DATA-DRIVEN DECISION-MAKING AND THE CHALLENGES FACING PENNSYLVANIA SCHOOL ADMINISTRATORS, COMPLIANCE VS. CONVICTION

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by

Richard W. Fry

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The dissertation of Richard W. Fry was reviewed and approved* by the following:

Kai A. Schafft  
Associate Professor of Education  
Dissertation Adviser  
Chair of Committee  
Graduate Program Chair for the Educational Leadership Program

Edward J. Fuller  
Associate Professor of Education

Marsha E. Modeste  
Assistant Professor of Education

Karen Eppley  
Associate Professor of Education

- Signatures are on file in the Graduate School.
Abstract

Following the passage of No Child Left Behind (NCLB) in 2002, the pressure on school administrators to collect, analyze and report educational data in meaningful ways became greater than ever before (Gerwetz, 2006). As NCLB now fades into the distance pushed aside by the law’s successor, the Every Student Succeeds Act (ESSA) of 2015, state legislators and policy makers are working through new assessment and data criteria for public schools. The understandings and impact of data-driven decision making (DDDM) on local school systems remain today as ESSA requires states to continue disaggregating data by student sub-group for annual assessments in grades 3-8 and again in high school.

School administrators are under enormous pressure to show a pattern of growth and learning for all students. DDDM has become a widely utilized technique in managing school operations, charting student improvement work and helping plan reform. What has evolved post-NCLB is the emergence of DDDM tools and techniques to help guide and inform initiatives designed to improve schools. This growth is supported by a publishing industry that produces “how-to” books and articles for school leaders on applying DDDM. Most of the research done on DDDM has focused largely on the technical and structural dimensions of data use with less attention paid towards administrators’ perceptions of DDDM and how school administrators are utilizing DDDM to strategically frame a culture of continuous improvement. Research has focused on systems built around compliance to accountability models clearly mandated via NCLB and often not based on the conviction of school administrators in support of a culture of continual learning and growth. As we move forward with NCLB’s successor, the Every Student Succeeds Act (ESSA), how will DDDM be viewed and utilized by school administrators?
This qualitative research study focuses on the concept of DDDM and school administrators’ perceptions of this concept in their school district. Twenty-four administrators from nine distinct school districts were interviewed for their reactions regarding DDDM. This group of administrators represents schools of varying enrollments large to small and schools of varying achievement levels based on the state wide assessments. Has DDDM supported student centered school reform, or has the concept supported the distortion of the educational process? In short, is DDDM getting us any closer to understanding what makes education good (Biesta, 2015)?

The findings did confirm that DDDM is being utilized by administrators. That usage does not always align to the conceptual framework of this study that focused on the cyclical process of DDDM that processed data into actionable knowledge in support of school wide goals and or the mission of the school district. When DDDM was out of alignment with the conceptual framework it was often utilized in support of compliance measures from the state and federal level. When utilized in support of building goals or the school district mission DDDM was most often conviction driven.

This study will be useful to district leaders who intend to utilize DDDM to help guide continuous growth throughout multiple facets of their school district. For districts currently utilizing DDDM as a tool in support of state compliance, it will help school leaders examine various examples of how DDDM can support more than compliance and assist school administrators in supporting processes that are in the best interest of their school community, processes based on the convictions of what is best for their local school district.
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Chapter I

INTRODUCTION

The purpose of this research study is to examine school administrators’ perceptions of data-driven decision-making (DDDM) and how administrators are utilizing DDDM in support of continuous growth within their school district versus compliance to a specific accountability model. Far too often under the accountability model framed by No Child Left Behind (NCLB), school administrators found themselves utilizing DDDM in support of a state-wide accountability model. This technocratic approach for teaching and learning has helped foster skepticism of DDDM for many educators. Often, that application of DDDM led school administrators away from working towards a system of learning focused on the interests, needs and relevancy of learning for all students. What evolved post-NCLB were strategic thinking and planning revolved around achievement scores on standardized state assessments as part of the accountability model. This sort of planning is driven by compliance to a legislated accountability model. This study will examine the perceptions of school administrators regarding the concept of DDDM within their specific districts and examine if they utilize DDDM in support of strategic thinking and planning for continuous growth, a concept I call “conviction,” or is it utilized based on compliance to a state mandated accountability model which I refer to as “compliance.” Kirtman and Fullan describe this sort of theory as “moving compliance to the side of the plate so that we can change the game from compliance to purposeful focus” (Kirtman & Fullan, 2015, p.23).
This dissertation will progress in the following manner. In Chapter I following the introduction I will detail the research statement that sets the tone for the specific questions that guide the study. I then examine the literature-based conceptual framework which depicts an explanation of the observed relations relevant to the phenomenon of DDDM. Chapter I concludes by detailing the significance of this research for the readers.

Chapter II is the literature review broken down into four distinct themes of DDDM. Theme one details the emergence of DDDM in education over the last twenty years and sets the stage for the emergence of DDDM within the Federal Accountability Model. As that model has evolved over time, emphasis on data disaggregation and the achievement gap have become a consistent focus. The final theme focuses on the role of specific school administrators within DDDM. This chapter finishes with an overall summary of the literature review.

Chapter III focuses on the research design and methodology utilized for the study. This chapter is broken down as follows: introduction to the problem, rationale for the approach, research design, site & sample selection, research strategies/implementation, data collection, data analysis, reliability & validity, and lastly limitations. As in Chapter II, this chapter is brought to a close via a chapter summary.

Chapter IV focuses on the findings from the study. There are four distinct findings detailed in this chapter and the chapter concludes with a summary of the findings. These findings set the tone for Chapter V which focuses on conclusions and recommendations from the study. This chapter is broken into results & conclusions, strengths & limitations, implications, and finally recommendations made as a result of the study.

In the era of state and national accountability systems that provide consistent reports of educational achievements or lack thereof, school administrators now work within an
environment of consistent measurement to define success and growth. Pennsylvania’s accountability model, along with nearly every other such model in the nation, is a result of the mandates detailed by the United States Department of Education in coordination with the nation’s political framework. An increased availability of technology, demands from policymakers, and greater accountability for outcomes have all contributed to the increased focus on data use for educators (Marsh & Farrell, 2014). As more robust, more defined accountability measures have been developed for educational systems throughout the country, education policy makers have emphasized the use of data as a key strategy for system improvement (Park, Daily & Guerra, 2012)

School administrators are under enormous pressure to show a pattern of growth and learning. Researchers have documented that there are specific management approaches that are being implemented to potentially drive improvement within the educational system (Bernhardt, 2004). Within this pressure filled environment to show consistent growth, DDDM, which generally means to systemically gather and analyze data to inform decision making, has flourished as a tool in support of school reform (Marsh, Pane, & Hamilton, 2006). Data-driven planning and decision-making are now accepted techniques in managing school operations, charting improvement and helping plan reform. Richard Reichart defines DDDM as “providing a mechanism for including empirical evidence in the development of educational policies and programs” (2002, p.41). Anthony Picciano offers a more simplified definition of DDDM as “the use of data analysis to inform, when determining courses of action involving policy and procedures” (2006, p.6). Educators have been aware of the need for accessing reliable data to drive school improvement efforts as they have engaged in school improvements processes for decades. What has evolved is the emergence of DDDM tools and techniques to help guide and
inform these processes (Streifer, 2004). This movement is supported by a publishing industry that produces “how-to” books and articles for school leaders on using data (Bernhardt, 2004; Celio & Harvey, 2005). In light of the popularity of this concept, there is an emerging body of research that examines DDDM in schools (Marsh et al., 2006). This research on the implementation of DDDM has largely focused on the technical and structural dimensions of data use with less attention paid to how local school administrators strategically frame DDDM in an attempt to build a culture of continuous improvement. Most research has focused on systems built around compliance to accountability models and not conviction of school administrators to a culture based on continuous growth.

Scholars have called for a move away from normative claims, advocacy work, and “how-to” guides (prevalent within the literature on DDDM) to more analytic and theoretically driven research, noting that stronger theoretical framework will enable a deeper understanding of the dynamic process of DDDM (Marsh & Farrell, 2014). Data must be collected, organized, and analyzed to become information and then combined with stakeholder understanding to become actionable knowledge. New data then can be collected to assess the effectiveness of actions, leading to a continuous cycle of collection, organization, and synthesis of data in support of continuous improvement of schools (Marsh & Farrell, 2014). This continuous cycle of improvement supports a culture of conviction within a school environment where school administrators focus on the growth of the entire school district or school building and not a culture of compliance to policies that may not be well grounded. This struggle to plan via conviction can be noted throughout our nation. For the purpose of this study, I will specifically look at this challenge in Pennsylvania by interviewing 24 school administrators who are
employed within nine school districts that are representative of the diverse school settings throughout the state of Pennsylvania and also representative of the challenge nationally.

The call for accountability within the public school system is higher now than ever before in the United States. The Elementary and Secondary Education Act (ESEA) of 1965 embodied the federal government’s commitment to providing compensatory educational services for economically disadvantaged school districts (Sunderman, Kim, & Orfield, 2005). As educational policy has evolved throughout the last fifty years, that focus on the civil rights perspective of education, to enhance equity and opportunity by reducing the achievement gap, has held strong. Educational policy in the United States over the past decade has targeted eliminating the persistent achievement gap through a series of legislation reorienting educators towards research-based evidence and increasing accountability at all levels of the system. In parallel, a growing national push has caused school and district leaders to systemically collect, interpret, and use data for decision making (Daly, Finnigan, Jordan, Moolenaar and Che, 2013). However, Hoy and Miskel noted in their study published in 2012 that in spite of the loosely-coupled image, the demands for accountability may make school organizations more formalized, more centralized and less professionalized. They go on to note that tightly coupled accountability measures have been influenced by the government’s increasing involvement in schooling. Finally noting that current educational policy was designed to improve education through a tightly coupled DDDM model based on higher standards, testing and accountability (Hoy & Miskel, 2012). It is within this backdrop that school administrators are challenged with utilizing data to support growth while staying cognizant of compliance measures necessitated by the current accountability model.
The emergence of DDDM can closely be coupled with the emergence of educational policy enacted since the late 1950s. Within the Literature Review in Chapter II I will provide a very detailed time line of the various policies enacted based on the associated need of society at that point. As we specifically look at the emergence of DDDM, its inception can be closely tied to the emergence of a national accountability model that started to garner increased interest after the publication of *A Nation at Risk* in 1983, which painted a very dismal view of the state of public education throughout our nation. It should be noted that the *A Nation at Risk* was a highly political document in itself to fuel reform measures strongly supported by President Ronald Reagan (Jennings, 2003). One of the key components identified in the report was the need to create consistent education standards for learning. Standards when developed also need a system of measurement to ensure they are being utilized and achieved universally (Jennings, 2003). Hence as the standards movement made its way onto the educational landscape not far behind was an accountability model to measure student achievement in relation to those standards. With the accountability model growing, so did the concept of DDDM (Beaver & Weinbaum, 2013). As the accountability model grew in relation to various legislation, the initial premise of ESEA continued to ring true: to enhance equity and opportunity by reducing the achievement gap. In short, to quote Senator Patty Murray, a Democrat from Washington and the current Senate Education Committee’s ranking Democrat, “The Elementary and Secondary Education Act (ESEA) is at its heart, a civil rights law” (Kirp, 2015, p.39).

A growing or evolving accountability model to support equity and opportunity by reducing the achievement gap also produced some serious unintended consequences via the usage of DDDM. In a study conducted by Booher-Jennings in 2005, the author noted several potential drawbacks to DDDM that had an adverse effect on the population of students that
ESEA was designed to support. Her study coined the term “educational triage” where only a specific group of students receive supports for learning challenges based on their ability to reach a score of proficiency on the state assessment. Booher-Jennings described this case as one of the worst examples of DDDM via data disaggregation that a school could embrace (Booher-Jennings, 2005).

Since the inception of Title I within ESEA, ESEA has traditionally been reauthorized by Congress every several years and has served as the primary vehicle for improving educational opportunities for low-income students. The reauthorization of ESEA in 2001 included an accountability model that never existed at the federal level. The reauthorization entitled, “No Child Left Behind” (NCLB, 2001) differed from previous ESEA reauthorizations by requiring all schools and districts to implement a single statewide accountability system for ensuring equal educational outcomes (Sunderman, Kim, & Orfield, 2005). NCLB was based on two premises; raise student achievement across the board and eliminate achievement gaps between students from different backgrounds. NCLB also put consequences in place that did not exist in any prior federal education legislation such as Goals 2000 (1995) or America 2000 (1991). Under NCLB, performance on state reading and mathematics tests determined whether schools would make adequate yearly progress (AYP). Schools failing to meet these achievement goals were subject to an escalating series of sanctions over time, ranging from mandatory school choice options and the provision of supplemental services to school reconstitution and restructuring. For the first time in the history of federal education requirements, the federal government was dictating the pace of progress required for all public schools, regardless of the students they serve and the resources they possess. The legislation also required prescriptive sanctions for low-performing schools that fail to improve scores on standardized reading and math tests (Jennings, 2003).
NCLB’s emphasis on school-wide accountability created an environment for high stakes testing initiatives. With these testing initiatives firmly in place throughout the country, the utilization of DDDM techniques began to grow in school districts.

The sanctions embedded within NCLB and resulting state plans proved challenging for many school districts and specific schools throughout the nation. In a study conducted by Diamond and Spillane in 2004, the authors noted that data utilized via DDDM are used in distinct ways in schools, depending on where the school is situated in relation to the accountability regime. High achieving schools utilized DDDM to guide school-wide goals and improvement initiatives, whereas schools that were on probation via the sanctions set forth by the state accountability model utilized DDDM to devise strategies designed to avoid sanctions without fundamentally transforming educational practice (Diamond & Spillane, 2004). These school districts and specific school buildings were functioning within a compliance culture of DDDM as dictated by the state accountability model, but this sort of culture again exacerbated educational inequities.

With much of the achievement emphasis within NCLB focusing on the performance of specific subgroups of students, the legislation effectively forced school leaders to disaggregate data to the student level, a system of data review that provides school leaders with distinct knowledge concerning the achievement gap between and among racial/ethnic groups (Fusarelli, 2004). One of the stated purposes of breaking down student performance by subgroup was to enable school leaders to use the information as a tool showing where schools need to improve, reflecting the concerns of federal lawmakers over the widening achievement gap among ethnic subgroups in American society (Jennings, 2003).
The construct of NCLB that provided serious sanctions for those schools that failed to meet achievement goals for their student population as well as specific student subgroups presented a serious cultural challenge for school administrators. NCLB’s focus on specific subgroups that traditionally scored poorly on state and national assessments showed the intent of the policy from the policy-makers perspective, “No Child Left Behind.” However, school administrators that represented high-needs schools faced a much tougher challenge regarding student achievement due to the fact that the number of subgroup populations attending high-need schools are higher than most other schools and the academic needs of this population of students are often more complicated (Kimmelman, 2005). One of the stated purposes of breaking down student performance by subgroup (data disaggregation) is to enable districts to use the information as a diagnostic tool showing where schools need to improve, reflecting the concerns of federal lawmakers over the widening achievement gap among ethnic and economic student subgroups in American society (Jennings, 2003). Five years after the implementation of NCLB, Whitney Sherman conducted a study that focused on superintendents’ perceptions of NCLB as a means to eliminate test score gaps among student subgroups. In that study of 25 superintendent of schools in Virginia, not one superintendent in her study felt that NCLB was a catalyst for change in practice except for the disaggregation of data (Sherman, 2008).

The growth of data usage fostered by federal and state legislation continued throughout the post NCLB stage. As DDDM continued to grow, some school administrators began growing DDDM beyond student achievement measures by evaluating many components that contribute to efficiencies within the school setting. Gathering data in a school setting entails looking at students, teachers, and the school community in many different ways. The data collected in these examinations are classified as one of the following: (a) demographic, which consists of
enrollment, attendance, grade level, ethnicity, gender, language proficiency; (b) achievement/student learning, which consists of test scores and other assorted achievement measures; (c) instructional/school process, which equates to curriculum, interventions, specific teachers and their student roster; (d) perception, which is what students, parents, teachers, and others think about the learning environment; (e) management, which focuses on cost management for various school services (Bernhardt, 2006). To lead schools that are responsive to the developmental and educational needs of students and their community, school leaders must continually recognize and analyze problems, initiate actions, and evaluate the effectiveness of the process (Streifer, 2004). The five types of data discussed above are key components for guiding school administrators through this process.

What we now see in education is that school administrators have been exposed to the power of data to analyze, evaluate and plan locally for public education. DDDM is being utilized universally by school leaders (Park, Daly, & Guerra, 2012). However, the question remains, is it utilized in a manner that supports continual growth and improvement or is it utilized in support of compliance measures mandated via a state or local accountability model? Is it possible for DDDM to mutually exist in support of both conviction to growth and improvement and also compliance to a state or local accountability model? The passage of NCLB went a long way in providing educators the mandate to usher in DDDM as an integral component of the school administrators’ decision-making process. With NCLB at the federal level, the pressure to collect, analyze and report educational data became greater than ever before (Gerwetz, 2002). NCLB represented a significant shift in federal education policy away from the federal government being primarily a source of funding for low-income students to being a major force in shaping goals and outcomes of education at the local level (Fusarelli, 2004). NCLB legislation, in effect,
assessed school administrators on their ability to disaggregate, analyze and act on data that federal and state policy makers had determined to be critical for their schools.

With NCLB solidly in place, educators entered a new stage of educational accountability. Catherine Gewertz describes that stage as "the detailed implementation of very complex things, because everything in the NCLB legislation was based on data collection, management, and disclosure" (2002, p.5). The word data appeared 230 times in the NCLB Act [NCLB PL 107-110], 2002). The websites of every state education agency included references to DDDM (Tienken, 2011). This one term, DDDM, was interwoven throughout many of the key concepts within NCLB and the state legislation that were instituted as a result of NCLB.

The accountability requirements of NCLB did not necessarily translate into day to day usage of DDDM by administrators, but with federal money being tied to “adequate yearly progress” and the ability of parents to transfer their children from a “failing” school, there was a major focus on a quantitative rating of school and district level success (Ubben, Hughes, & Norris, 2007). Instead of concentrating on the “inputs” of a school system (budget, class size, schedule, number of staff), school administrators were now focusing on the “outputs.” The outputs getting the most attention via NCLB were whether students learn when they are in the classroom and whether they leave the classroom at the appropriate time and with the appropriate credentials to be on grade level while meeting proficiency.

With the federal and state accountability systems now clearly focused on input and output data, DDDM began to be studied regarding how it contributed/supported/impaired this transition of the public education system in the United States. Schools had gathered data for nearly 150 years, and rarely was it used except for compliance purposes (Doyle, 2002). It is safe to say that there were isolated cases of school leaders utilizing DDDM prior to 2000, but the enactment of
NCLB in 2002 really set the stage. Data almost exclusively used for compliance measures was now supplemented with numerous output data specifically focused on student and student sub-group performance. As the collection of data grew throughout the last decade and a half, school leaders’ growth and perceptions of this process differed dramatically (Kuhn, 2016).

Raw data simply exists without meaning in and of itself. Therefore, data can exist in any form, usable or not. Whether or not data becomes information worth using by school administrators depends on the understanding of the person looking at the data, in essence, the interpretation of the data (Breiter & Light, 2006). Although school districts generate huge amounts of data much of which gets reported to their state education department, many school administrators remain ill equipped to utilize data effectively to support policy making (Levenson, 2016). School administrators had to develop a skill set for using data. Whether that skill set grew to the point of interpretation of data to drive key processes within their setting remains an open question today. There are numerous school administrators that continue to utilize data from a compliance perspective, first in support of stand-alone achievement scores and most recently as a result of the mandates on teacher effectiveness and principal effectiveness. This sort of leadership direction has embodied the often used adage to describe public schools post NCLB, many schools and school districts are data rich but information poor (Beck & Morelock, 2016).

A study led by Webb, Briscoe and Mussman published in 2009 noted that DDDM was supposed to support reform efforts by improving schools, closing the achievement gap and producing educational equity. Instead, DDDM supported NCLB in its entrenchment as a neoliberal educational policy that theoretically promotes equity but actually may widen the achievement gap in some settings (Webb, Briscoe & Mussman, 2009). DDDM is bound by a bureaucratic system that largely understands itself as rational, value neutral, interest free,
objective, and relevant on “hard facts,” such as test scores, economic data and enrollment figures. Values or personality of a person have little influence on the decisions made. Instead, decisions are determined by the “machine-like” process of DDDM (Khalifa, Jennings, Briscoe, Oleszewske & Abdi, 2014).

As the cloud of NCLB continued to grow throughout the nation, Giroux noted that education had become a culture of market-driven educational reforms, with an obsession focused on standardization and high stakes testing that mimicked a culture of cruelty that neoliberalism policies produce in the wider society (Giroux, 2016). DDDM was firmly entrenched within this fallout of the national accountability model focused on quantifiable measures for all students. Biesta marked this movement towards measurement and control of education and emphasized that if the movement is to control education completely, we turn it into machinery where what matters educationally, freedom and independence of learning for the student, is ultimately squeezed out (Biesta, 2015). Where does DDDM fit post NCLB and pre ESSA?

School administrators that utilize DDDM in a more strategic and growth centered manner have developed processes to use objective data measures beyond standardized test scores to determine resource allocation and professional development needs (Henke, 2008). Unfortunately the accountability model built under NCLB focused most attention from school administrators on achievement scores. There were onerous sanctions that affected job security and public perception. Thus much of the early work on DDDM immediately following the passage of NCLB focused on achievement data and subsequent supports for scores that failed to meet proficiency. But there were school administrators who saw potential for data usage beyond test scores. Within those environments, DDDM was playing a crucial role within the school setting. In those school environments, data and decisions driven by data were playing key roles in
helping select the best, most results-driven initiatives. School leaders had created and supported a data-driven environment that was nonthreatening by making it clear that the primary use of data was to help schools grow (Schmoker, 2006). Within these data friendly districts, DDDM could be defined by a basic process of making choices based on appropriate analysis of relevant information (Henke, 2008). These school administrators didn’t pigeon hole the process into potential negative drivers for all data components within the accountability model that also had serious sanctions if thresholds weren’t met. Instead, school administrators engaged stakeholders in a dynamic process that moved beyond accountability to a continuous improvement cycle that valued data, used it, and used it to evaluate and improve, which in turn generated more usage of data (Grunwald, 2004).

Why the discrepancy in the way data is utilized in various school settings by distinct school administrators? Though federal and state mandated accountability systems may create more will for utilization of data, they almost always fail to provide school administrators with the tools and strategies to succeed (Englert, Fries, Goodwin, Martin-Glenn, 2008). School administrators that utilize these state and federal mandates to dictate their direction as an educational entity are destined to lead via compliance. In a study sponsored by the Institute of Education Sciences in 2008, researchers determined that school leaders rate the performance of their schools higher when utilizing multiple sources of data compared to considering only performance on state assessments.

The Pennsylvania System of School Assessment (PSSA) is a state mandated assessment given each spring to all students in grades three through eight. The tests are given in April and school districts do not receive the results until late July, long after students have moved on and staff have started planning for the next school year. In Pennsylvania, PSSA results are clearly
after the fact and have no instructional value for teachers. On a district level, school leaders can look at trends and examine specific curricular alignment with standards that are measured on the assessment, but without real time data, the assessment certainly can’t drive daily instruction. As is the case in Pennsylvania, this sort of assessment can create data that has been and remains a burden if not utilized within the appropriate context. In the absence of strong school administrators who clearly understand the value and clear limitations of state assessments, PSSA and state assessments that are similar, clearly qualify as compliance data or data that is precisely used to see whether you followed rules and regulations.

The limitations of testing coupled with ineffective administrative usage of data certainly has given rise to critical reviews of DDDM within today’s educational setting. What makes this initiative effective in some school settings? The idea behind DDDM is improvement not punishment – it’s not about the quality of teaching, but more so about the quality of leadership (Shorr, 2008). DDDM can make a difference within the school setting if school administrators can model the habit of mind involved in data inquiry. Rather than having the answers all of the time, school administrators need to come up with the right questions. Data are simply indicators, tools to be used (Creighton, 2006). School administrators that understand the power of quality data are using it consistently during needs assessment, goal setting and strategic planning for continuous school improvement (Bernhardt, 2006). Data that drives continuous improvement serves a primary purpose of helping school leaders, not the state department of education (Levenson, 2016). It is data that is relevant at the local level, and relevant for planning as school administrators strategically plan for the future. Using data is one of the most effective strategies for translating the good intentions described in a vision statement into meaningful targets for school improvement (Dufour, 2006). In a national survey of school superintendents conducted by
Education Week during the summer of 2008, respondents consistently emphasized the use of data to guide decisions as the most important strategy for improving schools (Education Week, 2008). The understanding of the importance of data for school administrators is clear, but the utilization of relevant data that drives improvement remains a mystery for far too many school leaders (Ravitch, 2010).

As NCLB is pushed aside by the Every Student Succeeds Act (ESSA) of 2015, state legislators and policy makers will now set new assessment and data criteria for public schools throughout the country. The understandings and impact of DDDM on local school systems will still ring true as ESSA will require states to continue disaggregating data by student sub-group for annual assessments in grades 3-8 in math and language arts each year and once in high school, and three assessments in science, one per grade span (AASA, 2015). Though Congress has redefined the federal role in elementary and secondary education via the passage of ESSA hoping to focus more on the authority of states and local school districts that had long chafed at the structure of NCLB. ESSA actually widens the lens to gauge school success by requiring states to incorporate non-academic factors into their accountability systems (Ujifusa, 2016). ESSA requires states to use at least one such indicator – like measures of student engagement or access to advanced coursework – in tracking schools’ success (Blad, 2016). Thus data collection at the local level via federal mandate will now go beyond achievement data to even include “perception” data as defined by Bernhardt (2006, p.24).

The type of data collection mandated within ESSA relies more on “multimetric accountability” principles (Mellar & Griffin, 2015). A multimetric accountability system will serve to improve data collection within school districts while looking to focus on the use of data to drive the key decision making of school administrators throughout the country (Burnette,
NCLB had clearly reached its limits. It was time for a more meaningful next phase of school accountability (Kirp, 2015). ESSA looks to define student success more broadly (Zubrzycki, 2016). The new legislation attempts to define a more meaningful accountability system that promotes continuous support and improvement aligned with the broader outcomes we collectively want for our students (Mellor & Griffith, 2015).

Public education in the United States now stands at the crossroads of federal control of public education. ESSA has set forth a very different role for federal involvement in public education throughout the country (Davis, 2015). Public school systems throughout the country will be adjusting to the sweeping changes in ESSA as it returns power to states and local school districts to determine how to improve schools. NCLB, on the books since 2001, was supposed to close achievement gaps for disadvantaged students and students from specific sub-groups such as racial and ethnic minorities, low-income students, students with special needs and English Language Learners. At the time, President George W. Bush described such achievement gaps with these student sub-groups as “the soft bigotry of low expectations” (Kirp, 2015). The great underlying goal of NCLB was audacious—by 2014, the law decreed that 100 percent of students would perform at grade level (Jennings, 2008). That goal never came close to fruition. Now with the advent of ESSA the pendulum of federal overreach and prescription has swung, returning autonomy and flexibility to the state and local level (AASA, 2015). State and school district officials who have complained for years that an inflexible, over-prescriptive federal role in public education is at the heart of NCLB are pleased as the replacement law ESSA scales back Washington’s K-12 footprint for the first time in more than a quarter-century (Klein, 2016). Though the pendulum has swung, there are still accountability elements of NCLB written throughout ESSA. One of the key terms that continues to exist in the successor legislation is
DDDM (Kirp, 2015). More data sets to utilize in determining the success of given students or schools equates to continued usage of data to drive decisions within the school setting. School administrators over the last decade and a half have been forced to move beyond the status quo and what has been consistently delivered and supported educationally to a system ground in collection, management and disclosure of defined data (Jennings, 2008). The passage of ESSA provides an important opportunity for my study to retrospectively assess the role of DDDM in school districts, investigate 24 school administrators’ perceptions of DDDM within a cross-section of school districts and yield thoughts on local policies and procedures regarding its use or lack thereof.

**Research Statement and Questions**

The purpose of this research study is to examine school administrators’ perceptions of DDDM and how administrators are utilizing DDDM in support of continuous growth and improvement versus compliance to a state accountability model and mandates. Continuous growth/improvement in education is focused on strategic thinking and planning in support of individualized or systemic growth or improvement for students, staff and school districts (Firestone & Gonzalez, 2007). This growth can apply to students academically, staff from a pedagogy perspective, and even the total school system managerially from an efficiency and financial basis. DDDM can be interwoven throughout the continuous growth process and planning at each of these distinct levels (student learning, teacher pedagogy, district systems) and will be examined as such throughout this study. A compliance focus on the other hand revolves around managing via specific mandates set by the state or federal government. In education, this most often occurs within a school district that focuses distinctly on the results and outputs from a specific standardized test within a state accountability model. In a school district or specific
school building, those standardized test results often drive a majority of the planning for a system focused on compliance.

This distinction of compliance vs. conviction driven is significant for educators. In Pennsylvania, school system leaders receive scores from the Pennsylvania System of School Assessment for grades 3-8 in late July, weeks after school has ended for students. Measures of growth from the same system are not released until October of the year following the assessment. In both cases, students have moved on to other teachers and sometimes even other school systems by the time scores arrive. Utilizing these “post-hoc” scores to guide instruction and growth for students and school systems is a questionable practice at best. These scores or data, can help us define the “what” but they certainly shouldn’t guide strategic thinking or planning in support of goal development for school buildings and school systems. Administrators focused on leadership via compliance based on standardized test scores that in Pennsylvania prove challenging just from a timing standpoint alone are destined to struggle with various components of student achievement and achievement gaps (Marsh & Farrell, 2014).

Research questions prove vital to the study by helping provide understanding as to how school administrators are actually utilizing DDDM. Thus the research questions set the basis for what you want to understand as a reader. For this study, I will be looking specifically at whether DDDM is used by school administrators in support of a culture of continuous growth or improvement (Firestone & Gonzalez, 2007) or is utilized via compliance to a standardized state accountability model (Marsh & Farrell, 2014). Specifically, this study will examine the following questions: (1) Are school administrators strategically framing DDDM to build a culture of continuous improvement and how does this process differ based on unique characteristics within specific school districts? (2) How do school administrators balance the
demands of a state accountability model focused on student achievement on specific statewide standardized tests while trying to build a culture of continuous improvement and growth focused on supporting student learning? (3) How does the process of DDDM differ when utilized within a school culture focused on compliance to a state defined accountability model versus a school culture focused on conviction to student centered learning?

a. Within these two distinct cultures, is there unique utilization of DDDM within specific achievement levels as set by the state accountability model?

b. Are there specific student demographic differences or administrative demographic differences within the two cultures of data utilization?

(4) Does data manipulation become usable information for stakeholders within various settings in a school district to guide actionable knowledge?

a. Is there usage of DDDM in support of multiple functions across distinct school districts, and if so, what are those functions?

b. Are there specific demographics within school districts that limit or enhance the usage of DDDM in support of multiple functions?

**Conceptual Framework**

To guide thinking about data use and the interpretation of data results in the school setting, for the purpose of this study a literature-based conceptual framework was developed (see Figure 1). Drawing from similar empirical studies (Marsh, 2014; Beaver, 2013), this conceptual framework depicts how school leaders may analyze and interpret data to create actionable information that can be used to make decisions. This framework provides a simple explanation
of the observed relations relevant to DDDM (Anafara & Mertz, 2015). As seen in Figure 1, data are shared with school administrators. The data are analyzed and interpreted. School administrators then develop actionable information based on their interpretation of the data. During this process, school administrators’ use of data can be limited by various factors such as pressure from an accountability system, beliefs about accountability, perceptions about data, and interpretation knowledge/skills. This study sets out to determine the extent to which this literature-based framework manifests itself in schools and what factors or perceptions influence data use along the way. Does a culture of compliance towards a state or local accountability model drive DDDM within that environment? Can school administrators process data to satisfy specific measures within an accountability model while still utilizing DDDM in support of continual growth and improvement, can compliance and conviction mutually exist?

