and board effectiveness ($r (126) = .23, p < .01$) and functioning as a group
($r (126) = .41, p < .01$). This indicates that, when the district board trusts that the
administration provide will good recommendations, this action may positively correlate
to the SPP score as well as to the ability of the school board to function as a group for the
data set of district schools. For the subset exercising authority, questions 15 and 48
demonstrated a correlation at the $p < .01$ level with regard to overall district board
effectiveness and three out of the six subsets. It should also be noted that a positive
correlation between the SPP score and the board effectiveness rating and the functioning
as a group subset exists for the data set of all schools when the school board generally
accepts recommendations from administrators.

Question 17 states, “Board members don’t say one thing in private and another
thing in public.” A significant positive correlation exists between the SPP score and Q17,
$r (126) = .18, p < .05$, for the data set of district schools. There are also correlations at
the $p < .01$ significance level between Q17 and board effectiveness ($r (126) = .41, p <$
.01), functioning as a group \( (r (126) = .61, p < .01) \), community connections \( (r (126) = .40, p < .01) \), board improvement \( (r (126) = .23, p < .01) \), and acting strategically \( (r (126) = .37, p < .01) \). This indicates that, when district board members act with integrity both in and outside of board meetings, the action could positively relate to the SPP score as well as to the subsets functioning as a group, community connections, board improvement, and acting strategically. Question 53 states, “I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.” A significant positive correlation exists between the SPP score and Q53, \( r (126) = .18, p < .05 \), for the data set of district schools. Moderate positive correlations at the \( p < .01 \) significance level exist between Q53 and board effectiveness \( (r (126) = .57, p < .01) \), functioning as a group \( (r (126) = .65, p < .01) \), community connections \( (r (126) = .46, p < .01) \), board improvement \( (r (126) = .47, p < .01) \), and acting strategically \( (r (126) = .55, p < .01) \). These correlations demonstrate that, when the district board takes time to discuss openly and honestly, as well as incorporate, the values of the district into its decision making process, a positive correlation may exist to the SPP score as well as to district school board effectiveness. These questions also further support the positive correlation between Q15 and district board effectiveness. For the subset functioning as a group, questions 17 and 53 demonstrated a correlation at the \( p < .01 \) significance level with regard to overall district board effectiveness and four out of the six subsets.

There is one significant negative correlation reported in Table 14. Question number 52 (Q52) states, “This board does not allocate organizational funds for the purpose of board education and development.” A significant negative correlation exists between
Q52 and the SPP score, \(r\) (126) = -.19, \(p < .05\), as well as between Q52 and the functioning as a group subset, \(r\) (126) = -.18, \(p < .05\). A negative correlation at the \(p < .01\) significance level also exists between Q52 and the acting strategically subset \(r\) (126) = -.24, \(p < .01\). The positive assumption of this statement is that, when district school boards set aside funds for their own education and development, this action may positively correlate to the SPP score as well as to the board’s ability to act strategically and function as a group. It should also be noted that the correlation between Q52 and the board effectiveness rating, while also negative, was not significant and the correlation between Q52 and the making decisions subset was positive and significant. Further research is needed to determine the reason that, while a significant correlation to the SPP score exists when district boards do not set aside funds for board development, this action is not significantly correlated to overall district board effectiveness. Additional research should also study the positive significant correlation to the making decisions subset to determine the reason that this correlation is positive and not negative.
Table 14

**Pearson Correlations between SPP and Board Effectiveness, Subsets, and Questions for District Schools**

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<thead>
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<tbody>
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<td>-</td>
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<td>.05</td>
<td>.61**</td>
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<td>.41**</td>
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<td>.14</td>
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<td>.22*</td>
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<td>.22*</td>
<td>-.18*</td>
<td>.13</td>
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<td>.28**</td>
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</table>

*Note.  effect. = effectiveness; dec. = decisions; Funct. = Functioning; Exerc. auth. = Exercising authority; Com. connect. = Community connections; improv. = improvement; Act. strat. = Acting strategically.

<sup>a</sup>The board is always involved in decisions that are important to the future of education in our district.  <sup>b</sup>Board members don’t say one thing in private and another thing in public.  <sup>c</sup>Recommendations from the administration are usually accepted with little questioning.  
<sup>d</sup>This board does not allocate organizational funds for the purpose of board education and development.  <sup>e</sup>I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.  

*<em>p < .05</em>, two-tailed. **<em>p < .01</em>, two-tailed.
Charter Schools Data Set

Correlation data for the data set that includes all charter schools is displayed in Table 15 \((n = 24)\). Correlation coefficients were computed for the relationships between the SPP score and the board effectiveness rating as well as between the SPP score and the subsets making decisions, functioning as a group, exercising authority, community connections, board improvement, and acting strategically. Correlation coefficients were also computed for each of the individual questions on the questionnaire.

The Pearson product-moment correlation coefficient calculation between the SPP score and the board effectiveness rating for all charter schools was not significant indicating that there is no correlation \(r(22) = .31, p > .05\). The correlations between the SPP and the subsets making decisions \(r(22) = .28, p > .05\), functioning as a group \(r(22) = .24, p > .05\), exercising authority \(r(22) = .27, p > .05\), community connections \(r(22) = .32, p > .05\), board improvement \(r(22) = .25, p > .05\), and acting strategically \(r(22) = .06, p > .05\) were also not significant. Even though there is no correlation between the SPP score and the board effectiveness rating as well as each of the subsets, there are correlations to the SPP at the question level as well as correlations between subsets and correlations between questions and subsets.

For the data set of charter schools, each of the six subsets are positively correlated at the \(p < .01\) significance level to the board effectiveness rating. Positive correlations at the \(p < .01\) significance level also exist between some of the subsets. A strong positive relationship exists between the board effectiveness rating and functioning as a group \(r(22) = .90, p < .01\), exercising authority \(r(22) = .74, p < .01\), community connections \(r(22) = .87, p < .01\), board improvement \(r(22) = .86, p < .01\), and acting strategically \(r
A positive moderate relationship exists between the board effectiveness rating and making decisions \((r (22) = .58, p < .01)\). Positive moderate relationships exist between making decisions and exercising authority \((r (22) = .68, p < .01)\) as well as between exercising authority and community connections \((r (22) = .57, p < .01)\) and acting strategically \((r (22) = .53, p < .01)\). The functioning as a group subset has strong positive relationships with community connections \((r (22) = .71, p < .01)\), board improvement \((r (22) = .75, p < .01)\), and acting strategically \((r (22) = .78, p < .01)\) as well as a moderate relationship with exercising authority \((r (22) = .62, p < .01)\).

Strong positive relationships exist between community connections and board improvement \((r (22) = .72, p < .01)\) and acting strategically \((r (22) = .76, p < .01)\). Finally, the subset acting strategically has a strong positive correlation to the subset board improvement \((r (22) = .74, p < .01)\). These correlations at a significance level \(p < .01\) provide evidence that these groups positively relate to overall board effectiveness for the data set of charter schools.

Table 15 displays the four questions that demonstrated a significant correlation between the SPP score and the question for the charter schools. Question 22 (Q22) states, “This board has formed ad hoc committees or task forces that include staff and community representatives as well as board members.” A significant positive correlation exists between the SPP score and Q22, \(r (22) = .41, p < .05\). A positive correlation significant at the \(p < .01\) level exists between Q22 and board effectiveness \((r (22) = .60, p < .01)\) as well as between Q22 and community connections \((r (22) = .78, p < .01)\). When charter school board members use committees or task forces to include staff and community representatives as part of the fact-finding and recommendation process, the
action may positively relate to the SPP score. This action also correlates to the charter school board effectiveness rating and the subset community connections. This is further supported by significant correlations with question number 68 (Q68) and question number 69 (Q69). Question number 68 states, “Once a decision is made, all board members work together to see that it is accepted and carried out.” A significant positive correlation exists between the SPP score and Q68, \( r(22) = .44, p < .05 \). A strong positive correlation significant at the \( p < .01 \) level also exists between Q68 and board effectiveness \( (r(22) = .83, p < .01) \) as well as the subsets functioning as a group \( (r(22) = .89, p < .01) \), community connections \( (r(22) = .74, p < .01) \), and board improvement \( (r(22) = .75, p < .01) \). A moderate positive correlation at the \( p < .01 \) significance level exists between Q68 and the subsets exercising authority \( (r(22) = .53, p < .01) \) and acting strategically \( (r(22) = .65, p < .01) \). Question number 69 (Q69) states, “All board members support majority decisions.” A significant positive correlation exists between the SPP score and Q69, \( r(22) = .43, p < .05 \). A strong positive correlation significant at the \( p < .01 \) level also exists between Q69 and board effectiveness \( (r(22) = .72, p < .01) \) as well as the subsets functioning as a group \( (r(22) = .75, p < .01) \), community connections \( (r(22) = .65, p < .01) \), and board improvement \( (r(22) = .68, p < .01) \). A moderate positive correlation at the \( p < .01 \) significance level exists between Q69 and acting strategically \( (r(22) = 0.567, p < .01) \). The correlations involving Q68 and Q69 indicate that, when the charter school board makes a decision, all board members stand behind that decision regardless of whether they voted for or against it. This helps to build a strong team relationship that will make it difficult to divide the board, which may positively correlate to the SPP score.
There is one significant negative correlation reported in Table 15. Question number 26 (Q26) states, “This board’s decisions usually result in a split vote.” A moderately significant negative correlation exists between the SPP score and Q26, $r (22) = -.57, p < .01$. Additionally, a negative correlation at the $p < .05$ significance level exists between Q26 and the community connections subset, $r (22) = -.47, p < .05$. This further supports the positive correlations in Q68 and Q69 because the more the charter school board votes together, the higher the SPP score. Another observation is that, although the correlation between Q26 and the charter school board effectiveness rating is negative, it was not found to be significant. Further research is needed to determine that, despite a significant correlation between the SPP score and a divided vote of the charter school board members, this action does not have a significant correlation to the charter school board effectiveness rating.
Table 15

Pearson Correlations between SPP and Board Effectiveness, Subsets, and Questions for Charter Schools

<table>
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<td>.49*</td>
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<td>-</td>
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<td>Exerc. auth.</td>
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<td>.61**</td>
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<td>.71**</td>
<td>.57**</td>
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<td>.75**</td>
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<td>.32</td>
<td>.78**</td>
<td>.53**</td>
<td>.76**</td>
<td>.74**</td>
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<tr>
<td>Q22\textsuperscript{a}</td>
<td>.41*</td>
<td>.60**</td>
<td>.32</td>
<td>.45*</td>
<td>.39</td>
<td>.78**</td>
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<td>Q26\textsuperscript{b}</td>
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<td>-.40</td>
<td>-.17</td>
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<td>-.35</td>
<td>-.37</td>
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<td>.89**</td>
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<td>.74**</td>
<td>.75**</td>
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<td>.72**</td>
<td>.28</td>
<td>.75**</td>
<td>.42*</td>
<td>.65**</td>
<td>.68**</td>
<td>.57**</td>
<td>.43*</td>
<td>-.68**</td>
<td>.88**</td>
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Note. effect. = effectiveness; dec. = decisions; Funct. = Functioning; Exerc. auth. = Exercising authority; Com. connect. = Community connections; improv. = improvement; Act. strat. = Acting strategically.
\textsuperscript{a}Q22 - This board has formed ad hoc committees or task forces that include staff and community representatives as well as board members. \textsuperscript{b}Q26 - This board’s decisions usually result in a split vote. \textsuperscript{c}Q68 - Once a decision is made, all board members work together to see that it is accepted and carried out. \textsuperscript{d}Q69 - All board members support majority decisions.

*p < .05, two-tailed. **p < .01, two-tailed.
Analysis of Independent Sample $t$-Tests

Independent sample $t$-tests were conducted to compare the means of the board effectiveness ratings, each of the six subsets, and each of the questions on the questionnaire between the districts and the charter schools. Table 16 displays the results for the comparison of means for board effectiveness and each subset of ratings between district and charter schools. The comparison of means of board effectiveness ratings were not significant between district schools ($M = 1.69, SD = 0.17$) and charter schools ($M = 1.74, SD = 0.26$). Similarly, the comparison of means of the following subsets were not significant:

- Making decisions between district schools ($M = 1.69, SD = 0.21$) and charter schools ($M = 1.68, SD = 0.20$).
- Exercising authority between district schools ($M = 1.68, SD = 0.19$) and charter schools ($M = 1.66, SD = 0.24$).
- Community connection between district schools ($M = 1.73, SD = 0.30$) and charter schools ($M = 1.80, SD = 0.47$).
- Board improvement between district schools ($M = 1.67, SD = 0.23$) and charter schools ($M = 1.74, SD = 0.40$).
- Acting strategically between district schools ($M = 1.70, SD = 0.29$) and charter schools ($M = 1.78, SD = 0.40$).

These results suggest that districts and charter schools perform similarly when it comes to overall board effectiveness and the subsets of making decisions, exercising authority, community connection, board improvement, and acting strategically.

