Administrators' Perceptions of the Value and Utility of State Assessment Data:

A Research Study to Support Data Analysis and Student Achievement

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This study examines administrator perceptions of Pennsylvania's state assessment data. This study had three main purposes. The first purpose was to investigate the value and utility of state assessment data to inform decision making and the possibility of improving student achievement through the routine use of state assessment data. The second purpose of this study was to understand to what extent and how administrators use state assessment data to inform decisions. The third purpose was to explore what factors influence administrators' use of state assessment data. The researcher sought to identify current data analysis practices, define strengths, describe opportunities for growth, and make recommendations for ongoing improvement.

The need for this research is evident as federal and state accountability mandates have changed since the Every Student Succeeds Act was passed in 2015. Accordingly, this study provides insight for school district leaders who are seeking opportunities to develop and sustain a routine and systematic approach to analyzing and utilizing state assessment data to address student learning outcomes.

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Preface

I am very grateful to several special people who have challenged and supported me throughout my educational journey. First, I would like to thank my family. Without their love and support over the years none of this would have been possible. To my husband, Mike, and my three children, Alivia, Andrew, and Mathew, thank you for your love, encouragement, patience, and understanding as I worked to complete my doctoral studies and dissertation. I love you more than you will ever know.

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1.0 Introduction

The federal Elementary and Secondary Education Act of 1965 and its two subsequent reauthorizations, No Child Left Behind (2001) and the Every Student Succeeds Act (2015), include accountability mandates aimed at eliminating disparities in educational outcomes for all students. Both No Child Left Behind (NCLB) and Every Student Succeeds Act (ESSA) have the same goal, to promote equal educational opportunities for historically underperforming subgroups (U.S. Department of Education, 2019). The legislation pays particular attention to low-income students, students of color, students with disabilities, English language learners, and other traditionally marginalized students (ESSA, 2015).

In 2015, ESSA replaced NCLB as the nation's main education law. Federal accountability mandates articulated in ESSA include testing students annually and publicly reporting achievement results for all students and subgroups of students in math and reading. Such accountability mandates generate large amounts of data on student achievement and growth measures (Ladd, 2018). The goal of federal education policy is to improve student achievement by holding public schools responsible for the effective delivery of approved grade level standards. Therefore, federal education laws emphasize the importance of providing opportunities for all students to learn at high levels (Klotz & Canter, 2007). As a result, educational policy and accountability reporting place pressure on school districts to monitor student achievement and raise standardized test scores.

Providing educators with student achievement and growth data is of critical importance to help educators make informed decisions. If educators do not utilize accountability data to guide decision making, improving student achievement measures as required by federal and state mandates will not be possible (Englert, Fries, Goodwin, Martin-Glenn, & Michael, 2004). The use

of assessment data to meet compliance and accountability mandates signals a need to revisit educators' approaches to professional practice. Making decisions solely on past experience or intuition may not be effective in improving student achievement. Improving understanding of data and collaboratively analyzing data to solve educational problems can contribute to student achievement and school improvement (Schildkamp, Poortman, Ebbeler, & Pieters, 2019).

1.1 Statement of the Problem

Having served as a teacher, building principal, and central office administrator in Pennsylvania's public school system, my experiences have been accompanied by increasing accountability demands outlined in educational policy, particularly those articulated in NCLB (2001) and ESSA (2015). As a classroom teacher and administrator, my professional training offered very little in terms of communicating the value, validity, and utility of state assessment data to support student learning and achievement. In order to improve student achievement, administrators need to be engaged in effective use of student assessment data.

The Pennsylvania district chosen for this study has not fully implemented a systematic data analysis framework and risks not providing administrators with valuable information about statewide assessments in order to improve curriculum, instruction, and student achievement. This district is in the beginning stages of creating a systematic approach to providing administrators the information and training they need for using assessment data in curricular and administrative planning. However, administrators still lack a common understanding of available data, and routine data-related practices fail to exist across all nine district buildings. Consequently, there is a lack of consistency among administrators regarding how to cultivate a shared culture inclusive of

discussions and practices that clarify the value, validity, and utility of state assessment data. Therefore, this study will focus primarily on how administrators *perceive* the value, validity, and utility of state assessment data as well as how they *use* state assessment data and accompanying accountability reports. What supports are necessary to decrease barriers to the use of state assessment data is also in need of further investigation.

Pennsylvania's state assessments and accompanying accountability reports can provide administrators with more opportunities to incorporate assessment data into their instructional leadership practices. Overall, data from this study may inform change efforts and actions to be taken related to statewide assessment data, data-driven decision making, and raising student achievement.

Research by Feng, Figlio, and Sass (2018) suggests that when accountability measures apply pressure on schools to increase student performance, other factors in the school environment can be negatively affected, even when achievement measures improve. For example, teachers in "failing" schools might decide to leave for other jobs, thus increasing staff turnover (Feng, et al., 2018). McDermott's (2007) analysis of educational policy concludes that while policy makers did aspire to improve equity in public education, the intended results did not align with actual outcomes. Therefore, accountability policies and statewide assessment data alone will do little to influence the quality of public education. However, a common understanding of available data and a results-oriented culture inclusive of routine data-related practices can influence how educators use data for instructional decision making (Hora, Bouwma-Hearhart, & Park, 2017).

Research indicates that student data is often provided to educators with little or no direction in how to use the data effectively (Spillane, 2012). For assessment data to inform systemic change, school administrators must establish a flow of information to stakeholders that supports the need

for engaging learners, improving instruction, and therefore raising student achievement (Hora, Bouwma-Hearhart, & Park, 2017).

Without appropriate resources and training, there could be a conflict between the administrators' obligation to increase student achievement and their ability to act. Lack of use or inappropriate application of data to make informed instructional decisions are potential barriers to raising student achievement at the inquiry site and may contribute to low rates of improvement. (Further explanation of the inquiry site's student achievement data is provided in Chapter 2.) As Pennsylvania's public school educators grow increasingly accountable for state assessment scores, the overall value and utilization of state assessment data at the inquiry site to address student achievement is the focus of this study.

1.2 Purpose of the Study

The purpose of this study is to a) investigate administrators' perceptions of the value and utility of Pennsylvania's state assessment data and accompanying accountability reports; and b) determine how administrators incorporate state assessment data into their work. The administrators' knowledge and skills in interpreting and using data will be explored, as well as how administrators responsibly utilize assessment data to improve student achievement and growth measures. Administrators' perceptions of the quality of specific types of state assessment data will also be assessed. The type and integration of state assessment data as well as the frequency of use is also relevant to this study. Furthermore, the intent of this study is to emphasize the importance of data use for informed decision-making.

By utilizing assessment data for continuous improvement, administrators can generate student achievement goals in areas where the greatest opportunity for growth exists (Englert et al., 2004). The findings of this study will influence how a culture rich in assessment data is established so that administrators have the capacity to analyze data, develop goals, and initiate plans aimed at increasing student achievement as measured on state assessments. Furthermore, the findings of this study may identify systemic procedures that could expand administrators' use of state assessment data for instructional decision making.

1.3 Definitions of Terms

The following definitions provide explanations for terms specific to this study.

- Accountability: The idea of holding schools, districts, educators, and students responsible for results (Pennsylvania Department of Education, 2019b).

- Act 158 of 2018: Act 158 of 2018 provides options for students to demonstrate postsecondary readiness and meet statewide graduation requirements, which will take effect for the graduating class of 2022 (Pennsylvania Department of Education, 2019h).

- Assessment: A tool used to evaluate and measure what students have learned (Pennsylvania Department of Education, 2019b).

- Data-Driven Decision Making (DDDM) – Translating data into information and actionable knowledge that administrators and teachers can apply to current and future problems (Spillane, 2012).

- Data Recognition Corporation (DRC) – DRC provides customized assessment solutions for the Pennsylvania Department of Education, including psychometric and test security

services; enhanced reporting; printing and packaging; distribution and collection; and image and scoring (Data Recognition Corporation, 2019).

- eMetric – A website designed to provide quick, easy, and secure access to student performance results on the Keystone Exams and the Pennsylvania System of School Assessment (eMetric, 2019).

- Every Student Succeeds Act: The Every Student Succeeds Act (ESSA) of 2015 reauthorizes the Elementary and Secondary Education Act (ESEA), first passed in 1965. ESSA replaces the No Child Left Behind Act (NCLB) passed in 2001 (and enacted in 2002). Each of these statutes has the same goal, to promote equal educational opportunity for traditionally underserved children. ESSA includes provisions that will help to ensure success for students and schools and provides each state with enhanced flexibility (U.S. Department of Education, 2019).

- Future Ready PA Index: "The Future Ready PA Index is a collection of school progress measures related to school and student success. The Index includes a range of assessment, on-track, and readiness indicators to more accurately report student learning, growth, and success in the classroom and beyond" (Pennsylvania Department of Education, 2019c).

- High-Stakes Testing – A form of standardized testing that attaches serious consequences to passing or failing (Ullucci & Spencer, 2008).

- Keystone Exams: Keystone Exams are Pennsylvania's statewide end-of-course assessments in designated content areas. The Keystone Exams serve two purposes: (1) high school accountability assessments for federal and state purposes, and (2) a component of the statewide high school graduation requirement for students beginning with the class of 2022. The Keystone Exams include items written to the Assessment Anchors/Eligible

Content aligned with the Pennsylvania Core Standards. The Biology Keystone Exam includes items aligned with the enhanced Pennsylvania Academic Standards for Science (Pennsylvania Department of Education, 2019b).

- No Child Left Behind: The No Child Left Behind Act (NCLB) of 2001 (enacted in 2002), which reauthorized the Elementary and Secondary Education Act of 1965, required states to implement statewide accountability systems covering all public schools and students. NCLB increased accountability for states, school districts, and schools. (NCLB, 2001)

- PA Core Standards: Annual learning goals a student should know and be able to do in specific subjects at specific grade levels (Pennsylvania Department of Education, 2019b).

- Pennsylvania Department of Education: "The Pennsylvania Department of Education (PDE) oversees 500 school districts, more than 170 public charter schools, public cyber charter schools, career technology centers/vocational technical schools, public intermediate units, the education of youth in state juvenile correctional institutions, Head Starts, and publicly funded preschools, and community colleges" (Pennsylvania Department of Education, 2019a).

- Pennsylvania Consolidated State Plan: Pennsylvania's State Plan details how the Pennsylvania Department of Education will implement the ESSA requirements (Pennsylvania Department of Education, 2019f).

- Pennsylvania System of School Assessment: "The annual Pennsylvania System School Assessment is a standards-based, criterion-referenced assessment which provides students, parents, educators and citizens with an understanding of student and school performance related to the attainment of proficiency of the academic standards. These standards in English Language Arts, Mathematics, and Science and Technology identify what a student

should know and be able to do at varying grade levels. School districts possess the freedom to design curriculum and instruction to ensure that students meet or exceed the standards' expectations. Every Pennsylvania student in grades 3 through 8 is assessed in English Language Arts and Math. Every Pennsylvania student in grades 4 and 8 is assessed in science" (Pennsylvania Department of Education, 2019b).

- PVAAS: The Pennsylvania Value-Added Assessment System (PVAAS) is a statistical analysis of Pennsylvania (PA) state assessment data and provides Pennsylvania districts and schools with student growth data. "PVAAS measures student growth from one year to the next using state assessments, and reports whether a group of students maintained, exceeded, or fell short of their expected growth based on their prior testing history" (Pennsylvania Department of Education, 2019g).

- School administrators: In this dissertation, this term refers to superintendents, assistant superintendents for elementary education, assistant superintendents for secondary education, directors of special education, assistant directors of special education, directors of analytics and federal programs, supervisors of pupil services and gifted education, principals, and assistant principals.

- School Performance Profile: The Pennsylvania School Performance Profile (SPP) is calculated annually and provides a school-level academic score for public schools, charter and cyber charter schools, and full-time comprehensive career and technical centers. This singular summative score contains academic performance data and comprises 15 percent of each teacher and principal's annual evaluation (Pennsylvania Department of Education, 2019e).

- Standardized Assessment: A test that requires all students to answer the same questions and can be scored in a consistent "standard" manner (Pennsylvania Department of Education, 2019b).

- Subgroup: Pennsylvania reports subgroup performance for the following five subgroups: 1) all students; 2) economically disadvantaged students; 3) English learners; 4) race/ethnicity; and 5) students with disabilities. The minimum number of students is (minimum N) to report subgroup information is 20 students (Pennsylvania Department of Education, 2019f).

2.0 Literature Review

The review of literature for this study includes an overview of current accountability mandates. Data-driven decision making is an important part of the discussions on policy implementation, so this literature review also provides context in that area. Since the problem of practice and study participants are situated in Pennsylvania schools, statewide standardized assessments and achievement scores are also included in the historical perspective and rationale for effective use of statewide assessment data in the era of accountability.

2.1 Era of Accountability

Many Americans are familiar with public schools yet lack an understanding of how public school systems actually work. The complexities of who has control of K-12 public education and what can be controlled at the state and federal levels are unclear to even the most engaged citizens (Ferguson, 2017).

Accountability reform, holding administrators and teachers responsible for public education, has been a substantial component of school improvement efforts across the United States (Cochran-Smith et al., 2017). Accountability reform is complex because there are multiple mandates with competing demands and expectations. Primarily, the era of accountability is largely accompanied by a reliance on standardized testing and mandated school improvement protocols and programming for underperforming schools.

Accountability reform became most prominent during the 1980s due to perceived deficiency in student performance. The "era of accountability" quickly began to take shape and influence the operation of the nation's public schools (Cochran-Smith et al., 2017). Most accountability mandates are informed by the premise that frequently testing students and using the results to hold schools accountable will result in improved student learning (Englert, Fries, Martin-Glenn, & Michael, 2005).

Ideally, accountability mandates should motivate administrators to maintain high expectations for student learning as well as to increase student achievement results. However, administrators have inconsistent solutions and approaches to improving student achievement (Kim, 2010). Therefore, how administrators perceive the value, validity, and utility of state assessment data as well as their use of state assessment data to make decisions and improve student achievement is in need of further investigation.

Administrators are required to fill many roles and respond to changes in policy and practices. However, the primary role of district and building-level administrators is to provide training and support on effective instructional practices in order to improve student achievement (Young, McNamara, Brown, & O'Hara, 2018). Collecting, analyzing, and using data to inform decision making and to address student achievement has become a significant objective of district and building-level administrators. Using data to improve student achievement requires skills in analysis, interpretation, and judgement (Young et al., 2018).

Jill Koyama (2014) studied ways in which principals engage with accountability mandates. She conducted a series of annual interviews from 2005 to 2012 to investigate how principals comply with assessment policies that require managing, analyzing, and publicly communicating achievement data. Overall, the implications for practice from her research suggest "principals need

to consider institutional circumstances and external accountability not as boundaries or constraints, but rather as available material with which to respond" (pp. 279-280). The use of data to get to know students better as learners can prompt administrators and teachers to be more intentional in their planning and instruction.

2.1.1 Federal Education Policy

The passage of Elementary and Secondary Education Act (ESEA) in 1965 signified the start of federal involvement in the day-to-day operations of K-12 public schools. ESEA originated in the civil rights era and was enacted to support the rights of all students regardless of environmental factors (Hakuta, 2017). President Johnson signed ESEA into law with the intent to reduce the effects of poverty on educational opportunities and student learning (Robinson, 2016). Furthermore, ESEA focused on educational excellence and equity by providing funds for educational interventions.

A commitment to equity has long been the main priority of federal education law (Jenkins, 2018). The goal of federal education policy to reduce inequity and improve educational outcomes for all students is accompanied by mandates that require states to test students and publicly report school performance. Federal and state intervention in low-performing schools is designed to promote cooperation among federal, state, and local entities to affect equity and inclusivity in public schools (Egalite, Fusarelli, & Fusarelli, 2017).

Federal education law has been modified by many presidential administrations through multiple reauthorizations of ESEA, each focused on improving schools and increasing student achievement results (Robinson, 2016). The expanding role of the federal government continues to target improving low-income students' academic achievement and ensuring equal access to

resources (Black, 2017). Although the federal contribution to K-12 public school funding is small and accounts for approximately 9 percent of actual dollars spent (Ferguson, 2017), federal legislation has included hefty initiatives such as supplemental programs, the introduction of state standards, standardized assessments, and accountability frameworks (Hakuta, 2017).

2.1.2 Federal Policy and Academic Achievement

The No Child Left Behind Act of 2001 became public law as a reauthorization of ESEA. Supporters of ESEA were convinced that this new legislation would remedy the shortcomings of previous educational reforms and bring about the needed changes through student achievement data (Ladd, 2017). NCLB was the catalyst for using statewide assessment data to hold schools and districts responsible for closing the achievement gap. Therefore, NCLB expanded federal influence over the nation's schools and required annual student assessments linked to state standards. Such a change significantly contributed to the focus on utilizing data across the public school landscape (Hora, Bouwma-Gearhart, & Park, 2017).

NCLB led to the need for states, districts, and schools to pay close attention to achievement and growth data from statewide standardized test scores. The legislation required that parents be provided with timely information about their children's individual achievement data in a "clear and comprehensible format" (Pennsylvania Department of Education, 2019f). Detailed reports of state and school-specific performance on standardized assessments were also required and reported annually. Dee and Jacob (2011) suggest that the publication of achievement scores, disaggregated by historically underperforming student groups and their peers, was designed to create a sense of urgency in public school districts to improve student learning and close the achievement gap in reading and math.

According to Ladd (2017), NCLB was meant to create an educational system in which students would be better prepared to compete in a global economy. Proponents expected NCLB to bring dramatic change to the education climate through high expectations for student learning delivered via rigorous state standards and assessed in standardized tests. In addition, NCLB mandated that all students be proficient in reading and math by the school year 2013-2014. The overarching goal to close the achievement gap between disadvantaged students and their peers was articulated in the data-reporting requirements of subgroup progress toward the goal of all students reaching proficiency in reading and mathematics. Additionally, NCLB required assessment results be used to identify schools failing to achieve proficiency for all students. For schools that failed to achieve, NCLB posed a possibility that federal funding could be withheld.

ESSA (2015), which replaced NCLB, imposes outcomes-based accountability measures to be determined and monitored by the state and relieves states and districts from most federal sanctions that result from inadequate academic progress. Instead, states can determine criteria to identify struggling schools, what supports will be provided, and what action will be required to recover.

ESSA (2015) obligates each state education agency to develop and submit for approval a plan that outlines how the state will implement the federal requirements outlined in ESSA. ESSA's federal accountability requirements directly aligned to student achievement include:

- Long-Term Goals: In order to ensure academic achievement, each State Education Agency (SEA) is required to determine baseline data, measures of interim progress, and long-term goals to increase academic achievement, graduation rates, and English language proficiency (ESSA, 2015).