It may be possible to follow the process of DDDM as illustrated in Figure 1 and still be driven by a focus on compliance as opposed to conviction for what you feel is best for your school community. The specific limitations as listed in the process can prepare a school administrator to clearly state that their building or district is data-driven, yet that process may fall woefully short of meeting the needs for growth and improvement within their specific setting. DDDM in support of conviction addresses each limitation in fulfillment of a continuous process for strategic planning via support from the process of DDDM.

What does DDDM look like in practice? DDDM is a process utilized to measure an activity being utilized within a school setting in relation to a defined need. The need could be brought about by a state accountability model, a district strategic plan, specific building level goals or even just to help measure or quantify a specific process within a school or school district. The process focuses on various types of data to include demographic, achievement,
instructional, perception and management. They are then analyzed and interpreted to help guide actionable knowledge in support of strategic planning processes. DDDM can help support a perpetual cycle of action, review of action, were the needs met and lastly how can the process be enhanced.
Figure 1

Conceptual Framework of DDDM

- Demographic
- Achievement/Student Learning
- Instructional/School
- Perception
- Management

District Planning Efforts:
- Set and assess progress towards goals
- Address needs
- Evaluate effectiveness of practices
- Assess whether needs are being met
- Reallocate resources in reaching its outcomes
- Enhance process to improve outcomes

Schoolwide Efforts:
- Interpret data
- Assess progress towards goals
- Shape future school goals

Limitations on DDDM:
- Pressure from accountability system
- Stresses about accountability
- Perceptions about data usefulness
- Interpretation knowledge/skills

Interpretation and analysis

Actionable Knowledge
An important aspect of this study is that the research questions that guide the study do address the “how” component of DDDM. However, each question then goes on to frame a more explanatory process for the usage of DDDM by distinct administrators. This conceptual framework progresses beyond much of the current research on the utilization of DDDM and attempts to focus via the research questions on whether the limitations from the model (pressure from accountability system, beliefs about accountability, perceptions about data use, interpretation and knowledge skills) are addressed within the utilization of DDDM in support of strategic planning for continuous growth and improvement for the system.

**Significance of the Research**

Schools in the past had been viewed as arenas that are data rich and information poor; that is, there were numerous data sets available in schools, but very little was actually used to inform people in their decisions and actions (Holcombe, 2004). Within the last decade and a half school systems have started to utilize data in the hopes of supporting reform and growth. Post NCLB most school administrators are well aware of the concept of DDDM and generally state that they are utilizing the concept in their school district. Since this concept has only been consistently utilized in the educational setting since the early 2000s, there is limited research available that examines school administrators’ perceptions of DDDM. Advocates tout DDDM as a strategy to support district and/or school improvement. Others contend it is “the mantra of the day” and can contribute towards the seductiveness of measures that can turn measures of quality into measures of quantity, thereby allowing comparison across cases with an apparently single and impersonal metric. These sort of processes that take a now quantified measurement above all else are vast and deceptive and designed to turn legitimate questions into neutral, objective administrative exercises governed by school administrators (Scott, 2014).
Using data to make decisions about change and communicating that information to the stakeholders are critical skills for educators (Cross and Rice, 2004). School administrators are a key component in any change initiative within a school district. As school administrators direct this process of change they need to understand the role of data to help guide their decision-making process. In today’s educational climate, the ability of a school administrator to lead a school or district through the learning process helps determine that school administrator’s ability to establish and carry out a vision and mission for success.

In the midst of an ever-growing accountability model over the last fifteen years for public schools, there continues to be a lack of empirical evidence describing the perceptions of school administrators in how data collected via this accountability model helps or hinders when shaping and directing school progress at the local level (Jennings, 2008). The utilization of the copious data sets now required for collection via federal and state mandates along with local school improvement initiatives is a critical theme throughout the conceptual framework for this study. Research that focuses on school administrators’ perceptions of DDDM within their own local setting and how specific data moves through the framework to potentially result in actionable knowledge may help provide a clearer picture of the usefulness or struggles created within today’s accountability model throughout public schools. Are these data sets collected, analyzed and communicated to comply with federal, state and local mandates thus creating a culture of compliance within a school district? Or are the data sets utilized in a manner that supports design, implementation and evaluation of various systems throughout the entire school organization thus helping support a culture of conviction and continuous improvement and growth within a school district?
Chapter II

LITERATURE REVIEW

In this chapter, literature related to DDDM will be reviewed from an historical and contemporary perspective. The evolution of DDDM within the educational system simultaneously occurred after the adoption of NCLB which focused on a renewed mandate for reporting and accountability measures (Houston, 2002). NCLB was the boldest legislation to date that focused on specific accountability measures, but it certainly was not the first law focused on reforming public education (Sunderman & Kim, 2005). This literature review is not intended to be a legislative or political study; however, to understand and provide appropriate history of the evolution of DDDM within the educational culture of the United States, it does require a familiarity with the legislative and political framework that has constituted the contemporary architecture of the accountability model at the federal and subsequent state level. This review of literature is principally descriptive in nature and is based on the historical and technological literature available that relate to DDDM. This chapter endeavors to provide an overview of the history of DDDM within the education sector of society. This historical review will also include a look at international occurrences and foundational laws that were enacted since the 1950s at the federal level that set the groundwork that would equate to a highly onerous and prescriptive national accountability model (Bloomfield & Cooper, 2009). This accountability model distorted
the essence of professionalism and manifested a neo-liberal form of governance for education in our country (Biesta, 2015). The review will also depict the evolution of a national accountability model that gave rise to the concept of DDDM throughout our nation’s schools. This accountability model ushered in a change for the educational system that was clearly focused on demographic and financial data prior to NCLB that now most publicly focuses on academic performance data (Celio & Harvey, 2005). This led to DDDM becoming an expectation for school administrators, but post NCLB often community members had a different understanding about what factors should “count” within the DDDM process (Khalifa, et al., 2014). With the accountability focus now clearly resting on student and school performance within local and state educational systems, this review will then focus on how data disaggregation has evolved within the accountability model and the effect student subgroups and educational equity have on DDDM. Lastly, since this study examines the perceptions of school leaders in regards to DDDM, this review will provide some background into the positions that constitute school administrators for the purpose of this study.

The entire literature review examines various research that demonstrates the contrasting views of DDDM that exist today. This literature review provides relevance to the goal of the study which focuses on the utilization of DDDM by school administrators in a variety of settings by examining their perceptions of the unique process of DDDM. Research questions that initially focus on how each administrator view and utilize DDDM, and then then dig deeper into specific thoughts on the process, how it serves the greater school community and how it has evolved over time. The background for these probing questions are captured within the literature review for this study as the review focuses on contrasting views of DDDM while tracing the processes emergence into the educational sector of our society.
Emergence of DDDM

The emergence of DDDM in education closely mirrors the growth of a federal accountability model as defined through various legislative and federal policy decisions made over the last fifty years. As our nation’s leaders yearned to address the achievement gap within specific groups of students, there became a stronger focus on achievement. More importantly, the definition of achievement was almost exclusively tied to performance on state standardized tests developed within the constructs of the federal accountability model (Ravitch, 2013). As the national drive for accountability of schools increases, a national school accountability policy/model will more than likely will evolve. Fowler (2009) defined the policy process as “the sequence of events that occurs when a political system considers different approaches to public problems, adopts one of them, tries it out, and evaluates it” (Fowler, p.13). Thus when confronted with systemic issues that politically gains the attention of the public, policymakers attempt to find solutions to the perceived problem resulting in policy to address the problem. We can follow this cycle of policy decisions back to the 1950s when the role of federal government in shaping the direction of public education began to intensify via policymakers’ decisions.

The cycle of a perceived national challenge that embraces our nation closely followed by federal action that results in policy decisions that impact public education actually had its birth in 1957, when Russia successfully launched Sputnik in space and thus had beaten the United States to the punch on space exploration. This global event sparked concern and garnered the attention of a country and more importantly, its policymakers. This event was quickly linked to education. The “schools were immediately portrayed in the popular press as the institution at fault or lacking for the United States’ failure to beat its Cold War rival into outer space” (Ravitch, 2010, p.69). Schools were blamed for failing to prepare students and were even categorized as “the
weakest link in the defense against the Soviet Union” (Spring, 2005, p.2). This call to action resulted in the National Defense Education Act (NDEA) in 1958. NDEA served as the first nationwide call for educational excellence based on the premise that America had fallen behind its Communist rival in the contest for scientific, technical, and military superiority. The law provided specialized aid to improve mathematics, science, and foreign language instruction in our public schools (Robelen, 2005).

NDEA demonstrated that, under certain circumstance, Congress could and would enact a major aid-to-education bill (Boyd, 2001). Though NDEA rang the initial bell for federal influence into public education, the Act did not provide fiscal support to enough school districts throughout the nation and thus this landmark legislation involving federal aid and involvement was set to be addressed by President Lyndon B. Johnson shortly after his landslide election. The Elementary and Secondary Education Act (ESEA) enacted in 1965 became the watershed legislation in the evolution of the federal role in American schooling, a turning point both in sheer dollars and influence on school districts nationwide (Robelen, 2005). The timing of the passage of this 34 page law again hinged on a national challenge. America was embroiled in one of this country’s biggest civil rights struggles. Thus the national challenge and subsequent federal action resulting in policy decisions were tied to public education. ESEA’s common thread was equity and in part represented Johnson’s response to the growing national concern on poverty and civil rights. The intent of the legislation was twofold, one to help alleviate the effects of poverty on school age children and also to address some of the challenges facing our nation as a result of the Cold War. On national tests like the National Assessment of Educational Progress (NAEP) administered by the U.S. Department of Education, low income, minority and black students did not do as well as their peers (Kafer, 2004). Significant achievement gaps existed
between white and black student students and higher income and lower income students (Kafer, 2004). As part of the federal governments War on Poverty program, Congress passed ESEA to provide federal aid to poor children. ESEA differed from NDEA because it provided federal overreach to public and private education by providing targeted programs for specific aid in support of specific populations within both private and public school settings. The targeted program was identified as Title I of ESEA and served as the law’s centerpiece. Funding was aimed at concentrations of disadvantaged children, regardless of whether they attended public or private schools. Along with the federal funds that ESEA provided came the first significant reporting and accountability requirement made on schools and districts by the federal government (Tirozzi & Uro, 1997). The birth of a federally driven accountability model for education occurred as the regulations for ESEA were finalized. ESEA has since been reauthorized ten times. Each reauthorization has brought schools and districts limited increased financial opportunities coupled with increased regulations by the federal government, in short, a growing federal accountability model (Moser, 2015).

The passage of ESEA also began an interesting process of federal involvement that swung between the concepts of excellence and equity. NDEA of 1958 clearly focused on excellence based on the national challenge at that time. ESEA, legislated in 1965, focused on equity in relation to the civil rights movement of the 1960s. Over the course of the next fifty years, federal policymakers would swing their focus back and forth based on the more public challenges facing our nation. As we moved from 1960 into 1970, policymakers focused on equity based on the social challenges of those decades. In 1981, Secretary of Education Terrel Bell formed the National Commission on Excellence in Education (NCEE) and gave that group the charge to study and report on the state of public education throughout the United States. In
1983, the NCEE published its findings in a report titled *A Nation at Risk*. These findings clearly swung the pendulum again and created a national challenge now more focused on excellence.

*A Nation at Risk* painted a very dismal view of the state of public education throughout our nation. The report garnered much attention from the general public and policymakers. The report provided what the commission felt to be potential solutions to address the lack of excellence within America’s schools (Ravitch, 2010). One of the key components seen as a potential solution by the commission was to create consistent education standards for learning (Robelen, 2005). As policymakers continued to debate the report, an educational summit was held in Charlottesville, Virginia in 1989. President George Bush and the nation’s governor’s-including one governor that would soon become president, Governor Bill Clinton of Arkansas-met and agreed to set national education goals. The nation’s leaders emerged from the summit with six National Education Goals that President Bush proposed as a broad legislative package called the America 2000 Act (Tirozzo & Uro, 1997) The bill called for high-stakes performance assessments not only of students, but to hold schools, school districts and states also accountable for student achievement (Crookson, 1995). America 2000 never had a true impact of its own based almost exclusively on timing and the make-up of Congress. It did, however, set the stage for the next reauthorization, Goals 2000 (Ravitch, 2010).

In 1994, with Clinton now in the White House, Congress passed his Goals 2000: Educate America Act which provided federal aid to help states devise their own academic standards, define achievement, and create aligned assessments to measure progress towards their academic goals. A key component of Goals 2000 was incorporated into Title II which created the National Educational Standards and Improvement Council (NESIC) (Public Law 103-227, 1994). NESIC was a federally controlled agency that was established to certify academic standards that states
submitted for approval while also looking to improve instruction and student achievement, and finally build challenging student assessments that would monitor student and school progress (Public Law 103-227, 1994). In short, Congress had embedded the standards-based reforms into the reauthorization of ESEA (Jennings, 2003). Policymakers were clearly committed to influencing the educational system focused on excellence in a manner that portrayed a failing system up to this time, be that fact or fiction? The legislation set aside federal grant funds for states to assist them in developing their own standards and assessment systems in support of those standards (Superfine, 2005). The framework for improvement was based on standards and assessments to spur reform across the American education system. Because of political challenges to the Act, federal administrative agencies failed to hold states accountable for noncompliance with the law (Superfine, 2005). Some states such as Texas moved forward with defined standards and a state assessment plan to measure students’ proficiency within these standards. The early adopter states set the groundwork for DDDM at the district and school level as they began to utilize test data to evaluate specific schools and school districts as part of their state accountability model (Booher-Jennings, 2005). Again though via political pressure and continued friction over the role of the federal government in education, Congress insured that this law would not have the impact envisioned by President Clinton (Cohen, 1995). However, it did give educators an early recipe for DDDM in support of a state accountability model.

An additional component of the reauthorization of ESEA under the Clinton Administration was called the Improving America’s School Act (IASA). Goals 2000 set most of the foundation for IASA with some significant additions that played a key role in the impact of federal involvement in education moving forward (Ravitch, 2010). IASA was built within Title I and dramatically expanded that program to the point that nearly 95 percent of the nation’s
schools received federal Title I funds (Billing, 2006). The Act also initiated stand-alone sub-
groups of students that were not at that time specifically accounted for at the state or federal
level. Those groups included students at risk, students from low socioeconomic status (SES), and
students from poor school attendance areas (Public Law 103-382, 1994). There was specific
funding within IASA to target schools that had a concentration of the new sub-groups. These
monies helped begin the drive for local and state reform of these schools but that federal money
also brought with it increased reporting and accountability requirements (Billing, 2006). IASA
provided critical language for what would soon become the nation’s model for educational
accountability, a model based on the specific academic performance of identified student
subgroups as way to monitor and act on achievement gaps within these specific subgroups
(Sherman, 2008). These new reporting mechanisms coupled with the legislated adoption of
challenging state-wide academic standards clearly entrenched the role of the federal government
within the education setting and undoubtedly set the stage for one of the most significant
reauthorizations of ESEA.

Questions about the ESEA’s effectiveness gave rise to new emphasis on results and
educational progress. These questions coupled with key components set within Goals 2000 and
IASA, such as state standards, specific subgroup performance and assessment systems set the
course for the next reauthorization of the ESEA, the No Child Left Behind Act (NCLB) of 2001.
NCLB would be the first federal legislation that set clear directions on both equity and
excellence. The pressure on school leaders to collect, analyze and report educational data in
meaningful ways became greater than ever before (Gerwetz, 2006).

On January 8, 2002, President George W. Bush reauthorized ESEA via the No Child
Behind Act of 2001 (NCLB) (Public Law 107-110, 2002). NCLB differed from previous ESEA
reauthorizations by requiring all states, school districts and school buildings to implement a single accountability system for ensuring equal educational outcomes across all students and specific student sub-groups (Sunderman, Kim, & Ornfield, 2005). There was equal significance applied to equity and excellence throughout the Act. The overarching goal of NCLB was to have all students in America performing on grade level by the year 2014. NCLB was based on four specific pillars to drive achievement: (a) stronger accountability, (b) more control for states and communities, (c) proven educational methods, and (d) more choice for parents (U.S. Department of Education, 2004). There were two basic premises woven throughout NCLB: raise student achievement across the board and eliminate achievement gaps between students from different backgrounds (subgroups). NCLB also put consequences in place that did not exist in Goals 2000 or IASA. Under NCLB, performance on state reading and mathematics tests determined whether schools would make adequate yearly process (AYP). Schools failing to meet these achievement goals were subject to sanctions over time. The legislation also required prescriptive sanctions for low-performing schools that fail to improve scores on standardized reading and math tests (Jennings, 2003).

From the Act’s inception it became controversial within various constituencies throughout the country, but who could argue with its goal, all students at grade level by 2014 (Jennings, 2003)? How could Americans debate education legislation designed to close achievement gaps for disadvantaged students and students from specific sub-groups such as racial and ethnic minorities, low-income students, students with special needs and English Language Learners? When NCLB was signed into law, President George W. Bush described such achievement gaps within these student sub-groups as “the soft bigotry of low expectations” (Kirp, 2015, p.38). This was clearly the first legislative action by the government of the United
States that combined both components of equity and excellence into one educational platform with distinct punitive repercussions for schools and/or school districts that did not meet the accountability measures set forth (Ravitch, 2010). States were held accountable for state-wide proficiencies with federal funds; school districts were held accountable for district-wide proficiencies via federal funds, and specific school buildings were held accountable for building proficiencies via federal finds. These components of accountability were the achievement backbone of NCLB. Noble intentions balanced on the back of an over-reaching accountability model for all students based on universal achievement thresholds within state governed standards. This sort of framework can implode noble intentions that focus on a specific level of achievement for all students.

Robert Reich, the former United States Secretary of Labor decried a different consequence of NCLB: “NCLB is well-suited for fitting historically educationally underserved students neatly into the rather large intellectually undemanding, low paying niche created by an increasingly centralized and stratified national and global economy supported by neo-liberal policies” (Bowdon Campus Life, 2003, p.1). In a study authored by Webb, Briscoe and Mussman, a similar theme was echoed: “NCLB in its entrenchment as a neo-liberal educational policy theoretically promotes equity but actually has the opposite effect” (Webb, Briscoe & Mussman, 2009).

Whether you accept the rhetoric of President George W. Bush or those of former Secretary of Labor Richard Reich, as time progressed it became clear that NCLB’s audacious goal of all students at grade level by 2014 was impractical. Dissent grew, and it became nearly impossible to reauthorize ESEA as policymakers could not find consensus to move forward (Ravitch, 2013). NCLB remained the law of the land and extended eight years beyond its
targeted reauthorization date. States and school districts yearning for relief from the Act reached out for waivers from the U. S. Department of Education but such waivers included additional levels of accountability tying achievement scores to teacher and principal ratings, increasing school choice opportunities for students in failing schools and providing more flexibility for states to take over failing schools (Moser, 2015). Test scores increased less, and achievement gaps remained in reform cities taken over by state department of educations (Weiss & Long, 2013). Test-based accountability created disillusionment that thinned the ranks of experienced teachers. School closures did not send students to better schools or save school districts money. Real sustained change required strategies that were more realistic, patient and multipronged. As NCLB came to a close, America was strapped with a struggling economy and rising poverty rates. In 2011, Stanford’s Sean Reardon released a comprehensive study documenting the new “income achievement gap.” In the report Reardon noted, “It is no coincidence that out-of-school factors-and in particular economic conditions-have created the “income achievement gap” at the very moment economic inequality and poverty have exploded in America” (Reardon, 2013).

With each of the reauthorizations of ESEA over the last fifty years, the collection and reporting of data became a more integral part of each Act. In 2002 when NCLB hit the ground, schools throughout the country were faced with collecting and reporting data in support of both equity and excellence. It quickly became apparent that assuring equity of programming via federal funding was not enough. Districts and specific schools also had to collect and report on specific achievement of students and student sub-groups. One of the specific components addressed within NCLB was the use of data. Catherine Gewertz describes this component within NCLB as “the detailed implementation of very complex things, because everything in the NCLB
legislation was based on data collection, management, and disclosure” (2002, p.5). DDDM was ushered into education via the passage of NCLB (Andregg, 2007).

As discontent grew for NCLB and its reauthorization extended on, Congress finally reached consensus on a reauthorization bill for ESEA. The Every Student Succeeds Act (ESSA) was signed into law by President Obama in December of 2015. It will take time for educators and policymakers to evaluate the impact of the specific components within ESSA. The bill is being hailed as a relief from more than a decade of strict federal control of public education that returns power to states and local school districts to determine how to improve troubled schools (Davis, 2015). Though being hailed as relief, the bipartisan bill preserves federally mandated standardized testing but does eliminate the punitive consequences set forth in NCLB for states and districts that perform poorly. Thus the reporting requirements remain constant under the new law and in fact will be increased as ESSA requires states to incorporate nonacademic factors into their accountability systems (Blad, 2016). The new Act will require states to use at least one unique indicator beyond achievement like a measure of student engagement or measurement of school culture (Blad, 2016). Megan Mellor, advocacy manager for the Association for Supervision and Curriculum Development, stated that, “since we know what gets measured gets delivered, if we broaden accountability systems beyond test scores and schools are required to look at these other things, then the public and the parents will start looking at them, and there’s a better chance that schools will start providing these kinds of things” (Mellor & Griffith, 2015).

DDDM may have been ushered into public education via NCLB, but the broadening of accountability systems under ESSA will certainly keep this initiative as a mandated endeavor moving forward for school leaders. Are local school divisions prepared for data collection and
systemic support of nonacademic measures? This is one of the conditions I explored further with each of my respondents in the study.

**DDDM within the Federal Accountability Model**

The federal legislative impact on education in the United States focused on key Acts or mandates that fluctuated their scope between equity and excellence. These two key concepts also defined the parameters set forth for school leaders as they collected mandated data in support of either of the concepts. In the mid-twentieth century, a school leader’s base level of management focused on compliance to federal mandates as directed by the collection of this sort of data to fulfill federal requirements. Each and every Federal Act starting with ESEA in 1965 expanded on a system based on reporting and accountability requirements (Tirozzi & Uro, 1997). For thirty-five years after the inception of ESEA, most of the reporting for school leaders focused on demographic and financial data. The type of data dealing with how federal dollars were spent in support of specific components such as equity (Title I), class size data, classes offered and the number of teachers in specific buildings (Hoxby, 2012). As educational reform started to move towards more student and school specific achievement, the focus of the more recent legislation has moved towards performance data (Celio & Harvey, 2005). The specific legislation that began the focus on achievement accountability, NCLB, did not limit the collection of financial and demographic data from school leaders, but it did mandate the collection of performance data from school administrators (Jennings, 2003). The most utilized type of performance data within the current accountability model focuses on whether students learn when they are in the classroom and whether they leave the classroom at the appropriate learning level with the appropriate credentials in hand (Celio & Harvey, 2005). The move from financial and
demographic to those two types of data plus performance data was a substantial change for school administrators, and it required a distinct perspective of data utilization to minimally support the reporting requirements of NCLB (Jennings, 2003).

Given the policy context, it is possible that districts and schools may not focus on using data for continuous improvement but instead use it only to fulfill policy and accountability mandates (Park, et al., 2012). Has DDDM supported school reform, or has it supported the distortion of the educational process? Or as Gert Biesta noted in his position paper on education, measurement and the professions published in 2015, “is this age of measurement in education getting us any closer to an understanding of what makes education good?” (Biesta, 2015).

Educational leaders often view state assessment data as being of limited use in their work (Beaver & Weinbaum, 2013). As the emphasis on data is situated within a high-stakes accountability framework, practitioners often view the data as suspect. In a nationwide study of secondary school practitioners conducted by Ingram in 2004, data from state assessments were perceived as a sanctioning tool used to fit predetermined decisions rather than information used to shape the decision-making process (Ingram, et al., 2014). In a recent report conducted by Scholastic in conjunction with the Bill & Melinda Gates Foundation (2012), a broad swath of teachers were surveyed nationwide revealing that only 26% viewed state-assessment data as an important gauge of student achievement. A majority of teachers reported that they would much prefer to receive multiple measures of student achievement.

At its base level, compliance-driven leadership is ultimately limited to the least helpful leadership tool, punishment for bad behavior (Reeves, 2010). NCLB not only provided the mandate to report on performance data, but it also provided punitive consequences if distinct thresholds were not met within this sort of data. Schools and school districts that failed to meet
achievement thresholds were subject to sanctions (Jennings, 2008). School closures did not send students to better schools. The reforms driven by sanctions fell woefully short under NCLB (Weiss & Long, 2013). NCLB did not require administrators to engage the realities of the community members they serve. Instead it focused on merely enacting technically-rational administrative behaviors such as DDDM that serve to continue regimes of marginalization and oppression (Khalifa, et al., 2014). In their study published in 2004, Diamond and Spillane found that data was used in distinct ways in schools depending on where the school was situated in relation to the state accountability model. To that end, the ways in which data were interpreted and the educational strategies that resulted were very different in schools placed on academic probation as compared to schools that historically had higher test scores (Diamond & Spillane, 2004). Schools that were studied that had histories of high student achievement used testing data to guide school-wide goals and improvement, whereas schools dealing with sanctions used testing data to devise strategies designed to avoid sanctions without fundamentally transforming educational practice (compliance). With legislation mandating a compliance setting of both equity and excellence, the expectations of school administrators began to mount. Prior to NCLB, legislation that clearly signaled a focus on performance data, few school administrators and their school boards knew the exact extent of the achievement gap(s) between their groups of students and fewer still had any strategies or policies in place to address these gaps (Sherman, 2008). The move to mandated reporting on multiple data sets clearly put school administrators in a unique setting when compared to prior years. How those administrators responded and reacted to these requirements set the basis for planning and goal setting within their school or school district for the next decade and a half.
As the expectations for school administrators grew, two distinct approaches for data leadership began to evolve. Firestone and Gonzalez identified these distinctive processes/approaches in a study they conducted in 2007. The Firestone & Gonzalez study found that there were essentially two distinct types of data utilization framed by district leadership: the first approach focuses on student test scores, tends to have a short-term time frame, and excludes principal voices. Data is used mainly to identify problems and monitor compliance. The second approach emphasizes improvement, is long term in scope and includes principal voices. The differences in the two approaches reflect whether school districts are engaged in meaningful continuous improvement efforts or are merely chasing numbers to avoid sanctions (Firestone & Gonzalez, 2007). How leaders frame DDDM is likely to influence the type of culture that is created around data use. One way they may do so is by engaging in deliberate framing of DDDM as an essential and useful strategy for continuous improvement versus framing it as a way to solely meet accountability demands (Park, et al., 2012).

The Beaver & Weinbaum study published in 2013 concluded that school administrators are using state-assessment data for a variety of activities. The most prevalent of these activities are aimed directly at improving the scores on the state test for the following year, such as engaging in test preparation, benchmark assessments and remediation. One teacher acknowledged in the study that the decisions that administrators make based on test scores has a clear effect on what teachers do in their classrooms, stating that, “I would say the state test results influence my building goals directly and they influence administration and administration influences those goals” (Beaver & Weinbaum, 2013, p.492). This sort of system is clearly using DDDM to drive building goals, but the framing of data use focused on specific sets of data solely derived from the state assessment is a system that fundamentally exists as a compliance model.
Park, Daly and Guerra noted another sort of system in their study published in 2012. In this data system, the framing of DDDM as an essential and useful strategy for continuous improvement was emphasized as opposed to framing it as a way to meet accountability demands. As part of their study, the team detailed a specific school district where the Superintendent of Schools related that although the accountability system was becoming increasingly clear about the definitions of success, failure and growth, the process of continuous improvement became a “black box” that school administrators had to unpack. As part of that district’s strategy, the leadership team decided that having formalized, district-wide goals would ensure that everyone had a common purpose. The Superintendent noted, “Having measurable goals is important because they direct attention and resources to a shared vision (p.665).” As the leadership team focused more on sound goal development, they decided to focus on developing reasonable, objectively measurable indicators of progress. Generalized goals such as “we want all students to become lifelong learners” would not enable them to assess whether the goals were met. In short, the leadership team led by the Superintendent of Schools had to rethink their goal process. As the leadership team worked on the goal process, the big message in data usage as communicated by the superintendent was that, “Data is only usable for continuous growth if you think carefully about what you are trying to achieve” (Park, Daly & Guerra, 2013, p.663). Two pertinent conclusions of the Park, Daly & Guerra study are that district and building leaders suggested that the main rationale for data use needs to be continuous improvement rather than a sole focus on meeting accountability demand. Lastly, how leaders frame the use of data and the conceptual tools they provide are likely to be important in how educational leaders utilize DDDM (Park, et al., 2012). Marsh & Farrell noted from their study conducted in 2014, data must be collected, organized, and analyzed to become information and then combined with stakeholder
understanding and expertise to become actionable knowledge that can help drive building goals and vision. Data then can be collected to assess the effectiveness of actions, leading to a continuous cycle of collection, organization, and synthesis of data in support of continuous improvement (Marsh & Farrell, 2014).

A study published in 2008 by Ingram, Louis and Schroeder found little evidence that accountability data was being used to change practices or to monitor said changes even when policies are in place regarding the use of DDDM on a large scale throughout most school districts (Ingram, Louis, & Schroeder, 2008). In that same time frame, a survey of over 2,200 school superintendents in *The American Association of School Administrators Ten-Year Study of the American School Superintendent* revealed that their self-identified, most profound challenges were assessing learner outcomes and the accompanying accountability (Moore, Dexter, Berube, & Beck, 2008). The mandated reporting of output data that was critical to the accountability measures set forth in NCLB have on their own, not been a driver of school reform. Skillful usage and understanding of such data however has been a focused area of improvement for many school administrators.

Strategic, improvement driven school administrators have built base skills that utilize data in support of needs assessment, planning action steps to address those needs within specific goals and measuring the effectiveness of those action steps to continue the perpetual planning process for school improvement. This process can be utilized throughout all facets of a school district from student learning, to personnel and staffing and even within the business functions of the school district such as transportation, food services, bussing and financial planning (Hess & Osberg, 2010). DDDM touches all facets of school leadership. A supportive administrative organizational structure focused on the sound use of data plays a key role in the practice of
Data analysis is more than rendering a report (Creighton, 2006). Many school administrators have the skill to sift through the reams of data to see how the system is performing, yet they seldom have the time or training to do so (Hill, 2008). Those outside the school leadership field, teachers, parents and the public, generally have neither the time nor the skills to utilize data in this manner. It is imperative that school leaders and other administrators in support of that leadership bring key data to the forefront to assist in the process of school improvement. The most important skill for any school administrator is the articulation of expectations for adults (Reeves, 2010). Appropriate data sets can support that process and support expectations for individuals, school buildings and even school districts.