The subset functioning as a group was the only group in which a significant difference in the means occurred between district schools ($M = 1.71, SD = 0.29$) and charter schools.
Table 16

*Results of Independent Sample t-test and Descriptive Statistics for Board Effectiveness and Subset Ratings by District and Charter School*

<table>
<thead>
<tr>
<th>Variable</th>
<th>District (n = 128)</th>
<th>Charter (n = 24)</th>
<th>M Diff.</th>
<th>t</th>
<th>df</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td>Board effectiveness rating</td>
<td>1.69 0.17</td>
<td>1.74 0.26</td>
<td>-0.05</td>
<td>-0.96</td>
<td>26.72a</td>
<td>.34</td>
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<tr>
<td>Making decisions</td>
<td>1.69 0.21</td>
<td>1.68 0.20</td>
<td>0.01</td>
<td>0.21</td>
<td>150.00</td>
<td>.83</td>
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<td>Functioning as a group</td>
<td><strong>1.71 0.29</strong></td>
<td><strong>1.88 0.31</strong></td>
<td><strong>-0.17</strong></td>
<td><strong>-2.62</strong></td>
<td><strong>150.00</strong></td>
<td><strong>.01</strong></td>
</tr>
<tr>
<td>Exercising authority</td>
<td>1.68 0.19</td>
<td>1.66 0.24</td>
<td>0.02</td>
<td>0.37</td>
<td>150.00</td>
<td>.71</td>
</tr>
<tr>
<td>Community connection</td>
<td>1.73 0.30</td>
<td>1.80 0.47</td>
<td>-0.07</td>
<td>-0.73</td>
<td>26.49a</td>
<td>.47</td>
</tr>
<tr>
<td>Board improvement</td>
<td>1.67 0.23</td>
<td>1.74 0.40</td>
<td>-0.07</td>
<td>-0.84</td>
<td>26.01a</td>
<td>.41</td>
</tr>
<tr>
<td>Acting strategically</td>
<td>1.70 0.29</td>
<td>1.78 0.40</td>
<td>-0.08</td>
<td>-0.91</td>
<td>27.79a</td>
<td>.37</td>
</tr>
</tbody>
</table>

*a*Satterthwaite approximation employed due to unequal group variances.
($M = 1.88, SD = 0.31); t (150) = -2.62, p = .01$. These results suggest that charter school boards scored higher than district school boards in the area of functioning as a group.

**Comparisons at the Question Level**

A comparison of district and charter school means for each of the questions on the questionnaire revealed that 25 questions had a significant difference of means. Tables 17, 18, 19, and 20 display the questions with a significant difference in means. Table 17 displays the results of the independent sample $t$ tests for questions from the questionnaire whose results were significant ($p < .01$) and had a negative $t$-statistic. Question 17 states, “Board members don’t say one thing in private and another thing in public.” The comparison of means resulted in charter schools ($M = 2.38, SD = 0.77$) having a higher mean than district schools ($M = 1.64, SD = 0.90$); $t (150) = -3.87, p = .000$. Question 49 states, “Board members are consistently able to hold confidential items in confidence.” The comparison of means resulted in charter schools ($M = 2.38, SD = 0.92$) having a higher mean than district schools ($M = 1.62, SD = 0.90$); $t (150) = -3.78, p = .000$. These results demonstrate that, on average, charter school board members act with integrity more so than do district school board members.

Question 30 states, “I rarely disagree with other members in board meetings.” The comparison of means resulted in charter schools ($M = 2.13, SD = 0.74$) having a higher mean than district schools ($M = 1.57, SD = 0.75$); $t (150) = -3.33, p = .001$. Question 69 states, “All board members support majority decisions.” The comparison of means resulted in charter schools ($M = 2.46, SD = 0.72$) having a higher mean than district schools ($M = 1.84, SD = 0.87$); $t (150) = -3.30, p = .001$. Question 23 states, “This board is as attentive to how it reaches conclusions as it is to what is decided.” The
comparison of means resulted in charter schools ($M = 2.38, SD = 0.77$) having a higher mean than district schools ($M = 1.87, SD = 0.68$); $t (150) = -3.29, p = .001$. Question 68 states, “Once a decision is made, all board members work together to see that it is accepted and carried out.” The comparison of means resulted in charter schools ($M = 2.50, SD = 0.72$) having a higher mean than district schools ($M = 1.91, SD = 0.86$); $t (150) = -3.19, p = .002$. Question 68 also had the highest mean for the charter schools in this group at $M = 2.50$ when a total possible mean was 3.0. These comparisons are all related to the decision-making process and the ability of the board to act as a unified team; the means demonstrate that charter school boards, on average, perform these actions more often than do district school boards.

Question 37 states, “The board has adopted some explicit goals for itself, distinct from goals it has for the total school district.” The comparison of means resulted in charter schools ($M = 1.75, SD = 0.90$) having a higher mean than district schools ($M = 1.23, SD = 0.78$); $t (150) = -2.91, p = .004$. This comparison indicates that charter school boards, on average, set board goals more than do district school boards.

Question 58 states, “This board has conducted an explicit examination of its roles and responsibilities.” The comparison of means resulted in charter schools ($M = 2.13, SD = 0.85$) having a higher mean than district schools ($M = 1.54, SD = 0.72$); $t (150) = -3.55, p = .001$. This comparison demonstrates that charter school board members, on average, have reviewed their roles and responsibilities more than have district school board members.
Table 17
Results of Independent Sample *t*-test and Descriptive Statistics for Questions with *p* < .01 and Negative *t*-statistic by District and Charter School

<table>
<thead>
<tr>
<th>Question</th>
<th>District <em>(n = 128)</em></th>
<th>Charter <em>(n = 24)</em></th>
<th>Diff.</th>
<th><em>t</em></th>
<th>df</th>
<th><em>p</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Q17 - Board members don’t say one thing in private and another thing in public.</td>
<td>1.64 0.87</td>
<td>2.38 0.77</td>
<td>-0.73</td>
<td>-3.87</td>
<td>150.00</td>
<td>.000</td>
</tr>
<tr>
<td>Q23 - This board is as attentive to how it reaches conclusions as it is to what is decided.</td>
<td>1.87 0.68</td>
<td>2.38 0.77</td>
<td>-0.51</td>
<td>-3.29</td>
<td>150.00</td>
<td>.001</td>
</tr>
<tr>
<td>Q30 - I rarely disagree with other members in board meetings.</td>
<td>1.57 0.75</td>
<td>2.13 0.74</td>
<td>-0.55</td>
<td>-3.33</td>
<td>150.00</td>
<td>.001</td>
</tr>
<tr>
<td>Q37 - The board has adopted some explicit goals for itself, distinct from goals it has for the total school district.</td>
<td>1.23 0.78</td>
<td>1.75 0.90</td>
<td>-0.52</td>
<td>-2.91</td>
<td>150.00</td>
<td>.004</td>
</tr>
<tr>
<td>Q49 - Board members are consistently able to hold confidential items in confidence.</td>
<td>1.62 0.90</td>
<td>2.38 0.92</td>
<td>-0.76</td>
<td>-3.78</td>
<td>150.00</td>
<td>.000</td>
</tr>
<tr>
<td>Q58 - This board has conducted an explicit examination of its roles and responsibilities.</td>
<td>1.54 0.72</td>
<td>2.13 0.85</td>
<td>-0.59</td>
<td>-3.55</td>
<td>150.00</td>
<td>.001</td>
</tr>
<tr>
<td>Q68 - Once a decision is made, all board members work together to see that it is accepted and carried out.</td>
<td>1.91 0.86</td>
<td>2.50 0.72</td>
<td>-0.59</td>
<td>-3.19</td>
<td>150.00</td>
<td>.002</td>
</tr>
<tr>
<td>Q69 - All board members support majority decisions.</td>
<td>1.84 0.87</td>
<td>2.46 0.72</td>
<td>-0.62</td>
<td>-3.30</td>
<td>150.00</td>
<td>.001</td>
</tr>
</tbody>
</table>
Table 18 displays the results of the comparison of means between the district and charter schools on questions with a significance level of $p < 0.01$ and a positive $t$-statistic. Question 26 states, “This board’s decisions usually result in a split vote.” The comparison of means resulted in district schools ($M = 0.76, SD = 0.74$) having a higher mean than charter schools ($M = 0.29, SD = 0.46$); $t (150) = 2.97, p = .005$. Question 33 states, “A certain group of board members will usually vote together for or against particular issues.” The comparison of means resulted in district schools ($M = 1.49, SD = 0.54$) having a higher mean than charter schools ($M = 0.54, SD = 0.78$); $t (150) = 4.70, p = .000$. Question 71 states, “The board will reverse its position based on pressure from the community.” The comparison of means resulted in district schools ($M = 1.31, SD = 0.71$) having a higher mean than charter schools ($M = 0.71, SD = 0.69$); $t (150) = 3.71, p = .000$. Question 72 states, “Members of this board are sometimes disrespectful in their comments to other board members.” The comparison of means resulted in district schools ($M = 1.20, SD = 0.95$) having a higher mean than charter schools ($M = 0.33, SD = 0.70$); $t (40.56) = 5.19, p = .000$. The questions represented in Table 18 indicate actions by the board that are not conducive to being an effective board. These actions create distrustful environments in which members work toward own personal agendas instead of working as a team toward a district goal. In this group of questions, the data show that district school boards, on average, more frequently perform actions that are not conducive to an effective board than charter school boards.
Table 18

Results of Independent Sample t-test and Descriptive Statistics for Questions with p < .01 and Positive t-statistic by District and Charter School

<table>
<thead>
<tr>
<th>Question</th>
<th>District (n = 128)</th>
<th>Charter (n = 24)</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
<th>Diff.</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q26 - This board's decisions usually result in a split vote.</td>
<td>0.76</td>
<td>0.74</td>
<td>0.29</td>
<td>0.46</td>
<td>0.47</td>
<td>2.97</td>
<td></td>
<td>150.00</td>
<td>0.005</td>
<td></td>
</tr>
<tr>
<td>Q33 - A certain group of board members will usually vote together for or against particular issues.</td>
<td>1.49</td>
<td>0.93</td>
<td>0.54</td>
<td>0.78</td>
<td>0.95</td>
<td>4.70</td>
<td></td>
<td>150.00</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Q71 - The board will reverse its position based on pressure from the community.</td>
<td>1.31</td>
<td>0.74</td>
<td>0.71</td>
<td>0.69</td>
<td>0.60</td>
<td>3.71</td>
<td></td>
<td>150.00</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Q72 - Members of this board are sometimes disrespectful in their comments to other board members.</td>
<td>1.20</td>
<td>0.95</td>
<td>0.33</td>
<td>0.70</td>
<td>0.86</td>
<td>5.19</td>
<td></td>
<td>40.56a</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

*Satterthwaite approximation employed due to unequal group variances.*
Table 19 displays the results of the independent sample t tests for questions from the questionnaire whose results were significant (p < .05) and had a negative t-statistic. Question 1 states, “This board works to reach consensus on important matters.” The comparison of means resulted in charter schools (M = 2.71, SD = 0.46) having a higher mean than district schools (M = 2.42, SD = 0.79); t (51.96) = -2.43, p = 0.02. In this group of questions, the charter school mean of M = 2.71 out of a possible 3.0 is the highest mean. Question 1 in the charter school data had the highest mean overall. Question 53 states, “I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.” The comparison of means resulted in charter schools (M = 2.38, SD = 0.82) having a higher mean than district schools (M = 2.00, SD = 0.65); t (28.64) = -2.11, p = 0.04. Question 54 states, “The board usually receives a full rationale for the recommendations it is asked to act upon.” The comparison of means resulted in charter schools (M = 2.67, SD = 0.48) having a higher mean than district schools (M = 2.34, SD = 0.61); t (150) = -2.46, p = 0.02. Question 66 states, “The board discusses events and trends in the larger environment that may present specific opportunities for this school district.” The comparison of means resulted in charter schools (M = 2.25, SD = 0.74) having a higher mean than district schools (M = 1.88, SD = 0.64); t (150) = -2.57, p = 0.01. Question 70 states, “This board makes explicit use of the long-range priorities of this school district in dealing with current issues.” The comparison of means resulted in charter schools (M = 2.29, SD = 0.86) having a higher mean than district schools (M = 1.79, SD = 0.67); t (28.51) = -2.72, p = 0.01. This set of comparisons show that, on average, charter school board members ensure that discussions are centered on what is best for the school, taking
into account long-range plans and opportunities as they arise. Board members receive information from administration that fully informs them as they form their decisions; further, members take time to talk through their differences to reach a consensus. These actions, which are indicative of an effective school board, are more likely, on average, to occur in a charter school boardroom than in a district boardroom.