- Accountability, Support, and Improvement for Schools: ESSA requires states to report specific accountability indicators (e.g., academic achievement and academic progress) to support valid, reliable, and comparable inferences across LEAs (Local Education Agencies). Consequently, school improvement initiatives must be developed, monitored, and evaluated to guarantee improvement efforts are effective (ESSA, 2015).

To develop a consolidated state plan to meet ESSA requirements, the Pennsylvania Department of Education (PDE) sought input and recommendations from various stakeholder groups when drafting Pennsylvania's plan (PDE, 2019f). The Pennsylvania Consolidated State Plan was first approved on January 12, 2018. It was later revised and approved again on August 1, 2019.

A knowledgeable and skillful school leader is the most influential factor in school improvement (Chenowith, 2016). ESSA also includes an "enhanced focus on educational leadership and acknowledges the importance of leaders in achieving federal goals for education" (Young, Winn, & Reedy, 2017) and recognizes that the capacity to create a culture of continuous improvement depends on the development of school leaders. Unlike NCLB, ESSA allows districts to allocate federal funds to support the professional growth of district and school leaders (PDE, 2019f).

2.2 Pennsylvania Department of Education

2.2.1 Assessment and Accountability

High stakes assessments link rewards and sanctions to performance on standardized assessments, while accountability involves holding individuals or parties responsible for assessment outcomes (Ullicci & Spencer, 2009). According to Englert et al. (2004), high-stakes assessments became the primary tool to indicate students' level of achievement as measured against grade-level standards for tested grades and subjects, as well as the effectiveness of the teachers and the quality of the schools and districts. The Pennsylvania Department of Education's response to federal educational policy and the accompanying accountability mandates is to require public school districts to administer two types of high stakes, standards-based, criterion-referenced assessments: the Pennsylvania System of School Assessment (PSSA) and the Keystone Exams.

The PSSA is administered annually to students in grades 3 through 8 in English Language Arts (ELA) and mathematics every spring. Students are also assessed in science in grades 4 and 8 after the ELA and mathematics test administration. The content of the PSSA assessments is aligned with the PA Core Standards; test items assess what students should know and be able to do at the end of each grade level. The overall score of the assessment determines the proficiency level (below basic, basic, proficient, or advanced) for each student. Because students are assessed annually, they are not required or permitted to retake PSSA assessments.

Keystone Exams are end-of-course assessments required for Algebra 1, Biology, and Literature (PDE, 2019b). Therefore, the school year in which students take a Keystone Exam depends on when students are enrolled in the corresponding course. Students who do not meet proficiency by earning an overall score of proficient or advanced after their first attempt may retake

the assessment(s) through their junior year in high school. Like PSSAs, Keystone Exams also determine proficiency in meeting state standards and provide districts with data to guide decision making. Although Keystone Exams are required end-of-course exams, there is variability among districts regarding course offerings and in which grade levels the Keystone Exams are administered. Therefore, all students' scores are banked, and accountability is attributed to schools and reported for all students in grade 11 regardless of the grade level when the students were assessed.

Overall, results from both the PSSA and the Keystone Exams provide the state, district, schools, parents, students, and citizens with achievement data to measure district, school, teacher, and student performance. The individual student scores can be used to assist administrators and teachers in identifying students who would benefit from either enrichment or remediation in the tested content areas. The assessment data also provides schools with information about the effectiveness of the curriculum and instructional strategies delivered by the teacher, as well as the quality of resources utilized. Moreover, PDE (2019b) suggests that utilizing the results of statewide assessments will assist school districts in guiding students towards meeting state standards.

Until October 2018, PDE intended to use individual student Keystone scores as a criterion for high school graduation. Since the exams were first introduced in 2013, however, the state mandate for high school students to score proficient or advanced on each of the Keystone Exams as a graduation requirement was delayed year after year. Over the years, educators, parents, and students alike have questioned the use of the Keystone Exams as a statewide graduation requirement, claiming the use of Keystone Exams was too restrictive and not representative of later success after high school graduation (Pennsylvania Department of Education, 2019h).

Table 1. Statewide Assessment Summary Chart

Statewide Assessment	Grade Level	Federal Accountability / Public Reporting	State Accountability / Public Reporting
PSSA English Language Arts	Grade 3	X	X
PSSA Mathematics	Grade 3	X	X
PSSA English Language Arts	Grade 4	X	X
PSSA Mathematics	Grade 4	X	X
PSSA Science	Grade 4	*	X
PSSA English Language Arts	Grade 5	X	X
PSSA Mathematics	Grade 5	X	X
PSSA English Language Arts	Grade 6	X	X
PSSA Mathematics	Grade 6	X	X
PSSA English Language Arts	Grade 7	X	X
PSSA Mathematics	Grade 7	X	X
PSSA English Language Arts	Grade 8	X	X
PSSA Mathematics	Grade 8	X	X
PSSA Science	Grade 8	*	X
Keystone Algebra I	High School / End of Course Exam	X	X
Keystone Biology	High School / End of Course Exam	*	X
Keystone Literature	High School / End of Course Exam	X	X

* Not federally mandated for accountability reporting

Assessment results from Pennsylvania state assessments impact the annual teacher evaluation. The teacher evaluation process in Pennsylvania changed to reflect this after the passage of Act 82 of 2012. In addition to other changes, Act 82 links the teacher evaluation process to student performance (achievement and growth) on state assessments (Pennsylvania General Assembly, 2012). Student performance measures can account for 50 percent of a classroom teacher's evaluation (PDE, 2014). A building-level data score, known as the School Performance Profile (SPP), comprises 15 percent of a classroom teacher's overall rating (PDE, 2014). This data is inclusive of all building students, regardless of a teacher's instructional responsibility to any one

student. In contrast, teacher-specific data includes measures directly related to a classroom teacher with state assessment data and his/her instructional responsibility to specific students (PDE, 2014).

In 2002, PDE introduced an additional tool to monitor students' progress towards proficiency on state standards. According to the Pennsylvania Department of Education (2019g), the Pennsylvania Value-Added Assessment (PVAAS) is a statistical tool used to determine student growth. Pairing student achievement scores with student growth measures provided a new approach to gathering information about student learning. PVAAS links a district's, school's, or teacher's impact on academic growth. It does not require students to transition from one achievement level to the next (e.g., below basic to basic or basic to proficient). Instead, PVAAS measures a group of students' growth from one grade level to the next by comparing their most recent test experience to all of their historical data points. As such, a PVAAS growth score will indicate if a group of students met, exceeded, or failed to make expected growth over the course of one school year.

Pennsylvania certified teachers who have full or partial responsibility for content specific instruction in tested grade levels as measured by the PSSA and/or Keystone Exams receive a teacher-specific PVAAS score (Pennsylvania Department of Education, 2014). The teacher must have three consecutive years of PVAAS data in order for a teacher-specific PVAAS score to be included in his/her annual evaluation.

2.2.2 Statewide Graduation Requirements

High school exit exams as graduation requirements have been instituted to ensure students demonstrate a certain level of understanding in regard to specific state standards (Caves & Balestra, 2018). Like many states across the country, PDE has been holding schools and students accountable

for student learning by requiring end of course exams for high school students and for years has suggested that passing all three Keystone Exams would eventually be used as a statewide graduation requirement. After conducting a case study of high school exit exams, Ullicci and Spencer (2009) suggest the impact high stakes testing has on public education does not provide a "quick fix" to the achievement issues in schools across the country. Parents also share this concern and worry about the impact state testing has on their children's educational experience (Freeman, Mathison, & Wilcox, 2006).

Many researchers explored positive and negative effects of state graduation exam mandates. For example, while high school exit exams may promote rigorous academic standards, such exams may also unfairly impact some students' future goals. According to Traynor and Chapman (2015), to mitigate concerns around the use of standardized assessments as graduation requirements, most states with exit exam requirements also offer alternative pathways to meet statewide graduation requirements.

The Pennsylvania Department of Education's passage of Act 158 of 2018 attempts to alleviate the debate regarding Pennsylvania's use of Keystone Exams as a graduation requirement. Act 158 was signed into law by Governor Tom Wolf on October 24, 2018 and expands high school graduation requirements to provide options for students who do not meet proficiency on the algebra, biology, and literature Keystone Exams. While Keystone Exams remain the statewide assessment that Pennsylvania uses to comply with ESSA high school accountability requirements, Act 158 relinquishes the necessity for Pennsylvania students to earn a score of proficient or advanced on each of the Keystone Exams as a statewide graduation requirement. As an alternative to using Keystone Exams as the measure of student learning and graduation readiness, Act 158 adds flexibility to Pennsylvania's graduation requirements by providing several pathways by which

students can demonstrate proficiency in tested subject areas to meet Pennsylvania's statewide graduation requirement. Beginning with the class of 2022, Pennsylvania's public school districts will be required to maintain accurate records as to which pathway each student satisfies to meet Pennsylvania's statewide graduation requirements (PDE, 2019h).

In January 2019, the Pennsylvania Department of Education released initial guidance regarding Act 158. The guidance document includes all options available to meet the statewide graduation requirement, effective with the class of 2022. The Pennsylvania Association of School Administrators (PASA) developed communication tools to assist districts with the presentation of this information to stakeholder groups (Appendices A and B). Table 2 provides a compilation of the guidelines articulated in the PASA announcements.

The alternate pathways all require students to earn a passing grade in the Keystone tested subject areas in addition to meeting other criteria specific to each option. For example, the first option gives students the ability to fulfill the statewide graduation requirement by earning a composite score of 4452 on all three Keystone Exams (a student must achieve a score of 1500 on any one exam to score proficient). Additionally, the student must meet proficiency on at least one assessment and score at least basic on the other two. Should a student meet the composite score of 4452 and receive a below basic score on any one Keystone Exam, the student will not meet the statewide graduation requirement outlined in Option 1. 2017-2018 student data indicates approximately 65.4 percent of Pennsylvania students will meet proficiency on all three assessments or meet the criteria of the composite score to fulfill the statewide graduation requirement (Pennsylvania School Board Association, 2020). At the inquiry site, is estimated that approximately 85 percent of district students will pass all three Keystone Exams or meet the Keystone composite score to satisfy this statewide graduation requirement. It is possible that the

remaining students will satisfy the statewide graduation requirement by meeting one of the remaining three options outlined in Table 2.

Table 2. Pennsylvania's Options to Meet the Statewide Graduation – Senate Bill 1095 – Amendment A09230 – September 21, 2018 [1]

Option 1 Composite Score on Keystone Assessments	Option 2 Local Grade Requirements + Alternative Assessment or Pre-Apprenticeships	Option 3 CTE Concentrators Local Grade Requirements + Additional CTE Evidence of Readiness	Option 4 Local Grade Requirements + Additional Evidence of Readiness
Achieve an established composite score on all three Keystone Exams	Student meets or exceeds locally established grade-based requirement in the associated content area of the Keystone Exam and Achieves an established equivalent score on an alternate assessment such as Advanced Placement Exam, PSAT, SAT, ACT, or successful completion of a pre-apprenticeship program.	Student meets or exceeds locally established grade-based requirement in the associated content area of the Keystone Exam and demonstrates graduation readiness through evidence specific to CTE.	Student meets or exceeds locally established grade-based requirement in the associated content area of the Keystone Exam and presents at least three approved pieces of evidence relating to a student's postsecondary or career objectives that reflect graduation readiness (admission to higher education, attainment of industry recognized credentials, and others).

[1] Adapted from Pennsylvania Association of School Administrators (PASA), 2018a and PASA, 2018b.

(Appendix A)

2.2.3 Pennsylvania's Response to Federal Accountability Mandates

Pennsylvania transitioned to a new statewide accountability system aligned with ESSA requirements during the 2017-18 school year. This transition was coordinated to meet federal requirements that states develop plans including accountability indicators such as academic achievement and growth measures. Consequently, the PA Consolidated State Plan confirms PDE's commitment to improving academic achievement, closing the achievement gap, and ensuring all students show adequate academic growth from year to year (PDE, 2019f). As such, the public schools' annual administration of PSSA and Keystone Exams is now used to evaluate progress towards statewide achievement and growth goals. The individual student assessments are scored, and the school and subgroup results are ultimately compiled for public reporting.

High expectations for all students and long-term goals for improved academic achievement in English language arts and mathematics are federal mandates also included in the Consolidated State Plan. Pennsylvania's long-term goal is to decrease, by half, the statewide percentage of students scoring basic and below basic on the PSSA and Keystone Exams (PDE, 2019f). Baseline data was collected from the 2015 statewide administration of these assessments. The state expects to meet the academic achievement goal by the end of 2029-30 school year (PDE, 2019f).

The 2030 long-term achievement goals are represented in incremental increases across all years through 2030. A comparison of annual goals for all students and subgroups and yearly assessment scores will be used to determine if schools are making adequate progress toward the 2030 goals in English language arts and mathematics. The time span across 13 years from 2017-2018 to 2029-2030 is thought to provide districts and schools a reasonable amount of time to develop and implement intervention and support systems for students.

PDE believes the goals of the state plan to be "ambitious and attainable." The long-term goals apply to all public schools and all student subgroups because the PDE expects every student to make gains in achievement regardless of any potential barriers to learning such as ethnicity, socioeconomic status, ability, or zip code (PDE, 2019f). Table 3 shows combined goals for all Pennsylvania Assessments.

Additionally, to assist districts in planning and goal setting, PDE provides every public school district with a personalized spreadsheet indicating annual achievement benchmarks for all students and subgroups of students. The annual targets are calculated through the 2030 school year.

Table 3. Academic Achievement Baseline and Long-Term Goals[2]

Student Group	English Language Arts: Baseline Data 2015 Percent Proficient / Advanced	English Language Arts: Long-Term Goal 2030 Percent Proficient / Advanced	Mathematics: Baseline Data 2015 Percent Proficient / Advanced	Mathematics: Long-Term Goal 2030 Percent Proficient / Advanced
All Students	61.6	80.8	43.2	71.6
White	69.4	84.7	50.5	75.3
African-American/Black	35.9	68.0	17.1	58.6
Hispanic	40.0	70.0	22.7	61.4
Asian (not Hispanic)	77.9	89.0	68.4	84.2
American Indian or Alaskan Native	55.3	77.7	35.0	67.5
Multi-Racial (not Hispanic)	55.0	77.5	35.2	67.6
Hawaiian Native/Pacific Islander	70.0	85.0	50.2	75.1

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[2] Pennsylvania Consolidated State Plan, 2019, pp.9-10

Students with Disabilities	25.3	62.7	17.2	58.6
English Learners	11.7	55.9	9.3	54.7
Economically Disadvantaged	43.9	72.0	25.7	62.9

2.2.4 Public Reporting of State Assessment Data

To inform citizens with additional information about Pennsylvania's public schools, the Future Ready PA Index (FRPAI) was developed to provide a comprehensive overview of school success (PDE, 2019c). PDE officially launched the FRPAI as an online platform in November 2018, giving the public access to information and statistics about every public school in Pennsylvania. FRPAI gives interested citizens the ability to compare schools' performances, make observations, and determine how effective they believe the schools to be.

The "Compare Schools" link in the Future Ready PA Index allows users to select schools and characteristics for comparison purposes. The user can select up to eight schools to compare, and results can be exported for saving and printing purposes. Table 4 incorporates all of the comparable characteristics within the FRPAI related to student achievement. The school districts selected for display are situated in proximity to the inquiry site. These school districts are representative of the schools that community members typically use to compare achievement results across districts.

All standard criteria and details describing the content of the FRPAI are outlined in the PA Consolidated State Plan. In addition to adding indicators of school success beyond student achievement, the FRPAI was created, in part, to meet ESSA accountability and reporting requirements. Although the touted intent of the FRPAI was to create a more complete overview of

school success, many of the indicators included are representative of ESSA requirements, such as student achievement and growth measures. Therefore, state, district, and school level achievement data remain indicators of school success and are a major component of the FRPAI.

In the FRPAI, annual achievement and growth measures, based on PSSA and Keystone results, are organized and reported by all student group and subgroup populations. The content and structure of the site make it easy for anyone to view the percentage of the population (state and public schools) meeting proficiency on statewide assessments and whether schools are meeting, exceeding, or failing to meet statewide student achievement goals. These and other evidence-based indicators of the FRPAI are divided into three main categories: State Assessment Measures, On-Track Measures, and College and Career Measures. State assessment measures specific to student achievement and growth include: 1) percent proficient or advanced on PSSA/Keystone Exams; 2) percent advanced on PSSA/Keystone Exams; and 3) meeting annual growth expectations (Pennsylvania Department of Education, 2019). These measures relate directly to student achievement and growth and are available to the public on Future Ready PA Index website (PDE, 2019b).