Effective data analysis is a “treasure hunt,” a relentless search for best practices and comparison of practices (Creighton, 2006). Performance data can and should be used by school administrators, but it should not result in a quantitative process focused on a specific test score based on one standardized test (Sawchuk, 2015). Performance data can be used by system leaders to help make decisions about where they should intervene and what they should emphasize. More specifically, information/data that for years has been used by some school administrators in an arbitrary way to judge schools and school students, can instead, be used to help leaders make decisions about systemic processes by developing appropriate questions and “think-abouts” based on the data (Hill, 2008). Unfortunately today, much of school data is scattershot and unfocused because of ill-understood data. Hill found in his study conducted in 2008 that many urban districts lack the strategic information or capacity to successfully identify and implement a district reform strategy (Hill, 2008). This is not due to lack of data, but more often a lack of data understanding and absence of a reflective cycle to review data and formulate specific needs based on that data over time (Bernhardt, 2006). Successful school administrators
engage stakeholders in a dynamic process that moves beyond accountability to continuous improvement by valuing pertinent data, using it for effective planning and evaluating resulting systems via set evaluation tools (Wayman, Stringfield, Yakimowski, 2006). Administrators need to realize that community sensibilities must be part of the data used in DDDM. Community members often have a different understanding of factors that “count” in the DDDM process (Khalifa, et al., 2014)

Why the discrepancy in the way data is utilized in various school settings by distinct school administrators? Though federal and state mandated accountability systems may create more will for utilization of data, they almost always fail to provide school administrators with the avenue (tools and strategies) to succeed (Englert, Fries, Goodwin, Martin-Glenn, 2008). School administrators that utilize these state and federal mandates to dictate their direction as an educational entity are destined to lead via compliance. In a study sponsored by the Institute of Education Sciences in 2008, researchers determined that school administrators rate the performance of their schools higher when utilizing multiple sources of data compared to considering only performance on state assessments.

Other barriers that limit the use of data for continuous growth and improvement include both technical and human factors. In a survey developed by the Consortium for School Networking (CoSN) and distributed to school administrators in 2008, the top two barriers identified that limited school administrators’ ability to effectively utilize DDDM were lack of training (50%) and interoperability (42%). For large and medium sized districts (more than 7500 students), lack of understanding about what to do with data also ranked high (46% and 44%) (CoSN, 2008). Human factors almost always center on frustration with the sheer volume of data or the struggle to make relevant the various data sets shared with professionals. Effective school
systems organize so the data have practical value in the hands of professionals as they look to
define needs, strategize goals and plan for the future. What often happens in a district that
struggles with the volume of data, professionals become frustrated and overwhelmed with
disaggregated tables and indigestible spreadsheets (Bech & Morelock, 2016). Some of the
limitations are even specific to the type of school district in question. In a study performed by
Englert, Fries, Goodwin, and Martin-Glenn in 2008, entitled, “Understanding How
Superintendents Use Data in an Environment of Increased State Accountability,” the authors
found that rural superintendents were far less likely to use data within their own practices or to
encourage their staff to use data. This finding became even more prevalent when comparing
results from the study from the very small rural districts to larger rural and non-rural districts
(Englert, Fries, Goodwin & Martin-Glenn, 2008). Though school leaders continue to face
renewed pressure to utilize DDDM, a study conducted in 2008 by Kerr, Marsh, Ikemoto, Darilek
and Barney found that the implementation of DDDM is often not successful. Their research
suggests that effective use of data more often depends on several enabling factors including
strong leadership, upfront planning for data collection and use, and strong human capacity for
DDDM (Kerr et al., 2008). Simply possessing data and evidence is no guarantee of success.
Schools are awash in data. Without purposeful organization and the capacity for nearly
instantaneous recall and analysis, even the most abundant data is virtually useless (Doyle, 2002).
A great example of that in Pennsylvania is the Pennsylvania System of School Assessment
(PSSA). The PSSAs are a state mandated assessment given each spring to all students in grades
three through eight. The tests are given in April and school districts do not receive the results
until late July, long after students have moved on and staff have started planning for the next
school year. In Pennsylvania, PSSA results are clearly autopsies that have no instructional value
for teachers. As a district, school administrators can look at trends and examine specific curricular alignment with standards that are measured on the assessment, but without real time data, the assessment certainly can’t drive daily instruction. As is the case in Pennsylvania, this sort of assessment can create data that has been and remains a burden if not utilized within the appropriate context. In the absence of strong school administrators that clearly understand the value and clear limitations of state assessments. The PSSA and other state assessments that are similar, clearly qualify as compliance data or data that is precisely used to see whether you followed rules and regulations.

The use of financial and demographic data coupled with performance data recognition and reporting has challenged school administrators. The federally driven mandates that focus on the utilization of data have been a source of criticism over the last decade and a half. David Schuler, the current President of the American Association of School Administrators, recently shared his thoughts on data in schools: “As we send Big Data off to the state and federal government, it often feels like it’s for the purpose of judgment and ratings rather than support, affirmation and improvement. It’s my hope we get to a point in our country where Big Data – and every point of data – represents a child with a focus on improving teaching and learning in our schools as opposed to simply identifying and judging a school district, school or classroom teacher” (Levenson, 2016, p.33). Or as Biesta noted, “the driver of measurement is fear of being left behind” (Biesta, 2015, p.7). Interestingly, the legislative driver that propelled accountability to the forefront utilizes similar terminology for its name, No Child Left Behind.
Data Disaggregation & the Achievement Gap

With the federal and state accountability systems now clearly focused on multiple data sets inclusive of performance data, it is worthwhile to examine how DDDM has contributed/supported/impaired this transition of the public education system in the United States. Schools have gathered data for nearly 150 years and rarely was it used except for compliance purposes (Doyle, 2002). It is safe to say that there were isolated cases of school leaders utilizing DDDM prior to 2000, but the enactment of NCLB in 2002 really set the stage for usage throughout the nation. Data almost exclusively used for compliance measures was now supplemented with numerous data specifically focused on student and student sub-group performance. This growth of measurement and data utilization was noted within the work of Gert Biesta as he focused on education, measurement and professions when he identified the rise of neo-liberal forms of governing and how this rise has distorted three critical dimensions of professionalism within the field of education. One of those distortions was the transformation of a democratic conception of accountability into a technical-managerial conception (Biesta, 2015). Had NCLB given rise to the role of school administrators into technical managers via the utilization of various processes such as DDDM?

As the collection of data grew throughout the last decade, school administrators’ growth and perceptions of this process differed dramatically (Kuhn, 2016). Data disaggregation by school administrators became an inherent function of the position. One of the goals of NCLB was to narrow the achievement gap between minority and nonminority children, especially between disadvantaged students and their more affluent classmates (Ravitch, 2010). By disaggregating data by sub-group, school administrators could no longer hide low subgroup performance within a school, district or statewide averages (US Dept. of Education, 2003). Are
school administrators today utilizing disaggregated data in support of improving the education of specific students within identified sub-groups, or is data disaggregation a clear function of the accountability system focused on a statewide standardized test? This is one of the questions I probed within my interviews of the 24 respondents as we discussed the role of state achievement data.

Prior to NCLB, there were states that had initiated state assessment to satisfy statewide accountability models, but few if any called for data disaggregation to review how specific subgroups of students performed on the state assessment (Diamond & Spillane, 2004). One of the states that embraced such a model was Texas where the state utilized a state assessment called the Texas Assessment of Knowledge and Skills (TAK). A study by Booher-Jennings published in 2005 warned of serious unintended consequences of DDDM as witnessed in specific settings in Texas pre-NCLB. Booher-Jennings noted that one of the worst examples that came about via DDDM was “educational triage.” This term equated to teachers dividing students into three groups- safe cases, suitable cases for treatment and lastly hopeless cases or those children “left behind”. Resources were then rationed to students most likely to improve the school’s test scores. Through a series of practices that included focusing on “bubble kids” (those on the threshold of passing) and targeting resources to the “accountables” (those students included in the school’s accountability rating) teachers essentially diverted resources to students most likely to increase pass rates. This practice was supported at the district level under the auspice of DDDM (Booher-Jennings, 2005). The concept of “institutional triage” created the impression of school-wide improvement, but in reality it served to increase aggregate test scores rather than to meet the needs of individual students. This sort of utilization of DDDM also supports the thinking that DDDM is merely enacting technical-rationale administrative behaviors
that serve to continue regimes of marginalization and oppression (Khalifa, et al., 2014). This system in itself could be considered data disaggregation as the building was breaking down the data to then drive the level of support and resources to various groups of students. It is a clear example of how DDDM and specifically data disaggregation can also be used to target some students at the expense of others.

NCLB’s practice of breaking down achievement results via subgroups of students on the surface eliminated the “institutional triage” method but not entirely. From the inception of NCLB, the United States Department of Education provided each state some flexibility in reaching the 100% proficient target by 2014. Most states including Pennsylvania set yearly standards for percentage of proficiency as opposed to instituting 100% from the inception. Based on the gradual increase of percentage of proficiency to reach AYP, educational triage still existed through the early years of NCLB. There were still school districts throughout the country that sought to create all appearances of goal attainment through providing a better education for all students when in reality it was maneuvering through the loopholes left open by a faulty state accountability system. These districts sought to create the impression of improvement, not the reality (Booher-Jennings, 2005)

Data disaggregation within NCLB would seem to limit the unethical approaches that had surfaced in the past. One of the stated purposes of breaking down student performance by subgroup was to enable districts to use the information as a diagnostic tool showing where schools need to improve, reflecting the concerns of federal lawmakers over the widening achievement gap among socio-economic and ethnic subgroups in American society (Jennings, 2008). With its emphasis on student performance by subgroups, NCLB encouraged states to disaggregate data to the student level, a system that provides district administrators with
knowledge concerning the achievement gap between and among racial/ethnic groups and attempted to connect what was taught with what was learned (Fusarelli, 2004). Data disaggregation alone doesn’t address the achievement gap; it just quantifies the gap. A study authored by Whitney Sherman that focused on the perceptions of school superintendents within the state of Virginia in regards to NCLB found that NCLB was no catalyst for change in public education except for the disaggregation of data (Sherman, 2008). That same group of superintendents felt that prior to NCLB, neither school boards nor their communities had ever asked for specific test scores for minority populations and low performing groups. That took a backseat to raising achievement scores for all students. Sherman’s final conclusion from her research was that superintendents who understood the potential of DDDM clearly were able not to treat differences in students (subgroups) as deficits (Sherman, 2008).

It is important to note that DDDM and specific data disaggregation do not systemically address the achievement gap. In fact, what this sort of data usage can provide school administrators is information regarding the extent to which an achievement gap does or doesn’t exist within their system (Bernhardt, 2006). Booher-Jennings found that within her study of a specific school district in Texas, DDDM had become a valued end in itself. Other reforms such as class size reduction or school governance reform were never mentioned as a source of school improvement, and instead, DDDM was seen as the key reform strategy (Booher-Jennings, 2005). As noted previously in a study conducted by Diamond and Spillane in 2004, the authors found that data are used in very distinct ways in schools depending on where they are situated in relation to the accountability regime (Diamond & Spillane, 2004). That specific use of data based on the state assessment proficiency level within a particular school may exacerbate the achievement gap as opposed to challenging it. Accountability models framed under NCLB may
have contributed to widening the learning and achievement gaps by identifying failing schools (Diamond & Spillane, 2004). Often the schools identified within these accountability models are overrepresented by low income families as was the case with the Diamond study done in Chicago.

Although NCLB can certainly be applauded for its explicit attention to achievement gaps, it fails to recognize the complexity of why minority students and students from low socioeconomic backgrounds often struggle in schools. As noted by Diane Ravitch in her book, *The Death and Life of the Great American School System: How Testing and Choice are Undermining Education*, “the biggest problem with the NCLB Act is that it mistakes measuring schools for fixing them” (Ravitch, 2010 p.146). That is an important point when reviewing data disaggregation and DDDM in general, these concepts assist school administrators in fulfilling sound measurements of achievement or progress, but they do not serve as stand-alone practice for school reform, though the techniques can help set the need or confirm the need for change based on specific data. As school administrators look to address an ever challenging achievement gap within many schools and school districts throughout the nation, it is critical for school administrators to understand that the achievement gap is a complex problem not remedied through isolated reform strategies such as specific utilization of data sets or DDDM (Diamond & Spillane, 2004). Data’s role in supporting schools addressing the achievement gap is to utilize specific data, organize that data, then analyze the data to become information that combined with stakeholder understanding and expertise can become actionable knowledge (Marsh & Farrell, 2014). This is the process depicted within the conceptual framework of this study. New data can then be collected to assess the effectiveness of actions, leading to a continuous cycle of
collection, organization, and synthesis of data in support of continuous improvement that in time, can have an effect on the achievement gap.

Although it is politically unpopular to suggest that complex problems such as the achievement gap clearly have complex solutions, post NCLB that is clearly the case. As noted in Diamond’s and Spillane’s study from 2004, any policy work to address the complex problems that make-up today’s achievement gap must address underlying structural inequities in American society (Diamond & Spillane, 2004). The achievement gap is not a result of a specific deficiency within the educational system, but instead the gap exists as a microcosm of our society as a whole. School leader’s ability to utilize DDDM in support of continuous growth and improvement along with the disaggregation of key data synthesized by leadership should always focus on any such gap, but those strategies in isolation will not eliminate the gap (Sherman, 2008).

**School Administrators and Their Role in DDDM**

For the purpose of this study the term school administrator includes the following positions within a school district: superintendent of schools, assistant superintendent of schools, director of curriculum and instruction, and building principal. Though these positions have distinct duties as each school district is unique, the duties identified for each of the positions within the school districts studied are district specific and thus are unique to each setting. Since school administrators are the individuals under analysis within this study, it is important that within this review of literature the researcher does provide a review on superintendents, principals and the role of other specific central office personnel. Each of these positions has a
unique perspective of DDDM within a specific school district and each position adds relevance regarding the perception of DDDM within specific school districts.

The Superintendent

As the chief educational leader and spokesperson for the school district, the superintendent is a commissioned officer of the Commonwealth through whom state school authorities exercise their supervision and control of the school system (Pennsylvania Department of Education, “PDE”, 2012). In Pennsylvania, the superintendent is the commissioned officer for the school district and is responsible (a) for the effective operation of the district; (b) for the general administration of all instructional and business of the district; and for (c) advising and making recommendations to the Board of School Directors with respect to such activities (Pennsylvania Association of School Administrators, “PASA”, 2011). The State Board of Education and the General Assembly of Pennsylvania fix the superintendent’s minimum qualifications, term of office, and other specific powers and duties. With that specific oversight, local school boards still have much influence over the position of superintendent as they have the power to hire and fire, have ultimate budgetary responsibilities, specific responsibility to set school policy and lastly, the superintendent and Board of School Directors in an ideal situation collaboratively have the responsibility to establish core beliefs, create the vision, and set goals for the district (Pennsylvania State School Boards Association, “PSBA” 2011).

The most recent change to these duties/responsibilities/criteria of superintendents in Pennsylvania occurred in the spring of 2012 when the Pennsylvania Legislature passed legislation to limit various contractual components that had become standard practice for many superintendents throughout the Commonwealth. The legislation limited the tenure of a first
contract for a newly hired superintendent to three years, limited compensation for unused sick leave, limited the transfer of sick leave from previous employment, limited the components available for severance agreements, and required superintendents and assistant superintendents to post mutually agreeable objective performance standards on the district website on a yearly basis (SB 1296, 2012). Since the bill’s inception the number of superintendent vacancies in Pennsylvania on a yearly basis has increased by 20% (Buckheit, 2015). As of December 2014, 62% of superintendents employed in Pennsylvania had less than four years of experience and only 27% of Pennsylvania’s 499 superintendents have served in their current school district six years or more (PASA, 2015). With a limited supply of experienced superintendents available, coupled with current superintendents’ first-hand knowledge of the toll ongoing difficult fiscal, accountability, policy and local governance environment has taken on their professional and personal lives, the pool of growth minded, continuous improvement focused school superintendents that build healthy organizations for learning over time is certainly dwindling in Pennsylvania (Buckheit, 2015). Within the last four years, an unprecedented number of superintendents have moved on to other career opportunities, entered retirement or have been pushed out of their positions. Salaries and benefits have remained flat while responsibilities have increased as districts reduce or eliminate central office and school building administrative positions (PASA, 2015). This climate for leadership has resulted in a 20% turnover per year for the school superintendent position in the state of Pennsylvania (Behrman, 2016).

With the multitude of challenges facing today’s superintendent, examining superintendents perception of DDDM within their district as a tool that supports and helps drive continuous improvement and growth is appropriate at this point. Are superintendents utilizing DDDM as a compliance tool based on the fact that the average tenure of a superintendent today
in Pennsylvania is four years (PASA, 2014)? The commitment to a data system focused on continual growth takes time and does not limit its data sets to specific student achievement data geared towards specific achievement goals for the district. What has occurred in Pennsylvania is a system of superintendent employment that is not conducive to the current state accountability model (Buckheit, 2015). An accountability model based on one state assessment that distributes results to school districts late in the summer breeds an environment of leadership via compliance and does not support leadership focused on multiple data sets to formulate multiyear goals with established measurement criteria that can help guide growth. Couple the accountability model with recent changes in legislation that in effect have contributed to a shortened tenure for superintendents and the end result is a very challenging culture for school superintendents in the Commonwealth.

Recent studies throughout the nation affirm similar challenges to those present within Pennsylvania’s superintendent position. Over the years, the position has evolved into one of both status and difficulty (Glass & Franceschini, 2007). The superintendency has certainly been influenced by the movement towards a more accountable educational system (Shipmen & Murphy, 2006). As the overall approach to education has changed, so too has the job description for the school superintendent. Earlier studies on the superintendency, most descriptive in nature, identified functions of the superintendent in a more managerial role. The superintendent handled many of the day-to-day operations of the district and also an array of tasks that board members requested be done. Following the publication of A Nation at Risk in 1983, there began a considerable shift towards more accountability as the standards movement began to change what constituted the superintendency and how the public looked at the position. Organizations and researchers began looking at the duties of the superintendency from the perspective of
expectations and results focused on improving student achievement (Glass & Franceschini, 2007). In contrast to the historical definitions on superintendent duties focused on management tasks, the standard-setting movement ushered in a new vision of what constituted the superintendency. The growth and direction of the federally driven accountability model focused on student achievement and specific subgroup performance played a major role in the changing landscape of the superintendency (Houston, 2002).

A comprehensive study of the superintendency entitled The State of the American School Superintendency was completed by Glass and Franceschini (2007). Data collection for the study was conducted through a survey mailed to practicing superintendents across the nation and followed similar reports issued each decade by AASA. The main objectives of the study were to provide current information on the superintendency, to provide trend data comparing past studies, and to provide an overview of public education and look at the future of the superintendency (Glass & Franceschini, 2007).

Glass and Franceschini’s (2007) study raised the question of what the role and the duties of the superintendent in the 21st century and beyond will be. Findings from the survey stressed the future of the superintendency will require harmonious working relationships with boards and community groups. The researchers also found a move toward higher accountability in the area of instructional leadership, as almost 50% of school superintendents felt they were hired to be instructional leaders. In 1991, Glass (1992) found that 11.6% of superintendent survey participants felt they were hired to be instructional leaders. By 2000, that number had increased to 25.8%, and by 2007, that number had increased to 49.2%. Similarly, in the 1992 study, Glass & Franceschini (1992) found that 66% of school superintendents indicated they felt they were hired based on their personal characteristics compared to their professional factors. This changed
to 40% by 2007 as the field of education moved towards a federally driven accountability model based on student achievement.

The current climate and emphasis on a federally driven accountability model has drastically changed the role of the superintendent of schools. Even with the recent authorization of ESSA, this level of accountability is not likely to dissipate (Blad, 2016). The level of student achievement throughout a school district has become a critical measurement for school district success and superintendent effectiveness. Recent legislation in Pennsylvania has all but mandated that student achievement goals be a significant part of the superintendent’s evaluation (Buckheit, 2014). This condition has become one of the primary descriptive processes for identifying successful leadership at the district level, thus the potential for an over-reliance on DDDM based on a compliance model focused on student test scores from the state assessment.

There are supporting personnel within school districts at the central office level that assist the superintendent in their specific job duties. Some of those district specific positions include assistant superintendents, director of curriculum and instruction and also assistant to the superintendent. In all cases, these positions are unique to the specific school district that they serve and are often present based on the size of the district. There are school districts in Pennsylvania that have a very flat central office organizational chart with nothing more than a superintendent, a business director and a special education supervisor. There are other districts that may have multiple assistant superintendents and specific directors of curriculum and instruction for the various levels of the district, elementary and secondary. Most often these positions depend almost exclusively on the size of the district and since 2009 these positions have decreased throughout the state. Since 2009, 623 central office administrator positions have
been eliminated in Pennsylvania with 60 of those being assistant superintendent positions (Buckheit, 2014).

The Principal

The principalship has charted a similar course of job responsibilities based also on the federally driven accountability model. The evolution has been nearly identical to that of the superintendent evolving from a role as a building manager throughout much of the last 150 years to now since the release of A Nation at Risk moving towards that of an instructional leader within their own building. The Pennsylvania Association of Elementary and Secondary School Principals (PAESSP) delineate the duties of a school principal in Pennsylvania in the follow manner: the principal is responsible for the overall functioning of their school. They direct and supervise the development, delivery, assessment, and improvement of the education of all students in their building. In support of this process, principals supervise teachers, evaluate their performance, create teaching schedules and make recommendations to the district about hiring or dismissal. Principals interact directly with students and also act as the liaison between the school district and the school itself by implementing directives, mandates, and goals developed collaboratively with district leadership and then communicating feedback on the success of these processes (PAESSP, 2014).

A study published by Dhuey and Smith in 2014 found that there is a significant variation across principals in the value they add to student achievement. Much of the value associated with a principal’s effect on student achievement correlates directly with the experience level of the principal and the principal’s ability to strategically plan and set goals for the building based on specific needs of the student population (Dhuey & Smith, 2014). The study goes on to note that
principals who dedicate more time to organizational management driven by goal processes and staff collaboration lead schools with higher state achievement scores. Lastly, the study found that principal turnover is almost always detrimental to school performance (Beteille & Kalogrides, 2012).

Consistent studies show that principals who utilize data and DDDM to support goal driven management processes focused on the growth of students and staff tend to find success within the principal role. A study undertaken by Waits, Campbell, Gau, Jacobs, Rex, and Hess in 2006 entitled Beat the Odds, analyzed twelve academically achieving schools with high Latino populations located in low socioeconomic areas in the state of Arizona. One key element identified as a key driver to growth in successful buildings throughout the study was making sure teachers and principals shared in the growth process of the school. Together they build a sense of shared ownership that focused on an attitude of teamwork towards meeting the needs of students and achieving building goals. The study went on to note that effective school leaders assess how well the school is performing on multiple indicators, using that information as goals are developed and consistently measured. A key part of creating and sustaining success as identified in “Beat the Odds” is using ongoing assessment data to guide instruction. Every school in the study was adamant in regards to utilizing multiple data sets to help support increasing student achievement. Via the schools DDDM process they consistently disaggregated data by grade level, by classroom and by student subgroups to best serve students (Waits, et al., 2006).

The evolution of the principal position throughout the last thirty years mirrors the evolution of the superintendency based most exclusively on the growing nature of the federally driven accountability model. Sound utilization of multiple data sets within a DDDM construct has been a common denominator in the ability of a principal to support a culture of continuous
improvement based on collaboratively set building goals that are consistently measured and analyzed (Hornig, Klasic, & Loeb, 2009).

**Summary of the Literature Review**

This review of literature suggests that despite the emerging concept of DDDM within the field of educational leadership, there is a lack of sufficient evidence to indicate that DDDM has become an integral component to drive school and school district improvement (Ravitch, 2013). Literature related to the reporting and accountability requirements of federal and state mandates were reviewed from a historical and contemporary perspective. The evolution of DDDM is a direct result of the increased level of reporting mandated within the authorization of and subsequent reauthorizations of ESEA. Though these mandates gave birth to DDDM within America’s educational setting, this literature review was not a legislative or political study but more so a review to illustrate the evolution of DDDM fueled by a political and legislative framework that now firmly entrenches the concept within the accountability system of our nation’s schools. The review of the literature was primarily descriptive based on the historical literature available addressing the concept of DDDM.

After providing a historical perspective as to the evolution of DDDM, the review then focused specifically on how the education system changed data focuses under the new mandates moving from a reporting system focused on “inputs” to a reporting system focused on both “inputs” and “outputs” which gave rise to our accountability model throughout our nation’s schools. As the new reporting system continued to grow the review then looked specifically at the role of DDDM throughout our nation’s schools. Techniques such as data disaggregation have become commonplace within the federal mandates as school administrators look to address an
ever-growing achievement gap between specific subgroups throughout schools, school districts and states. This part of the review focused more specifically on how DDDM has contributed/supported/impaired the overall education system. Lastly, this literature review focused on the specific leadership positions identified within the study as school administrators. The researcher reviewed the evolution of those leadership positions and examined how the federally driven accountability model has spawned specific changes within the role of those positions.

It is fitting to conclude this summary of the literature in noting that DDDM can reside within an educational culture often driven by compliance measures based on an overly prescriptive and onerous federal accountability model. For DDDM to support a culture focused on continual growth, it is paramount for school administrators to understand the limitations of leadership via compliance to federal or state mandates and accountability models. Gert Biesta theorized in his work on evidence-based practice published in 2007 that educators need to expand their view about the interrelations among research, policy, and practice in order to keep in view the fact that education is a moral and political practice. This practice needs to be consistently subjected to democratic contestation and deliberation. In short, an exclusive emphasis on “what works” will simply not work for education (Biesta, 2007). DDDM can be a tool to support democratic contestation and deliberation via collaborative vision and goal setting between staff and school administrators as they chart the road map for continuous improvement. By utilizing multiple data sets to help guide direction and then measure the success or lack thereof for those directions within a continuous cycle for planning and learning will be set in place. But within a model of compliance driven leadership, DDDM can just as easily support an
environment of educators as “technocrats” driven almost exclusively by a score from the state assessment, and an emphasis on “what works” programs and data measurement.
CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Introduction to the problem

The purpose of this study was to explore school administrators’ perceptions of DDDM as utilized throughout the state of Pennsylvania. The plight of school administrators in addressing accountability demands brought on by federal and state legislative mandates over the last two decades has made strategies such as DDDM something that school administrators have utilized as they review and plan for growth and continuous improvement within their setting. As previously discussed, one of the more integral components proposed throughout the legislative mandates is the concept of DDDM. Other intricacies of the federal and state mandates that have challenged school administrators are that state assessment results are now reported at the building level as well as the district level and that results are broken down by student subgroups. Prior to NCLB, most assessment results were reported at a district level and almost always reported in an aggregate manner (Sherman, 2008). This sort of reporting did not always display specific achievement gaps between subgroups of students. Following NCLB there was a greater level of accountability for school administrators focused on all students which fostered the expectation of integrating the concept of DDDM at all levels in the district. School administrators were also required to disaggregate data to guide a closer examination of the
achievement levels of specific student subgroups within their school setting. The pressure to collect, analyze and report a variety of data in meaningful ways falls clearly on the shoulders of school administrators. Following NCLB, it became essential that each school administrator develop the capacity to focus on data collection, management based on that data, and finally, disclosure. Now a decade and a half after the inception of NCLB, how has the concept of DDDM evolved beyond collection, management, and disclosure of data within the educational setting? Are school administrators utilizing this strategy to support a cycle of continuous improvement or is it utilized to comply with a specific accountability model?

This study focuses on the concept of DDDM and school administrator’s perception of this concept in their school district. The foundation of this study is built on the examination of four key questions: (1) Are school administrators strategically framing DDDM to build a culture of continuous improvement and growth, and does this process differ based on unique characteristics within specific school districts? (2) How do school administrators balance the demands of a state accountability model focused on student achievement on specific statewide standardized tests while trying to build a culture of continuous improvement and growth focused on supporting student learning (compliance vs. conviction)? (3) How does the process of DDDM differ when utilized a school culture focused on compliance to a state defined accountability model, versus a school culture focused on conviction to student centered learning?

a. Within these two distinct cultures, is there unique utilization of DDDM within specific achievement levels as set by the state accountability model?

b. Are there specific student demographic differences or administrative demographic differences within the two cultures of data utilization?
(4) Does data manipulation become usable information for stakeholders within various settings in a school district to guide actionable knowledge?

a. Is there usage of DDDM in support of multiple functions across distinct school districts, and if so what are those functions?

b. Are there specific demographics within school districts that limit or enhance the usage of DDDM in support of multiple functions?

This chapter describes the study’s research methodology and includes discussions around the following areas: (a) rationale for the approach, (b) research design, (c) site and sample selection, (d) research strategies/implementation, (e) data collection, (f) data analysis, (g) reliability & validity, and (h) limitations of the study. The chapter culminates with a brief concluding summary.

Rationale for the Approach

The rationale for the approach of this study is based on the nature of the research questions along with the theoretical considerations that set the framework for such questions. The research questions detailed above require an approach that is concerned with understanding the phenomenon of interest (DDDM) from the participants' perspective (school administrators), not the researchers. Qualitative research offers such an approach. Rist (1982, p. 440) states that "qualitative research hails that the most powerful and parsimonious way to understand human beings is to watch, talk, listen, and participate with them in their own natural setting." This examination of human beings in qualitative research seeks to find a holistic understanding of the phenomenon being studied (Rist, 1982; Maxwell, 2013; Merriam, 2009; Creswell, 2013; Stake,
Qualitative research is an umbrella concept covering several forms of inquiry that help us understand and explain the meaning of social phenomena with as little disruption of the natural setting as possible (Merriam, 2009). The key term used in all of the discussions of qualitative research is "understanding." Understanding the meaning that people have constructed for a certain phenomenon, within this study that equates to trying to develop an understanding of DDDM from the perceptions and accounts of school administrators and the variations of such to help explore how and why these characteristics differ. Qualitative research is based on naturalistic generalizations or the study of people from where they are and what perception they may have (Creswell, 2013). Maxwell (2013) discusses several key terms that are an essential part of qualitative research. Those terms include purposeful selection, participant perspectives, researchers as data gathering instrument, interpretist emphasizing understanding, subjectivity, interactive design, inductive and logical data analysis, and reflexivity. These terms are woven into the essence of many portions of the study. The qualitative research rationale is certainly the approach of choice for this study as it tries to create an understanding of school administrators’ perception of DDDM.

Research Design

Having established that the qualitative approach is the preferred approach for guiding this study, the next step is to designate what type of research design is best suited for this study. The research design serves as the overall layout for the study. The research questions, which again are the focus of the study, also drive the selection of the research design. The research questions guiding this study push the design to grounded theory research. The study will utilize a grounded theory research design to examine "how questions" regarding DDDM and expand those “how
questions” in an explanatory fashion based on specific thoughts or explanations from the perspective of Pennsylvania school administrators. Creswell (2013) summarized that the grounded theory research strategy is the preferred strategy when “how questions” are being posed that focus on individual stories told by participants, and phenomenology emphasizes the experiences for a number of individuals. The intent of the grounded theory research design is to move beyond descriptions and to move towards or discover a theory for a process or action (Corban & Strauss, 2007). Participants in the study have all experienced the process of DDDM, and the development of the theory as to why and how DDDM utilization differs between various settings and individuals will help explain practice and possibly provide a framework for future research. It is important to note that the theory development does not come from manuals or “how-to” books, but rather is generated in interview data from participants who have experienced the process (Strauss & Corbin, 1998). Grounded theory within my qualitative research design allows me to generate general explanations of a process (DDDM) shaped by the views of participants within the study.

Grounded theory research has several key characteristics that are incorporated into this research study:

- The researcher focuses on a process, in this case DDDM that has distinct steps or phases. My explanation of the movement or influence of those phases based on the stories told to me by participants is critical to the research.

- The researcher also seeks to develop a theory of why utilization of this process (DDDM) may differ within a significant and representative sample of school administrators.