Question 6 states, “Our board explicitly examines the "downside" or possible pitfalls of any important decision it is about to make.” The comparison of means resulted in charter schools ($M = 2.46, SD = 0.66$) having a higher mean than district schools ($M = 2.09, SD = 0.75$); $t (150) = -2.23, p = 0.03$. Question 62 states, “I have been in board meetings where the discussion focused on identifying or overcoming the school district's weaknesses.” The comparison of means resulted in charter schools ($M = 2.33, SD = 0.64$) having a higher mean than district schools ($M = 2.01, SD = 0.61$); $t (31.37) = -2.31, p = 0.03$. The results of this group of questions suggest that charter schools, on average, are more likely to identifying weaknesses, whether they relate to the board itself or to the decisions they make, more than are district school boards.
Table 19

Results of Independent Sample t-test and Descriptive Statistics for Questions with $p < .05$ and Negative $t$-statistic by District and Charter School

<table>
<thead>
<tr>
<th>Question</th>
<th>District $(n = 128)$</th>
<th>Charter $(n = 24)$</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
<th>Diff.</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 - This board works to reach consensus on important matters.</td>
<td>2.42 0.79</td>
<td>2.71 0.46</td>
<td>-0.29</td>
<td>-2.43</td>
<td>51.96*</td>
<td>0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q6 - Our board explicitly examines the &quot;downside&quot; or possible pitfalls of any important decision it is about to make.</td>
<td>2.09 0.75</td>
<td>2.46 0.66</td>
<td>-0.36</td>
<td>-2.23</td>
<td>150.00</td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q53 - I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.</td>
<td>2.00 0.65</td>
<td>2.38 0.82</td>
<td>-0.38</td>
<td>-2.11</td>
<td>28.64*</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q54 - The board usually receives a full rationale for the recommendations it is asked to act upon.</td>
<td>2.34 0.61</td>
<td>2.67 0.48</td>
<td>-0.32</td>
<td>-2.46</td>
<td>150.00</td>
<td>0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q62 - I have been in board meetings where the discussion focused on identifying or overcoming the school district's weaknesses.</td>
<td>2.01 0.61</td>
<td>2.33 0.64</td>
<td>-0.33</td>
<td>-2.31</td>
<td>31.37*</td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q66 - The board discusses events and trends in the larger environment that may present specific opportunities for this school district.</td>
<td>1.88 0.64</td>
<td>2.25 0.74</td>
<td>-0.38</td>
<td>-2.57</td>
<td>150.00</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q70 - This board makes explicit use of the long-range priorities of this school district in dealing with current issues.</td>
<td>1.79 0.67</td>
<td>2.29 0.86</td>
<td>-0.50</td>
<td>-2.72</td>
<td>28.51*</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*A Satterthwaite approximation employed due to unequal group variances.*
Table 20 displays the results of the comparison of means between the district and charter schools on questions with a significance level of $p < 0.05$ and a positive $t$-statistic. Question 3 states, “There have been occasions where the board itself has acted in ways inconsistent with the district's deepest values.” The comparison of means resulted in district schools ($M = 1.42, SD = 0.94$) having a higher mean than charter schools ($M = 0.96, SD = 1.08$); $t(150) = 2.16, p = 0.03$. Question 64 states, “Values are seldom discussed explicitly at our board meetings.” The comparison of means resulted in district schools ($M = 1.45, SD = 0.66$) having a higher mean than charter schools ($M = 0.92, SD = 0.97$); $t(27.12) = 2.59, p = 0.02$. In these two comparisons, district boards are less likely to make decisions based on district values than are charter school boards.

Question 5 states, “I have been in board meetings where it seemed that the subtleties of the issues we dealt with escaped the awareness of a number of the members.” The comparison of means resulted in district schools ($M = 1.62, SD = 0.77$) having a higher mean than charter schools ($M = 1.08, SD = 1.06$); $t(27.79) = 2.35, p = 0.03$. Question 55 states, “At times, this board has appeared unaware of the impact its decisions will have within our service community.” The comparison of means resulted in district schools ($M = 1.12, SD = 0.74$) having a higher mean than charter schools ($M = 0.67, SD = 0.82$); $t(150) = 2.70, p = 0.01$. Question 46 states, “This board has on occasion evaded responsibility for some important issue facing the school district.” The comparison of means resulted in district schools ($M = 1.13, SD = 0.83$) having a higher mean than charter schools ($M = 0.63, SD = 0.97$); $t(150) = 2.69, p = 0.01$. Question 8 states, “This board is more involved in trying to put out fires than in preparing for the future.” The comparison of means resulted in district schools ($M = 1.13, SD = 0.83$)
having a higher mean than charter schools ($M = 0.63, SD = 0.77$); $t (150) = 2.73, p = 0.01$. Based on these comparisons, district school boards are more likely to be involved in the day-to-day operations of the school than are charter school boards. Charter school boards are more likely to be focused on long-range planning and discussing how their decisions influence their ability to reach their goals in the future. When compared to charter school boards, district school boards, on average, are more likely to get involved with issues that should be handled by school administrators thus taking their focus off the vision and mission of the school.
Table 20

Results of Independent Sample t-test and Descriptive Statistics for Questions with \( p < .05 \) and Positive t-statistic by District and Charter School

<table>
<thead>
<tr>
<th>Question</th>
<th>District ((n = 128))</th>
<th>Charter ((n = 24))</th>
<th>(M)</th>
<th>(SD)</th>
<th>(M)</th>
<th>(SD)</th>
<th>Diff.</th>
<th>(t)</th>
<th>(df)</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3 - There have been occasions where the board itself has acted in ways inconsistent with the district's deepest values.</td>
<td>1.42 0.94</td>
<td>0.96 1.08</td>
<td>0.46</td>
<td>2.16</td>
<td>150.00</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q5 - I have been in board meetings where it seemed that the subtleties of the issues we dealt with escaped the awareness of a number of the members.</td>
<td>1.62 0.77</td>
<td>1.08 1.06</td>
<td>0.53</td>
<td>2.35</td>
<td>27.79a</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q8 - This board is more involved in trying to put out fires than in preparing for the future.</td>
<td>1.13 0.83</td>
<td>0.63 0.77</td>
<td>0.50</td>
<td>2.73</td>
<td>150.00</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q46 - This board has on occasion evaded responsibility for some important issue facing the school district.</td>
<td>1.13 0.83</td>
<td>0.63 0.97</td>
<td>0.51</td>
<td>2.69</td>
<td>150.00</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q55 - At times, this board has appeared unaware of the impact its decisions will have within our service community.</td>
<td>1.12 0.74</td>
<td>0.67 0.82</td>
<td>0.45</td>
<td>2.70</td>
<td>150.00</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q64 - Values are seldom discussed explicitly at our board meetings.</td>
<td>1.45 0.66</td>
<td>0.92 0.97</td>
<td>0.54</td>
<td>2.59</td>
<td>27.12a</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Satterthwaite approximation employed due to unequal group variances.
As with Table 18, the questions represented in Table 20 indicate actions by the board that are not conducive to effectiveness as a school board. Thus, the results in this group of questions suggest that charter schools, on average, are less likely to perform actions that are not conducive to being an effective board.

Of the 25 questions with a significant difference in means, nine of the questions were from the functioning as a group subset. The subset functioning as a group had the most questions with a significant difference of means, thus supporting the difference of means at the subset level. The means of six of the questions were higher for the charter school board than for the district school board.

- Q17 – “Board members don't say one thing in private and another thing in public.”
- Q30 – “I rarely disagree with other members in board meetings.”
- Q37 – “The board has adopted some explicit goals for itself, distinct from goals it has for the total school district.”
- Q49 – “Board members are consistently able to hold confidential items in confidence.”
- Q53 – “I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.”
- Q68 – “Once a decision is made, all board members work together to see that it is accepted and carried out.”

In three questions, the means of district school board responses were higher than were those of the charter school boards.
• Q3 – “There have been occasions where the board itself has acted in ways inconsistent with the district's deepest values.”

• Q64 – “Values are seldom discussed explicitly at our board meetings.”

• Q72 – “Members of this board are sometimes disrespectful in their comments to other board members.”

There were seven questions from the making decisions subset with a significant difference of means. Four of the question means were higher for charter schools than for district schools.

1. Q1 – “This board works to reach consensus on important matters.”

2. Q6 – “Our board explicitly examines the "downside" or possible pitfalls of any important decision it is about to make.”

3. Q54 – “The board usually receives a full rationale for the recommendations it is asked to act upon.”

4. Q69 – “All board members support majority decisions.”

There were three questions from the making decisions group for which the means for the district school board responses were higher than the means for the charter school board responses.

1. Q5 – “I have been in board meetings where it seemed that the subtleties of the issues we dealt with escaped the awareness of a number of the members.”

2. Q26 – “This board's decisions usually result in a split vote.”

3. Q33 – “A certain group of board members will usually vote together for or against particular issues.”
There were five questions from the acting strategically subset with a significant difference of means. Three of the questions had means that were higher for charter school boards than for district school boards.

1. Q62 – “I have been in board meetings where the discussion focused on identifying or overcoming the school district's weaknesses.”

2. Q66 – “The board discusses events and trends in the larger environment that may present specific opportunities for this school district.”

3. Q70 – “This board makes explicit use of the long-range priorities of this school district in dealing with current issues.”

There were two questions with means that were higher for the district school boards than for the charter school boards.

4. Q8 – “This board is more involved in trying to put out fires than in preparing for the future.”

5. Q46 – “This board has on occasion evaded responsibility for some important issue facing the school district.”

There were two questions from the community connections subset with a significant difference in means. For Q23, the charter school board mean was higher than the district mean and for Q55, the district school board mean was higher than the charter school mean.

1. Q23 - “This board is as attentive to how it reaches conclusions as it is to what is decided.”

2. Q55 - “At times, this board has appeared unaware of the impact its decisions will have within our service community.”
There was one question from the exercising authority subset whose mean was significantly different. Question 71 states, “The board will reverse its position based on pressure from the community.” For this question, the district school board mean was higher than that of the charter school board. There was one question from the board improvement subset with a similarly significant difference in means. Question 58 states, “This board has conducted an explicit examination of its roles and responsibilities.” For this question, the charter school board mean was higher than the district school board mean.

Overall, in the comparison of means between district and charter schools, there were 25 questions with a significant difference between means. Of those 25 questions, 10 questions indicated actions that are not conducive to an effective board. The results for all 10 questions indicated that district school boards, on average, perform these actions more than do the charter school boards. The lowest overall mean was in the charter school data in Question 26, “This board's decisions usually result in a split vote.” This result indicates that the instances of split votes are less likely to happen among charter school boards than among district school boards. In this comparison of means between district and charter school data, charter schools are more likely to exhibit effective board characteristics than are district school boards.

Cross Analysis of Independent Sample t-Tests and Pearson Correlations

A cross-analysis of questions with a significant Pearson moment-correlation coefficient correlation and questions with a significant difference of means in the Independent Sample t-Tests revealed five questions with both a correlation and a significant difference of means. Table 21 provides the correlations between the five
questions (17, 26, 53, 68, and 69) and the SPP score as well as the board effectiveness rating for the data sets of all schools, district schools, and charter schools. From the data set of district schools, questions 17 and 53 had a significant correlation to the SPP score and the board effectiveness rating as well as a significant difference of means on the $t$-test. Question 17 states, “Board members don’t say one thing in private and another thing in public.” This question had a significant positive correlation at the $p < .05$ level with the SPP score and moderately significant positive correlation at the $p < .01$ level with the district school board effectiveness rating (Table 21). These correlations suggest that, when board members act with integrity in and out of the boardroom, the action positively correlates to the district board effectiveness rating as well as the SPP score. The sample $t$-test on question 17 revealed a significant difference at the $p < .01$ level between the district schools mean and the charter schools mean (Tables 17). In this comparison, the charter school mean was higher than the district mean indicating that charter school board members are more likely than district school board members to act with integrity in and out of the boardroom.

Question 53 states, “I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.” This question from the district data set had a significant positive correlation at the $p < .05$ level with the SPP score and moderately significant positive correlation at the $p < .01$ level with the district school board effectiveness rating (Table 21). These correlations suggest that, when district board members include a review of the district values when making decisions and solving problems, the action positively correlates to the district board effectiveness rating as well as the SPP score. The sample $t$-test on question 53 revealed a
significant difference at the $p < .05$ level between the district schools mean and the charter schools mean (Table 19). In this comparison, the charter school mean was higher than the district mean; this finding indicates that charter school board members are more likely than district school board members to consider district values when making decisions and solving problems.

Both questions Q17 and Q53 are from the functioning as a group subset and the charter school means for both of these questions was higher than the district school means. This supports the significant difference in the comparison of means between the charter schools and the district schools in the subset functioning as a group since the charter school mean was higher than the district school mean (Table 16).

Three questions showed a significant difference with the $t$-test as well as a significant correlation in the charter school data set. Questions 26, 68, and 69 had a significant correlation to the SPP score and a significant difference of means on the $t$-test. Questions 26 and 69 are from the making decisions subset and are contradictory statements. Question 26 states, “This board's decisions usually result in a split vote.” Question 69 states, “All board members support majority decisions.” Question 26 had a negative correlation to the SPP at the $p < .01$ level (Table 21) and the means between district and charter schools was significantly different at the $p < .01$ level (Table 18) with the charter school mean being lower than the district school mean. Question 69 had a positive correlation to the SPP at the $p < .05$ level and a strong positive correlation to the board effectiveness rating at the $p < .01$ level (Table 21). The means between the district and charter schools were significantly different at the $p < .01$ level with the charter, when the charter school board votes together, with each member being supportive of the final
vote, this action positively correlates to the SPP score as well as the board effectiveness rating. The comparison of means indicate that charter school boards are more likely than district school boards to be supportive of, and in agreement with, each other; this practice is evidenced by their voting trends.