- Percent Proficient or Advanced on PSSA/Keystone Exam (Figure 1): To ensure student understanding of state standards, academic proficiency scores are reported.
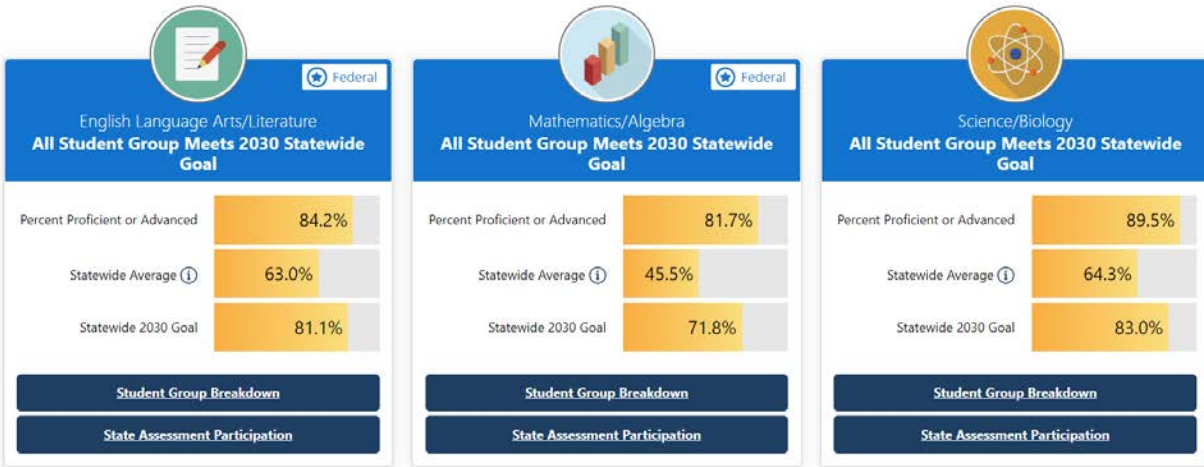
Figure 1. Percent Proficient or Advanced on Pennsylvania State Assessments[3]

- Percent Advanced on PSSA/Keystone Exam (Figure 2): To encourage districts to focus on higher level learners, the percent of students scoring Advanced on statewide assessments is isolated for reporting.
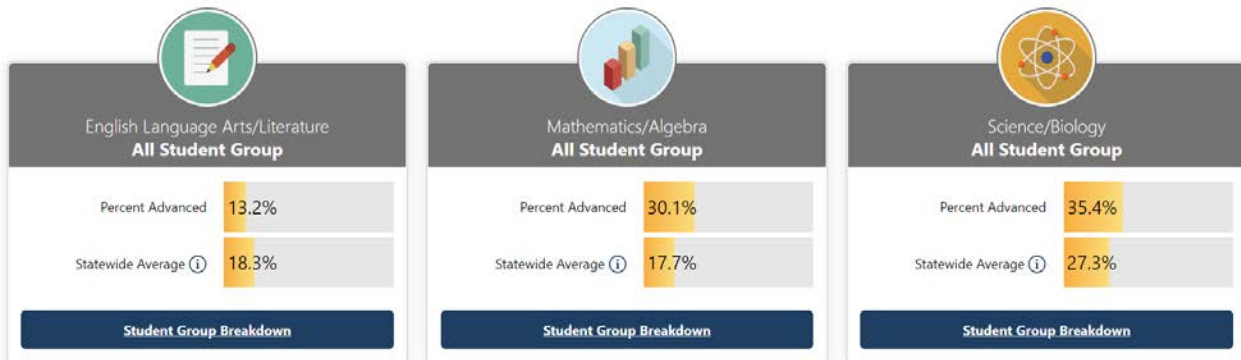

Figure 2. Advanced on Pennsylvania State Assessments[4]

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[3] PDE, 2019d (http://www.futurereadypa.org)

[4] PDE, 2019d (http://www.futurereadypa.org)

- Meeting Annual Growth Expectations (Figure 3): Using the Pennsylvania Value-Added Assessment System (PVAAS), growth measures for groups of students are quantified, coded, and reported.
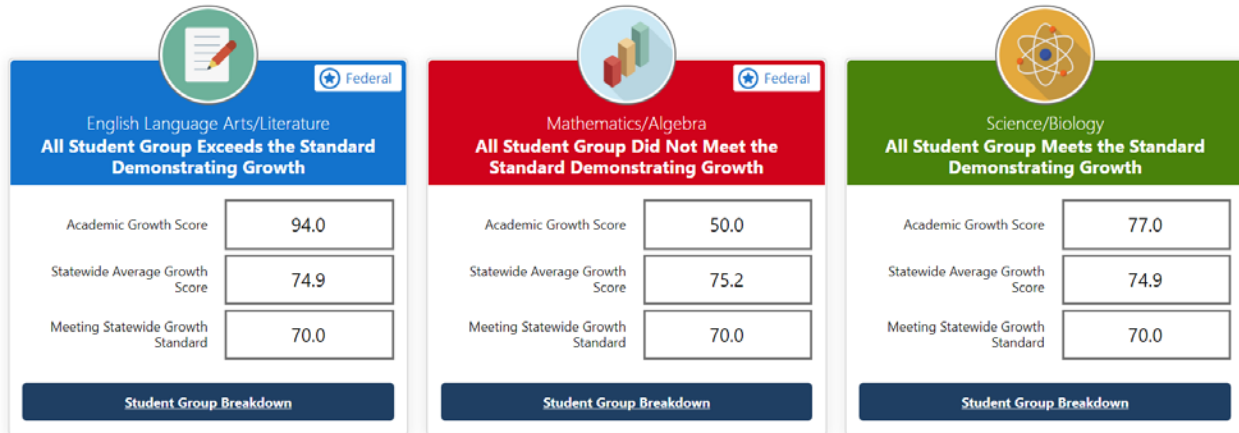
Figure 3. Meeting Annual Academic Growth Expectations (PVAAS)[5]

Additionally, the Future Ready PA Index (FRPAI) was intended to replace the School Performance Profile (SPP), a school-specific summative score of student achievement results also accessible to the public online. However, the SPP score was written into state legislation (Act 82 of 2012) as a mandated component of Pennsylvania's Educator Effectiveness System. Therefore, the school-specific summative score continues to account for 15 percent of each educator's overall evaluation, including principals and teachers. This building-level score is weighted heavily with student achievement and growth scores, and the SPP calculation takes very little into account beyond academic performance.

Prior to the FRPAI, the SPP was advertised publicly as an equitable way of comparing public schools across the state. Although PDE promotes the FRPAI as the preferred platform for

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[5] PDE, 2019d (http://www.futurereadypa.org)

viewing and determining school success, SPP scores will continue to be calculated annually and

are available on PDE's website.

Table 4. Future Ready PA Index Compare Schools Results[6]

Indicator Name (All Student)	Inquiry Site High School	Compare 1 High School	Compare 2 High School
Percent Proficient or Advanced on ELA/Literature	84.2	93.6	93.6
Percent Proficient or Advanced on Mathematics/Algebra 1	81.7	90.6	88.8
Percent Proficient or Advanced on Science/Biology	89.5	87.1	88.9
Meeting Annual Academic Growth Expectations (PVAAS) ELA/Literature	94	100	74
Meeting Annual Academic Growth Expectations (PVAAS) Mathematics/Algebra 1	50	78	50
Meeting Annual Academic Growth Expectations (PVAAS) Science/Biology	77	100	100
Percent Advanced on ELA/Literature (All Student)	13.2	31.8	15
Percent Advanced on Mathematics/Algebra 1	30.1	43.4	43.1
Percent Advanced on Science/Biology	35.4	52.8	50.2
Percent English Language Growth and Attainment	IS	IS	IS
Percent of Students with Regular Attendance	86.8	91.2	90.8
Percent Grade 3 Reading	Data Does Not Apply	Data Does Not Apply	Data Does Not Apply
Percent Grade 7 Mathematics	Data Does Not Apply	Data Does Not Apply	Data Does Not Apply

2.3 Data-Driven Decision Making

Federal and state mandates necessitate a culture of data analysis, but many educators have

little guidance about where and how to focus their improvement efforts (Englert et al., 2004).

Relationships between data utilization and policy making are not elaborated or structured in policy

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[6] PDE, 2019d (http://futurereadypa.org)

(Spillane, 2012). Much of the responsibility to instill value, understanding, and use of state accountability data occurs at the district or school level.

Data-driven decision making (DDDM) is the process of transforming raw data into information that can be utilized to form action steps (Hora et al., 2017). How educators make sense of data and interpret the information is at the core of DDDM. The practice of DDDM in the context of the school environment is dependent upon the knowledge and skills of administrators in how to collect, analyze, and collaborate on available data such as student achievement results. Ultimately, changes to district, building, and classroom practices are more likely to bring about desired results when educators use data to make informed decisions (Englert et al., 2005).

To create practices and procedures utilizing data requires professional development to help educators organize, analyze, and apply data in meaningful ways (van Geel, Keuning, Visscher, & Fox, 2017). Simply providing administrators and teachers with data to make decisions does not provide the skills or process necessary to transform the data to information and action steps to improve teaching and learning. However, the accessibility of data is a prerequisite to effectively practicing DDDM (Hora et al., 2017). Only after data is made available can data analysis and DDDM occur.

Studies show that administrators can empower teachers to use data or, in contrast, hinder teachers' use of data in making decisions to address student achievement (Schildkamp, et al., 2019). Thus, the administrators' role in prioritizing time for teachers to meet and review data as well as to collaborate on how best to use data is essential to implementing interventions and improving student achievement (Schildkamp, et al., 2019). Furthermore, Lai and McNaughton (2016) describe the impact of data use professional development on student achievement as a whole school intervention. The professional development they describe included data use to identify a problem

and planned interventions to address the problem. This professional development was repeated in 53 schools over eight years. Using nationally recognized achievement assessments to measure changes in student learning outcomes, data use professional development has been associated with statistically significant improvements in achievement (Lai & McNaughton, 2019). Therefore, administrators' ability to understand state assessment data to the level at which planning professional development for staff is possible will add value and purpose to data use for decision making and student learning outcomes.

Informed data use is an important way to improve education by identifying areas in which measures of student understanding, such as state assessments, do not indicate student proficiency in a particular learning objective (Vanlommel & Schildkamp, 2019). Therefore, how administrators make sense of data as part of their work will influence the data culture and how deliberate and systematic teachers' use of data is to intervene and improve student achievement.

How well educators understand and utilize data is often influenced by administrators' beliefs about the purpose and validity of statewide assessment practices. Vicki Park (2018) argues that administrators must focus on inquiry for improvement and eliminate negative undertones of data use in order to improve student learning. Park (2018) also suggests that administrators and teachers need specific skills and knowledge to use data efficiently and effectively. Park's (2018) research examines how leaders enact the structure of data conversations and the impact of data conversations with the intent to improve student learning. Overall, the findings suggest a school leader's ability to establish routines and frames for data use creates the foundation needed for data conversations to occur (Park, 2018). These findings clarify that the use of data to address student achievement is impacted by leadership practices and opportunities to collaborate on student learning objectives.

2.4 Application to the Inquiry Site

Administrators and teachers need support in developing their knowledge and skills for using student achievement data to inform instructional decision making and meet the needs of the students (van der Sheer & Visscher, 2017). Effective means and practices must be in place in order to create the opportunity for administrators and teachers to improve student learning outcomes (Petrides & Nodine, 2003).

The district chosen for this inquiry study has not implemented a systemic approach to providing administrators the information and training to develop common practices for using state assessment data to set goals for increasing student achievement. Currently, there is an expectation that each of the nine buildings in the district shares state assessment results with teachers at the start of the school year. The Director of Analytics and Federal Programs provides each building principal with school, district, and state results from the most recent test administration in a uniform template. However, there is a lack of consistency from building to building in regard to how state assessment data is used and the extent to which state assessment is used to drive instruction and promote improved student achievement

A structured and systematic approach to data analysis may effectively address student achievement concerns by contributing to observable and sustainable increases in student achievement results. A shared understanding of the state assessment data available, how to access the data, and how to interpret the information to make data-driven decisions could ultimately be implemented in the district in order to inform programming, curriculum, and instruction as well as positively impact student achievement.

Administrators' strategic use of data could have a positive impact on student achievement. Continuously engaging administrators in this work with one another as well as with teachers could

ensure assessment data are linked to instructional change. Considering administrators' perspectives, interpretations, and levels of understanding throughout collaborative discussions will help administrators and teachers identify trends and root causes in the data (Skalski, & Romer, 2011).

2.5 State and Inquiry Site Assessment Results

Tables 5 and 6 show the percentage of students from the inquiry site who scored Proficient or Advanced on the PSSA English Language Arts and Mathematics assessments over a five-year period from 2015 through 2019. To make observations and analyze the data, statewide averages are available for comparison in Tables 7 and 8.

At the inquiry site, the percentage of students scoring proficient or advanced on the PSSA in English Language Arts (ELA) decreased from 2018 to 2019 in five out of six grade levels. The percentage of students who rated proficient or advanced in ELA increased from 82.1 percent in 2018 to 85.6 percent in 2019 for students in grade 4.

In Mathematics, the percentage of students from the inquiry site scoring proficient or advanced decreased in three out of six grade levels and increased in three out of six grade levels. Again, the largest increase occurred in grade 4. The percentage of proficient and advanced increased from 63.6 in 2018 to 69.8 in 2019. However, it should be noted that the lowest score in grade 4 across all five years was 63.6 in 2018. Therefore, the grade 4 percentage of proficient or advanced in 2019 is more typical than the previous year's score.

When comparing statewide averages of PSSA student achievement scores in English Language Arts and Mathematics, Pennsylvania students show higher levels of achievement in all

grades for English Language Arts when compared to achievement scores in Mathematics. This is

the same for students at the inquiry site.

Table 5. Inquiry Site PSSA Results 2015-2019, English Language Arts[7]

Year	2015	2016	2017	2018	2019
Grade 3	82.5	80.3	83.2	82.3	81.4
Grade 4	79.4	81.7	83.4	82.1	85.6
Grade 5	80.2	78.1	80.5	80.7	76.4
Grade 6	82.4	81.6	84.9	82.4	82.1
Grade 7	83.9	86.1	79.2	82.4	78.1
Grade 8	82.8	80.2	81.5	78	69.3

Table 6. Inquiry Site PSSA Results 2015-2019, Mathematics

Year	2015	2016	2017	2018	2019
Grade 3	72.2	74.3	75	74.5	75.8
Grade 4	66.6	69.1	67.1	63.6	69.8
Grade 5	61.6	58.8	67.7	67.7	61.5
Grade 6	67	57.7	65.4	64.4	65.7
Grade 7	48.9	60.3	57.5	56.9	53.4
Grade 8	47.8	46.9	54.3	46	43

Table 7. Statewide PSSA Results 2015-2019, English Language Arts

Year	2015	2016	2017	2018	2019
Grade 3	62	60.9	64.6	63.5	61.9
Grade 4	58.6	58.7	60.9	59.8	63.6
Grade 5	61.8	61.5	59.6	59.4	58.5
Grade 6	60.7	61.6	63.6	62.5	63
Grade 7	58.7	61.5	59.5	61.9	60.4
Grade 8	58	58.3	58.9	61.5	57.9

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[7] Data from Tables 5-8 from emetric (2019)

Table 8. Statewide PSSA Results 2015-2019, Mathematics

Year	2015	2016	2017	2018	2019
Grade 3	48.5	54.4	54.5	54.1	56
Grade 4	44.5	46.5	46.6	43.5	46.2
Grade 5	42.8	44.4	43.8	45.2	43.1
Grade 6	39.7	41	40.3	39.6	39
Grade 7	33.1	37	37.8	38.9	38.2
Grade 8	29.8	31.2	32.5	31.1	32.2

A comparison of state and local inquiry site data indicates that the school district consistently outperforms the state in both English Language Arts and Mathematics. Table 5 and Table 6, however, contain assessment results specific to the inquiry site that show an inability to accomplish continuous improvement goals over time. While student performance in some years is higher than others, the district has not maintained increases from year to year. The goal of the district is to close the achievement gap by decreasing annually the percentage of students scoring below basic or basic on statewide assessments.

The School Performance Profile (SPP), a summative building score, contains longitudinal data shown in Table 9. Only one district building sustained annual increases in the SPP score from 2015 to 2018. The high school includes students enrolled in grades 9 through 12; students in grade 12 are not included in the data because PDE banks all tests scores for each student on all Keystone Exams until the end of their junior year. Therefore, annual achievement and growth scores for all grade 11 Keystone Exams in Algebra, Biology, and Literature are associated with the high school.

The highest SPP score belongs to a district elementary school. This elementary school received a rating of 91.1 in 2016-2017. The score decreased the following year by 6.4 points. Overall, SPP scores are inconsistent from year to year, which suggests that more can be done to raise student achievement and growth scores across the district.

Table 9. Inquiry Site School Performance Profile Scores [8]

SCHOOL	SPP 15-16	SPP 16-17	SPP 17-18
District K-4 Building A	85.4	82.7	76.9
District K-4 Building B	79.7	78.4	79.4
District K-4 Building C	64.4	83.2	71.8
District K-4 Building D	81.8	91.1	84.7
District 5-6 Building E	76.6	78.6	74.8
District 5-6 Building F	68.6	76.8	66.2
District 7-8 Building G	75.8	69	62.3
District 9-12 Building H	79.9	82	89.4

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[8] PDE (2019e)

3.0 Methodology

This chapter describes the methodology, data collection procedures, and analysis procedures used during the program evaluation. Also included are descriptions of the participants and instrumentation as well as discussion of limitations.

The intent of this research is to investigate administrators' perceptions of the value and utility of state assessment data. Also, this study examined to what extent administrators understand and use state assessment data to address student achievement. Furthermore, the findings of this study will inform the development and implementation of a structured and systematic approach to data analysis at the inquiry site. The purpose of this study is to contribute to a shared understanding of available data and how assessment data can be used to address student learning and, ultimately, student achievement. The findings provide insight and guidance to district and building level administrators on how best to access, analyze, and use assessment data to inform continuous improvement efforts and address student achievement.

A survey was used to gather information from district and building-level administrators. The survey measured each administrator's perceptions of the importance of state assessment data, the degree to which state assessment data is used, and the manner in which administrators use state assessment data. In addition, the survey illuminated the factors that contribute to the use of state assessment data. The survey included both closed- and open-ended questions to allow for a more comprehensive representation of data analysis practices within the district and its schools. The information from the survey, as well as a longitudinal comparison of annual state assessment data using publicly available PDE data and reports, were used to develop next steps at the inquiry site.

3.1 Inquiry Questions

Participants in this study are central office and building administrators who were surveyed on their use of state assessment data. The data referenced in the survey includes state assessment data and accompanying reports from the Pennsylvania Department of Education that administrators can access in their roles as instructional leaders. Such reports include raw data spreadsheets with individual student test scores retrievable from the Data Recognition Corporation (DRC) portal as well as student growth and projection summary reports generated by Pennsylvania Value-Added Assessment System (PVAAS). Other reports include downloadable tables and graphs of state assessment data at the summary or individual student level accessible through eMetric, an online data interaction platform for Pennsylvania student assessments. State assessment reports are also available through the inquiry site's online portal. The inquiry site's state assessment results are uploaded to the secure online portal at the conclusion of each assessment cycle.

The specific inquiry questions include:

1. What are the administrators' perceptions of the value and utility of state assessment data?

2. To what extent and how are administrators utilizing state assessment data to inform decisions?

3. What factors influence the use of state assessment data?

3.2 Inquiry Setting

The inquiry site is a suburban school district located approximately 30 minutes north of Pittsburgh. The district is comprised of nine buildings: four elementary schools, two middle schools

for grades five and six, one middle school for grades seven and eight, an intermediate high school, and a senior high school. The district enrollment in grades K-12 is over 7,000 students, and approximately 850 employees account for the professional and classified staff members. The district is approximately 100 square miles, making it one of the largest districts in the area.

The oil and gas industry, along with sizable business sector growth over the past 10 years, created a market for many new housing developments in the district. As new neighborhoods and businesses continue to attract families to the community, changes to both the landscape and the demographics of the district have occurred. Additionally, district enrollment records show growth in historically underperforming subgroups, such as special education, English language learners, and students classified as economically disadvantaged. 2017-2018 school year demographic data specific to the inquiry site is seen in Table 10. Furthermore, in comparison to surrounding school districts, the enrollment and percentage of special education and economically disadvantaged students is higher.