- The primary form of data collection is interviewing as I am constantly comparing data from participants with ideas about my emerging theory (Creswell, 2013).
Site & Sample Selection

The sample for this grounded theory study includes 24 school administrators within nine school districts. Each of the nine school districts are located within the Capital Area Intermediate Unit (CAIU), IU 15. This sampling of 24 administrators reflects a representative sample that articulates the uniqueness of school districts throughout Pennsylvania. The CAIU is a unique Intermediate Unit within the state of Pennsylvania in that the school districts that make-up the CAIU represent all facets of school districts throughout the state and nation. The sampling encompasses a four county area in south-central Pennsylvania including the state capital. Thus there are distinct urban districts that are challenged by similar issues confronting most if not all urban centers and there are distinct suburban and rural districts contained within the CAIU. In short, this particular IU in Pennsylvania contains school districts that are representative of schools throughout Pennsylvania. The sampling reflects a cross section of districts based on enrollment and School Performance Profile (SPP). Specifically, there are districts of large, medium and small enrollment from a statewide perspective. These designations are based on total enrollment data for every school district within the CAIU. Districts of 1500 or less students are classified as small school districts, districts of 1500-5000 students are classified as medium/middle school districts and districts of 5000 or more students are classified as large enrollment school districts. School districts are also classified via the average SPP for their school district from 2014 school year. There were no SPPs communicated by the Pennsylvania Department of Education in 2015 for elementary schools since the assessment that drives this rating, the Pennsylvania System of School Assessment (PSSA), was a new test in 2015, and those scores were not made public in year one of the new assessment. Thus this sample is based
on the average SPP score in 2014 for each school district in the CAIU. From those average SPP scores, school districts were broken down into three groups: high, medium and low SPPs as communicated by the Pennsylvania Department of Education (PDE). PDE categorized scores when the system was first introduced and honored those buildings with scores of 85 or higher as “buildings of distinction” and categorized those buildings with a score of 69 or lower as those buildings that “needed improvement”. For this study, the high category reflects districts with an average SPP of 85 or higher, the medium reflects school districts with an average SPP between 85-70 and the low reflects school districts with an average SPP score of 69 or lower. The sample reflects school districts that have numerous central office personnel to support school administrators as well as districts that have few if any central office administrators except for the Superintendent of Schools. Stake (1995) emphasizes the importance of data sources, “the researcher should have a connoisseur’s appetite for the best persons, places, and occasions” (1995, p.56). Stake’s reference to “best” would indicate those that best help us understand the case, whether typical or not. This sample of 24 administrators certainly represents the best persons to examine perceptions of DDDM at the school administrator level of education.

Participants for the study were chosen via a two prong process. School districts were chosen which represented a large, medium and small enrollment coupled with their school district average SPP score for 2014 school year. Thus every school district within the CAIU had a K-12 enrollment designation along with an SPP designation for the school district. I then identified a high, medium, and low SPP school district within each of the enrollment categories. This sort of site selection resulted in nine specific school districts being chosen as sites followed by the inclusion of 24 school administrators that serve as the samples for the study. Participant recruitment began with contacting the Superintendent of Schools in each of the nine school
districts identified as a potential site for the study. From those communications each of the nine Superintendent of Schools agreed to participate in the study. I then asked each superintendent to identify specific administrators from their respective administrative teams for the study. The participating superintendents from the three small school districts were asked to identify one additional administrator in their school district for the study and the six medium and large school district superintendents were asked to identify two additional administrators for the study. This system for participant selection resulted in 24 participants being identified for the study, and each of the recruited participants agreed to take part in the study, there were no refusals.

Thus identified sample includes nine specific school districts with groups of two to three administrators depending on the enrollment of each of the nine school districts. For the three smallest districts in the sample, school districts that are classified as small school districts for this study based on the enrollment data utilized, two administrators were interviewed from each of these school districts as they have very few administrators employed within the school district. In school districts classified as medium or large, three administrators from each school district were interviewed for the study. The total of participants for the study based on this selection process was 24 participants. This sample of 24 school administrators throughout nine school districts will allow the researcher to report robust findings based on comparing and contrasting findings in the various settings.

With the variety of school districts represented in the sample, the school administrators interviewed will be unique depending on the school district. In some school districts the school administrators interviewed included the superintendent, the assistant superintendent and a building principal, in other districts it included the superintendent, the director of curriculum and instruction and a building principal, and in some of the smaller districts the administrators
interviewed were a superintendent and a building principal. In all cases, the Superintendent of Schools was interviewed and also assisted in identifying the other positions to be interviewed for the study. Each of the interviews lasted between 50 and 75 minutes. The interviews were recorded via a mini-recorder and a para-legal secretary transcribed each interview to assist in data analysis.

The sample represents Pennsylvania school administrators from all levels of student achievement based on their SPP score and also Pennsylvania school administrators from a cross section of school district size based on enrollment. The sample also represents school districts classified as urban districts, suburban districts and rural districts. These unique qualities help constitute a representative sample for the study.

In a grounded theory study, the participants need to provide permission to be studied, and it benefits the study if the researcher has established rapport with the participants so they are comfortable disclosing detailed perspectives about the process being studied (Creswell, 2013). Grounded theory also starts with a homogenous sample, individuals who have commonly experienced the action being studied. The sample group identified for my study meets this specific criteria. The 24 school administrators that are the participants for this study were given a letter detailing the study and articulating the background for the research questions and conceptual framework (Appendix A).

**Research Strategies/Implementation**

The research strategy utilized for this study is a one-on-one interview format with a focus on a specific interview protocol that follows a certain set of questions derived from the grounded theory approach (Kvale & Brinkman, 2009). The interviews may still remain open-ended and
assume a conversational manner, but there was a specific script of questions that were utilized during the interview as detailed in Table 1.

Table 1

*Interview Questions*

**Questions to guide the interview:**

1. How do you as school leaders collect, analyze and report data in support of the district's mission and vision?
   - Measurements utilized during the lifespan of the strategic plan.
   - Are measurements of progress within the plan formulated within the superintendent's office?

2. When setting the overall strategic plan for the District, how does data support this process? Is this different from a building perspective?
   - Do separate school buildings have distinct strategic plans?

3. How does your infrastructure (personnel & data warehousing/network) support the use of data in designing, implementing and evaluating programs or initiatives?
   - Technology staffing/their role in DDDM

4. In regards to student achievement and growth, how does the District utilize other measurements beyond the PSSA and Keystone Exams?
   - What benchmarks do you utilize?
   - Are there growth measures built into the benchmark process?
   - Do you have common assessments across grade levels and/or departments?

5. How does data support the formation of school leader's goals and what sort of data then supports the evaluation/measurement of such goals?
   - What is the duration of principal goals?
   - Do principal goals become building goals or are they unique?
   - Does this serve as an SLO for PDE's Effective Principal Model?

6. Has the District's utilization of performance data grown beyond student achievement measurements, and if so, how has this growth impacted your district both politically and from a policy/procedure perspective?
   - Have you used DDDM in measuring the effectiveness of transportation, technology, food services, buildings and grounds, and other services provided outside of learning?
   - Do you benchmark this sort of data against other similar districts throughout the state?
The advantages of a semi-structured interview are numerous within this type of grounded theory study. The semi-structured interview has specified questions but leaves the character of the response open. This format allows for interviews that are open-ended and assumes a conversational manner while permitting the interviewer to follow a certain set of questions. This format allows for standardization of questions in order to analyze responses and draw conclusions (Kvale & Brinkman, 2009). This researcher has designated an interview protocol or guide in Appendix D that includes specific information to support a system for organizing multiple interviews (Creswell, 2013). This guide not only captures specific information from the interviewee but it also provides the open-ended questions that will guide the interview (Kvale & Brinkman, 2009).

The role of the researcher in a grounded theory approach is significant. My experience as a Superintendent of Schools within the state of Pennsylvania supports my ability to speak about DDDM with experienced school administrators. An essential part of my work then is to situate my inquiry against the background of a larger analysis of culture, identity, difference, conflict, and the possibilities for learning from these unique settings (Gruenwald, 2006). The strategy is not to show that DDDM is being utilized by various school administrators, the strategy is to explain what the process of DDDM supports for distinct administrators and are their unique settings or situations that make the process unique between different administrators.

Researchers utilize different mediums to conduct interviews. Researchers must determine what medium is most practical and will yield the most useful information to answer research questions (Creswell, 2013). For this study and given the configuration of each of the nine school districts, one-on-one interviews with each school administrator in their school district yielded the most useful information to answer the research questions. The information gathered during the
interview derives from the research questions which guide the study. The interview constructs will focus on school administrator’s perceptions of DDDM as detailed through the interview questions.

The identified sample of 24 school administrators includes nine superintendents from each of the school districts utilized for the study. These individuals meet on a monthly basis at that Capital Area Intermediate Unit (CAIU, IU 15). I distributed to the group a letter describing the research project (Appendix A). This letter also contained a section for the respondent that focuses on specific demographic information (Appendix B). The final section of the communication resulted in a signed statement from the Superintendent of Schools indicating their participation in the study (Appendix C). The signed statement serve as the informed consent for those participants. Each administrator interviewed provided their consent prior to their specific interview. Informed consent is central to research ethics as a whole, not just one particular method. Informed consent seeks to ensure that participants retain their autonomy and judge for themselves what risks are worth taking for the purpose of furthering understanding (Bloomberg & Volpe, 2012).

The researcher was also aware of the human subjects’ concerns and was in compliance with the Pennsylvania State University’s Graduate School Thesis Guide (1999) under the “Use of Human or Animal Subjects in research” section. “This requirement is part of the University’s policy on ethics in research…” (p. 18) and is for the protection of the participants’ confidentiality and anonymity in the nine (9) school districts throughout South Central Pennsylvania. “Graduate students must receive approval for the use of human subjects in their research, and it must be obtained through the Office for Regulatory Affairs” (p.19). The collected data was gathered in a confidential manner from the respondents interviewed in the study. All are protected in
accordance with the University’s policy on ethics in research as well as professional codes and federal regulations that deal with social science research (Bloomberg & Volpe, 2012).

At my initial meeting with the superintendents, I detailed the foundation of the study. We discussed shared expectations about the process of the study. This discussion centered on what explicit expectations I wanted to build with study participants that will maintain and improve the quality of conclusions (Miles, Huberman & Salidina, 2013). We discussed the amount of time that will be involved for the participant. We also discussed that I would produce the products of the study. I will share study products back to the participant as the study moves forward. This process serves as a "member check" (Yin, 2014, Miles, Huberman and Salidina, 2013, Merriam, 2009). These member checks provide accuracy of descriptions, explanations, and interpretations. There is no censor or veto agreement, but all participants have an opportunity to review final products of the study. The participants will remain anonymous as will their individual school districts. The school district will be described via demographic information (Appendix F), but neither the district itself nor a specific building or school administrator will ever be identified. Specific demographic or achievement data that may serve as an identifying detail for the district or school administrator will not be communicated within the study’s findings. Lastly, I detailed the benefits of participation in the study to include potential professional development opportunities for specific administrative teams, introspective review of current data systems, and the review of utilizations of key processes within the district such as strategic planning and goal setting processes.

I have a history of service with the Pennsylvania Superintendents Association (PASA) and the CAIU Superintendent Organization throughout my administrative tenure. This service has afforded me the opportunity to develop numerous relationships statewide and specifically
within south central Pennsylvania. This rapport with school administrators served as a sound foundation to begin the interview process.

**Data Collection**

There is no particular moment when data collection and gathering begins in a qualitative study (Creswell, 2013). The pool of data includes the earliest observations and perceptions on the part of the researcher. In this case, my current position as a superintendent puts me in a position where I bring some data and background to the study before it even starts. For this section on Data Collection my focus will revolve around the techniques of data collection that will provide data sets indicative of qualitative research. These techniques are interviewing and document analysis.

The two major focuses of doing interviews are to obtain the descriptions and interpretations of others (Creswell, 2013). The interview is the main road to multiple realities and the key for building understanding for the reader and researcher. The purpose of the interview is to allow the researcher to enter into the participants’ perspective and probe issues about the participants that the researcher cannot directly observe (Merriam, 2009). Researchers cannot observe everything; we cannot observe feelings, thoughts, and intentions, aspects that are critical in emphasizing understanding, wholeness, and complexity (Maxwell, 2013).

Qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit (Patton, 2002). Researchers interview to find out what is in and on someone else's mind, to gather their stories, and finally to synthesize these experience into findings. The action/process of DDDM will not be seen the same by everyone. Interviewing provides multiple views of this action or process (Merriam, 2009). The interview is
the main road to multiple realities. Semi-structured interviews are common in this sort of
grounded theory study. It mandates focus on specific questions yet provides the flexibility to
probe and move within an open ended format always knowing that the researcher must return to
the designated menu of questions (Merriam, 2009). Semi-structured interviews provide
flexibility to pursue unique information provided by a respondent in whatever direction it
appears.

An interview protocol (Appendix D) was established for the one-on-one interviews. This
format again focuses on specific questions that remain constant, that enable the researcher to
identify general themes or strands. These themes or strands will mirror the research question
which serve as the basis for this study. This semi-structured strategy of interviewing does offer
the interviewer some flexibility in probing and in determining when it is appropriate to explore
certain subjects in greater depth, but it is critical for the researcher to follow the protocol of the
interview to provide standardization of questions thus allowing the researcher to better analyze
responses and finally draw conclusions.

Interviewing is one of the most common and powerful ways in which researchers try and
understand fellow human beings. Given the qualitative nature of this study, the establishment of
a human-to-human relation with the respondent and the desire to understand rather than explain
is crucial. This process of moving towards understanding will take a solid rapport, one that this
researcher feels is best developed with one-on-one interviews.

Most of my data collection revolved around the interview process, but I also utilized
document analysis based on responses from interviews. Data collection is about asking,
watching, and reviewing (Creswell, 2013). Some interviews provided an opportunity to review
school district annual reports, district improvement plans, strategic plans, and even specific
building or administrator goals. When these opportunities arose in the interview, I asked for the document and then later utilized document analysis to gain a better understanding of the respondents’ answers via a document review (Appendix G) that included the documents listed above.

**Data Analysis**

Data analysis strives for depth of understanding (Maxwell, 2013). It serves to combine critical data strands in a manner that builds understanding. Data analysis in qualitative studies cannot be accomplished by utilizing one technique or even one specific plan. It is an emerging process much like that of data collection. Data analysis consists of examining, categorizing, tabulating, or otherwise rehashing the evidence to address the initial propositions of the study (Yin, 2014).

The grounded theory design requires me to choose forms of data analysis that best serve the study and the reader in the quest for understanding. Theoretical propositions about causal relations such as answers to "how" questions can be very useful in guiding grounded theory analysis (Carmaz, 2006). These same propositions are what set this study's research questions and literature review. It would only make sense that these propositions would then also drive the data analysis of the study.

Theoretical propositions also lend themselves nicely to possible categories of focus for data analysis. How this relates to my study can best be explained by looking at the interview process. All interviews for this study were coded. This coding was determined as I progressed through the interviews identifying similarities and differences (Appendix E). Coding provides separate accounts that focus on specific aspects of each interview. From that data I constructed
conceptual categories that capture a recurring pattern from my participants (Appendix E). These conceptual categories are based on and directly tied to my research questions (Bloomberg & Volpe, 2012). These categories are concepts indicated by the data. The categories include quotes, notable experiences or statements and counter-intuitive thoughts or statements. In short, the categories formed the base of my study to help guide the presentation of my findings.

An example from my study would be the proposition that revolves around the use of state mandated achievement data as baseline data when utilizing DDDM in support of student learning. This proposition sets the framework for Research Question 2 of my study. It also sets the framework for one of my four distinct categories that assists in my data analysis. Under the category of AD (state mandated achievement data) I then identified four conceptual categories based on specific responses from my participants. These categories or reoccurring patterns for this proposition equated to:

- AD1 The role of state accountability data within DDDM
- AD2 References to culture of data use and who drives/leads it
- AD3 A committee structure that supports the data’s usage
- AD4 Discussions of the limitations of this sort of data.

This evolution from raw text to coding that helps define conceptual categories that ultimately result in a specific theme was a process that guided my data analysis and is shown in Figure 2.
Figure 2

Data Analysis

1. Strategic Framing of DDDM
2. State Mandated Achievement Data Serving as the Baseline when utilizing DDDM in support of student learning
3. Utilization of DDDM planning process beyond the area of achievement, culture and school safety
4. Focus on a culture of continuous growth
The categories are constructed or derived from a constant comparison of the responses from the participants. This process of category construction is data analysis (Merriam, 2009). It starts with identifying category descriptors gaining insight on these descriptors throughout a literature review, and finally constructing categories that assist in the process of comparing data gathered during data collection. Categories should reflect the purpose of the research, essentially serving as responses to the research questions.

For this study, I analyzed interview data from 24 school administrators. I then did a cross-analysis that led to generalizations or understandings in regards to the research questions. Thus there are distinct themes or generalizations when examining each category that may be similar.

Designation of categories is a key process in my data analysis. But there are several principles that are critical to good analysis that must be present in my review of data for the analysis to be sound. These principles guide my data analysis and allow me to identify categories worthy of understanding. The principles include the following: showing all relevant data; including all major rival interpretations; and bringing my own expertise to the study-priori (Yin, 2014). All three of these principles served as guides for me as I analyzed various data.

There is no particular time when data analysis begins (Creswell, 2013). Coincidentally, there is no set standard for data analysis that can be followed throughout a qualitative study. I utilized Merriam's theory of category construction for initially guiding the data analysis of this study (Merriam, 2009). I also utilized a similar theory, Stake's theory of "categorical aggregation" (Stake, 1995). In this type of data analysis, aggregation is focused on correspondence and patterns. By correspondence I am referring to consistency with conditions which absolutely occurred in this study. The process could also be described as discovering
essences with sufficient context (Wolcott, 1994). No matter how you choose to identify the process, my analysis relied on breaking down the data into chunks that prepared me for making inferences.

Once the data has been disaggregated into categories, it is critical to organize the categories to allow me to compare and contrast themes within categories and make inferences based on these themes. This process required a matrix of categories and placing evidence within such categories. From that matrix I then looked to bring the data to life for interpretation. Lastly, within this format the data can be tabulated via frequencies of specific responses or communicated events from the interview (Bloomberg & Volpe, 2012).

Frequency analyses of responses were conducted within questions contained in the interview protocol. The percentage of respondents providing particular comments or rationale to each question was tabulated. This information is presented in narrative form within the findings. Unique characteristics were examined to find if there were correlations between demographic information such as support personnel available to school administrators or years in the profession and the frequency of responses within each designated question.

**Reliability & Validity**

Reliability and validity concerns are addressed throughout the study. A number of strategies were employed to address reliability and validity of this qualitative study. Validity concerns were addressed through the utilization of triangulation. For this study, triangulation equates to the utilization of multiple methods and data sources to enhance the validity of the research findings (Creswell, 2013). Triangulation also refers to finding similar meanings for data from multiple independent sources (Creswell, 2013; Merriam, 2009; Yin, 2014; Maxwell, 2013).
In this study, that equates to 24 school administrators identified as the case sampling. Each participant is analyzed on an individual basis. The researcher then performed a cross-analysis that led to generalizations or understandings in regard to the propositions of the study. Triangulation also occurred in the examination of multiple documents throughout the study. This document analysis occurred with items such as annual reports, school improvement plans, strategic plans, and specific goal documents. What triangulation provides for this study is the ability to build different images of understanding which increases the potency of the findings (Merriam, 2009).

Member checks are another method that was utilized to address validity concerns in the study. Study products were shared back with the participant; this sharing of products provided continual checks throughout the interview itself to validate the interview process. Throughout the interview, I utilized phrases such as, "This is what I as a researcher heard you say. Is that what you as a respondent meant?" This ensures that the data was not misinterpreted because of researcher bias (Creswell, 2013). The utilization of member checks provided accuracy of descriptions, explanations, and interpretations (Bloomberg & Volpe, 2012).

The role of the researcher is another key component in assuring for valid interpretations in the study. Several of the terms discussed at the beginning of Chapter III regarding key components of qualitative research as defined by Creswell come in to play when I examine the role of the researcher in this study. Since I am currently a school superintendent with an established rapport with the identified sample, this established rapport is an important factor for the reader to take into account. Though it may signal some form of researcher bias, it also allows me to quickly assimilate within the natural setting of the participant, clearly understand the phenomena from the perspective of those living it, comfortably serve as the data gathering
instrument, and remain flexible in relation to one's own influence on the study. My history as an experienced Superintendent of Schools for 13 years and my role as a leader within the superintendent ranks in Pennsylvania are important considerations. Knowing this background should help those who read the study become aware of the lens through which all data and data analysis will be filtered (Maxwell, 2013).

Reliability is addressed in this study via the development of categories that clearly detail the phenomena through the eyes of the participants. The method utilized for data collection and flexibility of procedures for data analysis lend themselves to the development of categories that are reflective of the participants. The result of this thorough coverage of the propositions that guide the study should be the confidence of the reader in the study’s ability to build a sense of understanding in regards to the phenomena in question.

Another component that assures reliability and validity within the study is the actual timing of the study. Since NCLB recently was mothballed and ESSA was recently authorized, the concept of DDDM for school administrators is probably going to come under more scrutiny. NCLB had woven the concept of DDDM throughout much of the narrative of legislation. The expectations from that legislation were that school administrators at the building level as well as the district level would regularly make decisions in regards to educational improvement via DDDM. With that environment now being questioned by educational leaders, policy makers and the general public, the opportunity may never be better to get forthright answers from school administrators regarding their use of this concept and its use throughout their school district as our political leaders look to glean a better understanding of ESSA. All school administrators were well aware of the expectations of NCLB, but with the passage of ESSA, the discussion of data issues and limitations of DDDM may be more willingly discussed.
**Limitations**

There are also current accountability plans in place throughout Pennsylvania that tie principal and superintendent evaluations to data used for improvement. Thus, having any discussion about data with school administrators can have its limitations based on the current accountability model (Daly et al., 2013). The collegial relationship between myself and the sample population in this study does allow the participants a level of comfort to answer the questions honestly in a trusting manner free from evaluation. Participants can honestly relate their perceptions of DDDM and share where they see the concept going in their specific school district.

Having discussed the potential debate that surrounds the concept of DDDM, another possible limitation is that I’m currently a Superintendent of Schools who works on a collegial basis with the sample for this study. My own skills and bias based on serving within this role for twelve years could serve as possible limitations for the study. The researchers understanding of school leadership will certainly assist me in developing categories that are vital to the qualitative form of research, but that background as a superintendent could also serve as a limitation. This background could also serve as a limitation as I may influence both the methods of data collection and the techniques utilized in reporting findings (Fontana & Frey, 2000).

Finally, this study was limited to a sample of 24 participants from south central Pennsylvania all contained within the CAIU. This sample of respondents does have a working relationship that includes similar modes of professional development within the ecosystem of school administrators. Though the sample does have a healthy cross-section of district demographics, school administrators from this sample do work collaboratively in answering the
call of state and federal mandates such was the case with NCLB and is already beginning with ESSA. For a more complete accounting of this educational process, it would be productive for future researchers to examine a wider, more independent sampling of respondents. This multiple analysis would provide future researchers with propositions regarding the various perceptions of DDDM throughout the country.

Chapter Summary
This chapter provided a detailed description of this study’s research methodology. Qualitative grounded theory research was employed to illustrate the phenomenon of DDDM and glean specific perceptions of DDDM from a participant sample of 24 school administrators that were purposefully selected. The nature of the research questions along with the theoretical considerations that set the framework for such questions served as the guide for the study. This sort of approach is focused on developing an understanding of DDDM, the how of DDDM, from the participants’ perspective that may explain why school administrators embody different institutional practices within DDDM. Data collection methods in support of the study included one-on-one interviews along with document analysis. The data were reviewed against literature as well as various themes that emerged from the study. Reliability and validity were accounted for through various strategies, including participant and method triangulation.
CHAPTER IV

FINDINGS

Introduction of the findings

The purpose of this grounded theory study was to examine school administrators’ perceptions of DDDM and how and if those administrators are utilizing DDDM in support of continuous growth or improvement of their school system versus a compliance focus to guide the system. I believe that a better understanding of the phenomenon of DDDM allows educators to grow or evolve from a more compliant mode of DDDM to a mode based on conviction in support of student learning and improved school processes. Post NCLB, DDDM has been utilized consistently by school administrators but this utilization was often more in support of accountability from a technical-managerial approach (Biesta, 2015). There are, however, cases of DDDM utilization in support of strategic planning for continuous growth of students and school systems. Components that make up the actionable knowledge section of the conceptual framework for this study serve as specific components of this style of DDDM and represent key concepts within the specific findings of this study. Why and how did some school administrators utilize DDDM in support of continuous growth and improvement (conviction) versus why and how did other school administrators utilize DDDM to support specific compliance measures? This chapter presents the key findings obtained from 24 in-depth interviews. Those findings will
be presented via a discussion of each of the four themes derived from the findings and will conclude with a summary of the findings. Four major findings emerged from this study:

1. Participants indicated they have utilized or are utilizing strategic framing of DDDM to guide specific processes in a school district or school building. This finding certainly affirms that most administrators are utilizing DDDM. Fifteen years removed from NCLB, this is not a surprising finding but it is pertinent in that there has not been any sort of movement away from this distinct process even though NCLB was loudly questioned within the educational sectors. The process did differ dramatically based on the school district or specific school building. These unique differences will be explored further throughout the findings.

2. Participants identified state mandated achievement data as their baseline when utilizing DDDM in their district or school building while planning for student achievement. A pertinent finding in that state mandated achievement data still serves as the starting point when focusing on student achievement. The key to this finding is how the process evolves after the initial baseline examination which in isolation is nothing more than compliance to the state accountability model. The usage beyond baseline data sets the course for conviction to build a culture of continuous improvement and growth focused on supporting student learning.

3. There were limited participants that described a culture of continuous growth focused on student and staff learning within their district or school building supported via the utilization of DDDM as compared to a culture of compliance in regards to student learning. This finding supports the distinct views held about DDDM post NCLB. There are researchers that view DDDM as a technocratic concept that further reflects a neo-liberal form of governance that has closely accompanied the accountability era of education (Webb, et. al., 2009). There are also cases, some reflected within this study where school administrators are utilizing DDDM in
support of strategic processes that clearly reflect the values and needs of their entire school community. Specific achievement levels as determined by the state accountability model and specific demographic differences within school districts do influence the potential for utilizing DDDM in support of strategic processes.

4. Participants are utilizing DDDM in support of their planning process beyond the scope of student achievement, school culture and school safety. Once again, DDDM has been a focus for school administrators via NCLB since 2002. The fact that this process has now evolved into other distinct processes within school districts may not surprise most readers. What is surprising from the findings is that some school leaders utilize DDDM when describing managerial functions within their district such as transportation, food services, and discipline monitoring. But when speaking about the strategic planning process for district and or specific building improvement that usage often reverts back to a compliance based process. Once again specific demographic data is identified that inhibits the usage of DDDM in support of multiple functions.

What follows are the findings from the study with specific details that provide a deeper perspective for the reader. The product of 24 in-depth interviews serves to document the range of experiences and therein provide an opportunity for those that review the study to better understand the perceptions and thoughts of the research participants. From these findings, readers can examine the usage of DDDM from a policy perspective throughout a variety of school settings. Policies that embed DDDM as part of the managerial process within a school district where DDDM is driven by compliance measures may fall woefully short in support of students and the school community. Whereas policies or processes that utilize DDDM in support of strategic planning and purposeful focus are most often utilizing the concept in support of
conviction to the unique needs of that greater school community. Throughout the findings section of this study, the emphasis is focused on the perceptions of the participants in specific regard to DDDM and how it exists/operates/functions within their own unique setting. Quotations utilized from interview transcripts will illuminate multiple perspectives from a variety of participants that help capture some of the uniqueness and body of the subject matter. Relevant documents are noted when appropriate with interview data to solidify the rich discussion.

**Finding 1: Administrators interviewed consistently indicated they have utilized strategic framing of DDDM to guide specific processes in a school district or school building.**

The primary finding of this study is that an overwhelming majority of school administrators are utilizing the concept of DDDM in some capacity within their school district. The utilization of DDDM as defined for this study is based on the conceptual framework of the study detailed in Figure 1 on page 16. The framework depicts how school administrators may analyze and interpret data to create actionable information that can be used to make decisions. That process then moves forward in supporting district planning efforts or school wide efforts that functionally completes the cycle of strategic planning for that specific item. Data is utilized frequently in all settings of education, but the cyclical process of DDDM is not limited to isolated data usage. It is a process to support and guide district or school wide planning efforts. As such, the study identified that administrators were consistently utilizing DDDM to guide specific processes within their school district or building. Based on participant descriptions, the efforts being supported by DDDM differ dramatically in various settings. Within the sample
group of 24 administrators that were interviewed for the study, the six most prevalent processes identified as shown in Table 2 that were being supported by DDDM included the following:

1. Strategic Plans
2. Goal Processes
3. Personalized process of educating each child
4. Specific Learning Initiative
5. School Culture
6. Achievement within the State Accountability Model

Table 2 not only shows the six most prevalent processes identified by administrators, the table is a complete listing of all of the processes identified by administrators throughout the interview. In total, I have identified 11 specific processes that were addressed at some point during the 24 interviews. Table 2 serves as a frequency chart for each of the processes as it notes which specific processes were identified by each specific administrator. The Table is broken down by achievement level to provide further inspection into the specific processes that are most often utilized within school districts categorized by high, middle or low achievement. This inspection by achievement level denotes clear patterns of usage within achievement levels. The most striking pattern is the usage of DDDM in support of Achievement within the State Accountability Model and also the utilization of DDDM in support of School Culture. Both of these processes were noted almost exclusively within low achieving school districts and both processes are principally driven from a compliance perspective. When schools are identified by the State Department of Education as needing improvement, data sets commonly required by the
state to help drive planning in those schools often focuses on achievement within the state accountability model and also school culture data.

Several of the subsidiary processes were exclusively identified within high and middle achieving school districts. Processes such as Evaluation, Board Procedures and Policies, Assessments, and Human Resources. These are processes supported by DDDM that have been identified by local school districts as requiring a cyclical planning process to best serve the needs of their school community, processes focused on local conviction. These processes are not focused on chasing state test scores but more so serving the overall need of the school district and the students it services.
Strategic Planning. Participants detailed the usage of DDDM to support strategic planning as one of the specific processes that utilizes DDDM within the school district or school building. It should be noted that usage of DDDM does not address whether the concept is utilized in support of conviction or in support of compliance; it however does indicate an overall usage of DDDM that remains consistent post-NCLB.

When addressing the utilization of DDDM in support of the strategic plan, there were several specific initiatives that were being guided by DDDM that are contained within specific strategic plans throughout various school districts. As we discussed the specific usage, it became
clear whether DDDM was being utilized from a compliance perspective in support of the strategic plan or whether it was being utilized from a purposeful focus in support of conviction within the school community. One of the superintendents who clearly utilizes DDDM within his strategic planning process purposefully and not out of compliance reflects as follows:

We consistently utilize DDDM within all facets of our strategic planning model. The model starts with a needs analysis that focuses on data obtained from staff, students, families and the community. We then review that data to define clear focus areas within the plan. Once those areas are defined, we develop specific goals in support of those areas. The goals will be measured throughout the year based on their construct with data pulled together throughout the school year that will be reviewed and evaluated at our yearly administrative retreat. None of the data gathered to guide or redefine goals are specific state achievement data. We lived and breathed state achievement data for ten years. We no longer allow that sort of data to drive our plan, in fact, state achievement doesn’t always align to our mission, and thus it can’t drive it. From a DDDM perspective, that process initiates our strategic plan from a needs assessment. It guides our strategic plan as we follow specific action plans that are data-driven, and it evaluates and redraws our plan on a yearly basis as we collect data in support of goals so they can then be modified to better address our needs moving forward. It is a continuous cycle of DDDM to support a continuous cycle of planning for the district (District B-Supt).