Question 68 is from the functioning as a group subset and states, “Once a decision is made, all board members work together to see that it is accepted and carried out.” Question 68 had a positive correlation to the SPP at the $p < .05$ level and a strong positive correlation to the charter school board effectiveness rating at the $p < .01$ level (Table 21). This correlation supports the correlations involving Q26 and Q69 and indicates that, when charter school boards act in agreement and support one another to ensure that their decisions are carried out, this action positively correlates to the board effectiveness rating and the SPP score. The means between the district and charter schools were also significantly different at the $p < .01$ level with the charter school mean being higher than the district mean (Table 17). This indicates that charter school boards are more likely than district boards to function as a team that provides support for members and ensures that their decisions are put into motion.

In four of the questions (17, 53, 68, and 69), the charter school means were higher than the district means indicating that the charter schools are more likely to perform actions that are supportive of one another and in alignment with district values. However, only three of the questions (26, 68, and 69) had correlations to the SPP that were significant from the charter school data set and none of the questions had significant correlations in the all schools data set (Table 21). In all data sets, four of the questions (17, 53, 68, and 69) had correlations to the board effectiveness rating at the $p < .01$
significance level. Question 26 had a negative correlation to the board effectiveness rating significant at the $p < .05$ level in the district data set and did not correlate at all in the charter school data set (Table 21).

Table 21

<table>
<thead>
<tr>
<th>Question</th>
<th>SPP</th>
<th>Board effect.</th>
<th>SPP</th>
<th>Board effect.</th>
<th>SPP</th>
<th>Board effect.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17\textsuperscript{a}</td>
<td>.08</td>
<td>.46\textsuperscript{**}</td>
<td>.18\textsuperscript{*}</td>
<td>.41\textsuperscript{**}</td>
<td>.35</td>
<td>.71\textsuperscript{**}</td>
</tr>
<tr>
<td>26\textsuperscript{b}</td>
<td>.01</td>
<td>-.25\textsuperscript{**}</td>
<td>.01</td>
<td>-.22\textsuperscript{*}</td>
<td>-.57\textsuperscript{**}</td>
<td>-.38</td>
</tr>
<tr>
<td>53\textsuperscript{c}</td>
<td>.14</td>
<td>.60\textsuperscript{**}</td>
<td>.18\textsuperscript{*}</td>
<td>.57\textsuperscript{**}</td>
<td>.39</td>
<td>.65\textsuperscript{**}</td>
</tr>
<tr>
<td>68\textsuperscript{d}</td>
<td>.06</td>
<td>.58\textsuperscript{**}</td>
<td>.12</td>
<td>.54\textsuperscript{**}</td>
<td>.44\textsuperscript{*}</td>
<td>.83\textsuperscript{**}</td>
</tr>
<tr>
<td>69\textsuperscript{e}</td>
<td>.05</td>
<td>.52\textsuperscript{**}</td>
<td>.10</td>
<td>.48\textsuperscript{**}</td>
<td>.43\textsuperscript{*}</td>
<td>.72\textsuperscript{**}</td>
</tr>
</tbody>
</table>

\textit{Note.} effect. = effectiveness

\textsuperscript{a}Board members don’t say one thing in private and another thing in public. \textsuperscript{b}This board’s decisions usually result in a split vote. \textsuperscript{c}I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem. \textsuperscript{d}Once a decision is made, all board members work together to see that it is accepted and carried out. \textsuperscript{e}All board members support majority decisions.

\textsuperscript{*}p < .05, two-tailed. \textsuperscript{**}p < .01, two-tailed.

Further research is needed to determine the reason charter school boards are more likely to function as a group than are district school boards; further study is also needed to determine the factors that contribute to the ability of charter school boards to be united and focused on district values. The study should investigate the reasons that these factors, although correlating to the board effectiveness rating, do not correlate to the SPP score. What are district school boards doing that cause their actions (acting with integrity in and out of the boardroom, making decisions based on district values) to correlate
positively to the board effectiveness rating and the SPP score? Why are the means for those actions lower than the charter school means, why do the charter schools not even have a correlation to the SPP score for those actions?

**Analysis by Research Question**

The data collected and analyzed in this study provided answers for the five research questions in this study.

**Research Question 1**

Is there a correlation between the effectiveness rating of school boards and their School Performance Profile scores?

Tables 13, 14, and 15 display the Pearson product-moment correlations for the data sets of all schools, district schools, and charter schools, respectively. The correlation between the board effectiveness rating and the SPP for all schools was \( r(150) = .10, p > .05 \), which is not significant. The correlation between the board effectiveness rating and the SPP for district schools was \( r(126) = .07, p > .05 \), which is also not significant. The correlation between the board effectiveness rating and the SPP for charter schools was \( r(22) = .31, p > .05 \), which is also not significant. The Pearson product-moment correlation coefficients for the data sets of all schools, district schools, and charter schools were not significant between the overall board effectiveness rating and the SPP; however, there were individual questions in each of the data groupings that were significant. In the data set of all schools (Table 13), questions 28 and 48 had significant positive correlations to the SPP score at the \( p < .05 \) level.

- Q28 - When a new member joins this board, we make sure that someone serves as a mentor to help this person learn the ropes.
• Q48 - Recommendations from the administration are usually accepted with little questioning.

In the data set of district schools (Table 14), questions 15, 17, 48, and 53 had significant positive correlations to the SPP at the $p < .05$ level.

• Q15 - The board is always involved in decisions that are important to the future of education in our district.

• Q17 - Board members don’t say one thing in private and another thing in public.

• Q48 - Recommendations from the administration are usually accepted with little questioning.

• Q53 - I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.

Question 52 which states, “This board does not allocate organizational funds for the purpose of board education and development,” had a significant negative correlation at the $p < .05$ level.

In the data set of charter schools (Table 15), questions 22, 68, and 69 had significant positive correlations to the SPP at the $p < .05$ level.

• Q22 - This board has formed ad hoc committees or task forces that include staff and community representatives as well as board members.

• Q68 - Once a decision is made, all board members work together to see that it is accepted and carried out.

• Q69 - All board members support majority decisions.
Question 26 which states, “This board’s decisions usually result in a split vote,” had a significant negative correlation at the $p < .01$ level.

Based on these findings, the conclusion is that, while the overall board effectiveness rating did not have a significant correlation to the SPP score, correlations exist at the question level and the null hypothesis should be rejected.

**Research Question 2**

Is there a correlation between each of the six subset ratings (making decisions, functioning as a group, exercising authority, connecting to the community, working towards board improvement, and acting strategically) of school boards and their School Performance Profile scores?

**Making Decisions.** Tables 13, 14, and 15 display the Pearson product-moment correlations for the data sets of all schools, district schools, and charter schools, respectively. The correlation between the making decisions subset and the SPP for all schools was $r (150) = .03, p > .05$ (Table 13) and was $r (126) = -.05, p > .05$ (Table 14) for district schools. Neither of these correlations were significant nor were there any questions that showed a significant correlation. The charter school data set correlation was $r (22) = .28, p > .05$ (Table 15), which is not significant; however, Q26 had a significant negative correlation at the $p < .01$ level; it states, “This board’s decisions usually result in a split vote.” Question 69 states, “All board members support majority decisions,” and this action has a significant positive correlation at the $p < .05$ level.

For the data sets of all schools and district schools, the null hypothesis cannot be rejected. For the data set of charter schools, there is a correlation at the question level; therefore, the null hypothesis is rejected.
**Functioning as a group.** The Pearson product-moment correlation between the functioning as a group subset and the SPP score for all schools was $r (150) = .09$ (Table 13), $p > .05$, for district schools it was $r (126) = .16, p > .05$ (Table 14), and for charter schools it was $r (22) = .24, p > .05$ (Table 15). All three correlations were not significant; however, Q17 and Q53 in the district schools data set (Table 14) and Q68 in the charter schools data set (Table 15) had significant positive correlations at the $p < .05$ level.

- Q17 - Board members don’t say one thing in private and another thing in public.
- Q53 - I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.
- Q68 - Once a decision is made, all board members work together to see that it is accepted and carried out.

For the data sets of all schools, the null hypotheses cannot be rejected. For the data sets of district and charter schools, there are correlations at the question level; therefore, the null hypothesis is rejected.

**Exercising authority.** The Pearson product-moment correlation between the exercising authority subset and the SPP for all schools was $r (150) = .01, p > .05$ (Table 13), for district schools it was $r (126) = .03, p > .05$ (Table 14), and for charter schools it was $r (22) = .27, p > .05$ (Table 15). All three correlations were not significant; however, Q15 which states, “The board is always involved in decisions that are important to the future of education in our district,” had a significant positive correlation at the $p < .05$ level in the data set for district schools. Question 48 which states, “Recommendations
from the administration are usually accepted with little questioning,” had significant positive correlations at the $p < .05$ level in the data set for all schools and district schools.

For the data sets of charter schools, the null hypothesis cannot be rejected. For the data sets of all schools and district schools, there are correlations at the question level; therefore, the null hypothesis is rejected.

**Connecting to the community.** The Pearson product-moment correlation between the connecting to the community subset and the SPP score for all schools was $r (150) = 0.11, p > .05$ (Table 13) and for district schools was $r (126) = .07, p > .05$ (Table 14). Neither correlations were significant. The correlation for charter schools was $r (22) = .32, p > .05$ (Table 15), which was also not significant; however, Q22 in the data set of charter schools had a positive significant correlation at the $p < .05$ level. Question 22 states, “This board has formed ad hoc committees or task forces that include staff and community representatives as well as board members.”

For the data sets of all schools and district schools, the hypothesis cannot be rejected. For the data set of charter schools, there is a correlation at the question level; therefore, the null hypothesis is rejected.

**Board improvement.** The Pearson product-moment correlation between the board improvement subset and the SPP for all schools was $r (150) = .08, p > .05$ (Table 13), for district schools it was $r (126) = .05, p > .05$ (Table 14), and for charter schools it was $r (22) = .25$ (Table 15), $p > .05$. All three correlations were not significant; however, Q28 which states, “When a new member joins this board, we make sure that someone serves as a mentor to help this person learn the ropes,” had a positive correlation significant at the $p < .05$ level in the data set of all schools (Table 13). In the data set of
district schools, Q52 had a significant negative correlation at the $p < .05$ level (Table 14); it states, “This board does not allocate organizational funds for the purpose of board education and development.”

For the data sets of charter schools, the null hypothesis cannot be rejected. For the data sets of all schools and district schools, there are correlations at the question level; therefore, the null hypothesis is rejected.

**Acting strategically.** The Pearson product-moment correlation between the acting strategically subset and the SPP for all schools was $r (150) = .01, p > .05$, for district schools was $r (126) = .04, p > .05$, and for charter schools was $r (22) = .06, p > .05$. Not all three correlations were significant and there were no questions in any of the data sets with a significant correlation. In all the data sets, the null hypothesis cannot be rejected.

**Research Question 3**

Is there a difference between the correlation of the district school board effectiveness rating and School Performance Profile score and the correlation of the charter school board effectiveness rating and School Performance Profile score?

The Pearson product-moment correlation between the board effectiveness rating and the SPP for district schools was $r (126) = .07, p > .05$ (Table 14) and $r (22) = .31, p > .05$ (Table 15) for charter schools. Although both correlations were not significant, the charter school correlation was 0.24 higher than the district correlation. Thus, the results show that there is a difference between the district and charter school correlations with regard to the correlation between the SPP score and the board effectiveness rating and the null hypothesis should be rejected.
The comparison of correlations at the subset level also revealed differences between district and charter school data. Table 22 shows the correlations between the board effectiveness rating and the SPP score and each of the six subsets of the charter and district schools data sets. From this table, it is evident that the subset making decisions is the only subset in which the district correlation was higher than the charter school correlation. For the remaining subsets, the charter school correlation was higher and the acting strategically subset had the lowest difference at 0.09. Another observation is that, although the correlations between the board effectiveness ratings and the SPP scores for each of the data sets were not significant, the correlations between the board effectiveness ratings and each of the six subsets were significant at the $p < .01$ level. The subsets functioning as a group, exercising authority, community connection, board improvement, and acting strategically all showed a strong positive correlation to the board effectiveness rating.

Further research is needed to determine what charter school boards are doing differently than district school boards that affects the correlation between each subset and the board effectiveness rating. Why are the correlations to the board effectiveness rating so strong for each of the charter school subsets even as there is neither a significant correlation between the board effectiveness rating and the SPP score nor a significant correlation from each of the subsets to the SPP score for charter schools? Why are the correlations between the board effectiveness rating and each of the six subsets in all the data sets significant at the $p < .01$ level yet not significantly correlated to the SPP? What additional actions need to be taken that will positively correlate to the SPP score?
Table 22

Comparison of Pearson Correlations between Board Effectiveness and SPP as well as each of the Six Subsets for District and Charter Schools

<table>
<thead>
<tr>
<th>Subset</th>
<th>Board effectiveness r</th>
<th>Charter (n = 24)</th>
<th>District (n = 128)</th>
<th>Diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPP</td>
<td>.31</td>
<td>.07</td>
<td></td>
<td>.24</td>
</tr>
<tr>
<td>Making decisions</td>
<td>.58**</td>
<td>.64**</td>
<td></td>
<td>-.06</td>
</tr>
<tr>
<td>Functioning as a group</td>
<td>.90**</td>
<td>.80**</td>
<td></td>
<td>.10</td>
</tr>
<tr>
<td>Exercising authority</td>
<td>.74**</td>
<td>.55**</td>
<td></td>
<td>.19</td>
</tr>
<tr>
<td>Community connection</td>
<td>.87**</td>
<td>.72**</td>
<td></td>
<td>.16</td>
</tr>
<tr>
<td>Board improvement</td>
<td>.85**</td>
<td>.68**</td>
<td></td>
<td>.18</td>
</tr>
<tr>
<td>Acting strategically</td>
<td>.87**</td>
<td>.77**</td>
<td></td>
<td>.09</td>
</tr>
</tbody>
</table>

**p < .01, two-tailed.

Research Question 4

Is there a difference in the overall board effectiveness ratings between districts and charter schools?