Table 10. Inquiry Site Fast Facts[9]

Number of Schools	8*
District Enrollment	7,170
Percentage of Gifted Students	8.4
Percentage of Special Education Students	16.6
Percentage of Economically Disadvantaged	17.4
Percentage of English Language Learners	0.8
Enrollment in Career and Technical Center	127
Charter School Enrollment	113

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[9] The Intermediate High School and Senior High School are combined for reporting purposes.
Future Ready PA Index (2019), *District Fast Facts (School Year 2017-2018)*

Table 11. Inquiry Site Percent Enrollment by Race/Ethnicity[10]

American Indian/Alaskan Native	0.0
Asian	2.9
Black	1.4
Native Hawaiian or other Pacific Islander	0.0
Hispanic	2.2
White	90.5
2 or more races	3.0

From 2012 through 2017, the school district made significant efforts to improve student achievement and growth measures by focusing on developing administrators' and teachers' instructional practices. At the start of the 2012-2013 school year, the district entered into a five-year contract with a professional educational agency to provide job-embedded coaching to administrators and teachers. The focus of this coaching was metacognitive thinking strategies to promote student collaboration, small group instruction, and opportunities for students to think critically and apply their learning through real-world application of skills within and beyond the walls of the classroom. While administrators can speak to the positive changes in the teachers' planning and approaches to instruction, the achievement data does not show consistent increases in the percentage of students attaining proficiency on statewide assessments. Consequently, the district remains committed to continuous professional development in effective instructional strategies, but also understands that more must be done to improve student achievement measures.

Insufficient understanding and utilization of state assessment data is thought to impede communication among central office administrators, principals of district buildings, and teachers throughout the district. Because this is not an issue that can be resolved quickly or easily, the process of determining the value and utility of state assessment data within the inquiry site has been

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[10] Future Ready PA Index (2019), *District Fast Facts (School Year 2017-2018)*

effective in identifying factors that influence data use and the degree to which assessment data is used to inform decisions.

3.3 Participants

The district administrative team includes the superintendent, assistant superintendent for secondary education, assistant superintendent for elementary education, Director of Analytics and Federal Programs, Director of Special Education, Assistant to the Director of Special Education, Supervisor of Gifted and Student Support Services, and principals and assistant principals for the district's nine buildings (Table 12). Some administrators review parts of state assessment data reports to implement initiatives in their respective schools. However, the data analysis work is often not collaborative; at times, it is even competitive due to the number of schools and administrators vying for human and financial resources. The administrators have common interests, yet how grade levels and schools across the district are using statewide assessment data and the extent to which statewide assessment data is used to inform decisions is not consistent.

Table 12. School Administrators at the Inquiry Site

Administrator	Grades	Quantity
Superintendent of Schools	Central Office, K-12	1*
Assistant Superintendent for Secondary Education	Central Office, K-12	1
Assistant Superintendent for Elementary Education	Central Office, K-12	1
Director of Special Education	Central Office, K-12	1
Assistant to the Director of Special Education	Central Office, K-12	1
Director of Analytics and Federal Programs	Central Office, K-12	1*
Supervisor of Gifted and Support Services	Central Office, K-12	1
Elementary Principal	K-4	4
Elementary Assistant Principal	K-4	4
Middle School Principal	5-6	2
Middle School Assistant Principal	5-6	2

Middle School Principal	7-8	1
Middle School Assistant Principal	7-8	2
Intermediate High School Principal	9-10	1
Intermediate High School Assistant Principal	9-10	1
Senior High School Principal	11-12	1
Senior High School Assistant Principal	11-12	2
Academy of Choice Principal	K-12	1
Academy of Choice Assistant Principal	K-12	1
	Total	29
	Total by survey participation	27

*Non-participant in survey

3.4 Inquiry Design

This study aims to explore administrators' utilization of state assessment data to address student achievement at the inquiry site. A survey was used to collect and synthesize data to construct participant knowledge of the utilization and application of state assessment data to inform decisions at the district and school level. In addition, the survey results will be helpful in determining the supports needed to establish effective means and practices for administrators to access and use assessment data to improve student achievement. This postpositivist study will maintain the overall goal of "discovering general laws to describe constant relationships between variables" (Mertens, 2015, p.11).

The study includes a collection and summary of both quantitative and qualitative data. The study contains an analysis of longitudinal student achievement data from Pennsylvania assessments in math and reading. Additionally, a survey of school administrators was conducted to investigate how school administrators engage with and use state assessment data. Embedded in this study are three units of analysis: artifact analysis of educational policy (ESEA, NCLB, and ESSA), artifact

analysis of current and historical student achievement data specific to the inquiry site (PSSA and Keystone results), and information obtained from the survey results of school administrators. The triangulated data analysis will focus primarily on how administrators utilize state assessment data to address student achievement and what supports are necessary to decrease barriers to the usage of state assessment data to address student achievement results. Data from the study will calibrate the change efforts and inform actions to be taken related to statewide assessment data, data-driven decision making, and raising student achievement.

3.5 Approach

The data for this research was derived from a survey and supplemented by data from Pennsylvania's state assessments in reading and math on PSSA and Keystone Exams. Careful review and analysis of available achievement and growth data from the inquiry site is needed to develop a general understanding of the district's strengths and opportunities for growth based on student achievement results. As noted previously, no consistent increases have been observed in district level-reading and math results over a five-year time period. Therefore, via the survey, the study also evaluated how administrators use data throughout the district to inform decisions.

3.5.1 Method Design and Analysis Plan

Inquiry Question 1	What are the administrators' perceptions of the value and utility of state assessment data?
Evidence	• The data collected from the survey will evaluate which state assessment data administrators perceive to be of value or quality/lacking quality.

	• The data collected from the survey will be used to determine how useful or beneficial state assessment data is to administrators. • The survey will be sent to appropriate district administrators at the inquiry site (n=27).
Design/Method	Survey – closed- and open-ended questions Qualtrics survey questions 3, 4, 6, 10, 12, 19
Analysis	The survey results were analyzed to show administrators' perceptions of the value and utility of state assessment data. Emerging themes were coded (V = Value, U = Utility).

Inquiry Question 2	To what extent and how are administrators utilizing state assessment data to inform decisions?
Evidence	• The survey will allow for a systemic inquiry of the degree to which state assessment data is being used and for what reasons administrators use state assessment data. • A Likert scale will allow comparison of the administrators' utilization of assessment data and how it is being used to inform decisions.
Design/Method	Survey – closed- and open-ended questions Qualtrics survey questions 7, 8, 9, 15, 13, 16
Analysis	The survey results were analyzed and articulated via written analytic statements. Emerging themes were coded (E = Extent, H = How). The results will allow for further investigation of what needs to be addressed and developed to better prepare administrators to use state assessment data to inform decisions.

Inquiry Question 3	What factors influence the use of state assessment data?
Evidence	• The data collected from the survey will be used to categorize the circumstances that influence or contribute to data use.
Design/Method	Survey – closed- and open-ended questions Qualtrics Survey Questions 3, 4, 5, 10, 11, 14, 17, 18
Analysis	Emerging themes were coded (FA = Factor/Accessibility, FK = Factor/Knowledge, FP = Factor/Process, FT = Factor/Time, FO = Factor/Other) The survey will allow for further examination of factors that hinder the use state assessment data. The factors and potential support correlated to these factors are described via written analytic statements.

3.6 Instrumentation

In 2013, Raeal Moore and Teresa Shaw, along with a team at ACT, administered a survey to principals to investigate data use for decision making (Appendix C). This survey was adapted to align with the goals and inquiry questions of this study. The survey tool was modified to include survey questions specific to the administrators' perception of the value and utility of state assessment data. The extent to which administrators utilize state assessment data to inform decisions as well as the ways administrators use state assessment data was emphasized through the survey questions. Using the results of the closed- and open-ended survey items, factors that influence or contribute to data use were highlighted and used to identify supports needed to expand administrators' use of state assessment data for instructional decision making.

The survey instrument, "State Assessment Data Administrator Survey" (Appendix D), was created in Qualtrics. This system is provided by the University of Pittsburgh and is an online platform for the creation and distribution of surveys. The option to start, stop, and save is available in this online tool. Therefore, respondents did not have to complete the entire survey at once.

The survey includes a recruitment letter with instructions on how to complete the survey (Appendix E). A section describing how the information will be collected and a brief description of types of questions is outlined in the cover letter. The cover letter also explains that the survey does not require participants to share personally identifiable information. However, some demographic information was requested, such as years of experience and type of administrative position. Questions are organized into four categories (value and accessibility of data, value and utility of data use, extent of data use, and factors influencing data use).

Prior to its deployment, the survey was reviewed by three assistant superintendents, a director of student achievement, two administrators, and two teachers. The feedback was used to

refine the survey prior to its distribution. Once approval was granted from the Doctoral Committee, permission was requested from the University of Pittsburgh Institutional Review Board (Appendix F). In addition, signed consent to conduct research at the inquiry site was acquired (Appendix G). Ultimately, after the survey was finalized and consent had been granted, administrator participants were sent an electronic link to the Qualtrics survey.

Each administrator received an email that contained the recruitment letter explaining my role as the researcher and the scope of the study. Two additional reminder emails were sent to the group of 27 administrators after the initial message was sent in order to secure additional responses.

3.7 Data Analysis

Data analysis began with the completion of the survey. The data obtained was statistically analyzed using Qualtrics. Descriptive statistics were used, including mean, standard deviation, variance, count, and percentages. The open-ended responses were analyzed to discover common themes. Responses were calculated and data analysis was centered on the themes and each of the inquiry questions.

A coding system was developed to indicate specific connections between survey and inquiry questions. Many of the survey questions are associated with more than one inquiry question. Then, reports generated through Qualtrics were reviewed and trends and observations were documented in analytic statements. Descriptive statistics for each close-ended question, such as mean, standard deviation, count, and percentages were calculated via Qualtrics and reviewed by the researcher. In addition, open-ended questions were analyzed to identify themes and to indicate a connection to a specific research question.

3.8 Limitations of the Study

There were limitations in the design and implementation of this study. The first limitation is the sample size of 27 participants. Twenty-four of 27 administrators responded to the survey, which is representative of the inquiry site. The findings may not be generalized to other districts and caution should be taken before drawing conclusions from the study. This study will permit the researcher to address the problem of practice at the inquiry site alone.

Furthermore, the survey questionnaire may have accuracy issues in participant responses. The researcher is closely connected to the participants' supervisor. Moreover, the researcher provides feedback to the administrators' supervisor about the performance of the administrator, specifically in the area of data usage and student achievement results – which is included in his/her annual evaluation. Therefore, the participants may have been apprehensive to be completely honest in their responses to the survey questions. The researcher made every attempt to assure each participant that honest responses were necessary to allow the researcher to determine how best to support administrators in analyzing assessment data to inform decisions.

Another limitation of this study was potential researcher bias. There was a potential for bias when the researcher interpreted the responses provided by the administrators in the open-ended questions. The researcher's professional relationship with the administrators and an understanding of their strengths and opportunities for growth when using data to inform decisions guided this study. Therefore, it is possible that personal bias could influence the direction of any study. Being cognizant of this possibility served as a constant reminder to the researcher to remain as neutral as possible during the course of this study.

4.0 Results

The focus of this study is to explore administrators' perceptions of the value and utility of state assessment data at the inquiry site. This study focused on a single school district whose current state assessment data does not reflect consistent gains in student achievement across time.

For the purpose of discerning between administrators' value and utility of state assessment data as well as how administrators are using state assessment data and the factors influencing the use of state assessment data, Chapter 4 is organized according to the following inquiry questions:

1. What are the administrators' perceptions of the value and utility of state assessment data?

2. To what extent and how are administrators utilizing state assessment data to inform decisions?

3. What factors influence the use of state assessment data?

4.1 Participant Demographics

The sample is comprised of 24 administrators from the inquiry site. Participants include central office level administrators, building principals, and assistant principals. Table 12 lists the administrative positions at the inquiry site, and Table 13 lists the descriptive data about the administrative positions respondents held when the survey was administered. The highest percentage of respondents came from assistant principals (41.7 percent), followed by principals (37.5 percent), and central office administrators (20.8 percent).

Table 13. Administrative Positions Held from Respondents

Position	Percentage	Total Respondents	Total Possible Respondents
Central Office Administrator	20.8%	5	5
Principal	37.5%	9	10
Assistant Principals	41.7%	10	12
Total	100%	24	27

Tables 14 and 15 list descriptive data about the administrators' years of experience. At the inquiry site, the average years of administrative experience is 9.82. Central office administrators have the most administrative experience (mean=17.0) followed by principals' years of experience (mean=10.63). The average years of experience for assistant principals is 5.11 years. Two administrators did not respond to this question, therefore, the total response rate for the question is 22.

Table 14. Years of Administrative Experience from Respondents

Category	Count	Minimum	Maximum	Mean	Standard Deviation
Administrator Experience in Years	22	1	25	9.82	6.808

Table 15. Years of Administrative Experience by Position

Category	Minimum	Maximum	Mean	Standard Deviation
Central Office Administrator	9	25	17.00	7.517
Principal	6	17	10.63	1.511
Assistant Principal	1	15	5.11	1.476

4.2.1 Inquiry Question 1

What are the administrators' perceptions of the value and utility of state assessment data?

This question sought to examine administrators' perceptions of the value and utility of state assessment data. Administrator responses to survey questions 3, 4, 10, 11, 12, 13, and 19 provided insight into the level of importance (value) that administrators place on multiple sources of data as well as the usefulness of state assessment data in several different areas. Each of these questions required administrators to think deeply about the ways in which state assessment data is or is not used in their work as instructional leaders.

Question 3 asked administrators to indicate how valuable each source of data is when making decisions about curriculum, instruction, and assessment using a Likert scale (1=none, 2=low, 3=moderate, 4=high). The results show the highest responses for "student test scores on PSSA/Keystone disaggregated by student group" (mean=3.42). On average, student test scores on Keystone Exams disaggregated by first-time testers and retesters is of low value (mean=2.32). Administrators also indicated PVAAS projection summary reports (mean=2.86) and PVAAS teacher specific growth reports (mean=2.91) were of moderate value. Administrators also had the option to select "not applicable" for each data source listed. Therefore, some respondents did not answer one or more Likert scale questions. The count for the different components of this question, then, does not always equal 24. Table 16 outlines the responses.

Table 16. Value – Administrator Perception. Question 3

Category	Count	Minimum	Maximum	Mean	Standard Deviation
Student test scores on Keystone/PSSA	24	2	4	3.13	.680
Student test scores on Keystone/PSSA disaggregated by teacher of record	23	2	4	3.04	.706
Student test scores on Keystone/PSSA disaggregated by reporting category	23	2	4	3.35	.647
Student test scores on Keystone/PSSA disaggregated by student group (economically disadvantaged, students with GIEPs, students with IEPs, etc.)	24	2	4	3.42	.548
Individual student test scores on Keystone/PSSA aligned to corresponding course grade	24	2	4	3.17	.761
Student test scores on Keystone Exams disaggregated by first-time testers and retesters	19	1	4	2.32	1.157
Individual student test scores on all three Keystone Exams aligned to statewide graduation requirement (Keystone Proficiency/Keystone Composite Score)	16	1	4	2.56	1.153
PVAAS growth by grade, school, subject, and proficiency level (Advanced, Proficient, Basic, Below Basic)	23	2	4	3.04	.825
PVAAS growth by student group (economically disadvantaged, lowest performing students, students with GIEPs, students with IEPs, etc.)	23	2	4	3.22	.736
PVAAS teacher-specific growth reports	23	1	4	2.91	.864
PVAAS projection summary report (to determine student-level proficiency projections on state and national assessments)	22	1	4	2.86	.900

A second portion of Question 3 asked administrators to indicate if any data sources listed are not relevant to their work. Therefore, the response rate does not equal the sample size of 24. The highest percentage of administrators felt that Keystone Exam scores aligned to statewide

graduation requirements (50.0 percent) and student test scores on Keystone Exams disaggregated by first-time testers and retesters (45.8 percent) were not applicable to their work. Table 17 outlines the responses.

Table 17. Responses Indicating Data Not Relevant – Administrator Perception. Question 3

Category	Count	Percentage
Student test scores on Keystone/PSSA	0	0
Student test scores on Keystone/PSSA disaggregated by teacher of record	3	12.5%
Student test scores on Keystone/PSSA disaggregated by reporting category	0	0
Student test scores on Keystone/PSSA disaggregated by student group (economically disadvantaged, students with GIEPs, students with IEPs, etc.)	0	0
Individual student test scores on Keystone/PSSA aligned to corresponding course grade	2	.08%
Student test scores on Keystone Exams disaggregated by first-time testers and retesters	11	45.8%
Individual student test scores on all three Keystone Exams aligned to statewide graduation requirement (Keystone Proficiency/Keystone Composite Score)	12	50.0%
PVAAS growth by grade, school, subject, and proficiency level (Advanced, Proficient, Basic, Below Basic)	3	12.5%
PVAAS growth by student group (economically disadvantaged, lowest performing students, students with GIEPs, students with IEPs, etc.)	3	12.5%
PVAAS teacher-specific growth reports	3	12.5%
PVAAS projection summary report (to determine student-level proficiency projections on state and national assessments)	3	12.5%

As a follow up to question 3, survey question 4 gave administrators the opportunity to identify additional state assessment data relevant to their work that was not listed in question 3. Nine administrators responded. One administrator wrote:

All is available; however, too much to mine for administration. Student data mined and chunked for teachers to help them target reinforcement areas. Teacher and administrator reports – lots of data but we need breakdowns of what should be the focus to support the district initiative as well as individual students.

Three other respondents also indicated all types of state assessment data were listed in question 3. Two of the other responses were similar and reported the Pennsylvania Alternate System of Assessment (PASA)[11] as relevant to their work. Another administrator listed four additional data sources: SAT,[12] ACT,[13] NOCTI,[14] and Advanced Placement (AP) exams.[15] One administrator referenced the Northwest Evaluation Association (NWEA), a universal screening tool administered to students throughout the district three times per year. It should be noted that the SAT, ACT, AP, and NWEA are nationally normed standardized tests used in the United States and are not specific to Pennsylvania. Table 18 outlines the responses.