Additional Superintendent of Schools described similar components within their strategic planning process for their districts that utilizes DDDM based on conviction and not compliance. One of the superintendents described their utilization of DDDM in support of their strategic planning process in the following manner:

The building of our strategic planning process and plan took us eighteen months. It was an arduous process with heavy community involvement and input based on the DDDM model. From the needs analysis we developed six specific goals for the District that all of the building level plans utilize as their backbone. The plan helps guide a process to measure progress within those six goal areas that include; individualization, continuous growth mindset, global education, healthy & safe school environment, diversity & unity, and relevant & authentic learning. Our progress moving forward within these goal areas is continuous and guided by the DDDM model (District I, Supt.).
Utilization of DDDM that helps guide strategic planning based on the needs of individual students and the local community, this summarizes a process based on local conviction and not state compliance. The utilization of DDDM in District I is critical to their strategic planning process. DDDM is utilized to help measure progress towards the six specific goals identified within the plan. These are goals that came about after a very lengthy engagement process with students, staff and community. These goals reflected the values of the community, and were not driven solely by compliance measures to state testing or specific state or federal mandates. It is a strategic planning process grounded in conviction and supported consistently by DDDM.

Of note, in those school districts where DDDM is modeled throughout the strategic planning process, DDDM is also being utilized for specific building goals within each district. In two of the school districts DDDM is even being utilized to support auxiliary services such as assessment plans, budgeting and human resources. This sort of utilization of DDDM certainly makes the process a part of the overall management of the district and allows districts to plan based on conviction for what is best for their students and school community in a variety of settings.

**Goal Processes & Personalized Learning.** There are other examples within the study where DDDM is utilized within a school district that can in turn assist in building a culture of continuous improvement based on a purposeful focus. Two distinct processes identified by school administrators within the study that assist in building a culture of continuous improvement are goal processes and a personalized system of educating each child uniquely. Each of these processes again manifest themselves uniquely in different districts and buildings,
but they were identified by administrators as processes that utilize DDDM in a cyclical fashion as detailed within the conceptual framework for this study.

Personalized learning was a process identified throughout most of my interviews with school administrators. This process is unique for each of the administrators that identified it via a DDDM cycle. It is occurring in high achieving districts within the study as well as the districts designated for more growth with student achievement. District H is a district designated for school improvement by the Pennsylvania Department of Education. They now have a consistent focus on trying to personalize learning via the various tools that are embedded within the district’s recovery plan as noted by their superintendent.

An additional personalized learning system for each child is being utilized in District A. This school district is unique within the sample for this study. District A is the smallest school district within the study and also has one of the highest School Performance Profile (SPP) in the study. Not only is District A the smallest within the study’s sample, but it also represents one of the smaller enrollments within the state of Pennsylvania. Due to size, the district graduates 50-60 students per year on the average. Therefore, the entire system is able to focus on each individual student and set an individualized education plan for each student. The district utilizes a DDDM model to chart progress for each student based on their yearly growth. Counselors and administrators meet with staff frequently to review data to guide the process for each child. As the student progresses through the system, they display specific strengths and weaknesses along with specific interests that may be explored after graduation. The system utilizes those interests beginning as early as 5th grade to support a structure of learning and instruction focused on their unique abilities and interests:

We know kids, not numbers. Our state scores take care of themselves because we focus on the specific child from kindergarten through twelfth grade. We are
student centered while being data-driven. The data we utilize in our model are set by the state reporting measures, but we then incorporate a process for each student to address their strengths and weaknesses while capitalizing on their specific interests. We provide explicit autonomy to teachers; it is paramount, and our achievement can then also be tied to specific teachers. So though the state accountability model does set our base line, we refuse to let it drive our process (District A-Princ).

This personalized system may be distinct due to the characteristics of the district, but it is clearly student centered and supported by a DDDM model as detailed in this study’s conceptual framework.

Another example of a DDDM model within a school district that can assist a district in building a culture of continuous improvement are goal processes at specific levels in the organization. Specific building goals were identified as a tool in support of continuous improvement. Of those administrators that identified building goal processes as a key to continuous improvement, most indicated that the goals were tied to the district’s strategic plan. Each of the administrators that identified a building goal process as a key proceeded to describe goal development and monitoring clearly aligned to the DDDM model identified within the conceptual framework for this study. Each administrator detailed a needs assessment followed by the development of a specific goal that addressed a need. Action plans were developed in support of the goal, and the goal was measured utilizing specific data sets that were determined prior to the start of the action plans. The building goal process for all involved utilized the DDDM model throughout all phases in support of a culture of continuous improvement. There were several building goal documents examined by the researcher, all focused on a specific goal, specific action planning, measurability/measurements of action plans, time lines, mid-year reviews, final data in support of the goal and future planning based upon the results. An elementary principal in
District I, a school district heavily involved with strategic planning and building goal processes that utilize DDDM stated the following:

The goal process at my level is completely data-driven and completely tied to the district strategic plan. My building essentially has a stand-alone strategic plan with two specific building goals. The components of my strategic plan for my building were collaboratively developed with my families and teachers. We’ve set building goals around what we look for when working through the evaluation process with staff and also a goal on setting specific professional learning opportunities within our building in support of our plan. So we have two goals that run for up to three years focused on teacher effectiveness and what we look for within that process and then another goal on how we support ourselves with timely and pertinent professional development options at the building level. We set specific action plans for each of these goals, and I report on them periodically with staff and our school community. Each goal has specific data sets and they serve as the basis for the reporting to my folks. I also then provide an update to central office on the status of the goals each year at our principal briefing. Again, the entire process is collaborative and completely driven by data that we set as important to the process (District I. Princ).

This sort of systemic approach to building goals supporting the district-wide strategic plan was not limited to one school district. A high school principal from District E stated the following:

We have three distinct building goals all connected to the District strategic plan. Our building measurements are tied to those goals for local reporting. The goals are essentially three points of emphasis that run anywhere from one to three years (District E. Princ.).

As discussed previously, administrators that identified specific goal processes as a key to continuous improvement, a majority of those administrators indicated the goals were tied to the school district’s strategic plan. There were, however, several administrators who indicated that goals had no tie to the strategic plan. When probed on the goal process for these administrators, the goals were described as being more isolated and product driven, not necessarily aligned with continuous improvement. These goals often supported compliance to a local initiative such as the Rigor, Relevance and Relationship program in District F. As such, the goals were solely year-long goals and measured in that manner. These goals were more compliance driven either to a
district directive or within a district that was identified within the state mandated school improvement criteria. In fact, one Superintendent of Schools who does not utilize building or department goals in their district felt that goals were nothing more than busy work and clearly existed more for compliance than conviction. In regards to the administrators above, extensive utilization of data via the DDDM model did not support the process of continuous growth but instead existed in support of a specific goal. This sort of DDDM can clearly be described as compliance driven and often can be of questionable worth to staff and students.

Within the study, this researcher identified six prevalent processes that were being supported by DDDM as indicated by nearly every administrator interviewed for the study, as shown in Table 1. Three of the processes have been reviewed thus far: strategic planning, individualization of educational plans and building goal processes. These three processes can be tied to continuous improvement work currently occurring within those specific school districts. The following three most prevalent processes discussed can be debated for their support of a continuous improvement cycle within the specific District or school building where the processes are utilized.

**Systemic Learning Initiative.** One process identified is the utilization of a systemic learning initiative that is being closely monitored/guided by DDDM. These sort of initiatives include things like 1 to 1 learning devices, programmatic adoptions, curriculum revision processes, and the utilization of nonlocal programmed curriculums. District F has a unique situation dealing with the utilization of a systemic learning initiative. In District F, a specific systemic learning initiative is being utilized to drive the strategic plan for the district. DDDM was utilized in support of this specific plan and the plan is firmly entrenched as nearly $2.3 million has been spent on the program over the last three years. The program came about via the
strategic planning process as the district was going through their needs assessment process within the strategic planning model. From that process, it became clear to the Superintendent of Schools that much of their school community felt that school was not rigorous, students and staff were not vested and the level of apathy within the District was growing. Based on this data, the district went on to complete their state mandated Comprehensive Planning Model, but as noted by the Superintendent of Schools, “it became nothing more than a compliance measure as it exists as a document that is seldom if ever used by anyone on my leadership team or by the Board of School Directors.” Instead, based on the data derived from the district-wide needs assessment, the administration began researching programs to address the needs of rigor, relevance and relationships. One specific program stood out for the District and over the course of the next three years their entire growth/improvement model has focused on embedding the program at all levels within the District. The program serves as a strategic guide for all learning and instruction taking place within the District. The DDDM cycle, as defined in the conceptual framework for this study, was utilized in defining the need for the program, in selecting a process/program to address the specific needs identified and lastly, in measuring the success/progress of the program. The Superintendent of Schools provided this researcher an update on the program and how DDDM has served to support the program over the last three years:

The Rigor-Relevance-Relationships program is absolutely more compliance driven. The size of our district dictates this fact as we have one of the highest enrollments in the state outside of the urban setting. Our District had generally evolved to the point that most professionals lived by the motto of “this to will pass.” We had been through three Superintendents of Schools in five years and we were a ship without a rudder. We needed to hang our hat on something and when our needs assessment came back so pointedly in regards to school not being hard enough and we had folks that didn’t care or didn’t know, it became clear we needed to move forward with a razor like focus. As far as strategic planning would go, this would be our strategic plan. From our perspective it touched
learning, instruction, and culture, three areas that set the tone for a school district. Over the last three years, the 3 R’s have set the roadmap for our district. We sent 900 teachers back to student teaching. It has been extremely tough work but we are not backing off because we are convinced this is what our students need to compete within a global economy. The program focuses on closed reading, reflective writing and performance tasks. We put the three of those concepts together. What more is there for an educator? So at this point we are clearly driven by one initiative and that initiative is supported by a well-defined DDDM model to monitor progress and set the need for continued professional development (District F, Supt.).

The above example illustrates the flexibility of DDDM within the educational setting. The Superintendent of Schools was clear in that the most telling data for growth and improvement will occur seven years into the above initiative. In the meantime, DDDM serves much more from a compliance perspective in this district, one that can cause anxiety and questions among staff. Much of the process to date has focused on building principals inspecting lesson plans to ensure the 3R’s are clearly embedded within their staff’s planning. Again, this sort of process can quickly move towards compliance if there is no measurable growth from performance tasks or within state measures in the very near future.

School Culture. Another process identified by administrators was school culture but more specifically, Positive Behavioral Interventions and Supports (PBIS). During the interview process with school District G, this program was identified by the Superintendent and Assistant Superintendent as a process that strategically framed DDDM to build a culture of continuous improvement. The demographics of this district have changed dramatically over the last fifteen years as their poverty level had doubled, and they have become a much more diverse school community. The district had a few isolated discipline incidences roughly five years ago and administration wanted to become more proactive in this area before it became a huge challenge. The superintendent reported that the district needed a plan that focused on bullying, diversity and tolerance. The program would focus on all students and would follow the DDDM model as all
data in regards to these three issues were analyzed and interpreted. In conjunction with the data, a team comprised of 32 educators developed actionable information that set the ground work for goals and action plans. Lastly, the group set yearly measurable data points to evaluate the effectiveness of the process and set the course for changes or adaptations for the next year. This district now serves as a model district for PBIS work and the district has evolved with the ever-changing dynamic within their community. Interestingly, in a district that has such a positive experience from a strategic process steered by the DDDM model it would seem plausible that the district would be able to replicate this process to other needs within the district. In actuality, District G has been unable to replicate the process in other areas of glaring need, and they have just hired their fourth Superintendent of Schools within the last eight years.

The PBIS process in District G is driven by two school psychologists that have vested interests in all district buildings; it is not driven by central office. There is also a stable committee of 32 professionals within the school community that meet four times per year to review PBIS data points and tweak existing goals as necessary. This district was actually identified by the state in 2014 as one of the lowest 15% in achievement state-wide, and thus their students were permitted to utilize the Opportunity Scholarship Tax Credit Program to attend other public school districts. As this researcher interviewed the three administrators in this district, the confidence that all three had in their process for PBIS was evident and consistent, and how data drove and continues to drive that process was a clear theme with each of the three administrators. However, two of the three administrators were equally troubled by the lack of progress within other areas in the district including student achievement:

Beyond PBIS, there is no formal process in place to address curriculum, student achievement and other district initiatives. Right now, we are very “helter-skelter.” In fact, we are essentially playing a shell game driven by state compliance. We made some structural changes to try and get us off the lowest
15% list and those changes achieved that in two years, but we’ve done nothing systemically to address the needs of our students. We have no systemic process in place for curriculum, assessments and in general, expectations for instruction. We have flourished with healthy diversity via PBIS and the utilization of the data obtained within that planning process, but we haven’t grown the will to apply it in other facets of our district. Essentially we are perpetuating a patchwork systemic process with absolutely no strategic thinking (District G, Asst. Supt.).

**Achievement within the state accountability model.** The final process identified by administrators interviewed detailed the usage of DDDM as guided by achievement within the state accountability model. Interestingly, most of the administrators that responded in this fashion represent the three lowest performing districts within the study as measured by the School Performance Profile (SPP). In fact, two of the districts are in the school improvement process as designated by the Pennsylvania Department of Education and are working with a state appointed chief recovery officer while the third district was designated in 2014 as one of the lowest 15% statewide in student achievement. Within these three districts, it is clear that planning for student achievement is clearly driven by the state accountability model. Though each of the Districts report utilizing DDDM in support of student learning, in all three cases it was difficult to find evidence of DDDM as detailed within the conceptual framework for this study. Instead, DDDM was being utilized much more for compliance purposes as there was no consistent use of periodic data to drive the planning process for student achievement. Planning for student achievement was based on state collected data sets that rarely if ever are disseminated to school districts in a time frame that supports continuous growth planning.

The two District’s designated as School Improvement Districts are both struggling with utilizing DDDM in support of continuous growth. District C is also on the state’s Financial Watch list and thus has state involvement from a financial perspective as well. The interviews conducted in those two school districts were unique. District C is absolutely locked in a
compliance mode with the Pennsylvania Department of Education providing customized, direct assistance. District C has significant challenges when it comes to local strategic planning supported by DDDM as the District has been through six Superintendent of Schools in twelve years and an astounding 53 principals and/or assistant principals in twelve years even though there are only seven such positions within the District. One example of the dysfunction that can arise when there is such a lack of consistency and administrative ownership at the local level was detailed in the interview with a current principal in District C. As part of the support provided by the Pennsylvania Department of Education, the high school was informed two weeks prior to the start of school that their current student schedule did not support the specific literacy needs of their students. The schedule was mandated to be rewritten to include a ninety-minute literacy block of reading for all students. This was to be accomplished with the current staff and current teacher certifications on staff. In short, the building was completely ill-equipped to service such a schedule and the staff came back to school not nearly ready for the significant change. These sort of challenges happen all too frequently in District C as reiterated by their high school principal:

We seem to always be playing catch-up when it comes to our planning and programming. We base all growth measures on student achievement, and we don’t get those scores until mid-July. By that time, our staff is out of communication. They come back to us in late August, and we have to review and reemphasize our culture data to ensure we have a safe and healthy learning environment. Any achievement data we utilize is nothing more than an old picture. It feels like a merry-go-round and this is only my second year in the position (District C. Princ.).

District H, though locked in a similar support mode from the Pennsylvania Department of Education, is going about trying to build local capacity via strategic planning and utilization of DDDM in support of local initiatives based on the unique needs of their students. District H is attempting to build some local control by utilizing the state recovery plan as a guide but clearly having the final plan written at the local level as detailed by the Superintendent of Schools.
Progress within the plan is measured through a local DDDM process built around benchmark progress and growth within PBIS. Each building has a strategic plan focused on improvement and growth that aligns to the recovery plan. The Superintendent of Schools meets every two weeks with principals in regards to their specific plan that is clearly data-driven. This researcher was provided two unique documents that guide meetings with principals, one that focuses on the principal’s action plan and one that is structured as a progress monitoring tool for the entire building. Each building within the district has designated data teams that consistently review benchmark data as well as PBIS data. In short, the district is trying to strategically plan for a model that supports continuous growth while utilizing DDDM in support of the plan. To date the largest challenge with the process has been a 92% turnover in the teaching staff since 2011, and no principal having more than two years of experience as a principal within the district. Essentially, the ability to maintain a stable workforce is necessary to carry out strategic initiatives. The Superintendent of Schools from District H sums up her frustration in the following manner:

We continue to do great work from a strategic thinking and planning perspective. Our challenge is consistency. We’ve turned into a training grounds for districts around us as the challenges faced by an urban school district can wreak havoc on personnel. Each of our buildings have a unique strategic plan focused on improvement and growth that aligns to the Recovery Plan. I meet with principals individually every two weeks to review progress towards that plan, and I know we are making progress. We just need some continuity and stability (District H. Supt.).

In summary, Finding 1 reinforces that school administrators are utilizing or have utilized strategic framing of DDDM to guide specific processes in a school district or specific school building. This finding is relevant for the study in that an examination of how and why DDDM is utilized by administrators post NCLB would be less than useful
if DDDM was not currently being utilized by school administrators. Documenting that use and then detailing the specific processes that are supported by DDDM provides the basis for a more thorough examination to build an understanding of how and why DDDM is utilized. Unique characteristics such as administrative turnover, state intervention, teacher turnover and specific achievement levels provided unique challenges for those specific administrators utilizing DDDM. These challenges often brought to light the distinct limitations to a DDDM model within these specific settings and clearly aligned with my conceptual framework for the study and the designation of limitations to DDDM that can sidetrack the process and make it a much more technocratic approach focused on compliance. Within my sample, data gathered in relation to Finding 1 indicates that DDDM can support a planning process based on conviction but also that utilization may occur that merely comply to state and federal mandates?

Finding 2: There was consistency with administrators interviewed that identified state mandated achievement data as their baseline or starting point when utilizing DDDM in support of student achievement within their school district or specific school building.

Post NCLB federal mandates set strict requirements for states in designing, implementing and reporting on specific state accountability models. Fifteen years later, it may come as no surprise that many of those interviewed for this study utilize these state determined reporting areas as critical components within their DDDM process when planning for student achievement. Specific thoughts from administrators are reflective of the majority of the administrators regarding the role the state mandated/prescribed accountability model plays within the usage of DDDM in their respective districts or school buildings:
Our state scores in all of the mandated test areas grades 3-8 on the PSSA and then the three Keystone Exams set the basis for our utilization of data within the planning process around student achievement. It serves to guide our review once the scores come back to us by mid-July (District E, Supt.).

The state accountability model just sets consistent collection tools for achievement, it doesn’t have to go beyond that role. In essence, it sets our baseline, it does not guide anything including DDDM beyond that point (District G, Supt.).

Even more telling is that of the administrators who identified state mandated achievement minimally serving as the baseline in planning for student achievement, most pointed to state mandated achievement scores as the overwhelming driver of DDDM in support of planning for student achievement. This takes student scores on a state standardized tests to a different level in those school districts represented by the administrators that indicated such. Within these settings, state mandated achievement scores are a vital cog within the DDDM model that helps guide the planning process for student achievement. Of those school districts represented within this group, both District C and District H are in the school improvement process as designated by the Pennsylvania Department of Education, and District G was designated as one of the lowest 15% statewide in student achievement. Lastly, District F has one of their high schools on the state identified school improvement list. The principal from that high school was one of the administrators who indicated state mandated achievement scores as the overwhelming driver in support of planning for student achievement. Thus a significant number of the administrators who identified state mandated achievement scores as the overwhelming driver of DDDM in support of planning for student achievement are employed in the four school districts identified above. Specific thoughts on the process within those Districts include the following:

- Our planning model for student achievement that specifically utilizes DDDM is based solely on the state system for student achievement. It is a cyclical process
that utilizes embedded benchmarks within specific programs endorsed by PDE through the school improvement protocol. Thus we look at year end scores, utilize state support in planning for growth and then monitor and react to growth or lack thereof through the benchmark process throughout the year (District C, Supt.)

- The district recovery plan is explicitly focused on state measures of achievement. We have a multi-tiered data support structure all based on state reporting requirements embedded within our DDDM model (District H, Supt).

- The state accountability model completely drives student achievement planning via DDDM. Often it functions as a “post hoc” process for student achievement (District G, Asst. Supt).

- The state accountability measures set the basis for schools in our district, but not the overall district plan. My building is designated by the state for school improvement. As such, we have a specific plan, supported by a local school improvement team that utilizes DDDM consistently in support of our plan that is mostly focused on student achievement though there is some school culture data and planning included within the plan (District F, HS Prin).

The above excerpts serve as examples of the kind of text that indicated a compliance mindset. These are administrators working in districts where the initial state mandated data drives the planning process. State reporting serves as the end all when gauging student learning.

Interestingly, the remaining administrators who identified state mandated achievement scores as the overwhelming driver in support of planning for student achievement are found in two of the smallest districts within the study. District A is a high achieving small district and District E is an average achieving small district. In both Districts, the construct of the central office only includes the following educational positions: Superintendent of Schools, Special Education Supervisor and Technology Director. There are no Assistant Superintendents or Directors of Curriculum and Instruction to support the planning process for student achievement. These two positions are found in each of the middle and large size districts within the study.

When it comes to reviewing and planning for student achievement in Districts A and E, those duties reside with the Superintendent of Schools and the building principal. Both superintendents within these districts indicated that not only does state reporting drive data collection on almost
all fronts including student achievement, but also the tools made available by the Pennsylvania Department of Education in support of the student achievement process are the tools utilized by both districts when the need arises:

   We are not staffed in a manner that allows us to devote specific central office administrators to the concept of student achievement. It truly is a shared process between myself, our building principal and our teachers. There are very few surprises that come up from an achievement perspective but bringing forth a change based on specific data is not always easy as I have so many other functions beyond student achievement (District E, Supt).

   The building principals within both districts echoed similar thoughts as the principal from District A stated, “we are completely driven by the state’s achievement measures.” The principal from District E reaffirmed, “state tested areas set the stage for our strategic thinking in the building and then serve as measurement guides as we progress through the process.” Both districts cite their lack of administrative support due to limited numbers as a major reason that they are clearly focused on state tested teachers, and both school principals felt they needed to do a much better job with all staff in support of the overall educational experience of all students. From a student achievement and student learning perspective, each of the administrators from these small districts noted they are clearly compliance driven when planning for district-wide student achievement and given their structure, they didn’t anticipate that changing in the near future. Both of these excerpts serve as examples where both compliance and conviction exist based on the capacity of a limited number of administrators to guide strategic framing.

**Those who did not identify state mandated achievement data as baseline.** The overall finding is that administrators identified state mandated achievement data as their baseline when utilizing DDDM in support of student achievement in their school district or specific school building. There were however some outliers to this finding. This provides the opportunity for this researcher to examine closely those who did not identify state mandated achievement data as
their baseline data when utilizing DDDM in support of student achievement in their school
district or specific school building. A limited number of those interviewed indicated that state
mandated achievement data did not serve as the baseline for their District or specific school in
support of student achievement. Looking at those specific administrators, three come from the
same District.

District B is a middle sized district with a high achievement rating. For this study, the
administrators interviewed included the Superintendent of Schools, the Assistant Superintendent
for Instruction and Learning and an elementary principal. All three administrators where directly
probed when they each responded that state mandated achievement data do not even serve as a
baseline for student achievement planning in their district or school building. The three
administrators consistently described a system that measures progress towards a district and/or
building mission. This progress is clearly embedded within a DDDM model and is measured via
local curriculum performance tasks and through district and building level planning discussions.
The superintendent went on to state that, “We lived and breathed state driven achievement for
ten years here. Where we are at now, it does not align to the mission of this District.” The district
has built much capacity within their own internal accountability model that is directly set by the
mission.

The district-wide process of mission-driven performance tasks built within local
curriculum is consistent at all buildings. Each building has flexibility for specific planning in
alignment with the district mission through their specific building goals process. The elementary
principal interviewed in District B made the following observation:

The state accountability model does not drive our building plan in any way
shape or form, and it clearly does not define what we measure in our building in
support of that plan. Our process is driven by local benchmark data around
achievement and other various school measures. Collaboration within our entire
staff is key to reviewing progress towards specific performance tasks. Teachers collaborate weekly on progress towards our specific student achievement performance tasks in ELA and Math. We got the time to do that in our last Collective Bargaining Agreement, where we set aside 60 minutes per week after school for staff collaboration on various performance tasks. The tasks need to align to the District mission, but they can branch off and support a specific building goal that is part of our building mission. We have a specific building improvement committee and data committee to help set the agenda for each week’s collaboration session (District B, Elem. Princ.).

Every year the entire administrative team gathers for a three day summer retreat to review progress in all buildings and within specific departments represented on the team. They work through the specific initiatives defined by the over-all District plan and then set expectations/focus for the upcoming school year. From that process, each building principal then refines their building goals as necessary. In short, the process utilized by District B follows the exact sequence set forth within the conceptual framework for this study. The leaders within District B analyze and interpret data to create actionable information that can be used to make decisions. Those decisions then support district-wide and specific school planning efforts. Data is collected throughout various points of the process to make adjustments with yearly data helping set the focus for the upcoming school year.

How did District B initiate this process without specifically utilizing state mandated student achievement data? It needs to be noted again that District B is a high achieving district and has been such for the last five years. Prior to that, they were an average achieving district as scored by the state accountability model. For the ten year period where the district was average in student achievement, their DDDM model was absolutely based on the state defined accountability measures. As the district developed a clearly defined instructional and literacy model, the district leadership felt it was time to allow specific needs of the district to drive their mission and not the state accountability model. The Superintendent of Schools approached the
Board of School Directors for support in establishing a more localized accountability model in support of their district strategic plan. The superintendent felt that if “state scores would take care of themselves. It was time to get outside the box.” The Board of School Directors charged the superintendent with “bringing the new District mission to life.” This mission now sits in front of every member of the Board of School Directors at each of their meetings in a small frame at each of their respective seats. The Superintendent of Schools describes the process of moving towards a mission-driven system as “going from a pipeline to a platform.” The old model based on the state accountability model was clearly a pipeline that followed a specific trajectory. The current model is based on personalized learning for students and staff built around options given to both students and teachers which better serve the needs of the greater school community. Thus the school community within District B is a lower need, higher achieving district and their notion of “accountability” as a consequence is much more focused around accountability to community rather than state testing mandates.

District D is also a high achieving district that does not utilize the state mandated accountability data as their baseline for student achievement planning. Unlike District B above, District D has been a high achieving District since the accountability model was adopted in 2002. In fact, when asked about student achievement within the state accountability model, a middle school principal responded, “I get little to no input on student achievement on the PSSA or Keystones from our community. It’s not that they don’t care about achievement, they clearly do. They just are not caught up in the state accountability model”. The Superintendent of Schools stated, “Most state data is utilized at the district level for finances and not at all for achievement as we are a high achieving district.” In regard to state data as a whole, the superintendent did not
discount the fact that state data is utilized, but it is rarely if ever utilized in support of student achievement:

State achievement data in our district takes care of itself. This data now allows us to better look at equity and examine our Return on Investment (ROI) for various student sub-groups. Data disaggregation has grown as our poverty numbers have increased but our achievement has remained prolific when compared state-wide. We absolutely utilize a DDDM model for planning, but we are spending a majority of our time within that model looking at how we utilize resources in support of our ever-changing demographics (District D, Supt).

The Assistant Superintendent in District D stated that, “state data has a spot, but it clearly doesn’t drive our student achievement work. It really never has in my twenty-four years in the district.” So though the state accountability does not drive the district’s work with student achievement, they are clearly in a building mode to develop a specific system that does guide this process. The Superintendent of Schools is only in his third year in the district, and they have just completed a new strategic plan that the superintendent hopes to drive this planning process. In fact, the Assistant Superintendent who has been employed in the district for his entire 24 year career stated, “The strategic plan now matters.” Within the plan there is a strong reliance on the DDDM model to help guide various processes, but it is far too early to gauge the effectiveness of that action.

The final set of administrators who identified a more dynamic process of DDDM not based on the state mandated accountability model to set the baseline for student achievement was District I. Of note in District I was that two of the administrators interviewed felt that the state accountability model did not set the baseline for their work with student achievement but one administrator in District I said that the state data clearly set the baseline. The administrator that indicated that state data set the baseline was the Assistant Superintendent of Learning identified by his Superintendent of Schools as the Chief Academic Officer or “compliance man” for the
District. The Assistant Superintendent was clear with his thoughts as he noted that the state data absolutely sets the baseline but that is where its value stops. He went on to state that, “the current state data is not necessarily used to inform but it does help compel discussion.” All data flows through his office and he described that process as not what he envisioned six years ago when he took the position as it often pushes towards state compliance on his end of the spectrum. He did note that his position within the administrative team was the only position that utilized state data in this manner and that all other positions could clearly focus on their conviction for what is best for the students and their school community.

The Superintendent of Schools and one of the elementary principals in District I described a more fluid process of DDDM that utilized multiple data sets in support of student learning and felt as if state data had little to no effect on their planning process for student achievement:

- The state accountability model has little to do with our planning process. In essence, it just sets consistent collection tools for achievement, but it does not serve as a baseline nor does it guide our plan for growth or improvement. In fact, in our community currently, the sort of data collected by the state often becomes the kiss of death as my community is much more interested in what is best for our students locally. My Assistant Superintendent that has to live within the state model to ensure our compliance has the unique balancing task, but he rarely if ever quotes state data when making presentations to our Board or the community as a whole. Instead, we focus on local performance tasks to drive our process and the assessment of those tasks drive our yearly measurement of the district strategic plan (District I, Supt).

- The state mandated accountability model helped build a sense of urgency in my building seven years ago when I took over as principal. Now, with a clear scope and sequence in place for reading and math, our process for measuring achievement and more so success is much more qualitative in nature. We focus our data collection locally on various school culture items and building the love of learning. It is not that state scores have gone away, but we feel if we turn kids on to loving school and we provide a nurturing environment for learning, then the state scores will take care of themselves (District I, Elem. Princ.).
Finding 2 illuminates that most of the study’s participants had identified state mandated achievement data as their baseline when utilizing DDDM in their district or school building while planning for student achievement. This is a basic summary of the finding. The significance of the finding is found within the unique characteristics within those school districts that identified this data as their baseline and then also those that don’t utilize state mandated data as their baseline. Administrators that identified state mandated achievement as their baseline data were employed in either one of two distinctive school districts, school districts identified by the state as needing improvement with student achievement or a school district that was identified as a small enrollment district for this study. Those administrators working in a district deemed as needing improvement utilized the state data as their baseline and then also utilized the state model throughout their improvement efforts, a model clearly based on compliance. Those administrators working in very small districts where the Superintendent of Schools and school principals were really the only administrators that managed student achievement found themselves utilizing state data since their system did not support or have the capacity to support utilizing local data to drive their growth process. These small districts still showed very strong student achievement, but their data processes were clearly driven by the state mandated data. Lastly of significance were the findings from the administrators who did not utilize state mandated achievement data when strategically planning for student growth and achievement. These administrators were employed within districts that had high or above average student achievement via the state measures. Their communities did not value the state data near as much but instead were far more vested in a process of local control where achievement is measured via local
performance measures and local data. Within these settings a process for continual growth is being identified and supported by DDDM based on conviction to their students and school community.

What accounts for this variability within the study? I believe the variability is a result of the onerous nature of state accountability models that are very prescriptive for districts that fall short of state achievement thresholds. As a result of falling short of the state achievement thresholds, the three lowest performing Districts in my study were thrust into specific improvement interventions as directed at some level by the state Department of Education. You couple that very prescriptive process that is generic to individual school districts and students, and factor in the lack of continuity that exists with administrators and you have a system that is chasing scores on state assessments on a yearly basis. This process is not based on the individual needs of students but rather functions as nothing more than an exercise in compliance to a state identified improvement process.