The independent sample t-test (Table 16) comparing the means of the district board effectiveness rating mean ($M = 1.69$, $SD = 0.17$) with the charter school board effectiveness mean ($M = 1.74$, $SD = 0.26$) did not result in a significant finding ($t (26.72) = -0.96, p = .34$). There was, however, a significant difference ($t (150) = -2.62, p = .01$) between the district mean ($M = 1.71$, $SD = 0.29$) and the charter school mean ($M = 1.88$, $SD = 0.31$) of the functioning as a group subset. Another observation is that, although the functioning as a group subset demonstrated the only significant difference between the district mean and the charter school mean, when comparing the correlations in Table 22,
the functioning as a group subset was among the lowest differences in correlations between the district and the charter school data sets. This is another area for further research to determine the reasons for a significant difference in the means between district and charter schools even as the differences of correlations do not reflect a large difference for the functioning as a group subset. What further actions in the functioning as a group subset could the charter school boards do that would positively correlate to the SPP score?

The results of the Independent Sample $t$-Test revealed significant differences at the question level between district school data and charter school data. There were seven questions (Q1, Q6, Q53, Q54, Q55, Q62, Q66, and Q70) with a $p < .05$ significance level difference and the charter school mean was higher than the district mean (Table 19).

- Q1 - This board works to reach consensus on important matters.
- Q6 - Our board explicitly examines the "downside" or possible pitfalls of any important decision it is about to make.
- Q53 - I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.
- Q54 - The board usually receives a full rationale for the recommendations it is asked to act upon.
- Q62 - I have been in board meetings where the discussion focused on identifying or overcoming the school district's weaknesses.
- Q66 - The board discusses events and trends in the larger environment that may present specific opportunities for this school district.
• Q70 - This board makes explicit use of the long-range priorities of this school district in dealing with current issues.

There were six questions (Q3, Q5, Q8, Q46, Q55, Q64) with a $p < .05$ significance level difference and for which the district mean was higher than the charter school mean (Table 20).

• Q3 - There have been occasions where the board itself has acted in ways inconsistent with the district's deepest values.

• Q5 - I have been in board meetings where it seemed that the subtleties of the issues we dealt with escaped the awareness of a number of the members.

• Q8 - This board is more involved in trying to put out fires than in preparing for the future.

• Q46 - This board has on occasion evaded responsibility for some important issue facing the school district.

• Q55 - At times, this board has appeared unaware of the impact its decisions will have within our service community.

• Q64 - Values are seldom discussed explicitly at our board meetings.

There were eight (Q17, Q23, Q30, Q37, Q49, Q58, Q68, Q69) with a $p < .01$ significance level and the charter school mean was higher than the district mean (Table 17).

• Q17 - Board members don't say one thing in private and another thing in public.

• Q23 - This board is as attentive to how it reaches conclusions as it is to what is decided.
• Q30 - I rarely disagree with other members in board meetings.
• Q37 - The board has adopted some explicit goals for itself, distinct from goals it has for the total school district.
• Q49 - Board members are consistently able to hold confidential items in confidence.
• Q58 - This board has conducted an explicit examination of its roles and responsibilities.
• Q68 - Once a decision is made, all board members work together to see that it is accepted and carried out.
• Q69 - All board members support majority decisions.

There were four (Q26, Q33, Q71, Q72) with a $p < .01$ significance level and the district mean was higher than the charter school mean (Table 20).

• Q26 - This board's decisions usually result in a split vote.
• Q33 - A certain group of board members will usually vote together for or against particular issues.
• Q71 - The board will reverse its position based on pressure from the community.
• Q72 - Members of this board are sometimes disrespectful in their comments to other board members.

While there was not a significant difference in the board effectiveness ratings between district and charter schools, the findings revealed a significant difference in the functioning as a group subset as well as significant differences found at the question level between 25 of the 73 questions on the questionnaire. Based on these results, the null
hypothesis should be rejected as significant differences were found between district and charter schools at the subset and question level.

Further research in this area is needed to determine what charter school boards are doing differently than district school boards that results in the differences in means as discovered in this study. What can charter school boards improve that will positively affect their board effectiveness rating? What can district school boards learn from charter school boards that will improve their board effectiveness rating?

**Research Question 5**

Is there a difference between the district and charter school correlations in each of the six-subset ratings (making decisions, functioning as a group, exercising authority, connecting to the community, working towards board improvement, and acting strategically) and their School Performance Profile score?

Table 23 shows all of the correlations for each subset for charter schools and for district schools. In the making decisions subset, the district correlation \((r (126) = -.05, p > .05)\) is .33 less than the charter school correlation \((r (22) = .28, p > .05)\). The making decisions subset had the highest difference in correlations between district and charter schools. In the functioning as a group subset, the district correlation \((r (126) = .16, p > .05)\) is .08 less than the charter school correlation \((r (22) = .24, p > .05)\). In the exercising authority subset, the district correlation \((r (126) = .03, p > .05)\) is .24 less than the charter school correlation \((r (22) = .27, p > .05)\). In the community connection subset, the district correlation \((r (126) = .07, p > .05)\) is .25 less than the charter school subset \((r (22) = .32, p > .05)\). In the board improvement subset, the district correlation \((r (126) = .05, p > .05)\) is 0.20 less than the charter school correlation \((r (22) = .25, p > 0)\). In the acting
strategically subset, the district correlation \( r (126) = .04, p > .05 \) is .02 less than the charter school correlation \( r (22) = .06, p > .05 \). The subset acting strategically was the subset in which the district and the charter school correlations were the most similar of all the subset correlations. Table 23 shows that there is a difference between the district and charter school boards with regard to correlations of the six subsets and their SPP score; therefore, the null hypothesis is rejected.

Table 23

*Comparison of Pearson Correlations between the Six Subsets and SPP for District and Charter Schools*

<table>
<thead>
<tr>
<th>Subset</th>
<th>Charter ((n = 24))</th>
<th>District ((n = 128))</th>
<th>Diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making decisions</td>
<td>.28</td>
<td>-.05</td>
<td>.33</td>
</tr>
<tr>
<td>Functioning as a group</td>
<td>.24</td>
<td>.16</td>
<td>.07</td>
</tr>
<tr>
<td>Exercising authority</td>
<td>.27</td>
<td>.03</td>
<td>.24</td>
</tr>
<tr>
<td>Community connection</td>
<td>.32</td>
<td>.07</td>
<td>.25</td>
</tr>
<tr>
<td>Board improvement</td>
<td>.25</td>
<td>.05</td>
<td>.21</td>
</tr>
<tr>
<td>Acting strategically</td>
<td>.06</td>
<td>.04</td>
<td>.01</td>
</tr>
</tbody>
</table>

While none of the data groupings showed a significant correlation between overall board effectiveness rating and the SPP, a deeper analysis of the data revealed that there are certain questions from the questionnaire that have a significant correlation to the SPP. The significant correlations at the question level in all three data groupings leads to a rejection of the null hypothesis that there is no correlation between board effectiveness and SPP. Further study into particular elements of the questions that showed a significant
correlation might lead to actions on which district and charter school boards could focus and thereby increase their SPP score.

**Summary**

From a population of 499 districts and 176 charter schools, the sample for this study included 128 districts and 24 charter schools. Statistical tests in this study included measures of central tendency, measures of dispersion, the Pearson product-moment correlation, and independent sample $t$-tests. Results were calculated on three data sets: all schools, district schools, and charter schools. No significant correlations were found between the SPP and ratings for board effectiveness, making decisions, functioning as a group, exercising authority, community connection, board improvement, and acting strategically in all three data sets. Significant correlations resulted between individual questions on the questionnaire and the SPP in all three data sets. Overall, a comparison of the means between district and charter schools indicate that charter school boards exhibit more actions that indicate board effectiveness than do district schools boards. Chapter 5 provides the summary of the results as they relate to the research questions and indicates the implications of the findings. It also provides recommendations for further study and practice.
CHAPTER 5

IMPLICATIONS, DISCUSSION, AND RECOMMENDATIONS

The purpose of this study was to determine the existence of a correlation between the school board effectiveness rating of Pennsylvania (PA) district or charter schools and the schools’ School Performance Profile (SPP) score. Responses to a questionnaire, completed by the chief school administrator or a designee, determined the board effectiveness rating. Eugene Smoley (1999) developed the questionnaire for a national project whose purpose was the development of effective school boards. Chief school administrators or their designees voluntarily completed the online questionnaire during the months of September and October 2016. The Pennsylvania Department of Education (PDE) produces and publishes the SPP score yearly as a way to determine how well a school is performing. Every building (e.g., elementary, middle, and high school building) in a district has an SPP score based primarily upon student achievement, student growth, attendance, graduation rates, and school offerings. For the purpose of this study and because charter schools have only one SPP score regardless of the number of buildings they operate, the researcher averaged the scores of multiple buildings in a district to obtain a single district SPP score. The 2015-2016 School Performance Profile data worksheet created and published on the PA School Performance Profile website comprised the SPP scores for schools that participated in the study.

As outlined in Chapter 1, the need for this study stems from the data displayed in Table 1 of Chapter 1 showing that SPP scores for both district and charter schools have been falling. From 2012-2013 to 2015-2016, district scores fell from 47 percent to 24 percent, nearly a 50 percent decline. Charter school scores during the same period fell
from 17 percent to 7 percent, a decline of over 50 percent. According to the National School Board Association (NSBA) (2017b) and the Pennsylvania School Board Association (PSBA) (2017c), school boards that operate effectively have a positive effect on student achievement. While many factors contribute to student achievement, the school board is ultimately responsible for governing effectively and making decisions that provide an educational environment in which all students can be successful.

Smoley’s (1999) Model for Board Effectiveness formed the theoretical framework for this study. Chapter 1 provided the background information for this framework as well as the purpose, research design, research questions, significance, limitations, and delimitations of this quantitative study. Chapter 2 began with a history of public education and school boards and included a summary on school accountability. The chapter concluded with a description of the six subsets Smoley (1999) found to be necessary for an effective board and supported by other researchers. The researcher presented methodology and data sources Chapter 3; Chapter 4 discussed the results of the data analysis. This chapter presents the findings from the research, implications of the results, discussion of the conclusions, and recommendations for practice and future research.

**Summary of the Findings**

The data collected in this study were grouped into three sets: the data from all the schools that participated, the data from the district schools, and the data from the charter schools. The Pearson product-moment correlation coefficient determined the correlations and the measures of central tendency, measures of dispersion; independent sample t-tests provided comparisons. A summary of the findings of these tests follows:
• No significant correlations existed between the SPP score and the board effectiveness rating.
• No significant correlations existed between the SPP score and each of the six subsets.
• Correlations existed between the SPP score and individual questions on the questionnaire.
• Correlations existed between the board effectiveness rating and individual questions on the questionnaire.
• Correlations existed between the board effectiveness rating and each of the six subsets in all three data sets.
• Charter school board correlations between the board effectiveness rating and the SPP score as well as each of the six subsets were stronger than the district school board correlations.
• Charter school board correlations between the SPP score and each of the six subsets were higher than the district school board correlations.
• Charter school board effectiveness ratings were, on average, higher than the average district school board effectiveness ratings.
• Cross analysis of questions with a significant correlation and a significant difference of means revealed five questions with both a correlation and a significant difference of means. Charter school board correlations and means were higher than the district school board correlations and means.
• Functioning as a group subset had the strongest correlation of all the subsets in each of the data sets.
A major finding was charter school boards are more likely to perform effective board actions that positively correlate to the SPP score than district school boards. This is supported by the higher board effectiveness rating mean and the significant correlations for the charter school boards versus the district school boards. The overall theme of the board actions that resulted in significant correlations encompassed three areas: board training and development; operating as a team; as well as integrity and trust between board members, between board members and administration, and between board members and the community. Trust between the different groups is a result of open and honest discussions, sharing of information, and inclusion of all parties involved.

Implications of the Results

There are many implications that arise from the correlation findings of this study. The first finding is that there were no correlations found between the SPP score and the board effectiveness rating as well as between the SPP score and each of the six subsets. This finding supports the studies by Foust (2009), Land (2002), and Osborne (2007) that indicate more research is needed to determine the board actions that positively relate to student achievement. The overall results of this study imply that more research is needed in this area to determine the types and frequencies of board actions that positively affect student achievement. The second finding is that correlations do exist between the SPP and the questions as well as the between the subsets. This finding implies that there are school board actions that do relate to the SPP score and to the board effectiveness rating. There are also board actions that can have an affect across multiple subsets thereby increasing their impact on board effectiveness. These findings are supported by the
findings by Lorentzen (2013), Shafer (2014), and Woodward (2006) that indicate that effective board actions do correlate to student achievement.