Table 18. Additional Relevant State Assessment Data. Question 4

Response	Count	State Assessment Data
SAT, ACT, AP	1	No
NOCTI	1	No
NWEA	1	No
PASA	2	Yes
All state assessment data was listed above	4	N/A

Survey question 10 asked administrators if the state assessment data available is applicable to their work, a good measure of student learning, and aligned to district curriculum. The following

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[11] The Pennsylvania Alternative System of Assessments (PASA) is a statewide alternate assessment designed for students with significant cognitive disabilities (PDE, 2020).

[12] The SAT is a national entrance exam based on what research has shown to be essential for college readiness (http://collegeboard.org).

[13] The ACT is a national college entrance exam that includes four subject tests (http://act.org).

[14] NOCTI collaborates with career and technical education communities and offers certificate programs.

[15] AP courses are comparable to introductory college courses. Most colleges and universities give students credit for qualifying AP Exam scores (htt://apcentral.collegeboard.org).

scale was used: 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree. The results show that administrators agree state assessment data is aligned to district curriculum (mean=3.88) and is applicable to their work (mean=3.83). Looking at this data further, 75.0 percent of administrators (18 administrators) agreed or strongly agreed that state assessment data is applicable to their work (mean=3.83) while 33.3 percent of administrators (eight administrators) agreed that state assessment data is a good measure of student learning (mean=2.92). No administrator-respondents "strongly agreed" that state assessment data is a good measure of student learning. Table 19 outlines the responses to this question.

Table 19. Utility – Administrator Perception. Question 10

Category	Count	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Mean	Standard Deviation
Applicable to my work	24	0	2	4	14	4	3.83	.816
Good measure of student learning	24	0	10	6	8	0	2.92	.881
Aligned well to district curriculum	24	0	1	7	10	6	3.88	.850

Question 11 gave administrators an opportunity to explain their rationale as to why they selected "strongly disagree" or "disagree" for any component of question 10. Nine administrators opted to respond. One administrator wrote:

Most of the data are hard to interpret and the timing that the data is received makes it difficult to do much with it. It is often very difficult to draw similar conclusions on data.

Another administrator wrote:

Students are proficient or advanced on the elementary PSSA yet cannot read. The indicators

do not always report logically for special education students.

Three other administrator responses were similar and indicated that multiple measures should be used to assess student learning. In other words, these administrators value additional measures of student learning to accurately determine what a student knows and is able to do.

Two administrators noted that state assessment data is not relevant because it is not directly tied to teachers or courses in their building. Like other respondents, these respondents suggest state assessment data is not extremely useful in their work as instructional leaders.

For question 12, administrators were asked to indicate the extent to which state assessment data is useful in helping educators plan for instruction, offering information about students that was not already known, improving student learning, helping evaluate the quality of instruction, informing progress in school or district, and helping determine if a program is effective or guiding conversations with parents. Using a Likert scale (1=not at all useful, 2=not very useful, 3=somewhat useful, 4=very useful), administrators noted that state assessment data is somewhat useful in helping educators plan for instruction (mean=3.0) and informing progress of school or district (mean=3.0). The mean of all responses ranges from 2.71 to 3.0 which suggests administrators overall find state assessment data to be somewhat useful in the ways described. "Guiding conversations with parents" was the only category for which any administrator responded the information was not at all useful. Table 20 provides administrator responses.

Table 20. Value and Utility – Administrator Perception. Question 12

Category	Count	Minimum	Maximum	Mean	Standard Deviation
Helping educators plan for instruction	24	2	4	3.0	.590
Offering information about students that was not already known	24	2	4	2.79	.588
Improving student learning	24	2	4	2.83	.565
Helping evaluate the quality of instruction	24	2	4	2.83	.482
Informing progress of school or district	24	2	4	3.0	.417
Helping determine if a program is effective	24	2	4	2.92	.408
Guiding conversation with parents	24	1	4	2.71	.690

As a follow up to question 12, question 13 asked administrators to describe other ways in which state assessment has been useful in their work as instructional leaders. Five administrators' responses offered insight into additional ways in which state assessment data is being utilized. One administrator wrote:

State assessment data is used to determine if a student can accelerate or if they are appropriate for online learning.

Two administrators indicated that state assessment data is used to generate conversations in Professional Learning Communities and district curriculum meetings. Other themes throughout the responses include using state assessment data to develop a focus and to improve instructional practices.

Unlike the other respondents, two administrators reported how difficult it is to connect state assessment data to instructional practice and voiced the importance of considering other types of data.

At the conclusion of the survey, question 19 asked administrators to provide comments concerning the use of state assessment data for decision making. Five administrators chose to respond. One administrator wrote:

Dispelling misconceptions of the data and using it effectively needs to be taught and revisited often with staff.

Another administrator wrote:

This is one piece of data that hasn't varied much year to year so it is hard to measure the effectiveness of instruction or programs when there is minimal fluctuation that can be directly attributed to a single variable.

Two other administrators felt their feedback regarding the survey was specific to their current role and indicated their responses would be different should they assume a different position in a different building and/or grade level. These responses suggest the value and use of state assessment data could be dependent upon the type of administrative position held in the district.

4.2.2 Inquiry Question 2

To what extent and how are administrators utilizing state assessment data to inform decisions?

This question sought to examine the degree to which administrators use state assessment data (how often) as well as the manner in which administrators use state assessment data. Administrator responses to survey questions 7, 8, 9, 15, and 16 provided insight into the extent to which administrators use state assessment data and how state assessment data is being used. Each of these questions required administrators to reflect upon how state assessment data informs their decisions.

Question 7 asked administrators to rate how often in the 2018-2019 academic year (including summer) they used data to inform their educational practice by using a Likert scale (1=never, 2=rarely, 3=sometimes, 4=often). Administrators noted state assessment data is sometimes used to promote improved student achievement (mean=3.09) and to make decisions in aligning resources with district or school goals (mean=2.88). On average, administrators responded that state assessment data is never used to assign/reassign teachers to courses or grades (mean=1.33) and state assessment data is rarely used to develop parent and family engagement plans (mean=1.87), evaluate teacher performance (mean=2.08), identify teachers for leadership opportunities (mean=2.12), develop recommendations for tutoring or other educational services(mean=2.21), coach teachers (mean=2.25), monitor instructional practices of the school (mean=2.39), allocate human resources in ways that promote student achievement (mean=2.42), and make individual student placement decisions in courses or special programs (mean=2.42). Table 21 shows the responses.

Table 21. Extent and How. Question 7

Category	Count	Minimum	Maximum	Mean	Standard Deviation
I used state assessment data to develop school goals to promote success of all students.	24	1	4	2.87	1.035
I used state assessment data make decisions in aligning resources with district or school goals	24	1	4	2.88	.850
I used state assessment data to develop and implement learning programs	24	1	4	2.42	.974
I used state assessment data to suggest changes in district curriculum.	24	1	4	2.75	.944
I used state assessment data to allocate human resources in	24	1	4	2.42	.974

ways that promote student achievement.					
I used state assessment data to determine topics for professional development.	24	1	4	2.75	.989
I used state assessment data to promote improved student achievement.	23	2	4	3.09	.668
I used state assessment data to judge my performance in effective management.	24	1	4	2.58	1.018
I used state assessment data to assess learning equity for different student populations.	24	1	4	2.75	.944
I used state assessment data to develop family and parent engagement plans.	24	1	3	1.87	.850
I used state assessment data to monitor instructional practices of the school.	23	1	4	2.39	.988
I used state assessment data to determine whether specific programs lead to improved achievement.	24	1	4	2.58	.830
I used state assessment data to identify problems in student learning.	23	1	4	2.83	.973
I used state assessment data to make individual student placement decisions in courses or special programs.	24	1	4	2.42	.974
I used state assessment data to develop recommendations for tutoring or other educational services for students.	24	1	4	2.21	1.021
I used state assessment data to coach teachers.	24	1	4	2.25	.944
I used state assessment data to evaluate teacher performance.	24	1	4	2.08	.881
I used state assessment data to assign/reassign teachers to courses or grades.	24	1	3	1.33	.637
I used state assessment data to identify teachers for leadership opportunities	24	1	4	2.12	1.035

Through an open-ended response, question 8 asked administrators to describe other ways in which state assessment data was used in the 2018-2019 academic year (including summer) to inform their educational practice. Seven administrators responded to this question. Two administrators noted that assessment data was used in Pennsylvania's mandated induction program, PA Inspired Leadership (PIL) program, to develop an action learning plan; a required deliverable for the program.[16] One administrator indicated that state assessment data was used to review intervention groupings for Multi-Tiered System of Support (MTSS).[17] Another administrator identified the use of state assessment data during time designated for staff to participate in Professional Learning Communities (PLC)[18] and referenced the use of state assessment data to develop the Report of Student Progress, a newly developed standards-based grading system at the inquiry site. Two administrators acknowledged that state assessment data is used as a snapshot of student performance and to identify trends across grade levels. One administrator, however, noted that data is never used to change the course curriculum due to the timeliness of when state assessment data becomes available.

Question 9 asked administrators to rate how often in the 2018-2019 academic year (including summer) they used state assessment data to make comparisons and examine trends by using a Likert scale (1=never, 2=rarely, 3=sometimes, 4=often). "Used state assessment data to

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[16] Principals and assistant principals employed in Pennsylvania's public schools must complete an induction program within the first five years that addresses Pennsylvania's leadership standards (PDE, 2020b).

[17] MTSS is a standards-aligned school improvement framework for enhancing academic outcomes for all students (http://pattan.net).

[18] A Professional Learning Community (PLC) is a group up educators working together to improve student learning through action research (DuFour & DuFour, 2010).

compare growth by grade" received the highest average (mean=3.04). This response was followed by "used state assessment data to compare student achievement by grade" (mean=2.88). On average, administrators sometimes use data in all of the ways described in Table 22.

Table 22. Extent and How. Question 9

Category	Count	Mean	Standard Deviation
Used state assessment data to compare subgroups of students.	24	2.71	.859
Used state assessment data to compare student achievement by grade.	24	2.88	.900
Used state assessment data to compare student growth by grade.	24	3.04	.859
Used state assessment data to compare my district or school to other districts or schools.	24	2.67	.816
Used state assessment data to examine trends in school or district.	24	2.83	.868

For question 15, administrators were asked to indicate the extent to which they agreed or disagreed with statements about their role in supporting the utilization of state assessment data for decision making and planning. A Likert scale was used with the following choices: 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree. The highest level of agreement came from the statement indicating that administrators discuss state assessment data with their colleagues and staff (mean=3.96). Responses are listed in Table 23.

Table 23. How – Providing Leadership and Support. Question 15

Category	Count	Minimum	Maximum	Mean	Standard Deviation
I provided a clear direction about how data should be used to improve instruction.	24	2	5	3.58	.830
I clearly communicated that using state assessment data for informed decision making is fundamental to teachers' work.	24	2	5	3.46	.932
I created many opportunities for my professional staff to use state assessment data.	24	2	5	3.42	.881
I discussed state assessment data with my colleagues and staff.	24	3	5	3.96	.624
I modeled effective techniques for interpreting and acting on state assessment data.	24	2	5	3.58	.830
I provided my professional staff with formal feedback on use of state assessment data.	24	2	4	3.04	.859
I monitored how the individuals I evaluate engage with state assessment data.	24	2	5	3.21	1.062
I led discussions on the meaning of state assessment data.	24	1	5	3.50	1.022
I developed reports using state assessment data tailored to specific building needs.	24	1	5	2.96	1.042
I provided important procedures to guide the use of state assessment data.	24	2	5	3.13	.992
I structured time for collaboration around the use of state assessment data.	24	2	5	3.5	1.063

Question 16 asked administrators to describe other ways they have provided leadership and support in the utilization of state assessment data for decision making. Five administrators responded. One respondent did not answer the question directly but noted that the use of assessment data is ongoing.

Another administrator wrote:

I created the expectations for building leaders to utilize assessment data including accessing

the support of our Director of Analytics and Federal Programs.

Other responses are included in Table 24.

Table 24. Other Leadership and Support. Question 16

Theme	Count
Administrator support of the use of state assessment data for reflective discussion in curriculum meetings	2
Administrator support of the use of state assessment data to inform discussions of grade level Professional Learning Communities	1

4.2.3 Inquiry Question 3

What factors influence the use of state assessment data?

This study provided administrators at the inquiry site the opportunity to indicate the factors that influence the use of state assessment data. Administrator responses to survey questions 3, 5, 6, 10, 11, 14, 17, and 18 provided insight into the circumstances that influence or contribute to administrators' utilization of state assessment data.

For Question 3, administrators were asked to indicate how accessible each source of data is by using a Likert scale (1=not accessible, 2=somewhat accessible, 3=accessible, 4=easily accessible). On average, the results show student test scores on Keystone/PSSA are easily accessible (mean=3.63) and student test scores disaggregated by student group are accessible by administrators (mean=3.37). Individual student test scores on all three Keystone Exams aligned to Pennsylvania's statewide graduation requirement is least accessible (mean=2.50). On average, administrator-respondents indicate that all types of state assessment data listed are accessible or easily accessible. Administrators also had the option to select "not applicable" for each data source

listed. Therefore, some respondents did not answer the question based on the Likert scale. The count for the different components of this question, then, does not always equal 24. Table 25 represents the responses.

Table 25. Accessibility. Question 3.1

Category	Count	Minimum	Maximum	Mean	Standard Deviation
Student test scores on Keystone/PSSA	24	2	4	3.63	.576
Student test scores on Keystone/PSSA disaggregated by teacher of record	23	2	4	3.30	.703
Student test scores on Keystone/PSSA disaggregated by reporting category	24	2	4	3.37	.711
Student test scores on Keystone/PSSA disaggregated by student group (economically disadvantaged, students with GIEPs, students with IEPs, etc.)	24	2	4	3.33	.637
Individual student test scores on Keystone/PSSA aligned to corresponding course grade	24	1	4	2.83	.917
Student test scores on Keystone Exams disaggregated by first-time testers and retesters	16	2	4	2.94	.772
Individual student test scores on all three Keystone Exams aligned to statewide graduation requirement (Keystone Proficiency/Keystone Composite Score)	14	2	4	2.50	.760
PVAAS growth by grade, school, subject, and proficiency level (Advanced, Proficient, Basic, Below Basic)	23	2	4	3.22	.850
PVAAS growth by student group (economically disadvantaged, lowest performing students, students with GIEPs, students with IEPs, etc.)	23	2	4	3.09	.793
PVAAS teacher-specific growth reports	23	2	4	3.26	.864
PVAAS projection summary report (to determine student-level proficiency projections on state and national assessments)	23	1	4	3.09	.900

Question 5 prompted administrators to indicate, using a Likert scale (1=never, 2=rarely, 3=sometimes, 4=often), how often they access data through various websites and portals. The websites listed in question five are available to administrators through the Pennsylvania Department of Education. Additionally, the inquiry site has developed an online portal that provides administrators with access to state assessment data that can be organized in a variety of ways. For ease of access, the data can be arranged by district, school, grade level, and teacher roster. Current and historical state assessment data is available for all students enrolled in the district.

Responses to question 5 indicate the inquiry site's gradebook feature within the online portal is most often accessed by administrators to view state assessment data (mean=3.48). The gradebook feature aggregates data by course and teacher of record. The results also show that administrators rarely access state assessment data through the Data Recognition Corporation (DRC) website (mean=2.13), a secure website that publishes all state assessment results at the conclusion of each test administration. This response was followed closely followed by "eMetric website" (mean=2.22), a secure website that houses all state assessment data and allows users to disaggregate assessment results and generate several reports. Table 26 provides the responses. It should be noted that one respondent did not answer the question; therefore, the total response rate for the question is 23.

Table 26. Data Mining – Administrator Accessibility. Question 5

Category	Count	Minimum	Maximum	Mean	Standard Deviation
DRC website	23	1	3	2.13	.757
eMetric website	23	1	4	2.22	.951
PVAAS website	23	1	4	2.65	.935
PDE website	23	1	4	2.91	.733
Inquiry Site Portal Schoolwide Assessments	23	2	4	3.35	.714
Inquiry Site Portal Gradebook	23	2	4	3.48	.665

Five administrators responded to question 6, which gave respondents the opportunity to list data they would like to have that they do not already have access to. Four administrators reported all state assessment data is accessible. One administrator also mentioned the need for data to be analyzed for administrators. Another administrator indicated SAT, ACT, and AP data should be more accessible. It should be noted that SAT, ACT, and AP are standardized tests used in the United States and are not specific to Pennsylvania.

Survey question 10 asked administrators if the state assessment data available is applicable to their work, easy to interpret, a good measure of student learning, easily accessible when needed, and aligned to district curriculum. The following Likert scale was used: 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree. The results show a potential factor influencing administrators' utilization of state assessment data is whether state assessment data is a good measure of student learning (mean=2.92). Table 27 provides the responses to this question.

Table 27. Potential Factors Influencing Data Use. Question 10

Category	Count	Minimum	Maximum	Mean	Standard Deviation
Applicable to my work	24	2	5	3.83	.816
Easy to interpret	24	1	5	3.67	1.007
Good measure of student learning	24	2	4	2.92	.881
Easily accessible when needed	24	2	5	4.13	.612
Aligned well to district curriculum	24	2	5	3.88	.850

Question 11 asked administrators to explain their rationale as to why they selected "strongly disagree" or "disagree" for the components of question 10. Nine administrators opted to respond. The responses to question 11 indicate that several factors influence the administrator-respondents' utilization of state assessment data. Factors include difficulty interpreting data, timeliness of the

results, validity of data, elevated value of other data sources, and the connectedness of state assessment data to courses, teachers, and students in their building. One administrator wrote:

> *Most of the data are hard to interpret and the timing that the data is received makes it difficult to do much with it. It is often very difficult to draw similar conclusions on data.*

Another administrator wrote:

> *Students are proficient or advanced on the elementary PSSA yet cannot read. The indicators do not always report logically for special education students.*

Three other administrator responses were similar in nature and indicated that multiple measures should be used to assess student learning. In other words, these administrators value additional measures of student learning to accurately represent proficiency.

Two administrators noted that state assessment data is not relevant because it is not directly tied to teachers or courses in the building. Like the other respondents, these respondents suggest there are factors influencing their use of state assessment data.

For Question 14, administrators were asked to identify how confident they are in their ability to access and manipulate state assessment data by using a Likert scale (1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree). The responses show that administrators feel most confident in their ability to access current student data by school, grade level, and class using the inquiry site's employee portal (mean=4.50). This selection was followed by administrator-participants' confidence in accessing publicly available achievement and growth data to compare across results across schools and districts (mean=3.92) and comparing individual longitudinal performance on state assessments using the inquiry site's employee portal (mean=3.92). Data suggests administrators were neutral about their ability to disaggregate groups or subgroups, and/or score variables in eMetric (mean=2.83) and create reports in tables, graphs, or

external files at the summary or individual student level in eMetric (mean=2.92). Table 28 shows

the responses.