Finding 3: A limited number of administrators interviewed described a culture of continuous growth focused on student learning within their district or school building supported via the utilization of DDDM as compared to a culture of compliance in regards to student learning. Those that described this sort of culture were all in high or average achieving school districts.

Following the passage of NCLB in 2001, there was a renewed focus on student achievement and specifically on student achievement within specific student sub-groups. DDDM was often cited as a method or process to help school districts or specific buildings focus on achievement. DDDM could and does serve minimally in that capacity, but for this study, DDDM
as detailed within the conceptual framework was identified as a cyclical process that when applied to student achievement and learning looked at the interpretation and analysis of data to move towards actionable knowledge that eventually supported district and/or school wide planning efforts. The final finding from this study focuses on school administrators who clearly identified this cyclical utilization of DDDM in support of planning within their school district or school building for student learning. Via the semi-structured one-on-one interview process with each administrator and accompanying document review when pertinent, these administrators described a process in support of student learning based on setting goals and assessing progress towards goals that addressed specific learning needs. Within specific goals, action items were identified to address needs, and those needs were then reassessed to see if they were being met. Resources, both human and capital, were allocated in support of the action items to move towards a desired outcome. Benchmark and end of cycle assessments were utilized to enhance the process, assess progress towards the goal and also shape future goals. In short, utilization of a DDDM model to help guide a perpetual strategic planning process in support of student learning.

**In support of student learning via conviction.** It should be noted that when discussing this process with each of the 24 administrators interviewed, every administrator identified the use of data to support student learning. What was unique for those administrators identified within this finding was their ability to articulate a process of data utilization in support of specific goals focused on student learning, a DDDM model in support of learning and achievement. Some of the key terms communicated by these administrators include building goals, district strategic plan, distributed leadership, benchmark assessments, articulation across grade levels and/or departments, and student engagement. These terms will be prevalent as this researcher details the DDDM process as defined by each of the administrators identified within this finding. For the
purpose of examining the specific DDDM model utilized in support of student learning by each of the administrators identified, the information will be reported by school district as in all but one case, multiple administrators from specific school districts are utilizing a DDDM model in support of student learning.

*District A*- District A is a high achieving district with a very small student population. Both the superintendent of schools and high school principal identified a DDDM model supporting student learning within their District. The superintendent described a process that focused directly on each individual student. This process is made possible in District A partly because of its extremely small enrollment in which they graduate between 50-60 students per year. Thus within their K-12 environment they currently enroll roughly 770 students total. They maintain a consistent focus on every student’s strengths and weaknesses throughout the system. There is weekly articulation across grade levels and within departments about students and benchmark progress. Their yearly course schedule at the secondary level is adapted to the needs of their specific students. If they need to “double-up” on a specific core course to support students, then the schedule is adapted to support that need. It is a system focused on delivering an individualized learning path for each student that can then be assessed against the accountability model articulated by the state. The superintendent of schools from District A articulates his thoughts in the following manner:

> We individualize the minute they walk through our doors in kindergarten. It is almost a one-room school house concept based on the specific needs of our kids. We have consistent discussions on benchmark assessment results, and we program students based on their progress towards that benchmark. At the end of each quarter, we review each of the grade levels with the principal, counselor and teachers within that building. We then tweak whatever is necessary moving forward either from a remediation perspective or an enrichment perspective. We meet at the end of each year over the course of two days as a building, and we review achievement progress for each student. We then define a question or two for each student. When we get back together for two days prior to the start of
school the next year, we work towards those questions. It is a very deliberate, cyclical process focused on kids with all stakeholders within the district. We are compliance based on specific state standards, with a strong conviction to supporting graduation from a school where your experience has been personalized (District A Supt.).

The high school principal in District A describes a similar process within her building. The focus of the high school is maintaining what is currently delivered in a manner that meets the individual needs of each student. Autonomy of teachers is encouraged and critical to the success of each student and the building as a whole. This autonomy however does not dissuade a culture of distributed leadership within the building which is clearly present. Teachers are encouraged to take chances to best meet the needs of students. When asked about building goals and strategically planning for student learning, she responded as follows:

We know kids, not numbers. We follow a personalized process the minute they walk through our doors. We are student centered while being cognizant of individual benchmark scores and year end scores. We review each student at the end of the year within the three state tested subjects to ensure they are making progress so we can as quickly as possible get them beyond their Keystone achievement threshold. We emphasize each student’s individual interests throughout their secondary experience, and once they get beyond the Keystone assessment, their personalized plan focuses solely on their individual interests. It is very much a pathways driven process with checkpoints along the way and with deliberate progress monitoring at the end of each year to drive planning for the next school year (District A, HS Princ).

Both the superintendent of schools and high school principal in District A describe a process for student learning and achievement that utilizes a DDDM model to continuously support a plan for growth for each building within the district (high school and elementary) and overall district growth. The cyclical DDDM approach is based on the premise of individualizing the educational experience for each student K-12 while utilizing a systemic process to gauge progress and set future learning goals. This process, though grounded upon state assessment scores as a baseline, is clearly driven via conviction to the growth of every student they service.
The small enrollment of the district supports this individualized focus but that same size also necessitates the utilization of the state accountability as their baseline data for student achievement. The superintendent noted the multiple duties that fall on his desk within a small school system. So to integrate a local assessment system to serve as their baseline is very impractical as they don’t have the personnel or capacity to support such a system.

_District B-_ The DDDM process in District B is unique when compared to other districts within this study. The administrators in District B interviewed for this study all described a clear DDDM model in support of student learning. District B is a high achieving school district within this study and throughout the entire state of Pennsylvania. The district has a relatively average enrollment with a graduating class of roughly 300 on a yearly basis and a K-12 enrollment of 3900 students. As noted earlier in the study, the superintendent of schools stated that the district “had lived and breathed achievement data for ten years. Where we are now, that data doesn’t necessarily align to our vision”. The district is now clearly driven by the vision and mission developed via their collaborative strategic planning process.

The superintendent in District B describes a district that is driven by their mission. The administrative team and Board of School Directors work collaboratively in support of student learning as driven by their mission. The district has built a strong internal value on local accountability, and their planning process reflects that sort of accountability. The district stresses the importance of teachers having the ability to innovate and not allowing the current teacher effectiveness model mandated by Pennsylvania to negatively impact a teacher’s desire and need to innovate. The district is strongly committed to an instructional coaching model at all levels throughout the district. This model allows the district to be collaborative yet consistent when
planning for student learning and achievement. The superintendent describes their planning process for achievement and learning in the following manner:

Test scores will take care of themselves; we are more concerned with bringing our mission to life. We intentionally ask each of our students throughout our system, “How does the school district mission impact me as a student?” We clearly defined our needs in a shared process with our school community and from that process we set six specific strategic planning goals to guide our progress and to address those needs across our district. From a student learning perspective, that process focused on designing performance tasks aligned to our overall mission for each of our subject areas K-12. To date, we have designed those tasks for 30% of our subject areas. It is hard work, and it takes time. We expect to have those tasks in place for all subjects by the end of the 2018 school year. But it is a cyclical process, so each summer every one of our departments and grade levels will review the tasks and chart progress. If needed, we will adapt those performance tasks. That entire process is based on the Backwards Design Model. This sort of planning never stops; it makes us all lifelong learners. Each year at our administrative retreat, we review our progress in support of our district mission. From those data sets, we then identify three focus areas that guide our yearly goal setting at the district and building level. We utilize the REP (results, evidence, plan) model to guide this process. Once we adjourn our administrative retreat, our building principals meet once a month together with our instructional coaches to review progress towards our two yearly district common goals and also progress towards the one unique building goal. We have moved from a process to support student learning that functioned as a pipeline to one that now functions as a platform. There are multiple ways for our students to meet the various performance tasks set for them as learners. The possibilities are limitless (District B, Supt).

The superintendent describes a planning process supported within a DDDM model. District B has mobilized their school community and all professionals in support of the process. There is consistent distributed leadership in support of the district strategic plan as well as the yearly goals. Student learning is becoming more of a shared process with teachers serving as curators guided by performance tasks that provide multiple learning options for learners. The level of student engagement as measured by administrators and instructional coaches has increased throughout the process and with that, student achievement continues to rise.
The assistant superintendent in District B provided much of the same feedback when discussing their DDDM model in support of student learning. She feels the system has “lit a fire” for their entire educational community. They now have a process in place to support authentic and relevant assessments that align to the district’s strategic plan and that supports personalized learning for all students. A document that detailed the entire district process was shared. It was entitled, “Schooling by Design.” The document defined the systems in support of learning and the various inputs and outputs that derive from the system. Based on that design and in support of the district mission, the leadership team sets three areas of focus each year at their summer retreat. Those focus areas then guide building planning and building goals. The assistant superintendent noted the following:

All measurements beyond the state standards are aligned to our strategic plan, and that is really what has driven our district for the last two years and will continue to drive it long into the future. We have a systemic process for building walkthroughs once a month by the entire administrative team. We are looking at student engagement and progress towards specific building goals. We’ve also incorporated teacher walkthroughs once a month in each building so our staff can see what is happening outside their building and note the level of student engagement throughout the District (District B, Asst Supt.).

The final administrator interviewed in District B who clearly articulated a DDDM model was an elementary principal. He consistently described the district-wide process as communicated by the superintendent and assistant superintendent, and he went on to describe how he has personalized that process in his own building. His building has a stand-alone strategic plan that helps bring the district and building mission to life. He described a building that has become very performance task driven which in turn has individualized the learning process for students. His building utilized numerous benchmark assessments to determine where students are in their learning and help teams of teachers program for remediation or enrichment. The focus at the elementary level remains literacy and love of learning but the way those are
measured over the last few years has changed dramatically. He discusses that evolving process as follows:

Years ago we were so focused on test scores that we continually assessed children via benchmark assessments that were programmatically driven and aligned to state testing areas. That tight alignment and consistent inspection of instruction to support it caused our achievement to rise, but as a school community, we felt we were disengaging our children and taking the joy out of learning. Two years ago via the district strategic planning process, our school community collectively changed our focus. We are now mission focused on what we believe to be best for the students of our district. Our test scores haven’t dipped, and we aren’t using any less data in support of our process. We are just using different data in support of our local process. We still do benchmark assessments and our major focus remains literacy, but we are trying to knowingly focus on creativity, collaboration, critical thinking and communication. As a principal, I’ve grown from being numbers driven to being heart driven…I love what I do and so do my teachers. We continue to utilize data but that process is much more collaborative and less threatening. It focuses on supporting growth and personalizing learning (District B, Elem. Princ).

As noted by the three administrators from District B, when describing their planning for student learning, they are clearly being driven by the conviction of what is best for their school community and not compliance to the state accountability model. The DDDM model in District B supports a strategic planning process that focuses on bringing the district’s mission to life in all settings. DDDM supports the entire process, but it is not a technocratic process that limits the professionalism of staff and joy of learning for students.

District B has reached this level of conviction by engaging administrators, teachers, school board members and their community in a process of mission development that reflects local values and needs. It is critical to note this is a low need, high achieving school district with a healthy tax base. The school community understands the importance of relevant data in support of their planning and consistently utilizes DDDM in support of that planning process. Can that same sort of planning and leadership be accomplished in a high need, low achieving school district?
District D- The situation in District D is also unique when analyzing its process and commitment to continuous growth focused on student learning. District D is another high achieving district with a large enrollment that graduates roughly 700 students per year and has a total district enrollment of nearly 9,000 students. What makes District D unique within this study is when the researcher interviewed the superintendent, assistant superintendent and a middle school principal, only one individual articulated a culture of continuous growth focused on student learning within the district, the superintendent. The assistant superintendent and middle school principal clearly valued student learning and were very proud of the district’s accomplishments to date, but they did not describe any clear system of planning in support of learning that utilized a DDDM model. The building goals process is just getting formalized and there is no real collaborative process in place in support of the goals. The superintendent will be entering his third year in the district in that role, and he communicated a planning process for student learning that utilizes a DDDM model in support of the process. This process was shared and utilized with the Board of School Directors this year as they built their school district budget. But from a student learning perspective it is at this point understood and utilized by the superintendent with utilization being built for other administrators in years to come. Thus a continuous system of planning in support of student learning that builds collaboration between staff and community that utilizes DDDM is not in place currently in District D. The reason for the absence of this process is clearly timing. The current Superintendent of Schools has only been with the district for three years and he has built this process in isolation with his Board of School Directors. One of the next steps he identified with this interviewer was to generalize a similar process to his administrative team and community.
The process in District D revolved around the utilization of student learning and achievement in examining fiscal decisions for programming and staffing. This process was handled by the superintendent and business manager and thus has not been generalized throughout the administrative team. The superintendent is well aware that for the process to drive planning it will need to be incorporated throughout the administrative team or there will be little to no distributed leadership in support of the planning process. This will probably result in limited goals and awareness at the building level. The superintendent described where the district currently sits when strategically addressing student learning in the following manner:

As a traditionally high achieving district with a school community that only relates to high achievement, our focus on the systemic process of student learning is just beginning. Our district is accustomed to high achievement. Since the state accountability model began in the early 2000s, we have been a high achieving district. It is what I would call accepted practice. There is no sense of urgency. I came with a vision of setting a strategic organization focused on growing our achievement but what I initially found was a district that was completely driven by specific departments, and their mode of operation was to add staff in support of more course offerings for mostly our very high achieving students. Frankly, this model had worked for them and there was no real review of all students and what each could accomplish. I quickly realized that I needed to first develop a system that focused on the entire district and provided communication mechanisms between the silos that were built in each academic department. I then utilized our current benchmark achievement data to show the disproportionate amount of money spent on high achievers versus that of low achievers. Our budget process with the Board this year focused on that inequity and we are now cued up to bring this challenge to life for all buildings via a building planning model. We aren’t nearly where we need to be yet, but the challenge has been identified. There is a consistent sense of urgency and we are now perfectly suited for deliberate planning process focused on building goals that are unique to our student population. We will grow (District D, Supt).

Though certainly not the entrenched process observed in some of the other districts identified as using DDDM in support of student learning, I noted an identifiable DDDM model that was utilized to help clearly articulate needs between the superintendent and the Board of School Directors. The next step in the process is including the remainder of the leadership team in the process of planning at the building level to address the defined needs.
*District E-* The first three districts discussed within this finding were each high-achieving districts. The next district identified as utilizing DDDM in support of student learning is an average or middle achieving school district as defined by their SPP score. As was the case with District D, the Superintendent in District E had also just completed his second year in that role and much of the process he identified for me was in year one or two of implementation. District E is a small district with a graduating class of roughly 80 students and a total K-12 enrollment of 1200 students.

The superintendent detailed a system of building goals that were based off the district strategic plan. Each of the three building principals is required to have three building goals. One is a common goal across the three buildings and is identified as a district goal. Each principal is then responsible for two distinct building goals that are multi-year goals. District E is a flat organization in that there are only four administrators and each reports directly to the superintendent. Thus the five administrators that make-up the administrative team collaborate consistently on their goal process in support of student learning. Again, based on their size, the superintendent detailed a personalized learning process for each student. This personalized process begins in earnest when the students enter middle school at 6th grade.

Though the district is clearly identified as an average achieving district for the purpose of this study, there is one state tested subject area at the secondary level that far surpasses state averages in District E, and that is science. The superintendent explained that the science department is the first department to go through their curricular revision process. This process is modeled as a DDDM process in that it utilizes a needs assessment, a process of unpacking state standards and an impetus on performance tasks to drive the process. The curricular revision process is cyclical and happens every year for each department involved. The science department
is in their third year in the process, and at this point, they are reviewing their performance tasks and updating where appropriate. Other core subject departments are at various stages in the process. Based on their limited administrative support, District E will only undertake this process for the three tested subject areas (math, science, English & language arts) and also social studies. The superintendent describes their commitment to this process in the following manner:

            When I came on board, the first thing we did as a district to support and improve student learning was to develop a process to update our curriculums. We knew based on our limited resources, both fiscally and professionally, we needed to develop a thorough systemic process in the four core subjects. It would be a cyclical process that each year would involve each of the departments once it was fully operational. We decided to pilot the process in year one with our science department. They are now entering the third and final year in the cycle which really serves as a review year. The other core areas are either in year one or year two. The entire process is very similar to a strategic planning process for student learning based on the desired outcomes. It is about learning-not teaching. We identify performance tasks that can be accomplished in numerous fashions by students, and then we work on units to support the structure. I’m convinced based on our growth in science that we are headed down a very healthy path (District E, Supt).

            The process detailed by the superintendent from District E is clearly a DDDM process that has a cyclical base in support of growing student learning. As I discussed the process with the high school principal, he reiterated the entire curricular process in detail and then reinforced how their specific building goals also serve to support the process and the district’s strategic plan. There is no specific strategic plan for each building, but the building goals clearly chart the path for student growth. There is very strong articulation across the grades for specific departments in grades 6-12. This articulation helps set the basis for a personalized learning plan for each student at the secondary level. The high school principal stated, “Every principal is an active participant within our district-wide strategic planning process. We all share the same vision. We then just personalize that vision to our specific buildings and set two specific building goals in support of that process. Our entire faculty is involved in that process. It is distributed
leadership from the start”. The final distinction for the building goals in District E is that each of the two distinct building goals must focus on a component within the curriculum revision process and thus a strong tie to student achievement.

District I- The final district that clearly articulated a culture of continuous growth focused on student learning that utilized the DDDM model was District I. District I is an average sized district with average student achievement for the purpose of this study. The district graduates roughly 240 students per year and has an over-all enrollment of 3200 students. The superintendent of schools is entering his fifth year in the district but prior to that he was the superintendent at a small neighboring school district. At the conclusion of his first year in his current district the superintendent embarked on an eighteen month process to develop a new strategic plan. From that highly interactive process that included multiple constituencies a plan was designed that focused on the following six goals:

1. Individualization
2. Continuous Growth Mindset
3. Global Education
4. Healthy & Safe School Environment
5. Diversity & Unity
6. Relevant and Authentic Learning

The entire eighteen month process was built on a DDDM model and set the basis for similar models as the district moved forward with implementation. The plan helps guide a process to measure progress via the utilization of a yearly principal briefing, a yearly Student Learning Objective (SLO) goal for principals and end of year progress meetings. All three processes are driven by a DDDM model. There are two distinct building goals, one tied to the strategic plan
and one that serves as that specific principal’s SLO for the year. There are distinct strategic plans at each building led by a building improvement team for each building. The superintendent describes this strategic process in the following manner:

We embarked on our new strategic planning process roughly three years ago, and it has been in place for eighteen months. From that process we’ve strategically designed a measurement system customized to each of our buildings. Those systems are clearly driven by a DDDM model and yet are unique to each building. One building may focus more on PLCs that revolve around critical thinking or problem solving, and another building may focus on something specific to the Keystone Exams. We are clearly driven by our own values within the district, but we stay cognizant of state mandates and expectations from that accountability model. Our elementary teachers clearly understand how specific data sets can support our goal process, and they also know that as they develop their building goals collaboratively that those goals must be measurable. That process is still evolving in our secondary buildings as we continue to grow in support of relevant student learning (District I, Supt).

The assistant superintendent detailed almost an identical process throughout his interview. He was much more specific when I probed him about what drives the process:

We are clearly driven by what is best for our community. We are not ignoring state mandates or violating any laws, but over the course of the last three years, we are moving forward with a more meaningful purpose. We continue to rely on data in support of the process, but our data is used not necessarily to inform but to compel decisions and future direction. We are trying to move proactively and not react to stand-alone data sets that may take us in a direction that doesn’t align to our strategic plan. Our framework is clearly in place, we’ve come a long way in three years (District I, Asst. Supt.).

Lastly, an elementary principal in District I personalized the planning process from her perspective as a building principal. She has been in the district in her current role for seven years and she was extremely positive about the planning process that was undertaken roughly three years ago:

The most compelling part of the process for me is that my staff is now fully engaged and have stepped into the process so that is not always driven by me. Our stand alone strategic plan at our building clearly drives what we do on a daily basis. Our progress towards our building goals helps establish our professional learning needs for the current year and beyond. We are functioning on our own
but within the framework of our District strategic plan. I feel as if I’m utilizing my skills as a building leader in a better manner to serve the distinct needs of our families. We have evolved in the measurement of our building goals to include student and parent surveys along with things like focus groups on levels of engagement with students. We are no longer defined by a test score, but yet we are aware of what those numbers are on a yearly basis. In the end though, that is not the data that drives us. The data that drives us is the unique data that we collect in support of our building goals (District I, Elem. Princ).

One of the processes identified within Finding 1 was the utilization of a goal process to assist a district or specific school in building a culture of continuous improvement. Within that part of the study, numerous administrators identified a specific goal process as a key to continuous improvement. As part of that finding, this researcher noted that most of those administrators indicated that the goal process was directly tied to the school district’s strategic plan. The other cases were found to be more isolated and product driven, not necessarily aligned with multiple-year continuous-cycle improvement. Those identified administrators employed in five different school districts among the nine school districts represented within this study make-up less than half of administrators that were interviewed for this study. Administrators that have built a culture of continuous growth focused on student learning based on conviction and not compliance to a defined state accountability model. Though each administrator had a unique perspective on what made his or her culture such that it supported a process for continuous growth when focusing on student achievement, there were some commonalities throughout the findings. Those commonalities will be discussed at length in Chapter V of this study.
Finding 4: Administrators are utilizing a DDDM model to support planning beyond the areas of student achievement, school culture and safety.

The call for more accountability stemming from the passage of NCLB in 2001 gave rise to the concept of DDDM in the public schooling system nationwide. As school leaders began disaggregating more and more data as required by the model, the system or model of DDDM was utilized in multiple areas of student achievement and in time other subsidiary functions within school districts. Some of these subsidiary functions can be closely tied to student learning while others exist outside the learning process yet still very much within the scope of a school district. As I continued to review processes identified by the administrators in the study, it became apparent that DDDM models were being utilized in numerous capacities throughout various settings. within the study’s Areas that could be connected to student learning that were identified as being supported by a DDDM model within the planning process included the following:

1. Staff hiring and search processes (HR)
2. Assessment system
3. Board Policy and Administrative Procedures
4. Staff Evaluations

Processes identified that had less of a tie to student learning were coded as Auxiliary Services and included those in support of student transportation, buildings and grounds, finance and food services. Districts that grew accustomed with setting specific actions plans within their District strategic plan often utilized a monitoring and planning model based on or designed specifically like the DDDM process utilized when planning for student achievement.
**Staff hiring and search processes.** Staff hiring and search processes were identified as a silo that was being supported by administrators interviewed for this study. Nearly all of the administrators who indicated this function within their district are part of three specific school districts. In District B, upper level management (Supt. & Asst. Supt) have a defined process for team members to request new positions and to fill existing vacancies. This process first and foremost must support the mission of the district for reallocating positions, filling current positions or creating new positions. District B is a growing district both from an enrollment perspective and also tax base perspective. As a growing district, it must consistently review its personnel configuration to determine how to best meet the needs of its student population. The planning process it utilizes focuses on a DDDM process that defines where it exists currently with personnel, areas it will need to examine based on changing student demographics and enrollment numbers, and how current positions could potentially be reallocated to meet this need. The superintendent along with two assistant superintendents direct this process and then assign specific tasks to other district administrators for constructing specific rationale for staff changes as needed. There is no identified Human Resources position that directs this process within District B.

District C is in a similar yet unique situation when compared to District B. Both districts are high achieving with a growing student enrollment. Both Districts find themselves in a situation where they need to add staff and reallocate existing staff to fulfill the needs of an ever-changing student demographic. District C though has a defined Director of Human Resources to supervise this process but even with this construct, the district had to redesign their staffing process via a DDDM model. When the current Superintendent of Schools took office three years ago having not been employed within the district prior, he quickly observed clearly defined silos
between specific departments within the district. The mechanism for communication between departments such as finance and human resources was very limited. The superintendent related his thoughts in the following manner: “as the District grew, the silos grew, and the mechanisms for communication between the silos never evolved.” The district was very department driven, and though they had a qualified and capable staff with specific operational plans within each department that was focused on DDDM, because of the limited flow of communications across departments, there was no overall planning model for the district focused on meeting the specific needs of students.

The superintendent set out to create specific local indexes that could measure progress within departments. The indexes focused on the changing demographics within the district and also tried to measure specific returns academically on levels of staffing. Early in this process, the superintendent found that the district was spending a disproportionate amount of money on high achievers when compared to what they were spending on their proficient or non-proficient achievers. This single finding energized work on a district wide strategic plan supported by DDDM that would drive staffing, programs, and resources needed to meet the needs of all students. As noted by the superintendent, “This process has helped build justification protocol for staffing and prioritization of action items within the strategic plan. We took a capsulized process and built it into a district-wide DDDM process focused on specific needs, resources to fulfill those needs and evaluation of the measures taken in support of the needs”.

In District I, within the district-wide strategic planning process, the team identified the need for a Director of Human Resources to better guide personnel and staffing needs. The district developed a job description based off of several that existed in districts near them and then went about hiring an individual best suited to meet the needs of the job description. One
year into the position it became clear that the district needed to better define the scope of the position based on their unique needs. The superintendent contracted with an outside facilitator to direct the process of developing a stand-alone strategic plan for the human resources department. The result is a DDDM supported model of search processes for openings, interviewing processes for openings, certification and credential verification of candidates and searches for positions clearly based on the unique situation of that specific position within a specific setting or building.

This process has effected all administrative team members as noted by a building principal:

    Hiring at my level is now clearly defined by the needs of my building. I look at skills that are departing because of a resignation or retirement and then attempt to define what I need walking through the door. Our building goals now help drive our hiring practices and then also how we evaluate those folks and support them once they are on our team. The right people is all about the right hires. Components of my buildings strategic plan that are collaboratively developed really set the tone for my hiring practices and then the subsequent evaluation of staff all supported by our utilization of the defined specific data sets within our DDDM model (District I, Elem. Principal).

A defined system for hiring and/or Human Resources in general noted by numerous administrators that is directed and guided by the DDDM model certainly has impacted the three districts presented and their specific administrators. Their ability to take a data analysis initially utilized in support of student achievement and utilize it to support another strategic process within their district has absolutely impacted students. As noted by the superintendent in District I, “We are not there yet with specific silos completely going away, but our goal processes built off the district strategic plan and guided by DDDM is absolutely setting the course for a systemic function of all components within the district”. This sort of utilization of DDDM certainly serves as an example of the kind of usage that indicates a conviction mindset as the school districts that communicated this process have generalized the DDDM process beyond student achievement to help drive their human resources sector based on the specific needs within the school district.
Not only was the process generalized but also each of the three districts are either middle or high achieving school districts.

**Assessment support.** The next identified support process beyond the scope of student achievement, school culture and student safety involves a systemic process in support of assessment. Several administrators interviewed identified assessment work as a process being supported within a DDDM model. Again, two districts that rely heavily on their strategic planning process have consistently utilized a DDDM model in support of many processes that have been identified within their strategic plan. An assessment review process was identified by administrators in District’s B and I. Also once again these are high and middle achieving school districts within the study. In District B, they’ve undertaken a systemic process that focuses on the development of performance tasks within all curriculums. As was the case when examining various planning processes undertaken by District B, this process is being driven by their mission developed via the strategic planning process within the district. Over the course of the next three years all departments will be reframing curriculum from a backwards design process focusing on performance tasks. Though the curriculum process utilizes state and national standards as a starting point for the process, the local performance tasks are clearly aligned to the mission of the district and thus are not reflective of any sort of compliance measures. The uniformed performance tasks can often be completed/fulfilled in a variety of manners thus personalizing the process for each learner. The performance task process within the curriculum revision cycle has been a clear driver for an assessment plan that closely aligns to the district’s mission. The plan was a result of a needs assessment regarding student learning. Action plans were developed and resulting performance tasks are now being evaluated for rigor and relevance in support of the local mission.
In District I, as the state accountability model grew more demanding and time consuming, the district formed an Assessment Committee supervised by the Assistant Superintendent of Schools. The committee meets four times per year and evaluates assessments that are administered beyond the state mandated assessments. These measures include local common assessments and various benchmark assessments that support local curriculums or specific programs. The assessments are reviewed based on their timing, utilization of data, student and family input (based on survey information) and teacher feedback. Based on this thorough review, the district adjusts their assessment process every two years in reflection of the data collected. This DDDM model specifically derived for assessments in District I has supported their assessment plan for the last four years.

Work via a DDDM model in support of assessments is also underway in District A. Because of their small student enrollment, there are no common assessments in District A. Teachers at the secondary level teach one or two sections of specific courses limiting potential for creating common assessments among colleagues. District A does however have a DDDM process in place for assessment review and collaboration. The process judges each locally developed unit assessment via a rubric designed to emphasize the higher levels of learning identified within Bloom’s taxonomy such as application, analysis, and synthesis. The rubric contains specific verbiage that helps the committee determine the level of questioning within the system. This committee just began last year for District A, but it came about based on a needs assessment driven via their strategic plan process. The need was identified, the committee was trained in what to look for and a rubric was established. The committee then supports specific teachers based on their assessment design and future professional development is being
designated based on the process. Again, a DDDM process closely aligned to the conceptual framework for this study.

**Board policy and procedures.** The third process identified outside the scope of student achievement, school culture and safety, focuses on Board Policy and Procedures. Often this comes about in a school district when there is a change of leadership via a new school superintendent or a significant change within the elected Board of School Directors. In this case, each of the administrators that identified this process are within their first three years of tenure within their specific school district or school building. Nearly all of these administrators were Superintendents of School and one was a high school principal. Each of the administrators transitioned into their position from a different school district and assumed a position where the Board Policy Manual or Administrative Procedures Manual had not been reviewed or adjusted in some time.

Each of the administrators described a process that reviewed current policies and procedures to better understand the need for updating. Once the need was determined, the administrator then developed an action plan to address the need with a clear measurement defined to review the effectiveness of the policy or procedure developed. In District A, both administrators are now entering year two of the process focused on a complete rewrite of the Board Policy Manual and Administrative Procedures Manual. This process is driven nearly exclusively by the administrators themselves due to the small size of the district and resulting lack of multiple administrators. Each administrator in District A felt that they had accomplished roughly a third of the task and in both cases, the process itself was an individual goal component within their evaluation process. The process is very much based off their DDDM process for student achievement as they conducted a needs assessment, prioritized those areas that needed
addressed first, worked on new language in support of those needs and then sought outside support (school solicitor) to review the proposed product. The cycle described mirrors the conceptual framework that guides this study.

Superintendents in Districts D and I also noted their utilization of the DDDM model in support of updating Board Policies. Each of these superintendents are in their third year in their respective districts. In both cases, they were hired from outside the district and both indicated that as part of their entry plan they proposed a process for Board Policy review and revision. In both cases the superintendents relied on their past experience in utilizing the DDDM model to review a program via a needs assessment, develop action plans in support of the defined needs, and lastly, seeking out some form of feedback/measurement of the action plans defined. The Superintendent of Schools in District I also noted that his Board of School Directors was very comfortable with this process as it clearly exists in various functions throughout the district in support of the strategic plan. The review or measurement for this process in District I was accomplished much like that of District A, with a solicitors’ review.

District D was very early in their strategic planning process so their Board of School Directors are not as comfortable with the DDDM model. Therefore the Superintendent of Schools modeled the process through their budgeting cycle for the 2015-2016 District budget. Through that process the Board grew more comfortable with the DDDM framework as noted within the conceptual framework for this study and the Board jointly with the Superintendent of Schools decided to utilize the DDDM model to guide their Board Policy needs assessment. The review or measurement for their process at District D is being provided by the Pennsylvania School Boards Association which gives feedback on each policy that is adjusted or rewritten.
**Evaluation of staff.** Another process identified by administrators focused on the evaluation of staff. In each situation this process was identified by building principals. In nearly all school districts throughout the Commonwealth, teacher evaluation is driven or guided by the building principal. The current model for teacher effectiveness that exists in Pennsylvania is guided collaboratively by the specific teacher and his or her building principal. Thus, it is not surprising that principals interviewed define a DDDM process that guides their evaluation process within their building.