The correlation findings in the data set of all schools (Table 13) imply that when school boards ensure that new members receive training and support necessary to perform their duties, the SPP score can be positively affected. In addition, the action of building a trusting relationship with open communication between the school administration and the school board can positively correlate to the SPP score. The implications for all schools are that trust and training are necessary for improving school performance. School boards that find ways to increase trust and training for board members are likely to positively impact their school performance.

The correlation findings in the data set of district schools (Table 14) provide board actions that either positively or negatively correlate to the SPP score; both types of significant correlation are helpful in that they point to actions that boards should either add to, or eliminate from, their repertoires. This section provides all school boards with strategies they should consider incorporating into their practices and policies as a way to improve their overall effectiveness. In this study, the action by district school boards of being involved in making decisions in line with the values of the district that affect the future of the school had a positive correlation to their SPP score. District school boards also act with integrity in and out of the boardroom, an action that positively correlates to the SPP score. Finally, when district boards do not allocate funds for their own development and training, the result is a negative correlation to the SPP score.

These findings imply that improvement in SPP scores is likely to occur in all schools whose boards that consider the values of their schools when making decisions,
behave with integrity within and outside the boardroom, and allocate funds to support their own professional development.

The correlation findings in the charter school data set (Table 15) provide board actions that school boards can adopt to positively impact their SPP scores. This study found that when charter school boards form ad hoc committees that include staff and community members, their action positively correlates to their SPP scores. This study also found that charter school board members support majority decisions and work together to ensure the implementation of their decisions. These actions created a positive correlation to the SPP score. The board action where a split vote depicts the board decisions was a negative correlation to the SPP score. The assumption is that the action of making a unified decision would positively correlate to the SPP score. The positive correlation to SPP scores among charter school boards that practiced these actions implies that the boards of both district and charter schools could achieve a similarly positive correlation between themselves and their SPP scores when they include the public in their deliberations, support majority decisions of the board, and collaborate to ensure that board-mandated recommendations are implemented.

The only subset in which this study found charter schools to be significantly different from district schools was the functioning as a group subset. A comparison of 25 specific questions showing significantly different data revealed that charter school boards, on average, perform more effective board actions than district schools. Charter school boards had a higher mean for 15 of the 25 questions. These questions represent board actions that are conducive to an effective board. This implies that charter school boards are more likely to perform these effective actions than district school boards. The
remaining 10 questions relate to actions that are not conducive to an effective board. For all 10 of these questions, district school boards had higher means than charter school boards. This implies that district school boards are more likely to engage in actions that are not conductive to being an effective board. The common themes found in these differences of means and in the correlations are that (a) effective school board meetings occur in a trusting environment in which members deliberate during the decision-making process, (b) decisions are based on school values and goals, and (c) discussions bring the group to a point of agreement that they are all able to support.

Table 21 displays the five questions, with their SPP and board effectiveness correlations for all three data sets, which had a correlation to the SPP as well as a significant difference of means between district school boards and charter school boards. Four of the questions had means in which the charter school board mean was higher than the district school board mean. This implies that charter school boards are more likely to (a) support the decisions made by the group, (b) act with integrity in and out of the boardroom, and (c) discuss the values of the school when making decisions. The mean was higher for the district school board for Question 26, which implies that decisions made by district boards are more likely to result in a split vote.

This cross analysis of the data revealed three areas in which further research is needed to determine why there is not alignment between the correlation tests and the t-tests. First, there exists an apparent disconnect on Question 17 that states, “Board members don’t say one thing in private and another thing in public.” While this item showed a significantly positive correlation in the district school data set, a similar correlation did not appear in the charter school data set. At the same time an examination
of the comparison of means showed that the charter school board mean was higher than the district school board mean. So, while the charter school boards are performing this action more than the district school boards, the correlation data suggest that charter school board members need to improve in this area to positively correlate to their SPP score. Another observation is that the correlation of Q17 to the board effectiveness rating had a strong positive correlation to the charter school data but only a moderate positive correlation to the district school data. Further research is needed to determine why, even as there is evidence that the action is more likely to be performed by charter school boards, the action does not correlate to the SPP score of this group.

The same occurrence was found in Question 53 which states, “I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.” The question had a significantly positive correlation to SPP scores in the data set for district schools but it did not have a correlation in the charter school data. The correlation of Q53 to the board effectiveness rating had a positive significant correlation for both the district school data and the charter school data, with a stronger correlation found in the charter school data set. In the comparison of means test, the charter school mean for this question was higher than the district mean. The implication of this finding is that further research is needed because, even as the correlation suggests that charter school boards need to incorporate this action to positively relate to their SPP score, the comparison of means indicates that the charter school boards do implement this action more than district school boards. A closer look at why a correlation does not exist in this area for charter schools would be beneficial.
Finally, Q26 states, “This board’s decisions usually result in a split vote.” In the data set of charter schools, there is a negative significant correlation but no correlation exists in the district school data. Additionally, the comparison of means revealed that the district school boards are more likely to have a split vote. In the data set of district schools, there is a negative significant correlation to the board effectiveness rating; however, there is no correlation between the charter school board effectiveness rating and Q26. This finding reveals another area in which additional research is needed to determine why, when the comparison of means indicates that the district boards are more likely to have a split vote, there is not a correlation to the SPP score; concurrently, further study is needed to determine the reason that a negative correlation exists between Q26 and the charter school SPP score while no correlation to the board effectiveness rating is found.

The overall implications of these results are substantial in terms of their potential to guide constructive change among schools’ governing bodies. The common theme among the correlations and the questions showing significance differences highlight the importance of high levels of trust between board members, between board members and administration, as well as between board members and the community. Smoley (1999) and Thompson and Holt (2016) stress the importance of a trusting relationship between the board and the chief school administrator. The results indicated in this study support the idea that if the board and the chief school administrator have built a trusting relationship that includes an open, honest, and timely line of communication, the board does not feel the need to question recommendations and, as a result, a positive correlation to the SPP score is more likely. This trust allows the chief school administrator to
perform his or her job to his or her fullest potential for the benefit of the educational institution and the students. When board members act with integrity in and out of the boardroom, a stronger bond of trust is built between board members, between board members and school administration, as well as between the school and the community. Trust between all parties allows the group to function as a team, to uphold shared values and goals, and to support the decisions that are made as a group.

**Discussion of the Conclusions**

While a significant correlation was not found between the board effectiveness rating and the SPP score, a deeper investigation into the questions of the questionnaire revealed data that will be instrumental in improving school boards and, consequently, school SPP scores. As noted in Table 2 of Chapter 2, Smoley (1999) provides six areas on which a board needs to concentrate in order to be effective. The eight areas indicated by the National School Board Association (NSBA) (2017c) and the seven areas indicated by the Pennsylvania School Board Association (PSBA) (2017c) fit within Smoley’s six areas. The questions in this study that were found to have a significant correlation to the SPP score fall within the areas identified by Smoley, the NSBA, and the PSBA as areas that affect student achievement. These areas are also supported by the literature presented in Chapter 2 as positively affecting student achievement.

**Making Decisions**

Smoley (1999), the NSBA (2017c), and the PSBA (2017c) describe the subset making decisions as the realm in which board members deliberate over relevant information and then come to a consensus before taking a vote to establish the board decision. This is also the area in which the district’s vision and goals are established by
the board; these serve as the cornerstone upon which all other decisions are built. In addition to using data to make the decision, the board uses data and retrospection to ensure that the decisions they made were carried out with fidelity.

In this study, two questions (Q26, Q69) from the charter school data showed a significant correlation to the SPP score in the making decisions subset. Q26 had a significant negative correlation and states, “This board’s decisions usually result in a split vote.” Question 69, with a significant positive correlation, states, “All board members support majority decisions.”

The questions are opposites of each other and relate to the support of the board during the decision-making process. The literature in Chapter 2 supports the finding that when boards have the information necessary to make decisions and when they discuss implications openly, the board can vote as a team (Lorentzen, 2013; Shafer, 2014).

In the comparisons of means test, charter schools had higher means than the district schools in four out of the 25 questions in the subset of making decisions:

- Q1 – “This board works to reach consensus on important matters.”
- Q6 – “Our board explicitly examines the "downside" or possible pitfalls of any important decision it is about to make.”
- Q54 – “The board usually receives a full rationale for the recommendations it is asked to act upon.”
- Q69 – “All board members support majority decisions.”

Three questions from the making decisions group had means for the district school boards that were higher than the means for the charter school boards:
• Q5 – “I have been in board meetings where it seemed that the subtleties of the issues we dealt with escaped the awareness of a number of the members.”
• Q26 – “This board's decisions usually result in a split vote.”
• Q33 – “A certain group of board members will usually vote together for or against particular issues.”

This supports Woodward’s (2006) study that found that charter schools performed better in the area of making decisions than district schools; however, this study contradicted Woodward’s study that found making decisions was the most effective of the subsets. This study found that the subset functioning as a group had the highest mean and that functioning as a group had the highest correlation to the SPP score. The making decisions subset was also found to have a positive correlation to the board effectiveness rating for all three data sets. The review of the literature in Chapter 2 also supports the finding that actions related to the making decisions subset lead to student success (Holdren, Majors, & Patton, 2014; Lorentzen, 2013; Shafer, 2014; Shober & Hartney, 2014)

Crum and Hellman’s (2009) study revealed findings that are contradictory to the findings in this study, specifically charter school boards work to discuss issues until reaching a consensus. Crum and Hellman found that many discussions around major decisions that affected the future of the school took place outside of the boardroom. Decisions in the boardroom were merely a formality to make the decision official. This is contradictory to Smoley’s (1999) recommendation that discussion and deliberation should occur publicly so that board members, staff, and community have the opportunity to provide input.
Functioning as a Group

Smoley (1999), the NSBA (2017c), and the PSBA (2017c) describe the subset functioning as a group as the area in which the board members collaborate as a team, members are respectful of one another, and they exhibit integrity in and out of the boardroom. Trust is built between board members and between board members and the school administration as they work toward shared beliefs and values. Decisions made in the boardroom are supported publicly and privately.

In this study, three questions were found to have a significant positive correlation to the SPP score in the functioning as a group subset. Question 68, from the charter school data set, states, “Once a decision is made, all board members work together to see that it is accepted and carried out.” Two questions were from the district school data set. Question 17 states, “Board members don’t say one thing in private and another thing in public.” Question 53 states, “I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.” These questions imply a level of trust between members that allows them to openly discuss issues to reach consensus and then, once a decision is reached, to support the decision both publicly and privately. The functioning as a group subset was also found to have a positive correlation to the board effectiveness rating for all three data sets. This is supported by the literature presented in Chapter 2 as Siegel’s (2009) findings showed that teamwork is the highest indicator of a high achieving district. Lorentzen (2013) found that boards that act as a trusting team and that conduct business respectfully and fairly do positively affect student achievement. Holman (2016) found that when boards function as a team and support decisions made as a team, student achievement may be positively
affected. Trust was also a factor that relates to student achievement as found in the studies by Saatcioglu, Moore, Sargut, and Bajaj (2011) and by Thompson and Holt (2016).

One of the contradictions to the literature occurs in the functioning as a group subset. Connor (2009) found that board improvement was the most-used strategy for enhancing board effectiveness; the least-used strategy was functioning as a group. This contradicts the findings of this study that functioning as a group had the highest correlation to board effectiveness.

In the comparison of means test, nine questions from the functioning as a group subset showed a significant difference in the means between district and charter schools. For six of the questions, the charter school board means were higher than the district school board means:

- Q17 – “Board members don't say one thing in private and another thing in public.”
- Q30 – “I rarely disagree with other members in board meetings.”
- Q37 – “The board has adopted some explicit goals for itself, distinct from goals it has for the total school district.”
- Q49 – “Board members are consistently able to hold confidential items in confidence.”
- Q53 – “I have been present in board meetings where discussions of the values of the district were key factors in reaching a conclusion on a problem.”
- Q68 – “Once a decision is made, all board members work together to see that it is accepted and carried out.”
Three of the questions had means that were higher for the district boards than for the charter school boards:

- Q3 – “There have been occasions where the board itself has acted in ways inconsistent with the district's deepest values.”
- Q64 – “Values are seldom discussed explicitly at our board meetings.”
- Q72 – “Members of this board are sometimes disrespectful in their comments to other board members.”

This finding supports the study conducted by Woodward (2006) that found that charter schools are more effective in the functioning as a group than the district schools studied.

**Community Connections**

Smoley (1999), the NSBA (2017c), and the PSBA (2017c) describe the subset community connections as the area in which the board members act as liaisons between the school and the community. The board establishes the processes through which communication can flow between the two groups of stakeholders ensuring that the community has opportunities to provide input when major decisions are to be made; in this way the community is also aware of decisions that are made by the board.

In this study, one question from the charter school data set in the community connections subset had a significant positive correlation to the SPP score: Q22 states, “This board has formed ad hoc committees or task forces that include staff and community representatives as well as board members.” In the comparison of means test, charter schools also had a higher mean than district boards on Q23 which states, “This board is as attentive to how it reaches conclusions as it is to what is decided.” The
district school board had a higher mean on Q55 that states, “At times, this board has appeared unaware of the impact its decisions will have within our service community.” This statement infers that when a board understands how its decisions affect the community, this action will positively affect school performance. The community connections subset was also found to have a positive correlation to the board effectiveness rating for all three data sets. These finding are supported by the review of the literature in Chapter 2 in which studies showed that community engagement and quality relationships between the board and community lead to student success (Bohnstengel, 2012; Lorentzen, 2013; Shafer, 2014).