Table 28. Accessing and Manipulating Data – Administrator Confidence. Question 14

Category	Count	Minimum	Maximum	Mean	Standard Deviation
I am confident in my ability to access and download raw data in DRC.	24	1	5	3.25	1.189
I am confident in my ability to manipulate raw data in excel to determine the number and percent of students scoring Below Basic, Basic, Proficient, and Advanced on each test.	24	2	5	3.58	1.176
I am confident in my ability to create reports in tables, graphs, or external files at the summary or individual student level in eMetric.	24	1	5	2.92	1.248
I am confident in my ability to disaggregate groups or subgroups, and/or score variables in eMetric.	24	1	5	2.83	1.167
I am confident in my ability to access publicly available achievement and growth data to compare results across schools and districts.	24	2	5	3.92	.776
I am confident in my ability to access district and building level PVAAS data to determine growth of students as represented in quintiles and proficiency levels.	24	2	5	3.71	.955
I am confident in my ability to access teacher specific PVAAS scores (current year and three year averages).	24	2	5	3.92	.929
I am confident in my ability to access current student data by school, grade level and class using the district's employee portal.	24	2	5	4.5	.780-
I am confident in my ability to compare individual longitudinal performance on state assessments using the district's employee portal.	24	2	5	3.92	.929

I am confident in my ability to access state assessment data for a group of students broken down by reporting category, assessment anchor, points possible, and average percent using the district's employee portal.	24	2	5	3.58	1.018
I am confident in my ability to export student data from the district's employee portal to identify students with an IEP, students who receive Title I services, students who are economically disadvantaged, and/or students who are English Learners.	24	2	5	3.5	.978

Question 17 asked administrators to identify barriers to the expanded use of state assessment data for instructional decision making. A Likert scale was used (1=not a barrier, 2=somewhat of a barrier, 3=moderate barrier, 4=extreme barrier). On average, administrators feel a lack of information systems makes state assessment data accessible to staff at all levels of the system (mean=3.46) and a lack of communication or sharing of state assessment data across schools and/or departments in the district (mean=3.17) are moderate barriers to the expanded use of state assessment data. Table 29 outlines the results.

Table 29. Data Use – Barriers. Question 17

Category	Count	Minimum	Maximum	Mean	Standard Deviation
Lack of information system that makes state assessment data accessible to staff at all levels of the system.	24	2	4	3.46	.721
Lack of technical skills of school staff to access or use electronic data systems.	24	2	4	3.13	.741
Lack of school staff-preparation on how to use data for instructional decision making (e.g.	24	2	4	2.96	.690

understanding of state assessment data).					
Lack of communication or sharing of state assessment data across schools and/or departments within the district.	24	2	4	3.17	.761
Lack of time for school staff to reflect on or use state assessment data for teacher collaboration.	24	1	4	2.67	1.007
Lack of explicit norms and expectations for use of state assessment data.	24	1	4	2.54	.779
Lack of frameworks to use state assessment data.	24	1	4	2.58	.717

Question 18 prompted administrators to list other barriers that impact the use of state assessment data for instructional decision making. Six administrators opted to respond. The responses to question 18 suggest there are other barriers to the use of state assessment data. Barriers include the perception of the validity of state assessment data as a true measure of student learning, the teachers' ability to interpret the data as well as their willingness to use the data, and the amount of data that is available (state assessments and other) to prioritize instructional goals. Two administrators noted that very few students in their building participate in state assessments which also creates a barrier to data use.

4.3 Summary

Administrators' perceptions regarding the value and utility of state assessment data were obtained through the survey and analysis. The data provided information about administrators' perceptions of the value and utility of state assessment data as well as the manner and degree to

which they use state assessment. Factors that influence or contribute to the use of state assessment data were also addressed in the survey.

Inquiry Question 1 (What are the administrators' perceptions of the value and utility of state assessment data?) showed that administrators generally feel state assessment data is aligned well with district curriculum and applicable to their work in the district. Administrators responded that state assessment data is somewhat useful in helping teachers plan for instruction and informing progress of school and district. Administrators also noted, however, that state assessment data may not be the best measure of student learning and is only somewhat useful in providing information not previously known about individual students.

Administrators indicated that state assessment data is often hard to interpret, making it difficult to draw conclusions from the data. Some administrators feel state assessment data is not relevant because it is not tied directly to the teachers or courses in their building. Throughout the survey, administrators voiced the importance of considering other types of data.

Inquiry Question 2 (To what extent and how are administrators utilizing state assessment data to inform decisions?) required administrators to reflect upon how state assessment data is used to inform their practice. Administrators responded that data is sometimes used to promote improved student achievement and that state assessment data is discussed with colleagues and staff; however, providing staff with formal feedback on the use of state assessment data received one of the lowest average mean scores.

Although accountability mandates continue to be a requirement for public schools, administrators at the inquiry site generally do not prioritize their role in utilizing state assessment data for decision making and planning. While administrators discuss state assessment data with colleagues, they do not provide staff with formal feedback on the use of state assessment data.

Inquiry Question 3 (What factors influence the use of state assessment data?) provided insight into the circumstances that influence or contribute to administrators' utilization of state assessment data. Administrators responded that they access state assessment data most often from the district's online portal gradebook. Accordingly, administrators feel most confident in their ability to access current student data by school, grade level, and class by using the district's online portal. A lack of an information system that makes state assessment data accessible to staff at all levels of the system was rated as the most significant barrier to the expanded use of state assessment data for instructional decision making.

These results are intriguing because the inquiry site has an interactive portal that provides administrators and teachers alike with access to state and local assessment data. Administrators can easily access current and historical state and local assessment data for district, school, and grade levels as well as by individual class roster. Teachers also have access to state and local assessment data in the inquiry site's online portal. Teachers can access current and historical data for the grade level and/or course they teach as well as assessment data for students on their rosters.

The survey indicates that administrators find state assessment data to be useful in helping teachers plan for instruction and showing progress in a school or district. Administrator responses indicate misunderstanding of how state assessment data can be used to find information about students that was not already known and what data is accessible to staff at all levels. Furthermore, the results show that utilization of state assessment data is inconsistent across the district and that administrators need more information and training to expand their use of state assessment data and provide their staff with formal feedback on its use. This use of assessment data may allow for professional development that will address administrators' needs and misconceptions about the value and utility of state assessment data to address student achievement.

5.0 Conclusions and Reflection

This study examined administrators' perceptions of the value and utility of state assessment data based on three inquiry questions:

1. What are the administrators' perceptions of the value and utility of state assessment data?

2. To what extent and how are administrators utilizing state assessment data to inform decisions?

3. What factors influence the use of state assessment data?

The conclusions that stem from this study help to achieve its goals: to identify if administrators value and utilize state assessment data, discern the ways in which administrators use state assessment data, and understand the factors that influence administrators' use of state assessment data. The conclusions illustrate the challenges administrators experience when utilizing state assessment data in practice. Other implications for policy, practice, and future inquiry should be considered in order to expand the administrators' use of state assessment data.

5.1 Practice

Federal education policy includes accountability mandates aimed at eliminating disparities in educational outcomes for all students. It also holds public schools responsible for assessing students annually and reporting student achievement and growth measures. The Pennsylvania Department of Education's response to federal policy and the accompanying accountability mandates includes requiring public school districts to administer annual state assessments in

English language arts, mathematics, and science. The results of these assessments (PSSA and Keystone Exams) are made available to schools and reported online.

As Pennsylvania's public school educators grow increasingly accountable for state assessment scores, district and school administrators must establish a common understanding of available data and how to appropriately use data to make informed decisions. Furthermore, Pennsylvania's state assessments and accompanying accountability reports provide administrators with more opportunities to incorporate assessment data into their leadership practices.

5.1.1 Question 1: What are the administrators' perceptions of the value and utility of state assessment data?

5.1.1.1 Conclusion 1: Not all administrators agree that state assessment data is a good measure of student learning

The survey revealed that administrators have varying opinions of the usefulness of state assessment data an effective a measure of student learning. While administrators agree that state assessment data is aligned well to district curriculum and is applicable to their work, only one-third of the administrators surveyed agreed that assessment data is a good measure of student learning.

5.1.1.2 Recommendation 1: Seek professional development to instill a sense of shared ownership of all district students

The researcher anticipated that administrators would not highly regard state assessments as a good measure of student learning and that administrators overall would find state assessment data only somewhat useful in their professional practice. At the inquiry site, a focus on state assessment data is generally specific to administrators leading teachers of tested grade levels and content areas.

In addition, some administrators at the inquiry site have openly shared with the researcher their reluctance to fully acknowledge the value and utility of state assessment data as a resource when making decisions. The administrators' reluctance to acknowledge state assessment data as a good measure of student learning may be attributed to longitudinal state assessment results that do not show considerable improvements over time. Administrators at the inquiry site are invested in student learning, however, in the absence of improved test scores administrators may be less likely to recognize the value and utility of state assessment data to improve student achievement.

Studies show that administrators can empower teachers to use data or, in contrast, hinder teachers' use of data in making decisions to address student achievement (Schildkamp, et al., 2019). To help all students achieve at high levels of learning and improve student achievement, effective leaders shift perspectives from isolated accountability in tested grade levels and content areas to a shared responsibility for all students (Erkins & Twadell, 2012). Collectively, administrators must grow in their understanding of the value and utility of state assessment data, including its connectedness to learning standards (which is articulated in the district curriculum), and develop shared ownership of all students' progress. A collective focus on inquiry for improvement can eliminate negative undertones of data use (Park, 2018). Developing shared ownership of all district students' progress may also lessen the desire to blame federal and state mandates or specific individuals for the lack of consistent improvements in student achievement over time at the inquiry site.

The inquiry site is preparing to finalize the selection process of essential standards for each content area from kindergarten through grade 12. One criterion used to identify an essential standard is the standard's connection to a statewide assessment. The essential standards will not represent all that will be taught in any one grade level or content area but will represent what all

students must know and be able to do at the end of the school year. At the inquiry site, essential standards will be the highest priority standards. Once essential standards are identified, the administrators and teachers alike will have the opportunity to examine the vertical alignment of content-specific standards. The professional development focused on essential standards and the articulation of a districtwide continuum of learning beginning in kindergarten through grade 12 will establish the foundation administrators need for developing a shared ownership of all students' success. This work will highlight the learning progression of assessed standards throughout the district curriculum and will show the explicit connection within teaching and learning between assessed and non-assessed grade levels and content areas. Essential standards will connect the importance of prerequisite skills introduced in non-assessed grade levels and content areas to the mastery of assessed standards within tested grade levels and content areas.

5.1.1.3 Conclusion 2: Administrators need more information to guide data conversations during the PLC meetings

Several conclusions can be made regarding the administrators' perceptions of the value and utility of state assessment data in their professional practice. The data in this study indicate that the administrator-participants find student test scores disaggregated by student group and by reporting category to be of value. They also feel that state assessment data is aligned well to district curriculum and is somewhat useful in helping educators plan for instruction. The open-ended questions in the survey provided more information about how administrators use state assessment data. Administrators specifically mentioned the use of state assessment data to inform collaborative discussions within Professional Learning Communities (PLCs).

The work in a PLC, inclusive of the use of state assessment data, will guide educators in making decisions about curriculum, instruction, and numerous forms of assessment to monitor

student learning. Grade level, classroom, and individual student data could be better utilized to support district goals as well as to address individual student learning needs.

5.1.1.4 Recommendation 2: Provide guidance and resources to administrators that relate to the use of state assessment data within the PLC process to develop SMART goals with strategic intent

The data suggests administrators must attend to data use in the PLC in a more thoughtful manner. The fundamental purpose of a PLC is a focus on and a commitment to the learning of each student (DuFour et al., 2016). At the inquiry site, the inception of the PLC process began at the start of the 2018-2019 school year. Since then, teachers in all grade levels and content areas have dedicated time two days per week to attend PLC meetings with their grade-level or content-area colleagues. An integral component of the PLC process is the development of SMART goals (strategic and specific, measurable, attainable, results oriented, and time bound) with strategic intent followed by reflective practice focused on student learning (Conzemius & Morganti-Fisher, 2012). State assessment data can be used to gather evidence of student learning and to analyze strengths and weaknesses in student learning. Identifying opportunities for growth based on PA Core Standards evaluated on the state assessment will help the collaborative teams to focus on learning and plan for improvement in areas where students are not demonstrating proficiency. Moreover, the administrators' role in prioritizing time for teachers to meet and review data as well as to collaborate on how best to use data is essential to implementing interventions and improving student achievement (Schildkamp, et al., 2019).

At the inquiry site, the focus during the first year of PLC implementation was to develop a common understanding of available data as well as how to access and analyze the data. Now, administrators and teachers alike should use state assessment data to monitor the fidelity of core

instruction throughout the district. Should building or classroom results vary regarding the level of student understanding on an assessed standard, collaborative discussion should be focused on sharing and implementing effective instructional strategies as well as designing remediation and enrichment opportunities for students to improve student learning outcomes. Should the data indicate more than 20 percent of students of students are struggling in any one area, the focus should be on addressing this weakness through general education core instruction. When fewer than 20 percent of students are not proficient on an assessed standard, targeted interventions should take place for these students.

5.1.1.5 Conclusion 3: State assessment data is somewhat useful in helping educators plan for instruction

On average, administrator-participants indicated that state assessment data is somewhat useful in helping educators plan for instruction. Lack of consistent use of state assessment data to make informed instructional decisions may contribute to low rates of improvement. By utilizing assessment data for continuous improvement, administrators can generate student achievement goals in areas where the greatest opportunities for growth exist (Englert et al., 2004).

While the survey indicates that administrators discuss state assessment data with colleagues and staff, the data also shows that more can be done to provide clear direction about how data should be used to improve instruction. Incorporating district-wide data meetings for administrators would provide structured time for collaboration on the use of state assessment data as well as important procedures to guide the use of data state assessment data.

5.1.1.6 Recommendation 3: Monitor progress over time and gather evidence of impact of improvement strategies

It is recommended that the district administrative team (central office administrators, building principals, and assistant principals) institute biannual data team meetings (in July and January) to be facilitated by the Director of Analytics and Federal Programs. The facilitator would prepare a presentation and accompanying documentation on the most recent state test administration as well as longitudinal data to compare district results over time. The administrative team would focus on inquiry for improvement and attempt to eliminate negative undertones of data use by developing a collective commitment to make fewer decisions based on past experience or intuition. They would work together to discern current issues that impede academic achievement, discover the root causes, and create a continuous improvement process to close achievement gaps at each grade level. To do this, administrators will begin by discussing areas in which students are demonstrating proficiency on state assessments and areas in which students need to make better progress. They would discuss how these findings could affect the curriculum as well as how this information should be used to inform professional development. Administrators would also discuss who should participate in the professional development and how the information should be dispersed to other teachers. Administrators would also deliver the information from these meetings to building-level PLC meetings for further discussion to enhance content knowledge and instructional practices.

In addition to biannual administrative data team meetings, it is also recommended the administrative team work together throughout each school year to explore school and classroom conditions that would need to change for achievement to improve. Administrators should explicitly plan for professional development focused on data analysis and effective instructional strategies.

Effective instructional strategies such as metacognitive practices and authentic learning should be routinely discussed and modeled for teachers. Administrators should encourage teachers to think deeply about the benefits of using achievement and growth data along with effective instructional strategies to address areas of weakness to meet the academic needs of all students.

5.1.2 Question 2: To what extent and how are administrators utilizing state assessment data to inform decisions?

5.1.2.1 Conclusion 4: Administrators rarely use state assessment data to coach teachers

Data suggest that administrator-participants discuss state assessment data with colleagues and staff. However, the data also suggest that administrators rarely use state assessment data to coach teachers. Simply providing administrators and teachers with data to make decisions does not provide the skills or processes necessary to transform the data to action steps to improve teaching and learning (Park, 2018; Schildkamp, et al., 2019; van Geel et al., 2017).

Using achievement and growth data to monitor instructional practices and to determine whether specific programs lead to improved achievement will necessitate data use professional development for administrators. Data use professional development will expand the ways in which state assessment data is being used at the inquiry site to promote student achievement.

5.1.2.2 Recommendation 4: Seek professional development to create practices and procedures to help educators organize, analyze, and apply data in meaningful ways

The researcher recommends administrators participate in data use professional development. Administrators need support in developing their knowledge and skills for using student achievement data to inform instructional decisions and meet the needs of students (van der

Sheer & Visscher, 2017). The professional development will include data use to identify a problem and planned interventions to address the problem. Such practice will enhance the use of state assessment data to assess learning equity for different student populations. Professional development will likely come in the form of trainings provided by the researcher and the Pennsylvania Department of Education. The use of state assessment data for placement decisions in courses or special programs will be a focus of the professional development.

Integrating longitudinal achievement data accompanied by PVAAS projection data as criteria for determining participation in an intervention group at the elementary level and for course placements at the secondary level will ensure recommendations are based on a student's skill as opposed to the student's behavior in the classroom or will to perform academically. It is recommended that teacher discretion be applied to the process as well; however, all placements must be supported by evidence of student learning as opposed to sole use of course grades.

5.1.3 Question 3: What factors influence the use of state assessment data?

5.1.3.1 Conclusion 5: More can be done to better prepare administrators to engage with information systems

Data suggest administrators at the inquiry site rarely access state assessment data through eMetric and are least confident in their ability to create reports in tables, graphs, or external files at the summary or individual student level in eMetric.

The ability to develop reports using state assessment data tailored to specific building needs is a necessary skill for all administrators. Once administrators can access and manipulate the data independently, they will be better equipped to lead discussions on the meaning of state assessment data.

5.1.3.2 Recommendation 5: Seek professional training of information systems that make state assessment data accessible to staff at different levels

Administrators need training to understand where and how to access state assessment data. Their capacity to access and navigate information systems containing state assessment data will decrease barriers to the use of assessment data. The ability to instantly and independently access state assessment data is vital to the expanded use of state assessment data to inform curriculum, instruction, and assessment.

Administrators need to have the capacity to access current and historical achievement and growth data. They should have the ability to disaggregate achievement and growth data by subgroup as well as to compare longitudinal data to analyze student achievement results over time. Administrators should also know how to review state assessment results to identify the standards assessed and how students performed within each academic standard.

5.2 Policy

As discussed in Chapter 2, federal and state mandates address expectations for all students and long-term goals for improved academic achievement. The overarching goal to close the achievement gap between disadvantaged students and their peers is evidenced in the reporting of PSSA and Keystone results. The all-student group and subgroup achievement and growth data provide criteria to identify struggling schools.