In each case, the principals are utilizing a DDDM model that focuses on teacher growth. Via the evaluation process, the principals are gathering information to find mutual strengths and/or needs that exist within their building. They then formulate action plans to address those needs and measure those plans uniquely based on their settings. For the elementary principal interviewed in District B, this process clearly drives his professional development plan for his building on a yearly basis: “I view the evaluation process as a means to bring the building mission to life for my staff. It helps me measure our progress towards our building goals and clearly provides me the information to set our professional learning plan for the building.” Another elementary principal in District I noted similar thoughts on her process for evaluations via a DDDM model: “As a building we look at test scores as a reflection, not an end all, so our evaluation process is very collaborative and focuses on specific needs that align to our strategic plan. Our local professional learning plan is then customized to the needs identified via the evaluation process.”

**Auxiliary services.** The final processes identified by administrators were combined into a generalized category of Auxiliary Services. These are services utilized by districts outside the scope of learning but still have a distinct effect on the overall educational process. These services
include student transportation, buildings and grounds, food services and finances. The administrators that identified these specific services had either recently gone through the process of contracting out to a private vendor for this specific service, or they had recently redefined that department within their specific school district.

The process of contracting out a district service to a private vendor can be lengthy and controversial for a school district. Due to the challenging nature of this process, a DDDM model that guides this process is often helpful for administrators and local Board of School Directors. Most of the administrators that identified this process being driven by DDDM had recently gone through the process of considering whether to move their cafeteria services from being a self-operating department to a private contractor to operate foods services. The DDDM model as defined in the conceptual framework for this study helped guide the review process for each district which resulted in actionable knowledge. In all but one case the decision was made to contract the services out and the final case remained a self-operating offering.

Finding 3 illustrates the growth of DDDM since the passage of NCLB. As the concept became more systemic in education throughout the country over the last fifteen years, the cyclical and data-driven concept of the process clearly lent itself to areas outside of student learning. This finding is significant as we examine the management of school districts throughout the country. Processes that find themselves “further away” from learning have been susceptible to outside contractors. These processes include items such as transportation, food services, buildings and grounds, and even substitute teachers. DDDM is bound by a bureaucratic system that largely understands itself as rational, value neutral, interest free, objective, and reliant on “hard facts” (Webb, et.al., 2009). Thus, as school districts considered the fate of these
subsidiary services that also served as local employment opportunities for school community members, DDDM was utilized to work through the evaluation process for administrators to advise local Board of School Directors.

**Chapter Summary**

This chapter presented four findings identified within study. Findings were organized via the specific research questions that the findings address. Data from individual interviews and document reviews revealed school administrators’ perceptions of DDDM within their school or district setting. Qualitative research makes strong usage of quotations. By doing so within this study, I not only attempted to build the confidence of readers by accurately representing the view of that specific school administrator within the situation studied but also the quotations reinforce prior studies or scholarship around the concept of DDDM. I noted clear examples where DDDM supported accountability models produced under the umbrella of NCLB within its entrenchment as a neo-liberal educational policy that theoretically promotes equity but actually has the opposite effect (Webb, et al., 2009). However there were also quotations that clearly substantiated the utilization of DDDM in support of student growth framed within the values of that local learning community.

The primary finding of this study is that nearly every participant has utilized or is utilizing strategic framing of DDDM to guide specific processes in a school district or specific school building. Based on participant descriptions, the efforts or processes being supported by DDDM differ dramatically in various settings. These differences were tied to unique characteristics within those settings. Challenges such as leadership turnover, teacher turnover, low achievement within the state accountability model and a culture caught in a cycle or churn
focused on compliance to a state model led by an appointed state recovery officer all impacted the effectiveness or lack thereof for DDDM.

Via the detailed interview process, six of the most prevalent processes supported by DDDM were identified, and a total of eleven generalized processes were identified within the finding. Three of the prevalent processes were consistently described as processes that support continuous improvement work from each of the entities. Those processes include strategic planning, individualization of educational plans and building goal processes. There were three additional processes that were prevalent in the study and their contribution and/or support of the continuous improvement cycle were strongly debated by those interviewed when probed on the processes. These processes included specific learning initiatives, school culture and achievement within the state accountability model. On the surface though, DDDM was minimally being utilized to strategically frame and help guide a specific process. Thus post-NCLB, DDDM remains a utilized process within the educational setting.

The second finding was that a majority of administrators identified state mandated achievement data as their baseline or starting point when utilizing DDDM in support of student achievement. The key phrases within this specific finding are “baseline” and “starting point.” As I probed, it was revealed more strikingly that over half of the administrators interviewed identified state mandated achievement scores as the overwhelming driver of DDDM in support of planning for student achievement. This indicates a student achievement process based on a specific state accountability model, that tended to encourage a compliance driven mentality. Of those identified administrators, most are employed in the three lowest achieving school districts within this study and another is a principal at a high school that has been designated by the state as needing improvement. Since not all administrators interviewed identified state mandated
achievement data as their baseline or starting point when utilizing DDDM in support of student achievement, there were still a number of administrators interviewed that described an achievement system not based on a state mandated accountability model. This group of administrators are employed in three specific school districts, two that are in the high achieving category for this study and are equally high achieving throughout the state of Pennsylvania, and the third district that is categorized as an average achieving district but that has shown considerable achievement growth over the last three years.

The third finding from the study was that just under half of the administrators interviewed described a culture of continuous growth focused on student learning. Processes that support a culture of continuous growth are guided by the local convictions of those school communities and are not based on compliance to a state accountability model. The administrators represented within this group are employed in the three highest achieving school districts identified within this study and also two of the average or middle achieving school districts for this study. Those Districts that represent the three lowest achieving Districts for this study are operating from a compliance perspective when planning for student learning, a system of planning based on the state accountability model. These three Districts also have the highest poverty percentage within the study and the most turnover in school administrators.

The final finding was that a majority of the administrators are utilizing a DDDM model to support planning beyond the areas of student achievement, school culture and safety. These three areas were excluded within this finding as they represent three of the major reporting areas required by the Pennsylvania Department of Education reporting framework in support of the state accountability model. These other areas or processes identified within the study that are being supported by DDDM include staff hiring/search processes (HR), assessment system, Board
policy & administrative procedures, staff evaluations and various auxiliary services. This finding represents the growth of DDDM post NCLB and growth beyond what is mandated by the state. Though these processes may occur outside the direct instruction of students, these specific processes do exist within public school districts and influence the learning of students. Having a cyclical model in place that focuses on specific needs that lead to data interpretation and analysis to eventually drive actionable knowledge supports strategic planning in those areas.

When examining DDDM as it supports conviction versus compliance, there is not an easy yes or no answer to specific interview questions. I had to consistently code responses from transcripts and look for general themes as well as identify counterintuitive thoughts. From those distinct perceptions communicated within each interview, I was able to uncover the manner in which administrators plan for key components that make up this educational process within a school district. Throughout each interview I was looking to determine if there was an identified process of continuous improvement based on local values, supported by a vision and mission or was the planning process based on state mandates communicated via the state accountability model? The four findings from the study represent the usage of DDDM throughout a specific sample of school districts in southcentral Pennsylvania. In Chapter V, I will look at some of the key themes from the findings, connect those themes to previous research and theories, review the implications of the study and make some suggestions for future research on DDDM.
Chapter V

ANALYSIS, SUMMARY, CONCLUSION AND RECOMMENDATIONS

Discussion

This chapter presents a discussion of the findings. The chapter begins with an overview of the study, followed by results and conclusions, strengths and limitations, and implications for future research and practitioners. The chapter concludes with recommendations for policymakers and educational leaders.

Overview of the Study

This study sought to examine the perceptions of school administrators on the process of DDDM. Schools had often been viewed as arenas that were data rich and information poor, that is, copious data sets were available, but very little was utilized to purposefully inform school administrators in their decisions and actions (Holcombe, 2004). Within the last decade and a half, data utilization in the school setting became more commonplace, often, to comply with a rigid state accountability model or specific state mandates. Since the concept of DDDM has only been consistently utilized since the early 2000s, there is limited research available that examines the perceptions of school administrators in regards to DDDM usage. The perceptions of school administrators are critical to the analysis within this study. Administrators interviewed for this
study are the school personnel charged with strategically planning the systems to educate our students and their perceptions of how DDDM supports this process from a conviction perspective or even potentially hinders this process from a compliance perspective serves to underscore the goal of the study.

The purpose behind the examination of school administrators’ perceptions of DDDM is to utilize specific perceptions and accounts to help guide the process of building a better understanding for the concept known as DDDM. Is DDDM being utilized in support of continuous growth and improvement by school administrators as part of a process of strategic thinking and planning? Or, is DDDM being utilized in support of an educational culture based on compliance to a state accountability model and other specific state mandates (Marsh & Farrell, 2014). In short what is guiding school administrators, conviction or compliance?

Research questions guided the study by initially focusing on how specific school administrators were utilizing DDDM setting the stage for each administrator to explain the concept within his or her context. This personalization of DDDM provided the context for the study and offered me the opportunity to examine variations across school districts and participants. The research questions provided individualized perceptions and experiences that set in motion a focus on the implications of the variations identified between participants. The research questions that guided the study were as follows: (1) Are school administrators strategically framing DDDM to build a culture of continuous improvement and growth, and does the process differ based on unique characteristics within specific school districts? (2) How do school administrators balance the demands of a state accountability model focused on student achievement with specific statewide standardized tests while trying to build a culture of continuous improvement and growth focused on supporting student learning? In short,
compliance versus conviction. (3) How does the process of DDDM differ when utilized within a school culture focused on compliance to a state defined accountability model versus a school culture focused on conviction to student centered learning?

a. Within these two distinct cultures, is there unique utilization of DDDM within specific school district achievement levels as set by the state accountability model?

b. Are there specific student demographics differences or administrative demographic differences within the two cultures of data utilization?

(4) Does data manipulation become usable information for stakeholders within various settings in a school district to guide actionable knowledge?

a. Is there usage of DDDM in support of multiple functions across distinct school districts and if so, what are their functions?

b. Are there specific demographics within school districts that limit or enhance the usage of DDDM in support of multiple functions?

In support of this study, a literature-based conceptual framework was developed to guide thinking about data use and the interpretations of data in the school setting. Drawing from similar empirical studies (see Marsh et al., 2014; Beaver et al., 2013), the conceptual framework depicts how school leaders may analyze and interpret data to create actionable information that can be used to make decisions. During this cyclical process, school administrators use of data can be limited by multiple factors. These limiting factors, which prove pivotal to this study include pressure from accountability systems, beliefs about accountability, perceptions about data use/utility, and interpretation of knowledge/skills. The limitations noted within the framework succinctly defined the variations that existed when working with specific participants. Limitations such as pressure from an accountability system were vastly different in the various
school districts and among specific participants examined and helped me identify clear variations of DDDM which then served as the focus for the implications of these distinct variations. Thus the multiple factors within the framework that are designated as limitations, set the stage for multiple variations of DDDM with specific participants. These variations were driven by varying achievement levels within the state accountability model, levels of staff and administrative turnover in specific school districts, student enrollment, and the overall need of students within school districts as reflected via their poverty information.

The literature review for the study was conducted from a historical and contemporary perspective. The review was not intended to be a legislative or political study; however, to understand and provide appropriate history of the evolution and context of DDDM within the education sector of the United States, the review does require examination of the legislative and political framework that gave rise to the accountability model that exists today and provided the initial backdrop for DDDM. The literature review provided a historical review of DDDM, the emergence of this specific term in education, how it has given rise to and supported the concept of data disaggregation and specific student sub groups and lastly provided an overview of the administrative positions that make up the sample of the study. This review provides the reader with connections to prior research that exists on DDDM paying close attention to the varying research that exists on this concept.

The study utilized a qualitative approach focused on a grounded theory research design. Grounded theory research is preferred when “how” questions are being posed that focus on individual stories told by participants, and phenomenology emphasizes the experiences for a number of individuals (Creswell, 2013). The intent of the grounded theory research design is to move beyond descriptions and move towards or discover a theory for a process or action (Corbin
& Strauss, 2007). For this study, that process or action is DDDM. Participants in the study have all experienced the process of DDDM, and the development of the theory as to why and how DDDM utilization differs between various settings and individuals will help explain practice and possibly provide a framework for future research.

The sample for the study included 24 school administrators within nine school districts. This sampling of 24 administrators reflects the uniqueness of school districts throughout Pennsylvania from an achievement and enrollment perspective. The research strategy utilized was a one-on-one interview format with a focus on a specific interview protocol that followed a set of questions derived from the grounded theory approach (Kvale & Brinkman, 2009). The interviews yielded data that were coded based on the elements that emerged from the literature review or common themes that emerged from participant responses. The interviews were recorded and transcribed. I then triangulated the data from interviews via review/analysis of the transcriptions, review of the interview notes and also document review and analysis. From the data analysis, four primary findings emerged:

1. Participants indicated they have utilized or are utilizing strategic framing of DDDM to guide specific processes in a school district or specific school building. The process did differ by school district and even school building based on the variables discussed prior to include student achievement levels, levels of staff and administrative turnover, student enrollment, and poverty levels.

2. Participants identified state mandated achievement data as their baseline when utilizing DDDM in their school district or specific school building while planning for student achievement. The key to this finding is how the process evolves after the
initial baseline examination, which in isolation is more than compliance to a state accountability model.

3. Participants are utilizing DDDM in support of their planning process beyond the scope of student achievement, school culture and school safety. This utilization is occurring in multiple fashions in support of varying functions within school districts.

4. Lack of participants that described a culture of continuous growth focused on student learning within their school district or school building supported via the utilization of DDDM as compared to a culture of compliance in regards to student learning. Specific achievement levels as determined by the state accountability was a key variable in this specific examination. Participants that were able to move beyond compliance and into a culture of planning for continuous growth that was conviction driven hailed from the highest achieving school districts within the study.

These were the findings based on the interviews. But for this qualitative study, the focus was on building understandings and examining potential explanations. The results and conclusions from these base findings serve as relevant reflection in helping explain practice and possibly provide a framework for future research. Each of the findings were linked to a specific research question and are presented in Chapter 4.

**Results & Conclusions**

The results and conclusions section will be organized by specific research question to help guide conclusions from the findings.

**Research Question 1**

Research question 1 asked, “Are school administrators strategically framing DDDM to build a culture of continuous improvement and growth, and does that process differ based on
unique characteristics within specific school districts?” As detailed in Chapter 4, participants indicated they have utilized or are utilizing strategic framing of DDDM to guide specific processes in a school district or school building. This needed to be answered initially as it is important to know how widespread the use of DDDM is throughout the sample. NCLB gave rise to DDDM as part of school culture (Jennings, 2008). Determining its use post-NCLB set the stage for how school administrators frame the concept and if the process differs based on unique characteristics within specific school districts.

Though the participants consistently identified they were utilizing DDDM within a cycle of planning, the efforts being supported by DDDM differed dramatically in various settings. These differences occurred most often within school districts of varying achievement levels and also districts that reflect varying student needs. The process most identified as being supported by DDDM was strategic planning. School administrators that identified strategic planning communicated that DDDM was an integral component of their strategic planning process, and they framed DDDM as an essential and useful strategy for continuous improvement (Firestone & Gonzalez, 2007). DDDM was consistent and cyclically driven in support of continuous improvement within the settings described. In spite of that consistency, there were also school administrators who identified DDDM as a process that supported strategic planning where the use of DDDM was clearly compliance driven and based on the Pennsylvania state mandated process for strategic planning known as comprehensive planning. Administrators who were utilizing DDDM in support of the state comprehensive planning model all were employed in school districts identified as “needing improvement” via the state accountability model, and their subsequent strategic planning process mirrored the state mandated comprehensive planning process. In some of those school districts, the process to support the comprehensive plan was
administered by a state appointed chief recovery officer from the state department of education and not the superintendent of schools.

There were other processes identified that followed a similar pattern to that of strategic planning. These processes were clearly linked to building a culture of continuous improvement in districts identified as average or high achievement districts. These processes included the concepts of personalized learning for students and distinct administrator/building goal processes. When examined as a whole, strategic planning, personalized learning for students, distinct administrator/building goal processes all utilized DDDM in support of continuous improvement. However, the culture in which this was taking place determined how the data was interpreted and applied. Is the culture for data use explicitly guided by an accountability culture set by the state accountability model or is it guided by an organizational learning culture? The clash of these two distinct cultures has grown steadily since the passage of NCLB and the accompanying accountability models that followed NCLB. Given the policy context of NCLB, many school districts and schools were not focusing on using data for continuous improvement but rather to fulfill policy and accountability mandates (Park, et al., 2012). Within this compliance context, DDDM is bound by a bureaucratic system that largely understands itself as rational, value neutral, interest free, objective, and reliant on “hard facts.” Values or personality of a person have little influence on the decisions made – but instead decisions are determined by the machine-like process of DDDM (Webb, et al., 2009).

The two types of data approaches that set the culture for data use in a school or school system as defined by Ingram, Louis and Schroeder in their 2014 study were the accountability culture vs. the organizational learning culture (Ingram, et al., 2014). These approaches were clearly identified within this study as well. The accountability culture focuses on student test
scores, tends to have short term time frames and excludes professional voices. Data is used to mainly identify problems and monitor compliance. School administrators that operated within this data culture in this study were clearly driven by test scores that serve as nothing more than “post hoc” approaches based on the timing of their results. These school administrators are also employed within school districts that have experienced significant turnover within the administrative positions that manage the district and achievement data is almost always utilized to monitor compliance. Whereas the organizational learning culture emphasizes improvement, is long term in scope and includes professional voices. School administrators interviewed in this study that function within the organizational learning culture framework described environments where goals were multi-year in duration and aligned to the locally set strategic plan. They described organizations based on distributed leadership and valuing professional input. Their process was consistent and perpetual, and there was no significant administrative turnover.

The differences between the two data cultures reflect whether school administrators are engaged in meaningful continuous improvement efforts or are merely chasing numbers driven by a technocratic accountability model (Ingram, et al., 2014). Within my study I noted both cultures, and my conclusion is that the processes identified as consistently being tied to continuous improvement, such as strategic planning, can still be compliance driven if a culture for data usage in support of organizational learning is not embedded within the school district or school building. In fact, school districts that may appear to be dominated by compliance to the accountability model may still have isolated concepts that are clearly conviction driven and based on a cycle for continuous improvement as was the case with District G and their Positive Behavioral Instructional Support (PBIS) process. Thus, for school administrators, the culture for data usage is critical in determining how data is used along with the achievement level of a given
school district as determined by their scores on mandated state assessments within the state accountability model.

**Research Question 2**

Research question 2 asked, “How do school administrators balance the demands of a state accountability model focused on student achievement from specific statewide standardized tests, while trying to build a culture of continuous improvement and growth focused on supporting student learning?” Administrators interviewed identified state mandated achievement data as their baseline or starting point when utilizing DDDM in support of student achievement within their school district or specific school building. The variations that exist within this finding are much more relevant when examining the concept of DDDM within specific settings. Because of the accountability model that has been in place since NCLB for nearly a decade and a half, districts must at a minimum be aware of the achievement levels reflected within the statewide standardized tests that make up the accountability model. How administrators move their school district beyond that awareness is often reflected in their ability to strategically plan for continuous growth and improvement based on their local needs. School administrators that function from a conviction perspective personalize their growth process and don’t allow the accountability model to dictate that process. The idea is not to rebel for the sake of it but to change the game from compliance to purposeful focus (Kirtman & Fullan, 2015). Within this study, those school administrators who were able to change the game from compliance to purposeful focus all were employed in school districts that had achievement levels in the average to high range as defined by their SPP score. And while school districts still utilized statewide test scores to help guide their direction, this use was based on their limited student enrollment which directly affected the number of administrators employed in the district. The superintendent of
schools in those school districts had multiple duties that included much of the curriculum and instruction work for the district. Thus, they did not have the time or the capacity to build and guide their own local assessment model to monitor growth which resulted in their reliance on the state scores. However, these administrators did strategically plan for growth within their system and the process that guided their work was distributed to all professionals and resulted in a significantly personalized system of education for each student in their respective school district.

A study by Beaver and Weinbaum (2013) found that when school districts become identified as “needing improvement” based on results within the state accountability model, their focus on improving student achievement was consistently compliance driven and based exclusively on standardized state assessments. The three lowest achieving school districts within my study affirm this finding. The study went on to conclude that leadership teams in school districts that have been identified by the state as needing improvement, the most prevalent utilization of DDDM are aimed at directly improving the scores on the state test for the following year and those results are the clear driver of any building goals (Beaver & Weinbaum, 2013). The administrators interviewed for my study who work in school districts that fit the criteria of “needing improvement” described settings where student achievement planning and process were consistently compliance driven and based exclusively on standardized state assessments. From my interviews in those specific settings, I noted a very technocratic environment that was mechanical and based almost strictly on assessment results. DDDM in concept is supposed to support reform efforts by improving schools, closing the achievement gap, and producing educational equity. Instead, in some school districts, DDDM supported NCLB in its entrenchment as a neo-liberal educational policy that theoretically promotes equity but actually has the opposite effect (Khalifa, et al.,2014).
The school districts within this study that were designated as needing improvement also had the highest rate of poverty documented within the study. Reforms in these challenging school districts often missed a critical factor driving achievement gaps: the influence of poverty on academic performance (Weiss & Long, 2013). Sustained change in these settings requires strategies that are more realistic, patient and multi-pronged, and not tied to a technocratic accountability model. Of note, for the administrators interviewed who were employed in these designated school districts, DDDM has clearly not contributed to the support of equity for learning and in fact, may well have supported the opposite. Specific administrators identified that overly prescriptive instructional methods based on mandated test results were not closing the achievement gap in their setting. In fact, some specifically felt that it widened the achievement gap as these sort of canned approaches to learning that focus on test preparation seemed to disengage the very students they are intended to support thus resulting in a widening gap.

Diamond and Spillane (2004), found that DDDM was utilized in distinct ways in schools, depending on where they were situated in relation to the accountability regime, and this may inhibit rather than foster educational equity. The ways in which DDDM was utilized and the educational strategies that resulted were very different in schools placed on academic probation as compared to schools that historically had higher test scores. Schools examined within the study that had histories of high student achievement utilized testing data to guide school-wide goals and improvement, whereas schools on probation used testing data to devise strategies designed to avoid sanctions without fundamentally transforming educational practice (Diamond & Spillane, 2004).

In relation to the second finding it became clear that nearly all school administrators post NCLB have to be aware of the state accountability model and at a minimum utilize results from
the state accountability system as a baseline when reviewing continuous growth efforts for student learning. The consistent point in my finding was that in all districts identified as average or high achievement districts as determined by the SPP score for that district, state assessment scores were clearly limited to the most basic utilization by school administrators, that of baseline data. Their utilization of these test scores helped move compliance to the side of the plate and change the game from compliance to purposeful focus (Kirtman & Fullan, 2015). Whereas in the school districts that were classified as low achievement by virtue of their SPP score, utilization of test scores by administrators and more pointedly the DDDM process for student achievement was clearly compliance driven with the prevalent utilization of DDDM aimed at directly improving the scores on the state test for the following year.

Research Question 3

Research question 3 asked, “How does the process of DDDM differ when utilized within a school culture focused on compliance to a state defined accountability model, versus a school culture focused on conviction to student centered learning? a. Within these two distinct cultures, is there unique utilization of DDDM within specific school district achievement levels as set by the state accountability model? b. Are there specific student demographic differences or administrative demographic differences within the two cultures of data utilization?” The finding for this research question indicates that there was a lack of consistency in utilizing DDDM in support of conviction to student centered learning. Far too many administrators that were interviewed were unable to describe a culture of continuous growth focused on student learning within their school district or specific school building supported via the utilization of DDDM as compared to focusing solely on compliance to state pressures to quantify improvement.
This finding is sobering when considering the focus of the study, “compliance versus conviction, a school administrator’s challenge.” Thus 15 years after the passage of NCLB there is a pattern of utilization of data in support of a technocratic method of DDDM. In fact, that pattern was common within the sample interviewed for this study. Biesta identified three specific distortions that have profoundly influenced public education within our current era of governance. One of those distortions was the transformation of a democratic conception of accountability into a technical-managerial conception (Biesta, 2015). Furthermore, Giroux noted that post-NCLB our path to improvement has been dominated by market-driven educational reforms. These reforms are centered on standardization and high stakes testing. Giroux states that these sort of reforms “mimic a culture of cruelty that neo-liberalism policies produce in the wider society, this culture focuses on students as inputs on an assembly line” (Giroux, 2016 p. 357).

Thus this finding indicates that over half of the administrators interviewed continue to utilize DDDM from a compliance perspective. Regarding the second part of the research question, are there unique aspects or demographics of those interviewed that predispose the administrator to use DDDM in support of conviction or in support of compliance? The focus of my fourth finding is the recognition of DDDM as detailed within the conceptual framework for this study. A cyclical process that when applied to student achievement and learning looked at the interpretation and analysis of data to move towards actionable knowledge that eventually support district and/or school wide planning efforts. A critical component within the framework though identified clear limitations to DDDM that included pressure from accountability system, beliefs about accountability, perceptions about data use/utility, and interpretation knowledge and skills. My conclusion is that school administrators who are able to navigate through the potential limitations defined within the conceptual framework for this study will have a much greater
opportunity to utilize DDDM in support of strategic planning for continuous growth and improvement based on their local needs as defined by their students, staff and community. These administrators function from a growth mindset (Dweck, 2006) and don’t allow the accountability model to dictate that process. I thoroughly reviewed those distinct processes within this finding in Chapter Four and detailed some of the unique qualities and demographics characteristics of each of these settings. Hence, my conclusion establishes that administrators who navigate the limitations of the conceptual framework identified for this study while working within an organizational learning culture framework where administrators utilize distributed leadership and value professional input (Ingram, et al., 2014) are utilizing DDDM in support of continuous growth based on their local needs.

Are there unique characteristics within settings that frame the utilization of DDDM for specific administrators interviewed for this study in support of a technocratic process of compliance to a state accountability model? As I examine those utilizing DDDM in a more compliance-driven manner, the initial commonality is that every administrator that was interviewed within a school district that has been identified as needing improvement within the state accountability model clearly described their utilization of DDDM from a compliance-driven perspective. Additionally, these administrators work within school districts that have poverty levels between 50 and 95 percent. None of the other administrators interviewed for this study worked in a district with a poverty level over 35%. Administrative turnover within these settings also far exceeds those of the other settings within the study. Lastly, the culture of data usage within these districts is clearly accountability driven. That is, the culture focuses on student test scores, tends to have a short-time frame, and excludes principal and teacher voices. Data is used mainly to identify problems and monitor compliance (Firestone & Gonzalez, 2007).
Poverty levels that exceed half the student population, consistent administrative turnover and a culture for data usage that is driven by state mandated assessments. These are factors that steer a school or school district towards compliance. It takes continuity in leadership to provide focus on items beyond state test scores. An administrator must understand the community they serve, build capacity within that community and then structure a system that measures what is important to that community while balancing the demands of a state accountability model. That can’t be accomplished with continual turnover in administrative leadership.

Also the specific demographics around poverty that are consistent within these districts provide huge challenges. Students of poverty require consistent and unique support based on their specific needs. This support requires additional resources both programmatically and from a manpower perspective. You couple this sort of unique learning environment with the challenge of administrative turnover and consistency becomes problematic. Without that consistency the system can often be driven within a culture of data to monitor compliance. The result more than likely will be a school district, school building and most often a school administrator focused on compliance versus conviction. Thus my final conclusion for this research question is that administrative turnover seems to affect the utilization of DDDM. Furthermore, specific demographic qualifiers such as poverty levels affect the utilization of DDDM by school administrators. None of these challenges can be systemically addressed and planned for within a culture of data usage that focuses on compliance and not an organizational learning culture focused on conviction.
Research Question 4

Research question 4 asked, “How does data manipulation become useable information for stakeholders within various settings in a school district to guide actionable knowledge? a. Is there usage of DDDM in support of multiple functions across distinct school districts and if so, what are those functions? b. Are there specific demographics within school districts that limit or enhance the usage of DDDM in support of multiple functions?” Administrators interviewed were consistently utilizing a DDDM model to support planning beyond the areas of student achievement, school culture and safety. This finding serves to reinforce the cultural acceptance of DDDM within the education sector. The concept of DDDM was thrust on educators as part of NCLB as a process to help improve student achievement. This finding reinforces the growth of DDDM beyond student achievement into other functions within the educational system.

Within this finding, I focused on separate operations in school management that are being examined, measured and supported by DDDM. This included areas such as staff hiring and search processes; assessment systems; Board policy and administrative procedures; and staff evaluations. I also combined other subsidiary functions into one category that I named auxiliary services. These services included areas such as student transportation, buildings and grounds, finance, food services and even substitute teachers.

One of the areas that was significant within this finding was that of human resources which equated to staff hiring and search processes. Some school administrators identified a process of DDDM in support of human resources work. Once again, the achievement level in these administrators’ school districts was either average or high. The practice of utilizing relevant data to help support process learning and planning existed within an organizational learning culture as described within the first finding (Ingram, et al., 2004). In short,
administrators within these settings operated based on conviction for what was best for the
students, staff and community. In regards to human resources, each of the school districts had
recently refocused their hiring process via work within their strategic plan. Each of the school
districts clearly had identified a cyclical process focused on hiring the right people to
complement their district and/or building plan. The process was strategic and based on the local
needs of the organization. Another example of distinct situations where average to high
achievement scores have served not to identify the district as “needing improvement” from the
state’s perspective and thus allowed school administrators to maintain a focus on local needs that
can then be planned for and implemented within the local planning process-their strategic plan.
As such, the administrators in these school districts can spend the time and efforts on processes
that clearly affect the system and perpetuate achievement levels that sustain the process from a
growth and improvement perspective.

Upon closer inspection of auxiliary services that were identified, a different path evolves
for the usage of DDDM. Numerous administrators described one of the specific auxiliary
services as being identified for further study within their school district. In support of focusing
on that specific service, the administrators had utilized a DDDM process to help determine next
steps for that specific service within their school district. The auxiliary service mentioned most
frequently by administrators was contracting out cafeteria services to a private vendor. One
administrator went through the process, reviewed the data, gauged input from their community
and decided to continue managing this service with school district employees. Several other
administrators were part of a process that resulted in contracting out the service. The
administrators that helped guide this process of contracting out the service were again employed
within the lowest achieving school district in this study, and in two situations school districts have relied upon state appointed chief recovery officers who also advise on fiscal affairs.

Interestingly, all administrators employed within the school districts that decided to contract out cafeteria services identified some significant fallout from the decision that has affected their community relations. Each of the administrators felt as if they had utilized a sound process to make and justify their decision, a process clearly entrenched in data. Several of the administrators were employed in districts that were under significant financial strain and contracting this service out allowed them to get out of the pension and health care obligation for those employees. Each of the administrators who decided to contract out cafeteria services also mentioned that the quality of food and how the food was prepared would improve. In short, they were very confident they were making the correct decision for their students.

In a 2014 study by Khalifa, Jennings, Briscoe, Oleszewski and Abdi, the authors noted that community sensibilities must be part of the data used in DDDM. Community members may have a different understanding of the factors that “count” within the DDDM process. The authors stated, “Administrators need to engage the realities of the community members they serve, rather than merely enacting technical-rational administrative behaviors that serve to continue regimes of marginalization and oppression” (Khalifa, et al., 2014, p148). The study went on to document that often administrative decision-making processes are bounded by a bureaucratic system that largely understands itself as rational, value neutral, interest free, objective and reliant on hard facts. The administrators interviewed for this study affirmed that feeling and noted that the decision to contract out cafeteria services was supported by sound data. As in the Khalifa study, the local community did not share that feeling, and there continues to be significant fallout from the decision for each of these administrators. This sort of fallout in school districts that are
already identified for improvement by the state just adds to a litany of challenges that affects their organization within their own school community.