**Exercising Authority**

Smoley (1999), the NSBA (2017c), and the PSBA (2017c) describe the subset exercising authority as the area in which the board establishes roles and responsibilities of board members and sets expectations for school administrators. Board members understand that they are to work together as a team and that, instead of micro-managing the school administration, they must establish measures of accountability to ensure that participants fulfill their roles and meet their responsibilities. Work in this area helps to strengthen the level of trust between all stakeholders and further unify the team.

In this study, two questions were found to have a significant positive correlation to the SPP score in the exercising authority subset. Question 48 states, “Recommendations from the administration are usually accepted with little questioning.” This question had a significant positive correlation to the SPP score in both the all schools data set and the district schools data set. Question 15 states, “The board is always involved in decisions that are important to the future of education in our district;”
this item had a significant correlation to the SPP score in the data set of district schools. All the questions imply a level of trust between board members and school administration. Board members trust the school administration to provide them with the information they need to respond wisely to recommendations that require action. At the same time, the school administration ensures that the board is always actively involved in decisions that affect the future of the school. A review of the literature in Chapter 2 also found that trust is a major factor in board effectiveness. The study by Crum and Hellman (2009) found that positive relationships between staff and board members impact the board’s overall effectiveness. This premise is further supported and clarified in the studies by Ford (2014) and Thompson and Holt (2016) as they found that trusting relationships between the superintendent and board members impacted board effectiveness and student achievement. The Lighthouse Study (Rice, Delagardelle, Buckton, Jons, Lueders, Vens, Joyce, Wolf, Weathersby, 2000) revealed that high-achieving schools were satisfied with their superintendents and that they had a peaceful board/superintendent relationship.

In the comparison of means test, district school boards had a higher mean than the charter schools on Q71 which states, “The board will reverse its position based on pressure from the community.” The exercising authority subset was also found to have a positive correlation to the board effectiveness rating for all three data sets. This finding is supported by the literature presented in Chapter 2. Holman (2016), Lorentzen (2013), Shafer (2014), and Siegel (2009) all indicated that, to build trust and to operate effectively and positively affect student achievement, the board needs to establish roles and responsibilities for both board members and school administrators.
Board Improvement

Smoley (1999), the NSBA (2017c), and the PSBA (2017c) describe the subset board improvement as the area in which boards develop a leadership structure and a plan to improve their processes and procedure in an ongoing manner. In order to improve continuously, boards establish a plan that evaluates their processes and procedures as a group as well as their individual performance; in this way they can better plan their own development, which may include utilizing outside sources to help them learn new processes for fulfilling their roles as school boards.

In this study, two questions were found to have a significant correlation to the SPP score in the board improvement subset. One question (Q28) is from the all schools data set and has a positive correlation to the SPP score. It states, “When a new member joins this board, we make sure that someone serves as a mentor to help this person learn the ropes.” Question 52 which states, “This board does not allocate organizational funds for the purpose of board education and development,” is from the district schools data set and had a significant negative correlation to SPP scores. In the comparison of means test, the charter school board had a higher mean than the district school board on Q58 which states, “This board has conducted an explicit examination of its roles and responsibilities.” The board improvement subset was also found to have a positive correlation to the board effectiveness rating for all three data sets. The topic of board training and development can be found in several studies in the review of the literature in Chapter 2. Holdren, Majors, and Patton (2014), as well as Lorentzen (2013), found that board training in the areas that lead to board effectiveness positively relates to student achievement. Shafer (2014) found that board members should engage in learning in
order to make informed decisions about learning. Lee and Eadens (2014) found that low achieving districts need focused and intense board training in order to raise student achievement. These studies found that there are board actions that help schools improve student achievement but that, if boards are not trained in methods to incorporate these actions into practice, improved student achievement may not occur.

**Acting Strategically**

Smoley (1999), the NSBA (2017c), and the PSBA (2017c) describe the subset acting strategically as the area in which the board develops a plan for systems and programs that serve the present as well as the future. Board members must be committed to addressing critical issues without becoming overly focused on the details. They need to understand the full implication of their decisions and establish a plan for accountability to ensure that the plans are implemented with fidelity.

In the comparison of means test of this study, five questions had a significant difference in the means between district and charter schools. Three of the questions had means that were higher for charter school boards than for district school boards:

1. Q62 – “I have been in board meetings where the discussion focused on identifying or overcoming the school district's weaknesses.”
2. Q66 – “The board discusses events and trends in the larger environment that may present specific opportunities for this school district.”
3. Q70 – “This board makes explicit use of the long-range priorities of this school district in dealing with current issues.”

Two questions had means that were higher for the district school boards than for the charter school boards:
4. Q8 – “This board is more involved in trying to put out fires than in preparing for the future.”

5. Q46 – “This board has on occasion evaded responsibility for some important issue facing the school district.”

All of these questions focus on the board addressing current issues that while remaining aware of the long-range plan. This finding supports the study conducted by Woodward (2006) that found that, in the schools studied, charter schools were more effective than district schools in the acting strategically subset. The acting strategically subset was also found to have a positive correlation to the board effectiveness rating for all three data sets. The literature in Chapter 2 provides support for the findings in the acting strategically subset that positively correlate to student achievement. Lorentzen (2013) found that high achieving boards focus on student learning, set expectations and goals and then make plans to reach the goals. They also establish methods to track progress and evaluate the results of their decisions. Holman (2016) indicated that, when boards keep in mind all the factors involved in making a decision and focus on shared solutions that work in multiple applications and have multiple methods of implementation, they are able to more effectively improve student achievement. Ford (2014) found that, when boards incorporate strategic planning processes and work to mitigate conflicts, they are able to positively affect student achievement. Shafer (2014) found that boards that fully understand all the factors that are involved in promoting effective change, and plan strategically to start and sustain initiatives, are able to improve student achievement.
Although this study did not reveal significant correlations between the SPP score and the board effectiveness rating of school boards, correlations with the SPP score do exist at the question level. There are also significant correlations between the subsets and the board effectiveness ratings as well as correlations between certain questions and the board effectiveness ratings. The findings in this study provide additional support for the various studies in Chapter 2 that found that board actions can lead to board effectiveness, which can in turn lead to increased student achievement.

**Recommendations for Practice**

Based on the data collected in this study, the researcher recommends the following actions that have been shown to positively correlate to the SPP score:

1. School boards and school administrators should work together to create a mission, vision, values, and goals for the board as well as for the school entity.

2. School board members should refer to the vision and goals when making decisions for the future.

3. School boards should provide funds and opportunities for board development whereby board members can learn about their roles and responsibilities as well as ways in which they can work together as a high functioning and effective team focused on the mission and vision of the school.

4. School boards should establish a policy to assign mentors to new board members. Doing so will help them learn about their roles and responsibilities; they will also learn how to work with the board as a team member. This mentor program should familiarize the new member with the mission, vision, and goals of the district as established by the board.
5. School board members should work toward common goals decided upon by the board. Board members should commit to having open board meetings that foster honest discussions of the impact their decisions will have on their agreed-upon goals. They should be committed to discuss issues until they arrive at a consensus with the result being a unified vote. Once decision has been made, all board members should agree to support and uphold that decision in private and in public. Each member should act with integrity in and out of the boardroom.

6. School board members and school administration should work to build a trusting relationship based on effective communication.

7. School administrators should keep the board informed of what is happening in the school as well as provide information to support their recommendations.

8. School boards should include community representatives as well as staff members in the fact-finding process before making major decisions.

**Recommendations for Future Research**

This study was a general look at school boards and student achievement. Based on the data collected in this study, the researcher offers the following areas as topics for future research into the actions that will positively affect the ability of school boards to increase achievement among students in their schools.

1. What are charter school boards doing differently than district school boards that led to the higher means and higher correlations to the SPP score in board effectiveness and the six subsets? Specifically, what are charter school boards doing differently in the area of functioning as a group and in community
connections, the subsets in which the biggest statistical differences occur? Why are the means between the district and charter schools in the subset functioning as a group significantly different while the correlations do not show a large difference?

2. This study found that when organizational funds are not allocated for board development, there is a negative significant correlation to the SPP score as well as to the subset acting strategically and functioning as a group. However, the correlation to the board effectiveness rating was not significant and the correlation to the subset making decisions was significant and positive. Thus, further study could be conducted to further clarify exactly what actions, in the area of board development, boards should take to increase their effectiveness as governing bodies. Does the percentage of funds allocated impact results? What should be the topics of board development?

3. What are the actions in each of the six subsets that lead to the correlations between the board effectiveness rating and each of the six subsets that are significant at the $p < .01$ level for all three data sets? What further actions could be implemented that would also cause each of the six subsets to correlate to the SPP score?

4. Correlations at the question level revealed 11 questions that related significantly to the SPP score; nine of those questions also correlated significantly to the board effectiveness rating. What are the specific actions performed by the school boards that significantly correlate to SPP scores and board effectiveness ratings? What changes could be implemented to cause a
significant correlation to the board effectiveness rating as well as to the SPP score?

5. This study revealed that the charter school boards in this study had higher board effectiveness ratings than participating district school boards; however, the SPP scores for the charter schools were lower on average than those of the district schools. Further research into the actions of the charter school board that yield a higher board effectiveness rating would provide charter school boards with valuable board development information. A closer investigation into factors that comprise the charter school SPP score that correlate to those board actions known to lead to board effectiveness may help charter school boards improve their overall school performance.

6. This study found that in the subset making decisions, the charter school data set had a higher correlation to the SPP score than the district schools data set. However, in the correlations between the board effectiveness rating and the making decisions subset, the district data set had a higher correlation. Further research is needed to investigate why the correlations between the subset making decisions and the SPP score for charter schools are higher than the district schools even as the correlations between the board effectiveness rating and the subset making decisions for charter schools are lower than the district schools.

**Limitations and Delimitations**

This study was limited by factors outside of the researcher’s control and by limitations set by the researcher. The board effectiveness data for this study was
collected by a questionnaire completed by the chief school administrator or his or her designee. This may have affected the accuracy of the data collected regarding board effectiveness since the questionnaire was designed to be completed by all the individual board members. The researcher relied on the integrity of the person completing the questionnaire as a link to the questionnaire was sent via email to the person listed as the chief school administrator. There is no way to verify from whom the information was collected or if the collected information is valid and true. The information was also collected via a questionnaire; there were no observations or other points of view. In summary, imitations of the study exist because the collection of data was limited to one individual’s perspective who is not a board member and because the information was collected via a questionnaire and not an observation.

With only 24 out of 138 charter schools participating, the charter school data may not be representative of the all charter schools. The sample size limits the reliability of the charter school data. This study does not take into account the demographics of the schools, which could impact the SPP. Further, even if a school board is effective, student achievement may differ between schools with different demographics. This study also does not investigate other factors that may affect the SPP score of schools thus limiting the analysis of the data of this study. Because the SPP score is highly indicative of a look at one point in time of a student’s performance, whereas a growth measure shows how a student grew over a period of time, using the SPP score instead of growth measures may have limited the true impact of an effective board.
Conclusion

The purpose of this study was to determine if a correlation existed between school board effectiveness and school performance scores. This study did not find a correlation between school board effectiveness and school performance scores but correlations exists between two specific questions on the questionnaire and the school performance scores. The data indicated that a relationship does exist between the school performance score and training new board members. A relationship also exists between the school performance score and a trusting relationship between the board and the chief school administrator. The data also revealed that charter school boards perform more effectively than district school boards in certain areas. The significance of this study, according to this study, is the conclusion that school boards do not operate effectively; on average, schools perform right around the acceptable range of SPP scores. More research in this area may offer recommendations for improvement to the ways in which school board actions can positively affect school performance.
References


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Statistics/PSSA/Pages/2010-2011-PSSA-Results.aspx#tab-1


169


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Appendix A

The Board Assessment Questionnaire

You have been invited to participate in a research project that will collect data on the effectiveness of PA public school boards to determine the correlation to the school performance profile score. By completing this questionnaire, you are providing your consent for the information to be used in the dissertation entitled “Pennsylvania Public School Board Effectiveness: Does it Matter?” being written by Aiko Malynda Maurer, a doctoral candidate in the Administration and Leadership Studies at Indiana University of Pennsylvania. In this questionnaire that takes about 30 minutes to complete, you will find statements that portray various possible actions by board members. These questions were formulated to be read by the board member so please choose the response to the statement that most closely resembles your response. Your participation is voluntary and there are no adverse effects to not participating.

The identification being asked for at the beginning of the questionnaire will remain confidential and will be used only to validate inclusion in the aggregated results and to connect the correct school performance profile score to your school. Once the connection has been made and before the results are calculated for the study, all names will be removed and the school name will be replaced with a number that starts with a D for district and a C for charter school.

Thank you for your full participation and cooperation in this survey.

Aiko Malynda Maurer
Professional Studies in Education, Doctoral Program
Indiana University of Pennsylvania
a.m.maurer@iup.edu
A) Are you filling this questionnaire out as a school district representative or a charter school (cyber or brick and mortar) representative?

   a. School District
   b. Brick and Mortar Charter School
   c. Cyber Charter School

B) For what school district board of directors or charter school board of trustees are you completing this questionnaire? Please spell out the full name of your district or charter school.