5.2.1 Conclusion 6: Administrators rarely use state assessment data to allocate human resources in ways that promote student achievement

The findings of this study suggest more can be done at the inquiry site to close the achievement gap. On average, administrators indicated they rarely use state assessment data to allocate human resources in ways that promote student achievement. Data displayed in Table 5 and Table 6 show that student achievement results in English language arts are consistently higher than student achievement results in mathematics across all grade levels and subgroups. Also, the percentage of students scoring proficient or advanced in mathematics typically decreases each year from third to eighth grade. Additionally, while class size and the distribution of human and financial resources are equal across all district buildings, some schools at the inquiry site consistently outperform others in terms of student achievement on state assessments.

5.2.2 Recommendation 6: Investigate how best to reallocate human resources to improve student achievement

The researcher recommends the district reallocate human resources in a way that promotes a more equitable distribution of resources to provide academic support to the students who are most at risk. By utilizing longitudinal state assessment data as means to identify what schools and grade levels are most at risk for not meeting end-of-year learning targets, the district could reallocate support staff such as reading specialists and math interventionists to work with the most academically at-risk students in the schools and grade levels where the greatest need exists.

Administrators should also consider assigning effective teachers with more than three years of teaching experience to the buildings and grade levels where the data indicates more students are

academically at risk. Lastly, administrators should encourage teachers whose state assessment data consistently shows students are meeting or exceeding PVAAS growth expectations and whose classroom instruction is distinguished to seek leadership opportunities within the school community.

5.3 Future Inquiry

The next cycle of inquiry will differ from the first in that the neutral response choice will be removed from Likert scales. When a neutral response choice was available, the mean typically fell within the neutral range. It is possible that the selection of a neutral response did not translate to opinion neutrality.   By eliminating the neutral response choice, the researcher could better categorize data use as pervasive or non-pervasive at the inquiry site. The findings of this study led the researcher to this conclusion.

5.3.1 Conclusion 7: Survey Question 3 Should Be Revised

After analyzing the data, how to respond to survey question 3 may have been unclear to respondents. Survey question 3 contained three different prompts based on one list of data sources. The first prompt asked respondents to rate the accessibility of various sources of data. The second asked about the value of each of the sources of data, and the final prompt provided administrators the option to indicate if any one data source is not relevant to their work in the district. Not all administrators responded to the first two prompts (accessibility and value).

5.3.2 Recommendation 7: Omit relevance prompt of Question 3

In the next iteration of this study, the researcher recommends that the third prompt of question 3 be omitted. Once value is determined for each source of data, finding the relevance of the data to the administrator's work is not necessary. In addition, the open-ended questions in the survey allow administrators to share more information about the relevance of various data sources.

5.3.3 Conclusion 8: The role administrators play in supporting the utilization of state assessment data for decision making and planning is in need of further exploration

As the literature shows, administrators can empower teachers to use data or, in contrast, hinder teachers' use of data (Schildkamp, et al., 2019). How administrators make sense of data as part of their work will influence how teachers use data to intervene and improve student achievement. Question 15 asked administrators to indicate the extent to which they agreed or disagreed with statements about their role in supporting the use of state assessment data for decision making and planning. The following scale was used: 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree. The highest level of agreement came with the statement indicating administrators discuss state assessment data with their colleagues and staff (mean=3.96). While one or more administrators selected "strongly agree" for five out of six prompts, the mean of responses specific to each prompt within question 15 never indicates administrators "strongly agree" with any of the statements represented in Table 23.

5.3.4 Recommendation 8: Further investigate the leadership and support of data use at the inquiry site

The researcher recommends a subsequent study to obtain more in-depth information about the administrators' roles in providing leadership and support in regard to the use of state assessment data. The researcher recommends a continuation of this study to include interviews with district administrators. The administrators' opinions are critical in determining what supports are needed to extend the use of state assessment data. Therefore, the researcher suggests interview questions be developed with a focus on the administrator's role in supporting the utilization of state assessment data for decision making and planning (refer to survey question 15). The interview questions can also serve as a means of ongoing dialogue for administrators in the area of data-informed decision making. Extending this research to other sites and comparing this data to other results would also allow for further inquiry.

5.4 Reflection

This study contributes to data use research as the expansion of systematic practices for the use of state assessment data are being developed at the inquiry site. Shared ownership of district student progress as well as a shared understanding of available data, how to access the data, and how to interpret the information could have a positive impact on programming, curriculum, instruction, and student achievement.

Immersing myself in this research has been both challenging and rewarding. As a district leader, it is my goal to instill hope and build capacity within our team of administrators and teachers.

This study has given me important information to help me grow as a professional and become a more effective and impactful leader.

My participation in the doctoral program has increased my level of engagement in the field of education. I have thought deeply about my professional development and the level of collective commitment necessary to create and sustain change. This process has helped me to connect with administrators at the inquiry site to better understand how data is being used to inform decisions. Together, administrators and teachers have the potential to create more meaningful learning opportunities that meet the needs of all students through the thoughtful integration of data-informed decision making accompanied by effective instructional strategies.

By sharing the findings of this study with others beyond the inquiry site, the researcher is hopeful that educators will begin to conceptualize the value and utility of state assessment data to improve student achievement. Collaborative discourse on achievement and growth data will provide information to administrators and teachers that will assist them getting to know their students better as thinkers and learners. Ultimately, by focusing on student achievement and growth data, effective instructional strategies, and professional development specific to identified areas of weakness, we will be able to bring about the kind of change in schools that will truly benefit student learning.

SENATE BILL 1095
GRADUATION OPTIONS
Amendment A09230 – September 21, 2018

Option 1 Composite Score on Keystone Assessments	**Option 2** Local Grade Requirements + Alternative Assessments or Pre-Apprenticeships	**Option 3** CTE Concentrators Local Grade Requirements + Additional CTE Evidence of Readiness	**Option 4** Local Grade Requirements + Additional Evidence of Readiness
A student meets or exceeds a state-specified composite score across the three Keystone exams, **and** performance must include at least 1 proficient and 2 basic. PDE recommends score, State Board of Education approves. *Note: The proposed language does not enshrine into law Keystone exams as a graduation requirement. Rather, the proposed language reads "…when they are required for graduation…"* *Note:* **Approximately 72 percent,** *or more than 82,000 of the 114,392 students who graduated in 2015, would have met the Keystone graduation requirement using Option 1, the composite score approach. This is compared to only 51 percent, or more than 58,000, of the students who scored proficient on each exam.*	A student meets or exceeds locally established grade-based requirements in the associated academic content areas of the Keystone exams. **AND** **One** of the following: • **AP/IB exam in each Keystone content area** In which a proficient or advanced cut score was not obtained (score recommended by PDE, SBOE approves) • **SAT, PSAT or ACT general test** (score recommended by PDE, State Board of Education approves) • **ASVAB** • **Admission to 4-year nonprofit IHE with evidence to enroll (PDE issues guidance)** • **Successful completion of a pre-apprenticeship program** • **Passing grade in a credit bearing dual enrollment or postsecondary course (Math, Science or English)** • **ACT WorkKeys Certificate**	Act 6 of 2017 *Note:* proposed language clarifies existing law related to *who* determines students' likelihood of success and *when* that determination must be made to allow CTE concentrators sufficient time to explore alternative pathways if needed.	A student meets or exceeds locally established grade-based requirements in the associated academic content areas of the Keystone exams. **AND** Presents **three pieces of evidence** that reflects the student's readiness for graduation and is related to a student's postsecondary plans. **One piece of evidence must be from TIER 1:** • Admission to a non-four year nonprofit IHE with evidence to enroll (PDE issues guidance) • SAT subject-specific exam • Industry recognized credential • ACT WorkKeys Certificate (Below Gold cut score level) • Any AP/IB exam • Any credit-bearing dual enrollment or post-secondary course **Other two pieces of evidence may be from TIER 2:** • Keystone Exam– proficient or advanced • Full-time employment related to career plans • Successful completion of internship, externship, co-op

Appendix B Press Release for SB 1095

Immediate Release

April 3, 2018

Contact: Dr. Mark DiRocco, Executive Director

(717) 540-4448

PASA Supports Senate Bill 1095: Alternative Pathways to Graduation

(Harrisburg, PA) - The Pennsylvania Association of School Administrators (PASA) is pleased to support legislation introduced today by Senators Thomas McGarrigle (RChester/Delaware) and Thomas Killion (R-Chester/Delaware) that provides for a comprehensive and rigorous approach for students to demonstrate readiness for high school graduation.

Senate Bill 1095 is a result of the senators working with several education organizations, including PASA, PSBA, the Principals Association and PSEA to develop rigorous and relevant graduation requirements based upon recommendations from the Department of Education and collaborative discussions with educational leaders. The bill adjusts the requirement that students pass the state-developed Keystone Exams in Literature, Algebra and Biology in order to graduate, a requirement that was scheduled to become effective during the 2019-2020 school year after two legislative delays.

Senate Bill 1095 creates a system of multiple pathways for students to demonstrate graduation readiness other than passing the state-developed Keystone standardized tests. The options allow students to graduate by passing local district grade-based requirements and fulfilling one of the following:

Option 1: Achieve an established composite score on all three Keystone Exams.

Option 2: Achieve established equivalent scores on a variety of alternate assessments such as AP Exams, IB Exams and the ASVAB Battery, or acceptance in a registered apprenticeship program after graduation, or attainment of a career readiness certificate.

Option 3: Students who are career and technical education (CTE) concentrators may demonstrate competency through evidence specific to CTE. (This option clarifies what was already placed into law during the 2017 legislative session.)

Option 4: Present at least three approved pieces of rigorous and compelling evidence relating to a student's postsecondary or career objectives that reflect readiness for graduation, such as satisfactory completion of dual enrollment courses, AP courses, IB courses, admission to higher education, attainment of an industry recognized credential, successful completion of an internship, and others.

The bill also eliminates the project-based assessments, places reasonable parameters on remedial instruction relating to Keystone Exams, and prioritizes a college and career planning process for students as a component of their graduation requirement options.

PASA believes this approach to graduation requirements provides students with a variety of options to assist them on their path to a successful post-high school career pathway. The process ensures that a high school diploma will be attained through a rigorous process that is meaningful to the students and accountable to their parents and the public.

Appendix A3. ACT's Principal Data Use Survey

Background

1. What is your position?

- ○ Principal
- ○ Assistant principal
- ○ Other (please specify)

_____

2. How many assistant principals do you have at your school?

- ○ None
- ○ One
- ○ Two
- ○ Three or more

3. What is the name of the <u>school</u> in which you primarily work?

_____

4. In which <u>district</u> is this school located?

_____

5. How many years have you been in your current position, including this year? (Fill in each space with zero or another whole number.)

in total? _____

in this district? _____

at this school? _____

6. Which of the following best describes your school?

- ○ A charter school
- ○ A magnet school
- ○ A vocational or technical school
- ○ An alternative school
- ○ A traditional public school
- ○ Other (please specify) _____

7. Before you became a principal, how many years of elementary or secondary teaching experience did you have?

_____ year(s) of teaching before becoming a principal.

8. If you have previous teaching experience, in what main subject areas did you teach? Select all that apply.

- General Elementary
- English/Language Arts/Reading
- Journalism/speech/communication
- Computer Science
- Foreign Language
- Engineering
- Health/Physical Education

- Mathematics
- Science
- History/Social Studies
- Special Education
- Bilingual/ELL/ESL/ESOL
- Fine Arts (Music, Theatre, Art, Dance)
- Other (please specify)

_____

9. What grades are offered at the <u>school</u> in which you primarily work? Select all that apply.

○ K ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ○ 11 ○ 12

Data Availability

In this section, please respond to questions about the data you have available to you.

10. Do you have access to any of the following types of data? Please indicate whether each data source is currently available to you, and if so, indicate how useful each source of data was to you and/or your leadership team for <u>making decisions about instructional matters at your school</u>.

	Data availability		Level of usefulness for decision making				
	No	Yes	Not useful	Minimally useful	Some-what useful	Very useful	Extremely useful
a. Student test scores on **state-wide** assessments.	O	O	O	O	O	O	O
b. Student test scores on **state-wide** assessments disaggregated by subtopics or skills.	O	O	O	O	O	O	O
c. Student test scores on **district-administered** assessments (e.g., benchmark assessments).	O	O	O	O	O	O	O
d. Student test scores on **district-administered** assessments disaggregated by subtopics or skills.	O	O	O	O	O	O	O
e. Student performance on **school-administered** assessments (e.g., end of unit tests, classroom quizzes, homework).	O	O	O	O	O	O	O
f. Student test scores on **nationally normed** assessments (e.g., Stanford 9, ACT, SAT, PSAT).	O	O	O	O	O	O	O
g. Student special education information (e.g., diagnostic data).	O	O	O	O	O	O	O
h. Student behavior data (e.g., counselor reports, referrals, discipline).	O	O	O	O	O	O	O
i. Student grades.	O	O	O	O	O	O	O
j. Student course enrollment histories.	O	O	O	O	O	O	O
k. Student participation in educational programs (e.g., ELL, Title I, gifted and talented, special education).	O	O	O	O	O	O	O
l. Student participation in supplementary education programs (e.g., tutoring).	O	O	O	O	O	O	O
m. Student retention histories.	O	O	O	O	O	O	O
n. Student attendance rates.	O	O	O	O	O	O	O
o. **School-wide** mobility rates.	O	O	O	O	O	O	O
p. Data obtained from classroom walkthroughs.	O	O	O	O	O	O	O
q. Results obtained from a systematic review of student work (e.g., portfolio or other student work evaluated using a rubric).	O	O	O	O	O	O	O
r. **School-wide** aggregated survey responses from students.	O	O	O	O	O	O	O
s. **School-wide** aggregated survey responses from parents.	O	O	O	O	O	O	O
t. School-wide aggregated survey responses from teachers.	O	O	O	O	O	O	O
u. Other data not mentioned above. **Please specify in the space below.**	O	O	O	O	O	O	O

11. In a typical month, how often do you access data through the following?

	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week	Not applicable
a. Personally accessing data from a computer system.	O	O	O	O	O
b. Requesting data from someone in my district.	O	O	O	O	O
c. Someone in my district gives me data without me asking.	O	O	O	O	O

12. By your estimate, what percentage of the data that you currently have is available for multiple years?

- o Less than 25%
- o 25% but less than 50%
- o 50% but less than 75%
- o 75% or more
- o Don't know

13. Do you have access to an electronic data system?

- o No
- o Yes

14. Do you currently have access to an electronic data system in any of the following locations? *(If no electronic data system is accessible, please skip this section.)*

I have access to an electronic data system . . .	No	Yes	Don't know
a. in my own office.	O	O	O
b. somewhere else in the district.	O	O	O
c. via the Internet at my home.	O	O	O

15. Are the electronic data systems you have available to you able to talk to one another (e.g., are they integrated)? *(If no electronic data system is accessible, please skip this question.)*

- o No, systems are unable to talk to each other.
- o Yes, some systems talk to each other but not all.
- o Yes, all systems are able to talk to each other.
- o I only have one data system.

16. What data would you like to have that you do not currently have access to?

_____

The remainder of this survey asks about the use of specific types of data to inform your educational practice. Please consider only the following when you think of data:

- National and state achievement test data (e.g., Stanford 9, AIMS, KPREP, ACT, SAT)
- Formal assessments (e.g., district benchmarks)
- School assessments (e.g., quizzes, grades, assignments)
- Other student data (e.g., disciplinary information, ELL status, supplementary education participation, student retention)
- Other data (e.g., survey data, classroom walkthrough data)

Data Use

In this section, please indicate the frequency in which you use data to inform your work as a principal.

17. How often in this current academic year (including last summer) have you used data to do the following?

	Never	Once a year	A few times a year	Once a month	2–3 times a month	At least once a week	Almost daily
a. I have used data to develop school goals that promotes the success of all students.	o	o	o	o	o	o	o
b. I have used data to make decisions in aligning resources with school goals.	o	o	o	o	o	o	o
c. I have used data to generate potential elements of a vision statement.	o	o	o	o	o	o	o
d. I have used data to identify promising learning programs to implement.	o	o	o	o	o	o	o
e. I have used data to generate approaches to curricular improvement.	o	o	o	o	o	o	o
f. I have used data to assign human resources in ways that promote student achievement.	o	o	o	o	o	o	o
g. I have used data to determine topics for professional development.	o	o	o	o	o	o	o
h. I have used data to advocate for policies that promote success for all students.	o	o	o	o	o	o	o
i. I have used data to identify safety issues.	o	o	o	o	o	o	o
j. I have used data to promote an environment for improved student achievement.	o	o	o	o	o	o	o
k. I have used data to judge my performance in effective management.	o	o	o	o	o	o	o
l. I have used data to gauge the effectiveness of collaborative relationships within the community.	o	o	o	o	o	o	o
m. I have used data to assess learning equity for different student populations.	o	o	o	o	o	o	o
n. I have used data to mobilize community resources for the benefit of student learning.	o	o	o	o	o	o	o
o. I have used data to develop alternative strategies for implementing the school vision.	o	o	o	o	o	o	o
p. I have used data to develop effective approaches for school-family partnerships.	o	o	o	o	o	o	o
q. I have used data to define possible problems in school vision implementation.	o	o	o	o	o	o	o
r. I have used data to develop effective communication plans.	o	o	o	o	o	o	o
s. I have used data to negotiate with political decisions makers for the improvement of students' educational opportunities.	o	o	o	o	o	o	o
t. I have used data to monitor instructional practices of the school.	o	o	o	o	o	o	o
u. I have used data to determine whether specific programs lead to improved achievement.	o	o	o	o	o	o	o
v. I have used data to measure the effectiveness of outreach to the community.	o	o	o	o	o	o	o
w. I have used data to identify problem in student learning.	o	o	o	o	o	o	o
x. I have used data to tailor instruction to individual student needs.	o	o	o	o	o	o	o
y. I have used data to develop recommendations for tutoring or other educational services for students.	o	o	o	o	o	o	o
z. I have used data to evaluate promising classroom practices.	o	o	o	o	o	o	o

	Never	Once a year	A few times a year	Once a month	2–3 times a month	At least once a week	Almost daily
aa. I have used data to inform student placement in courses or special programs.	O	O	O	O	O	O	O
bb. I have used data to informally coach teachers.	O	O	O	O	O	O	O
cc. I have used data to hire teachers.	O	O	O	O	O	O	O
dd. I have used data to evaluate teacher performance.	O	O	O	O	O	O	O
ee. I have used data to assign/reassign teachers to courses or grades.	O	O	O	O	O	O	O
ff. I have used data to identify teachers for leadership opportunities.	O	O	O	O	O	O	O

18. How often in this current academic year (including last summer) have you done the following?

	Never	Once a year	A few times a year	Once a month	2–3 times a month	At least once a week	Almost daily
a. Used data to compare subgroups of students.	O	O	O	O	O	O	O
b. Used data to compare student performance by grade.	O	O	O	O	O	O	O
c. Used data to compare my school to other schools.	O	O	O	O	O	O	O
d. Used data to examine trends in school	O	O	O	O	O	O	O

Data Characteristics & Data User Characteristics

The next set of questions asks about your perception of the quality of specific types of data. Additional questions ask about your skill set in using data

19. These items are about your perception of the quality of <u>state assessment data</u> to which you have access. To what extent do you agree or disagree with the following statements? *(If no state assessment data are available for your school, please skip this section.)*

The <u>state</u> data I have available to me are . . .	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
a. applicable to my work.	O	O	O	O	O	O
b. easy to interpret.	O	O	O	O	O	O
c. good measures of student learning.	O	O	O	O	O	O
d. easily accessible when needed.	O	O	O	O	O	O
e. aligned well to curriculum standards.	O	O	O	O	O	O

20. These items are about your perception of the quality of district-provided <u>benchmark assessment data</u> to which you have access. To what extent do you agree or disagree with the following statements? *(If no benchmark assessment data are available for your district, please skip this section.)*

The <u>benchmark</u> data I have available to me are . . .	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
a. applicable to my work.	O	O	O	O	O	O
b. easy to interpret.	O	O	O	O	O	O
c. good measures of student learning.	O	O	O	O	O	O
d. easily accessible when needed.	O	O	O	O	O	O
e. aligned well to curriculum standards.	O	O	O	O	O	O

21. These items are about your attitudes and opinions regarding data. Please indicate how much you agree or disagree with the following statements.