My conclusion within research question four is that DDDM is clearly entrenched beyond the traditional processes measured by the Pennsylvania Department of Education that include achievement, school culture and safety. School administrators that operate within a compliance mode for student achievement also have experienced significant pushback from their DDDM approach in supporting the decision to contract out auxiliary services such as cafeteria services. Disenfranchised local workers who could possibly provide continuity and support for school improvement if driven locally, are instead often not supportive of school initiatives and question administrator motives. The DDDM process must take into account the local culture and establish an understanding for the factors that “count” within DDDM and not move forward with a technocratic approach. This is not an easy adjustment for school administrators clearly driven by an overall compliance mode based on their state designation as a school district that needs to improve.

**Summary of Conclusions**

There are four conclusions presented within this chapter, one for each of research questions. Each of the conclusions discusses the unique qualifiers that influence administrators to function from a compliance or conviction perspective when working with data within the DDDM process. In the Diamond and Spillane study authored only a couple of years after the inception of NCLB in 2004, the authors noted that DDDM was utilized in distinct ways in schools, depending on where they are situated in relation to the accountability regime in place at that time. This distinct utilization based on the accountability model may exacerbate rather than address educational
inequity. The authors went on to note that the way DDDM was utilized was very different in schools placed on academic probation as compared to schools that historically had higher test scores (Diamond & Spillane, 2004). Twelve years and numerous reforms later, this sort of utilization of DDDM is clearly captured within my study and reflected consistently within my conclusions. The achievement level coupled with the culture of data usage entrenched within a school district or specific school clearly set the stage for a compliance versus conviction struggle for school administrators.

**Strengths and Limitations**

**Strengths**

One of the strengths of my study was the role of the researcher within the sample identified. I’ve been a superintendent of schools for nearly thirteen years and have established healthy working relationships with many school leaders throughout the state of Pennsylvania. I’ve been one of two elected officers for the Pennsylvania School Administrators organization for the last five years, and I represent the state on the National Board for School Superintendents. I’ve worked with a majority of the administrators that were participants for this study. As a result, I had no refusals for participation and mutual open access was present throughout the entire study. This cooperation, participation level, and openness provided a distinctly representative sample of 24 unique administrator perspectives. Overall, the relationships that I had with district leaders throughout the state may have encouraged this sort of participation.

My tenure within administration may have also helped administrators who are clearly working diligently to improve their schools feel more comfortable to describe procedures, processes and perceptions of data use within their specific setting. This was especially true when interviewing administrators from districts that are identified as needing improvement by the state
department of education. Each of those administrators were clearly comfortable and forthright when describing their culture of data usage within their setting knowing well that this sort of culture fosters more of a compliance perspective than that of conviction. The credibility and duration of collegial support that I have with those administrators supported a more open dialogue on this issue.

A final component that strengthens the findings from the study was the timing of the participant interviews. The interviews occurred within a six week window that began just four months after the passage of ESSA. DDDM has long been associated with NCLB, and since NCLB was recently mothballed and ESSA authorized, the concept of DDDM for school administrators is going to gain even greater scrutiny. Over the last several years, most if not all school administrators had become skeptical of NCLB and many of the reforms or processes identified within NCLB. ESSA promotes local flexibility and the opportunity to potentially become more conviction centered and less compliance centered. Thus school administrators were open to discussing their perceptions of DDDM given there was potential for some relief coming to potentially provide flexibility from an over-prescriptive state accountability model that often sets the stage for compliance-like management when a school does not perform well within the accountability model.

Limitations

This study analyzed the experiences and perceptions of school administrators in relation to DDDM. The study focused on the perceptions of 24 specific school administrators from Pennsylvania. This sample of administrators has a working relationship within their Intermediate
Unit, Capital Area Intermediate Unit, IU 15. This working relationship often includes similar modes of professional development and professional dialogue within this specific ecosystem of school administrators. The sample has a cross-section of district demographics. Additionally, school administrators within this sample often work collaboratively in answering the call of state and federal mandates. This was the case when working through the specifics of NCLB and the various processes that evolved from that legislation to include DDDM.

Another limitation within the study is the current accountability system in Pennsylvania that now ties achievement to all principal evaluations and some superintendent and assistant superintendent evaluations. Having a discussion and probing for specific perceptions about data utilization may provide hesitation on behalf the interviewee who gets evaluated based on some of this specific data (Daly, et al., 2013). The collegial relationship between myself and the sample population of school administrators does allow the participants a level of comfort to discuss the concept openly and freely even though there is also the understanding that this sort of concept may contribute to their professional rating.

Understanding the debate that surrounds the usage of DDDM, another limitation is that I’m currently a superintendent of schools that works on a collegial basis with the sample identified for this study. My own skills and bias towards DDDM could serve as a limitation for the study. I’ve had the luxury of serving as Superintendent of Schools in one school district for over twelve years. That consistency and presence within my school community has helped support my work towards conviction of what is best for our student learners while balancing the compliance needs of an onerous state accountability model. Also my understanding of school leadership assisted me in developing categories that prove vital to the qualitative form of research, but that background can also serve as a limitation. My background may also have
influenced both the methods of data collection and the techniques I utilized in reporting the findings (Fontana & Frey, 2000).

**Implications**

The primary focus of this study was an examination of school administrators’ perceptions of the utilization of DDDM within their specific educational setting. Did DDDM compliment a focus on continual growth and improvement based upon conviction, or did DDDM support a culture of compliance to a defined accountability model? This examination provided results that have implications for future research and for practitioners that include the following:

**Future Research**

Within the study there were several school districts that had been identified by the state Department of Education as needing improvement in regards to student achievement. Each of the administrators interviewed from those school districts were planning and processing student achievement data via DDDM from a clear compliance perspective. Given the policy context as being identified as needing improvement, school districts and schools often overlook utilizing data for continuous improvement but use it primarily to fulfill policy and accountability mandates (Park, et al., 2012). State intervention in two of the school districts completely set the stage for the compliance-driven process. School administrators in these two districts along with another school district which was identified as needing improvement focused solely on the state accountability model to help drive growth and this pushed their planning process for achievement via DDDM almost exclusively from a compliance perspective.
The complexities of those school districts though could support a study that just focuses on school districts that are identified by the state as needing improvement in regards to student achievement. The culture for data usage within those districts is often much different, ground more within an accountability culture focused on student test scores, based on short-term time frames and often excludes professionals voices (Ingram, et al., 2014). As the emphasis on data is situated within a high stakes accountability framework, practitioners often view the data as suspect (Park, et al., 2012). A study focused on only administrators in school districts identified as needing improvement by their state education department could provide consistent feedback to help guide improvement processes focused more on local needs and less on compliance to a state accountability model.

Within the study, there were also administrators employed in school districts that were assigned a Chief Recovery Officer (CRO) from the state Department of Education based on their low student achievement over time. An additional study that examines just those school districts in order to focus on the role of the CRO would be beneficial to review a specific component within the state accountability model in Pennsylvania, that of the CRO. Interviews for this study indicated that the CRO served in a role that limited the ability to plan with purpose locally. Instead it set the stage for a consistent focus on the state accountability model from a compliance driven perspective. A study focused on the role of the CRO and the type of planning cycle that resulted from this involvement could prove helpful when examining specific supports that have significance within school districts that have traditionally struggled with student achievement.

The final area that I believe could and should yield further study is to look at the utilization of DDDM across a representative sample of school districts a few years after the final rules and regulations have been promulgated for ESSA. This study was conducted post NCLB
but within an environment where educators are waiting to see the relief that has been promised via ESSA. The new ESSA can potentially ease some of the testing provisions of its predecessor, NCLB, but it also leaves room for many jurisdictions (states, school districts, federal agencies) to continue with policies heavily influenced by a technocratic fashion of statistical analysis that underlie politicians’ and policy makers’ infatuation with standardized testing (Mathis & Trujillo, 2016). A further review of DDDM a few years after the implementation of ESSA should provide more insight on whether DDDM has evolved consistently to a tool in support of an organizational learning culture focused on improvement or growth (Ingram, et al., 2014), or instead, serves to support an accountability model in transformation of a democratic conception of accountability into a technical-managerial conception (Bieta, 2015).

**Practitioners**

This study provides evidence of the distinct challenges that exist for school administrators as they utilize DDDM while working through a state accountability model that can breed compliance as opposed to conviction. For our schools to remain responsive to the needs of diverse communities of learners, school administrators must move compliance to the side of the plate and change the game from compliance to purposeful focus (Fullan & Quinn, 2016). This move is extremely difficult for school administrators who are currently being driven by a machine-like state accountability model based on prior standardized test scores by their students.

To move school administrators towards a mode of conviction, administrators must first recognize the current data culture that exists within their district. If data is utilized within an accountability culture, its usage is primarily relegated to identifying problems and monitoring
compliance. If, however, data is utilized within an organizational learning climate, its usage emphasizes improvement over time and includes professional voices (Ingram et al., 2014). This understanding of the current culture is critical for planning purposes by school administrators.

Those administrators who work within an organizational learning climate can consistently focus on conviction if they so choose. The challenge rests on the administrators who work within an accountability culture and are currently driven by compliance to that model (Firestone & Gonzalez, 2007). Within this study that level of technocratic control existed for over half of the school administrators interviewed. For those administrators, the culture was set via the state accountability model which labeled their districts or school as needing improvement. For other administrators, the commitment to compliance was based on a variety of factors to include past practice, administrator turnover or lack of capacity. Moving from compliance to conviction when utilizing DDDM is clearly the challenge for many school administrators throughout Pennsylvania and our nation.

**Recommendations**

This study centered on the perceptions of school administrators towards the educational concept known as DDDM. DDDM became heavily utilized within the constructs of NCLB over the last decade and a half. Now with successor legislation in place, ESSA, a thorough look at how DDDM is utilized by school administrators and in support of what sort of processes is certainly relevant for policymakers. These officials need to have a clearer understanding of how DDDM is currently being utilized so that regulations set within ESSA can best support the needs of all learners and not focus on compliance driven measures.
Policymakers

Policymakers wield much power within the education world as they set policy, guidelines, rules and regulations that govern education at the federal, state and local level. As the acceptance and governance of an over-prescriptive accountability model has grown over the last thirty years so has the premise that “sanctions,” “prescribed actions” and “market-driven reforms” can improve underperforming schools as defined by such an accountability model. Over that thirty year time frame it appears that policymakers have based accountability policies, especially those enacted since the passage of NCLB, on the primary assumption that the processes embedded within onerous accountability models will improve practice. As a result, market-driven educational reforms, with their obsession to standardization and high stakes testing, “mimic a culture of cruelty that neo-liberalism policies produce in the wider society” (Giroux, 2016 p. 357). The effect on our schools is captured clearly, students as inputs on an assembly line.

These sort of policies based on a flawed accountability model were perpetuated even further by unrealistic time lines to make and produce change. Schools and school districts often had two years or less to demonstrate significant levels of student achievement (Jennings, 2008). The expectation that change could occur in such a short period of time ignores copious research on the change process. These timelines embedded within the accountability model served to perpetuate a mode of compliance by school administrators. Much of the strategic planning efforts immediately after the implementation of NCLB focused on compliance to a defined state accountability model (Park, et al., 2012). School districts were clearly confined and being defined by this shortsighted approach with a genesis from the state prescribed accountability model.
Now nearly a decade and a half later, how do school administrators utilize data and specifically DDDM in support of their school community? Have school districts been able to move beyond compliance and define a planning process based on the specific needs of their students and greater school community? This proposition of change to a conviction model remains intermittent throughout school districts. Many school administrators are still working through a compliance culture to guide school planning processes. This sort of assembly line model has not produced the sort of improvement touted in the early 2000s, and in fact, has destroyed much of the local ownership that made our nation’s schools the model for the world. Although not politically popular to suggest, the complex problems inherent within our educational system such as the achievement gap clearly have complex solutions. As noted in Diamond’s and Spillane’s study from 2004, any policy work to address the complex problems that make-up today’s achievement gap must address underlying structural inequities in American society (Diamond & Spillane, 2004).

In short, an exclusive emphasis by lawmakers on “what works” will simply not work for education (Biesta, 2007). This much should be known from the flamed reform known as NCLB. DDDM can and should be a tool to support democratic contestation and deliberation via collaborative vision and goal setting between staff and school administrators as they chart the map for continuous improvement. Be cautious though because within a system of compliance driven leadership, like the one established by NCLB, DDDM can just as easily support an environment of educators as “technocrats” driven almost exclusively by a score from the state assessment, and an emphasis on “what works” programs and data management.

Thus a recommendation emerging from this research is for policymakers to take advantage of ESSA and relax much of the accountability driven components of building
improvement measures and provide school administrators with the tools and financial resources to build and manage organizational learning cultures focused on professional collaboration and development. This process is time intensive and requires fiscal commitment but it will allow school administrators to engage in meaningful continuous improvement efforts as opposed to merely chasing numbers in support of an accountability model (Firestone & Gonzalez, 2007). The process is long term in scope and functions within a community driven strategic plan for the entire school district. Policymakers need to endorse, encourage and fund systems that support this type of planning. It takes time and there are no quick fixes, but policymakers in our nation must stop chasing quick fixes for education that revolve around market driven reforms and instead invest in communities and educators to drive meaningful growth based on the specific needs of their students and greater school community.

Finally, policymakers need to realize as detailed in my study that high poverty schools that are in need of improvement are often compliance-driven schools. These needy learning environments require systems that can support some of the many variables that destine them to compliance-driven leadership not focused on the individual needs of individual learners. Variables such as poverty need to be recognized, financed and programmed for systemically. Staff and administrator turnover need to be examined and addressed so that a systems approach with continuity can hopefully be utilized. We need stability in teachers and administrators in these settings, policymakers must address that need. Lastly, student achievement is obviously affected by these challenging variables and then this level of achievement becomes a variable as well if it does not meet the thresholds set by the state accountability model. Low achieving, high need schools are often just chasing test scores on a yearly basis from a compliance perspective. Until
other key variables are addressed within these needy environments, test scores will assuredly contribute to a system that is compliance-driven and not focused on the best interest of students.

**Educational Leaders**

School leaders might benefit from specific findings and conclusions that form the basis for the recommendations within this study. First and foremost, school administrators need to clarify the purpose of, process related to, and expectations for DDDM to professionals within their school district and also their community. Utilization of DDDM in support of an organizational learning culture embedded within district-wide strategic planning will absolutely focus school administrators on conviction for what is best for their learners. If professionals and community members understand why they are engaging in a DDDM process and what the value of the process is in support of continuous growth and learning, they will be open to the utilization of data throughout many facets of the school district. If however, school administrators remain focused on accountability driven usage of DDDM that exists for compliance purposes, then practitioners will often view the process of DDDM and even the specific usage of data as suspect (Park, et. al., 2012).

How school administrators frame DDDM is likely to influence the type of culture that is created around data use. One way they may do so is by engaging in deliberate framing of DDDM as an essential and useful strategy for continuous improvement versus framing it as a way to solely meet accountability demands. In short, conviction vs. compliance. Though not mutually exclusively, school administrators must balance the demands of state accountability models from
a compliance perspective while deliberately framing DDDM as an essential and useful strategy for continuous improvement from a conviction perspective.

Finally, NCLB was based on two very lofty and basic tenets: raise student achievement across the board and eliminate achievement gaps between students from different backgrounds (Sunderman, et al., 2005). There can be some debate as to whether student achievement has risen in totality over the last decade and a half, but there is virtually no debating the fact that clear achievement gaps still exist. Thus, NCLB and specific processes within NCLB such as DDDM have fallen woefully short in addressing achievement gaps. But it is important for school administrators to develop a better understanding of DDDM and how it may have practical implications within their setting. Although it is politically unpopular to suggest that complex problems such as the achievement gap clearly have complex solutions, post NCLB that is clearly the case. Any policy work or review to address these complex challenges must address underlying structural inequities in American society. As such, the achievement gap is not solely the product of an ineffective educational system guided by school administrators, but instead the gap is a result of ethnic and class distinctions, interest group pressure, and built-in structural and societal inequities all “intertwined with longstanding, complex problems in families and communities, and with skewed economic opportunity structures” (Hoy & Miskel, 2012, p.47). Thus school administrators should not eliminate the concept of DDDM, especially in support of school growth and improvement, but instead try to build a better understanding of how DDDM can support locally driven sustainable strategic planning work.
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Appendix A – Introduction Letter

Richard W. Fry, Superintendent of Schools, Big Spring School District
45 Mt. Rock Road
Newville, PA 17241

Dear ,

I am in the midst of finishing my doctoral program in Educational Leadership from Penn State University. As part of my dissertation study, I plan on interviewing school leaders from within the CAIU. The purpose of this study is to collect data on school leader’s perception of data-driven decision-making within their school district. I am working with Dr. Kai A. Schafft, Associate Professor of Education in the Department of Education Policy Studies at Penn State University.

I know as superintendent of schools there is little time to complete the various surveys and requests for interviews that cross our desk on a weekly basis. I hope you will find the time for me to conduct an interview with you and potentially two other school leaders within your district. I will travel to your district to conduct the interview with each individual which will allow me to collect the information that I need to complete my study. Enclosed with this mailing is a questionnaire focused on demographical information for both you and your district. At the bottom of the questionnaire is a sign-off indicating your willingness/consent to participate in the study. All participants will remain anonymous as will your school district.

Knowing how busy each day is as a superintendent, the individual interview should not last more than 60 minutes. Your responses will be kept confidential throughout the entire study. Again I thank you for your consideration in participating in my study.

Sincerely,

Richard W. Fry
Superintendent of Schools, Big Spring School District
Appendix B – Background Information & Demographics

Name of Respondent:

School District:

Telephone Number: ________________________________

Email Address: ________________________________

This questionnaire seeks demographic information from CAIU superintendents that have agreed to participate in this study, *Data-Driven Decision-Making and the Challenges Facing Pennsylvania School Administrators, Compliance vs. Conviction*

1. How long have you been Superintendent of Schools in your current District ______

2. Did you serve as a Superintendent of Schools in another District prior to this position ______

   If yes, how many years_______

3. Age_______

4. Gender_______

5. Number of students enrolled in your district_______

6. Number of professional staff in your district_______

7. Number of classified staff in your district__________

8. Number of employees contained in your ACT 93 agreement_______

9. Number of positions that service your ACT 93 team ____
Appendix C - Research Consent Form

Pennsylvania State University
Department of Education
300 Rackley Building
University Park, PA 16802-3201

Researcher: Richard W. Fry

Research Title: *Data-Driven Decision-Making and the Challenges Facing Pennsylvania School Administrators, Compliance vs. Conviction*

You are invited to participate in a research study that explores the concept of data-driven decision-making (3DM) within your school district. Your participation in this study requires an interview during which you will be asked questions about your perceptions, thoughts and opinions relative to 3DM in your school district or school building. The duration of the interview will be roughly 60 minutes. With your permission, the interview will be audiotaped and transcribed for the purpose of maintaining an accurate record of our discussion. This signed document will serve as your consent to participate in this research study. All participants in the study will remain anonymous as will their school district.

Participant’s signature: ______________________________________

Date: _______/_____/_______

Name: (please print) ___________________________________________
Appendix D - Interview Protocol

Time of Interview:

Date:

Place:

Interviewer:

Interviewee:

Position of the interviewee:

(Briefly describe the project)

Questions to guide the interview:

1. How do you as school leaders collect, analyze and report data in support of the district’s mission and vision?
   a. Measurements utilized during the lifespan of the strategic plan.
   b. Are measurements of progress within the plan formulated within the superintendent’s office?

2. When setting the overall strategic plan for the District, how does data support this process? Is this different from a building perspective?
   a. Do separate school buildings have distinct strategic plans?

3. How does your infrastructure (personnel & data warehousing/network) support the use of data in designing, implementing and evaluating programs or initiatives?
   a. Technology staffing/their role in DDDM
4. In regards to student achievement and growth, how does the District utilize other measurements beyond the PSSA and Keystone Exams?
   a. What benchmarks do you utilize?
   b. Are there growth measures built in to the benchmark process?
   c. Do you have common assessments across grade levels and/or departments?

5. How does data support the formation of school leader’s goals and what sort of data then supports the evaluation/measurement of such goals?
   a. What is the duration of principal goals?
   b. Do principal goals become building goals or are they unique?
   c. Does this serve as an SLO for PDE’s Effective Principal Model?

6. Has the District’s utilization of performance data grown beyond student achievement measurements, and if so, how has this growth impacted your district both politically and from a policy/procedure perspective?
   a. Have you used DDDM in measuring the effectiveness of transportation, technology, food services, buildings and grounds, and other services provided outside of learning?
   b. Do you benchmark this sort of data against other similar districts throughout the state?
Appendix E - Coding Legend

1. Strategic Framing of 3DM
   - S1 Throughout strategic plan
   - S2 Measure of progress
   - S3 Refer to process of Plan Development and guide

2. State mandated achievement data serving as baseline when utilizing 3DM in support of student learning.
   - AD1 Role of state accountability data within 3DM
   - AD2 Refers to culture of data use and who drives/leads it
   - AD3 Committee Structure to support usage
   - AD4 Discusses limitations for data use

3. Utilization of 3DM planning process beyond the areas of achievement, culture and school safety.
   - B1 Defined other components throughout building or district
   - B2 Other areas where data utilization and communication drive process
   - B3 Process to review data utilization

4. Focused on a culture of continuous growth (conviction vs. compliance)
   - C1 Building goals aligned to district strategic plan or comprehensive plan
   - C2 Distributed leadership in support of setting the plan
   - C3 Utilization of Benchmarks
   - C4 Articulation across grade levels, departments and/or buildings
C5 Focus on individual student growth and engagement

A. Quotable

B. Notable

C. Counter-intuitive
Appendix F - Site District Information and Demographics

**District A** – District A is a rural school district. For the purpose of this study it was classified as a high achieving school district based on their 2014 SPP scores and a small size school district based on their K-12 enrollment of less than 1500. The two administrators interviewed for this study were the Superintendent of Schools and the high school principal. Each individual is entering their third year in that specific position in that school district. There are a total of seven administrators employed in the district and 69 professional staff members.

**District B** – District B is a suburban school district. For the purpose of this study it was classified as a high achieving school district based on their 2014 SPP scores and a medium size school district based on their K-12 enrollment of more than 1500 and less than 5000. The three administrators interviewed for this study were the Superintendent of Schools, the Assistant Superintendent and an elementary principal. The Superintendent has served six years in their current role, the Assistant Superintendent has served five years in their current role and the elementary principal has served two years in his or her current role. There are a total of 34 administrators employed in the district and 300 professional staff members.

**District C** – District C is an urban district. For the purpose of this study it was classified as a low achieving school district based on their 2014 SPP scores and a small size school district based on their K-12 enrollment of less than 1500. The two
administrators interviewed for this study were the Superintendent of Schools who was on medical leave and the Junior/Senior High School Principal. The Superintendent had served three years in the position and the principal had served two years. There are a total of seven administrators employed in the district and 110 professional staff.

**District D** – District D is a suburban district. For the purpose of this study it was classified as a high achieving school district based on their 2014 SPP scores and a large size school district based on a K-12 enrollment of over 5000 students. The three administrators interviewed for this study were the Superintendent of Schools, the Assistant Superintendent of Schools and a middle school principal. The Superintendent was finishing out his third year in the District, the Assistant Superintendent had served in that capacity for two years and he was finishing out twenty-fifth year in the District and the middle school principal was in his seventh year at his building and his seventh year in administration. There are a total of 58 administrators employed in the district and 594 professional staff.

**District E** – District E is a rural district. For the purpose of this study it was classified as a middle achieving school district based on their 2014 SPP scores and a small size school district based on a K-12 enrollment of less than 1500 students. The two administrators interviewed for this study were the Superintendent of Schools and the high school principal. The Superintendent has served in that position for four years and the high school principal just finished their
second year. There are a total of six (6) administrators in the district and one hundred and twenty (120) professional staff.

**District F** – District F is a suburban district. For the purpose of this study it was classified as a middle achieving school district based on their 2014 SPP scores and a large size school district based on a K-12 enrollment of over 5000 students. The three administrators interviewed for this study were the Superintendent of Schools, the Assistant Superintendent and a high school principal. The Superintendent has served in that position for four years and has been with the district for thirty-seven years, the Assistant Superintendent has served in that position for three years and the high school principal has served in that capacity for nine years. There are a total of 91 administrators in the district and 878 professional staff.

**District G** – District G is a suburban district. For the purpose of this study it was classified as a low achieving school district based on their 2014 SPP scores and a middle size school district based on an enrollment of more than 1500 students but less than 5000 students. The three administrators interviewed for this study were the Superintendent of Schools, the Assistant Superintendent and an elementary principal. The Superintendent has served in that position for three years, the Assistant Superintendent has also served in their position for three years and the elementary principal has just finished out their first year in the district. There are 19 administrators employed in the district and 207 professional staff.
**District H** – District H is an urban district. For the purpose of this study it was classified as a low achieving school district based on their 2014 SPP scores and a large size school district based on their enrollment of over 5000 students. The three administrators interviewed for this study were the Superintendent of Schools, the Assistant Superintendent and a high school principal. The Superintendent has served in their current position for five years, the Assistant Superintendent has occupied that position for seven years and has spent forty years as an employee in the district and the high school principal has served in that position for two years. There are 81 administrators employed in the district and 547 professional staff.

**District I** – District I is a rural district. For the purpose of this study it was classified as a middle achieving school district based on their 2014 SPP scores and a middle sized district based on a K-12 enrollment of more than 1500 students but less than 5000. The three administrators interviewed for this study were the Superintendent of Schools, the Assistant Superintendent of Schools and an elementary principal. The Superintendent has just finished their fourth year in the district and their thirteenth year as a Superintendent of Schools. The Assistant Superintendent has served in that position for six years and the elementary principal has been employed in that position for seven years. There are 19 administrators employed in the district and 234 professional staff.
Appendix G - Document Summary Form

Type of Document: ____________________________

Document Number: ____________________________

Document Utilization: ____________________________

_______ Process Based
_______ Evaluative
_______ Other

Key Concepts from the document:

Relationship to Research Questions:

Summary of Contents:

Additional Comments:
Appendix H - Definition of Key Terms

School Administrators- for the purpose of this study the term school administrator includes the following positions within a school district; superintendent of schools, assistant superintendent of schools, director of curriculum and instruction, and building principal. Though these positions have distinct duties, these duties are very district specific and thus are unique to each setting.

Superintendent of Schools – the top executive in the school district and serves as the commissioned officer in the school district. The superintendent is responsible for implementing a collaborative vision developed with the Board of School Directors by making day-to-day decisions about educational programs, spending, staff and facilities. The superintendent is not a member of the school board itself, but serves as the professional educational advisor to the Board.

Assistant Superintendent – the role of assistant superintendent is unique from district to district. The only consistent application of the position is that the position also serves as a commissioned officer for the school district.

Director of Curriculum and Instruction – is not a commissioned officer for the district but is a member of the ACT 93 group within the district. Again responsibilities vary for this position by district but generally this position administers all curriculum K-12 and also the accountability model of the district. Thus all state testing and local assessment data flow through this position.

Building Principal – is a member of the ACT 93 group and serves as the site educational leader for a specific building(s) who promotes the success of all students by ensuring
management of the building, operations, and resources for a safe, efficient and effective learning environment.

Data-Driven Decision-Making (DDDM) – providing a mechanism for including empirical evidence in the development of educational procedural decisions to drive policy and program development.

School Performance Profile (SPP) – in that state of Pennsylvania it provides a building level academic score based on a variety of measures to include results from state-wide achievement tests, attendance, test participation rate, demographic information, achievement growth and closing the achievement gap.

Continuous Growth/Improvement – similar to “growth mindset”, a process focused on continuous growth/improvement is focused on a learners’ ability to understand that their talents and abilities can be developed through effort, sound teaching and persistence. The process can apply to specific learners or whole school systems. Intelligence can be developed.

Compliance Driven – school systems and/or specific buildings that are guided by federal and state mandates. Often these mandates focus on student achievement and thus the system is driven by those specific achievement scores. Within the component of student achievement, there is a state driven accountability model that often provides specific intervention or improvement strategies, a system that is compliance driven often limits their process to these interventions or improvement strategies.

Culture of Continuous Improvement – the ability to strategically plan for continuous growth and improvement based on local needs as defined by their students, staff and community.

No Child Left Behind (NCLB) – federal legislation passed with bipartisan support in 2001 and signed into law by President George W. Bush on January 8, 2002. It served as the
update to the Elementary and Secondary Education Act of 1965. It effectively scaled up the federal role in holding schools accountable for student outcomes.

Every Student Succeeds Act (ESSA) – federal legislation passed with bipartisan support in 2015 and signed into law by President Barack Obama on December 10, 2015. The legislation seeks to pare back the federal role in K-12 education. The law does still require data on student achievement and graduation rates; however, unlike NCLB, states, districts, and specific schools can determine what support and interventions to utilize in support of learning.

Neo-liberalism – a political economic theory that de-emphasizes, or completely rejects, government regulation of the economy or specific components within the economy, focusing instead on achieving progress by encouraging so-called free market methods on business operations to include the education sector.

Strategic Planning – organizational management activity that is used to set priorities, focus energy and resources, strengthen operations, ensure that staff and other stakeholders are working towards common goals establish agreement around intended outcomes and results and assess and adjust the organizations vision and mission moving forward.

Comprehensive Plan – In the state of Pennsylvania, the Pennsylvania Department of Education (PDE) defines the comprehensive plan and that planning process as a web-based framework for thoughtful data-driven and research-based district and school planning. One of the other purposes of the Comprehensive Plan as defined by PDE is to “create and manage a continuous, comprehensive plan to submit to the Department of Education in order to maintain compliance with state and federal mandate.
Personalized Learning – Adjusting the pace and the approach to connect to the learner’s interests and experiences. It is instruction that offers pedagogy, curriculum, and learning environments specifically tailored towards the needs and interests of the learner.
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Vita
Richard W. Fry
36 Fry Road, Newville, PA 17241
Phone: (H) (717) 776-9264
Phone (W) (717) 776-2412
Email: rwfry@bigspring.k12.pa.us

EDUCATION:
2017 Ed.D., Penn State University
   Educational Leadership, Dissertation: Data-Driven Decision-Making, and the Challenges Facing Pennsylvania School Administrators, Compliance vs. Conviction
1992 M.S., University of Richmond
   Master of Science
1986 B.S., Lock Haven University
   Major, Health and Physical Education

PUBLICATIONS/PRESENTATIONS:
- Leadership Academy for Principals- Presenter on autism and the role of the building principal
- Guest on WITF “Smart Talk” on four different occasions in support of Public Education.
- PSBA "Best Programs Presentation" Kids Around Town Program at West Creek Hills Elementary
- Presentation to State Superintendent Association in Virginia on "Site Base Management, and the Role of Zero Base Budgeting"
- PSBA/PASA presenter on the Role of Data Teams in School Districts
- Presentation to Dickinson Kappa Delta Pi on No Child Left Behind
- Instructor for PASA in support of their “Leadership for Teaching” professional development for Superintendents
- Facilitator for the “New Superintendents Academy” sponsored by PASA
- Testified 17 times in front of Pennsylvania Senate and House Education Committee’s
- PSBA/PASA presenter on Supervision of staff
- Op-ed in The Harrisburg Patriot News on Full Day Kindergarten and proposed state budget cuts, Spring 2011
- Assisted in writing the Leadership for Teaching course for Superintendents throughout the state to receive Act 45 credit