C) Please indicate the number of members on your school board that fall within each of the ranges for years of service listed below.

   1 to 3 years of service: _____________
   4 to 10 years of service: _____________
   10+ years of service: _____________
Please select the choice that most closely reflects your view of how your school's board members reflect these statements.

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>1. This board works to reach consensus on important matters.</td>
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<td>2. I have participated in board discussions about what we should do differently as a result of a mistake the board made.</td>
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<td>3. There have been occasions where the board itself has acted in ways inconsistent with the district’s deepest values.</td>
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<td>4. This board has formal structures and procedures for involving the community.</td>
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<td>5. I have been in board meetings where it seemed that the subtleties of the issues we dealt with escaped the awareness of a number of the members.</td>
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<td>6. Our board explicitly examines the “downside” or possible pitfalls of any important decision it is about to make.</td>
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<td>7. Usually the board and superintendent advocate the same actions.</td>
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<td>8. This board is more involved in trying to put out fires than in preparing for the future.</td>
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<td>9. This board sets clear organizational priorities for the year ahead.</td>
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<td>10. A written report including the board’s activities is periodically prepared and distributed publicly.</td>
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<td>11. This board communicates its decisions to all those who are affected by them.</td>
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<td>12. At least once every two years, our board has a retreat or special session to examine our performance, how well we</td>
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<td>13. Many of the issues that this board deals with seem to be separate tasks, unrelated to one another.</td>
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<td>Question</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Disagree</td>
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<td>14. The board will sharply question certain administrative proposals, requiring the superintendent to reconsider the recommendations.</td>
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<tr>
<td>15. The board is always involved in decisions that are important to the future of education in our district.</td>
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<td>16. If our board thinks that an important group of constituents is likely to disagree with an action we are considering, we will make sure we learn how they feel before we actually make the decision.</td>
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<td>17. Board members don’t say one thing in private and another thing in public.</td>
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<td>18. This board and its members maintain channels of communication with specific key community leaders.</td>
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<td>19. This board delays action until an issue becomes urgent or critical.</td>
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<td>20. This board periodically sets aside time to learn more about important issues facing school districts like the one we govern.</td>
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<tr>
<td>21. This board relies on the natural emergence of leaders rather than trying explicitly to cultivate future leaders for the board.</td>
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<tr>
<td>22. This board has formed ad hoc committees or task forces that include staff and community representatives as well as board members.</td>
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<td>23. This board is as attentive to how it reaches conclusions as it is to what is decided.</td>
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<td>24. The decisions of this board on one issue tend to influence what we do about other issues that come before us.</td>
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<td>Question</td>
<td>Strongly Agree</td>
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<td>25. Most people on this board tend to rely on observation and informal discussion to learn about their roles and responsibilities.</td>
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<td>26. This board’s decisions usually result in a split vote.</td>
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<td>27. When faced with an important issue, the board often “brainstorms” and tries to generate a whole list of creative approaches or solutions to the problem.</td>
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<td>28. When a new member joins this board, we make sure that someone serves as a mentor to help this person learn the ropes.</td>
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<td>29. I have been in board meetings where explicit attention was given to the concerns of the community.</td>
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<td>30. I rarely disagree openly with other members in the board meetings.</td>
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<td>31. I have participated in board discussions about the effectiveness of our performance.</td>
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<td>32. At our board meetings, there is at least as much dialogue among members as there is between members and administrators.</td>
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<td>33. A certain group of board members will usually vote together for or against particular issues.</td>
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<td>34. I have participated in discussions with new members about the roles and responsibilities of a board member.</td>
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<td>35. The board will often persuade the superintendent to change his mind about recommendations.</td>
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<td>36. The leadership of this board typically goes out of its way to make sure that all members have the same</td>
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<td>37. The board has adopted some explicit goals for itself, distinct from goals it has for the total school district.</td>
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<td>Question</td>
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<td>38. The board often requests that a decision be postponed until further information can be obtained.</td>
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<td>39. The board periodically obtains information on the perspectives of staff and community.</td>
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<td>40. This board seeks outside assistance in considering its work.</td>
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<td>41. Our board meetings tend to focus more on current concerns than on preparing for the future.</td>
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<td>42. At least once a year, this board asks that the superintendents articulate his/her vision for the school district’s future and strategies to realize that vision.</td>
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<td>43. The board often requests additional information before making a decision.</td>
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<td>44. I have never received feedback on my performance as a member of this board.</td>
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<td>45. The board often discusses its role in district management.</td>
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<td>46. This board has on occasion evaded responsibility for some important issue facing the school district.</td>
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<td>47. Before reaching a decision on important issues, this board usually requests input from persons likely to be affected by the decision.</td>
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<td>48. Recommendations from the administration are usually accepted with little questioning.</td>
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<td>49. Board members are consistently able to hold confidential items in confidence.</td>
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<td>50. This board often discusses where the school district should be headed five or more years into the future.</td>
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<td>51. The board president and superintendent confer so that differences of opinion are identified.</td>
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<td>Question</td>
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<td>52. This board does not allocate organizational funds for the purpose</td>
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<td>of board education and development.</td>
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<td>53. I have been present in board meetings where discussions of the</td>
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<td>district values were key factors in reaching a conclusion on a problem.</td>
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<td>54. The board usually receives a full rationale for the recommendations</td>
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<td>it is asked to act upon.</td>
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<td>55. At times this board has appeared unaware of the impact its decisions</td>
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<td>will have within our service community.</td>
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<td>56. Within the past year, this board has reviewed the school district’s</td>
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<td>strategies for attaining its long-term goals.</td>
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<td>57. We are not a “rubber stamp” board.</td>
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<td>58. This board has conducted an explicit examination of its roles and</td>
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<td>responsibilities.</td>
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<td>59. I am able to speak my mind on key issues without fear that I will</td>
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<td>be ostracized by some members of this board.</td>
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<td>60. This board tries to avoid issues that are ambiguous and complicated.</td>
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<td>61. The administration rarely reports to the board on the concerns of</td>
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<td>those the school district serves.</td>
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<td>62. I have been in board meetings where the discussion focused on</td>
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<td>identifying or overcoming the school district’s weaknesses.</td>
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<td>63. This board often acts independent of the superintendent’s</td>
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<td>recommendations.</td>
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<td>64. Values are seldom discussed explicitly at our board meetings.</td>
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<tr>
<td>Question</td>
<td>Strongly Agree</td>
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<td>Disagree</td>
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<tr>
<td>65. This board spends a lot of time listening to different points of view before it votes on an important matter.</td>
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<td>66. The board discusses events and trends in the larger environment that may present specific opportunities for this school district.</td>
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<td>67. The board is outspoken in its views about programs.</td>
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<td>68. Once a decision is made, all board members work together to see that it is accepted and carried out.</td>
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<td>69. All board members support majority decisions.</td>
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<tr>
<td>70. This board makes explicit use of the long-range priorities of this school district in dealing with current issues.</td>
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<td>71. The board will reverse its position based on pressure from the community.</td>
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<td>72. Members of this board are sometimes disrespectful in their comments to other board members.</td>
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<tr>
<td>73. More than half of this board’s time is spent in discussions of issues of importance to the school district’s long-range future.</td>
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</table>

Thank you for taking the time to complete the questionnaire! Please click on the Submit at the bottom right of the page to submit your responses.
October 19, 2015

Re: PASA Research Fellowship Award

Dear Malynda Aiko:
Your academic merit and promise has earned you this offer of a PASA Research Fellowship. The decision by the Research and Development Committee to award you this fellowship was made after a careful review of your application materials.

Reviewers Comments:

I feel that her research topic aligns well with the PASA mission and will be beneficial to our PASA membership.

As a former PASA fellow, I know the benefit of having the designation of PASA Fellow in encouraging district leaders to take part in the research.

I have also met Malynda on numerous occasions and feel she would represent PASA well.

Clearly, the reviewers believe that you have the ability to do high-quality graduate/post-graduate research and K-12 work.

Therefore, we are pleased to offer you this fellowship in recognition of your great potential for success and contribution to the mission and vision of the PASA leadership team and members.

Joyce Pittman, Ph.D.
Pennsylvania Association of School Administrators (PASA)
Chair — Research & Development Committee
2608 Market Place
Harrisburg, PA 17110-9358
215-863-1527 (Cell)
717-540-4448 (Office)
Fax: 717-540-4405
www.pasa-net.org
Appendix C

Informed Consent Email to District Superintendents

Dear Superintendent:

Why is there a school board? What purpose do they serve? Are they being effective? Have you asked yourself these questions at one time or another?

My name is Aiko Malynda Maurer and I am a doctoral candidate at the Indiana University of Pennsylvania writing a dissertation entitled: Pennsylvania School Board Effectiveness: Does it Matter? Your voluntary participation in answering questions related to your school board would be greatly appreciated or you may designate someone in your district with in-depth knowledge of the participation of your school board members to complete the online questionnaire.

Please click on the link to respond to the anonymous questionnaire: PA School Board Questionnaire.

You may also copy and paste the following web address into your web browser: https://iup.co1.qualtrics.com/SE/?SID=SV_b8fGcU3YY0Zqmpf

It is anticipated that the questionnaire will take about 15 minutes to complete. Names of schools or participants will not be revealed in the dissertation to protect your identity. The purpose of this study is to determine if there is a correlation between the overall effectiveness rating for the school board derived from the questionnaire completed by the superintendent (or his/her designee) and the school performance profile score determined by PDE. This study has been endorsed by PASA and the results of the study may be shared with PASA members upon completion.

If you have any questions regarding the study or the questionnaire, please feel free to contact me at mmaurer@iu08.org.

Thank you for your timely participation!

Aiko Malynda Maurer
Professional Studies in Education, Doctoral Program
Indiana University of Pennsylvania

Dissertation Chair
Dr. David Piper, Professor
Employment and Labor Relations
3C Keith Hall
Indiana University of Pennsylvania
Indiana, PA 15705
THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS (PHONE: 724-357-7730)

Aiko Malynda Maurer  
Administrator of Innovation, Incubation & Development  
CEO of CPDLF  
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C: 814-201-5365  
mmaurer@iu08.org

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Appendix D

Informed Consent Email to Charter School Chief Executive Officers

Dear Chief Executive Officer:

*Why is there a school board for a charter school? What purpose do they serve? Are they being effective?* Have you asked yourself these questions at one time or another?

My name is Aiko Malynda Maurer and I am a doctoral candidate at the Indiana University of Pennsylvania writing a dissertation entitled: Pennsylvania School Board Effectiveness: Does it Matter? Your voluntary participation in answering questions related to your charter school board would be greatly appreciated or you may designate someone in your school with in-depth knowledge of the participation of your charter school board members to complete the online questionnaire.

This questionnaire has also been sent to all district superintendents to collect information about district school boards. Please be sure to respond to the questionnaire about your charter school board.

Please click on the link to respond to the anonymous questionnaire: PASchool Board Questionnaire.

You may also copy and paste the following web address into your web browser: https://iup.co1.qualtrics.com/SE/?SID=SV_08mbFD5qTyqBi5

It is anticipated that the questionnaire will take about 15 minutes to complete. Names of schools or participants will not be revealed in the dissertation to protect your identity.

The purpose of this study is to determine if there is a correlation between the overall effectiveness rating for the school board derived from the questionnaire completed by the chief executive officer (or his/her designee) and the school performance profile score determined by PDE.

If you have any questions regarding the study or the questionnaire, please feel free to contact me at mmaurer@cpdlf.org.

Thank you for your timely participation!

Aiko Malynda Maurer
Professional Studies in Education, Doctoral Program
Indiana University of Pennsylvania
This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724-357-7730)

---

Aiko Malynda Maurer, CEO
Central PA Digital Learning Foundation (CPDLF)
721 North Juniata Street, Suite 3
Hollidaysburg, PA 16648
P: 814-682-5258 Ext. 116
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mmaurer@cpdlf.org

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Appendix E

Reminder Email to District Superintendents

Just a friendly reminder!

I would deeply appreciate a response to my PA School Board Questionnaire. The voluntary questionnaire is anonymous and may be completed by you or your designee that would have the in-depth knowledge of your school board and how they operate.

It is anticipated that the questionnaire will take about 15 minutes to complete. Names of schools or participants will not be revealed in the dissertation to protect your identity.

You may also copy and paste the following web address into your web browser: https://iup.co1.qualtrics.com/SE/?SID=SV_b8fGeU3YY0Zqmpf

In case you did not receive my first email or need a refresher, my name is Aiko Malynda Maurer and I am a doctoral candidate at the Indiana University of Pennsylvania writing a dissertation entitled: Pennsylvania School Board Effectiveness: Does it Matter?

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Thank you for your timely participation!

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Professional Studies in Education, Doctoral Program
Indiana University of Pennsylvania

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mmaurer@iu08.org

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Appendix F

Reminder Email to Charter School Chief Executive Officers

Just a friendly reminder!

I would deeply appreciate a response to my PA School Board Questionnaire. The voluntary questionnaire is anonymous and may be completed by you or your designee that would have the in-depth knowledge of your school board and how they operate.

It is anticipated that the questionnaire will take about 15 minutes to complete. Names of schools or participants will not be revealed in the dissertation to protect your identity.

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Thank you for your timely participation!

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