Data are almost always useful in . . .	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
a. helping educators plan instruction.	O	O	O	O	O	O
b. offering information about students that was not already known.	O	O	O	O	O	O
c. improving student learning.	O	O	O	O	O	O
d. helping evaluate the quality of instruction.	O	O	O	O	O	O
e. informing progress in school or district improvement plan.	O	O	O	O	O	O
f. helping determine if a program is effective.	O	O	O	O	O	O
g. guiding conversations with parents.	O	O	O	O	O	O

22. These items are about your attitudes toward your own use of data. Please indicate how much you agree or disagree with the following statements.

I am confident in my ability to . . .	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
a. identify data that best meet my needs.	O	O	O	O	O	O
b. synthesize multiple measures when using data to make decisions.	O	O	O	O	O	O
c. draw correct inferences from data.	O	O	O	O	O	O
d. use technology to manipulate data.	O	O	O	O	O	O

Providing Leadership and Support

This section asks about the role of <u>administrators'</u> efforts (including yourself) to build capacity at the school-level to support using data to improve instruction.

23. Please indicate the extent to which you agree or disagree with the following statements about <u>school administrators' role (including yourself)</u> this academic year (including last summer) in supporting data use for teachers' decision making and planning.

Administrators in my school (including myself) . . .	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
a. provide a clear direction about how data should be used to improve instruction.	O	O	O	O	O	O
b. convey enthusiasm about data-informed decision making to staff at my school.	O	O	O	O	O	O
c. clearly communicate that data-informed decision making is fundamental to teachers' work.	O	O	O	O	O	O
d. focus on continuous inquiry, learning and improvement based on data.	O	O	O	O	O	O
e. create many opportunities for teachers to use data.	O	O	O	O	O	O
f. are a good example of effective data users.	O	O	O	O	O	O
g. discuss data with teachers.	O	O	O	O	O	O
h. model effective techniques for interpreting and acting on data.	O	O	O	O	O	O
i. provide teachers with formal feedback on data use.	O	O	O	O	O	O
j. scaffold teachers' learning about using data.	O	O	O	O	O	O

Administrators in my school (including myself) . . .	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
k. observe teachers while they implement a data-informed strategy in their classroom.	O	O	O	O	O	O
l. monitor how teachers engage with data.	O	O	O	O	O	O
m. lead discussions on the meaning of data.	O	O	O	O	O	O
n. develop data reports tailored to teachers' specific requests for information.	O	O	O	O	O	O
o. are responsive when teachers have specific questions about student achievement data.	O	O	O	O	O	O
p. provide important procedures to guide teachers' use of data.	O	O	O	O	O	O
q. structure time for teachers to collaborate around data use.	O	O	O	O	O	O
r. work with small groups of teachers to analyze student test results.	O	O	O	O	O	O

24. For how many years has your district been actively engaged in the following data activities?

	No plans in this area	Planning but have not started	1 to 2 years	3 to 4 years	5 to 6 years	More than 6 years
a. Designing/acquiring an information management system to support data analysis (e.g., that generates timely data and makes useful data accessible to staff at all levels of the system).	O	O	O	O	O	O
b. Tracking teacher use of the information management system (i.e., data system).	O	O	O	O	O	O
c. Designing professional development to build capacity for teachers to analyze, interpret, and use data.	O	O	O	O	O	O
d. Providing models to teachers to illustrate how to use data in informing their instruction (e.g., templates, providing assistance to analyzing and revising material taught).	O	O	O	O	O	O
e. Providing formal time for teachers to discuss data in a group setting.	O	O	O	O	O	O
f. Providing teacher with access to an online data base of lesson plans and planning resources linked to academic standards and assessment results.	O	O	O	O	O	O
g. Providing teachers with research-based guidance on differentiating instruction based on student assessment data.	O	O	O	O	O	O
h. Establishing a process for continuous improvement (e.g., developing measurable goals, measuring progress).	O	O	O	O	O	O
i. Establishing a culture of data use at the school level (e.g., explicit norms and expectations regarding data use, creating a safe climate for data use, mutual accountability among staff).	O	O	O	O	O	O
j. Providing teachers with access to a data expert (e.g., mentor, coach).	O	O	O	O	O	O
k. Requiring teachers to follow specific data-informed decision making practices in the school improvement plan (e.g., identifying targets, monitoring their data).	O	O	O	O	O	O
l. Following up to determine if teachers have implemented instructional changes prescribed as a result of data analysis activities.	O	O	O	O	O	O

Receiving Professional Development and Support

Now think about the school- or district-sponsored activities to support your professional growth and development. In this survey, professional development is defined as activities that develop an individual's skills, knowledge, and expertise as a principal.

25. First, please indicate if the school- or district-sponsored professional development activity was provided during this academic year (including last summer) and by whom. If provided, please indicate the degree to which the professional development activity was useful.

Professional development on how to . . .	Provided	If provided, how useful was it?				
		Not useful	Minimally useful	Somewhat useful	Very useful	Extremely useful
a. use the basic functions of the data system (e.g., accessing and downloading data, data queries).	O	O	O	O	O	O
b. interpret data to identify students' instructional levels.	O	O	O	O	O	O
c. use data to change instructional practices (e.g., tools for translating data into practice).	O	O	O	O	O	O
d. set student learning goals using data.	O	O	O	O	O	O
e. identify data that best meet my needs.	O	O	O	O	O	O
f. ask questions about the quality of my role as principal that can be answered with data.	O	O	O	O	O	O
g. synthesize multiple measures when using data to make decisions.	O	O	O	O	O	O
h. identify quality data.	O	O	O	O	O	O
i. design and implement a school improvement plan based on student data.	O	O	O	O	O	O
j. help teachers work with their students on how to use data.	O	O	O	O	O	O
k. use student data to guide school improvement.	O	O	O	O	O	O
l. lead teachers to effectively use data.	O	O	O	O	O	O

26. Approximately how many total hours during this academic year (including last summer) did you spend in any school- or district-sponsored professional development focused on training you to effectively use data for decision making?
(If you indicated in the previous item that no professional development activities were provided by your district, please skip this question.)

○ Less than 4 hours   ○ 4–8 hours   ○ 9–16 hours   ○ 17–24 hours   ○ More than 24 hours

99

27. Please indicate the extent to which you agree or disagree with the following statements about any school- or district-sponsored professional development activities in which you participated in the current school year (including last summer). *(If no professional development activities were provided by your school or district, please skip this section.)*

Overall, the data-related professional development activities I participated in this year . . .	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
a. increased my ability to use data effectively.	O	O	O	O	O	O
b. helped me to better identify quality data.	O	O	O	O	O	O
c. were developed with my input.	O	O	O	O	O	O
d. were designed or chosen to support the school's improvement goals.	O	O	O	O	O	O
e. were designed or chosen to support the implementation of district-wide initiatives.	O	O	O	O	O	O
f. were topics identified based on student data.	O	O	O	O	O	O
g. improved my skills to meet the instructional needs of all students.	O	O	O	O	O	O
h. improved my ability to lead teachers' data use.	O	O	O	O	O	O

28. First, please indicate if the following district support was provided during this academic year (including last summer). If provided, please indicate the degree to which the activity was useful.

	Provided	If provided, how useful was it?				
		Not useful	Minimally useful	Somewhat useful	Very useful	Extremely useful
a. Providing policies that indicate when teachers should work with data (e.g., certain number of days per week).	O	O	O	O	O	O
b. Providing policies that indicate what should occur during time dedicated to using data (e.g. guidance on key problems to work on).	O	O	O	O	O	O
c. Assisting in making connections between conclusions drawn from data and school practice.	O	O	O	O	O	O
d. Providing the first round of data analysis before the beginning of the school year.	O	O	O	O	O	O
e. Assisting school staff in using data to develop and assess school goals.	O	O	O	O	O	O

29. Please indicate the extent to which you agree or disagree with the following statements about your district administrators' role this academic year (including last summer) in supporting data use for school decision making and planning.

District administrators . . .	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
a. provide a clear direction about how data should be used to improve instruction.	O	O	O	O	O	O
b. convey enthusiasm about data-informed decision making to staff at my school.	O	O	O	O	O	O
c. clearly communicate that data-informed decision making is fundamental to my work.	O	O	O	O	O	O
d. avoid using data to blame.	O	O	O	O	O	O
e. are responsive when there are specific questions about student data.	O	O	O	O	O	O

30. During the current school year (including last summer), how many times did you engage in the following types of activities?

	Never	Once a year	A few times a year	Once a month	2–3 times a month	At least once a week	Almost daily
a. Collaborating with district administrators using data.	O	O	O	O	O	O	O
b. Interacting with district administrators about how to use data.	O	O	O	O	O	O	O
c. Participating in classroom walkthroughs at my school.	O	O	O	O	O	O	O
d. Participating in classroom walkthroughs at other schools in my district.	O	O	O	O	O	O	O
e. Participating in a formal coaching or mentoring relationship with another principal or staff member who helps me to better use data.	O	O	O	O	O	O	O

31. To what extent, if any, is each of the following issues barriers to the expanded use of data-informed decision making in your district?

	Not a Barrier	Minor Barrier	Major Barrier
a. Lack of school staff-preparation on how to use data for instructional decision making (e.g., data interpretation skills).	O	O	O
b. Lack of technical skills of school staff to access or use electronic data systems.	O	O	O
c. Lack of time for school staff to conduct data-informed decision making activities (e.g., to reflect on or use data for teacher collaboration).	O	O	O
d. Lack of district leadership support for data-informed decision making (e.g., explicit norms and expectations regarding data use).	O	O	O
e. Lack of communication or sharing of data across departments within the district.	O	O	O
f. Lack of policies that provide direct access by school staff to all or portions of the data.	O	O	O
g. Lack of an electronic data system.	O	O	O
h. Lack of student performance data in specific subject areas.	O	O	O

Demographic Information

In closing, we would like to ask a few questions to help us determine if we surveyed a representative sample of educators.

32. Are you . . .

- ○ Male
- ○ Female

33. What is your age range in years?

- ○ Under 25
- ○ 25–29
- ○ 30–39
- ○ 40–49
- ○ 50–59
- ○ 60+

34. How do you describe yourself?

- ○ American Indian
- ○ Asian
- ○ African American
- ○ Hispanic
- ○ Pacific Islander
- ○ White
- ○ Other _____

35. What is the highest degree you hold?

- ○ Associate degree
- ○ Bachelor's degree
- ○ Master's degree
- ○ Doctorate or first professional degree
- ○ Do not have a degree beyond a high school diploma

36. Please use the space below to provide any comments concerning this survey or the use of data for decision making.

_____
_____
_____

Thank you for your participation. We appreciate your help!

ADMINISTRATOR DATA SURVEY

Q1 What is your position?

    o Central Office Administrator

    o Principal

    o Assistant Principal

Q2 How many total years of administrative experience do you have, including this year? Fill in with a whole number.

Q3 **Value and Accessibility of Data**

Please indicate how valuable each source of data is to you for making decisions about curriculum, instruction and/or assessment.

 Also, please indicate whether each data source is available to you, and if so, indicate how accessible each source of data is.

If the data is not relevant to your work within the district, "not applicable" is available as a response choice.

	Data accessibility				Value				Relevance
	Not accessible	Somewhat accessible	Accessible	Easily accessible	None	Low	Moderate	High	Not applicable

Student test scores on Keystone/PSSA	○	○	○	○	○	○	○	○	○
Student test scores on Keystone/PSSA disaggregated by teacher of record	○	○	○	○	○	○	○	○	○
Student test scores on Keystone/PSSA disaggregated by reporting category	○	○	○	○	○	○	○	○	○
Student test scores on Keystone/PSSA disaggregated by student group (economically disadvantaged, students with GIEPs, students with IEPs, etc.)	○	○	○	○	○	○	○	○	○
Individual student test scores on Keystone/PSSA aligned to corresponding course grade	○	○	○	○	○	○	○	○	○
Student test scores on Keystone Exams disaggregated by first-time testers and retesters	○	○	○	○	○	○	○	○	○
Individual student test scores on all three Keystone Exams aligned to statewide graduation requirement (Keystone Proficiency/Keystone Composite Score)	○	○	○	○	○	○	○	○	○
PVAAS growth by grade, school, subject, and proficiency level (Advanced, Proficient, Basic, Below Basic)	○	○	○	○	○	○	○	○	○
PVAAS growth by student group (economically disadvantaged, lowest performing students, students with GIEPs, students with IEPs, etc.)	○	○	○	○	○	○	○	○	○
PVAAS teacher-specific growth reports	○	○	○	○	○	○	○	○	○

PVAAS projection summary report (to determine student-level proficiency projections on state and national assessments)	○	○	○	○	○	○	○	○	○

Q4 What additional state assessment data is accessible and relevant to your work in the district that was not listed above?

_____

Q5 In a typical school year, how often do you access data through the following?

	Never	Rarely	Sometimes	Often
DRC website	○	○	○	○
eMetric website	○	○	○	○
PVAAS website	○	○	○	○
PDE Website	○	○	○	○
SV Portal Schoolwide Assessments	○	○	○	○
SV Portal Gradebook	○	○	○	○

_____

Q6 What state assessment data would you like to have that you do not currently have access to?

_____

Q7 **Data Use**

The remainder of this survey asks about the use of specific types of data to inform your educational practice. Please consider only statewide assessment data and reporting when you respond to the following prompts.

How often in the 2018-2019 academic year (including summer) did you use data to do the following?

	Never	Rarely	Sometimes	Often
I used state assessment data to develop school goals that promote success of all students.	○	○	○	○
I used state assessment data to make decisions in aligning resources with district or school goals.	○	○	○	○
I used state assessment data to develop and implement learning programs.	○	○	○	○
I used state assessment data to suggest changes in district curriculum.	○	○	○	○
I used state assessment data to allocate human resources in ways that promote student achievement.	○	○	○	○
I used state assessment data to determine topics for professional development.	○	○	○	○
I used state assessment data to to promote improved student achievement.	○	○	○	○
I used state assessment data to judge my performance in effective management.	○	○	○	○
I used state assessment data to assess learning equity for different student populations.	○	○	○	○
I used state assessment data to develop family and parent engagement plans.	○	○	○	○
I used state assessment data to monitor instructional practices of the school.	○	○	○	○
I used state assessment data to determine whether specific programs lead to improved achievement.	○	○	○	○

I used state assessment data to identify problems in student learning.	○	○	○	○
I used state assessment data to make individual student placement decisions in courses or special programs.	○	○	○	○
I used state assessment data to develop recommendations for tutoring or other educational services for students.	○	○	○	○
I used state assessment data to coach teachers.	○	○	○	○
I used state assessment data to evaluate teacher performance.	○	○	○	○
I used state assessment data to assign/reassign teachers to courses or grades.	○	○	○	○
I used state assessment data to identify teachers for leadership opportunities.	○	○	○	○

Q8 Describe other ways in which you have used state assessment data in the 2018 - 2019 academic year (including summer) to inform your educational practice.

_____

Q9 How often in the 2018-2019 academic year (including summer) have you done the following?

	Never	Rarely	Sometimes	Often
Used state assessment data to compare subgroups of students.	○	○	○	○
Used state assessment data to compare student achievement by grade.	○	○	○	○
Used state assessment data to compare student growth by grade.	○	○	○	○
Used state assessment data to compare my district or school to other districts or schools.	○	○	○	○
Used state assessment data to examine trends in school or district.	○	○	○	○

Q10 **Data Characteristics and Data User Characteristics**

The next set of questions asks about your perception of the value of specific types of state assessment data. Additional questions ask about your skill set in using data.

The state assessment data I have available to me are...

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
applicable to my work.	○	○	○	○	○
easy to interpret.	○	○	○	○	○
good measure of student learning.	○	○	○	○	○
easily accessible when needed.	○	○	○	○	○
aligned well to district curriculum.	○	○	○	○	○

Q11 If you strongly disagree or disagree with one or more statements above, explain your rationale as to why.

Q12 These items are about your attitudes and opinions regarding state assessment data. Please indicate the usefulness of state assessment data in these areas.

In what way is state assessment data useful in...

	Not at all useful	Not very useful	Somewhat useful	Very useful
helping educators plan for instruction.	○	○	○	○
offering information about students that was not already known.	○	○	○	○
improving student learning.	○	○	○	○
helping evaluate the quality of instruction.	○	○	○	○
informing progress in school or district.	○	○	○	○
helping determine if a program is effective.	○	○	○	○
guiding conversations with parents.	○	○	○	○

Q13 Describe other ways in which state assessment data has been useful in your work as an instructional leader.

Q14 These items are about your attitudes toward your own use of data. Please indicate how much you agree or disagree with the following statements.
I am confident in my ability to...

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
access and download raw data in DRC.	○	○	○	○	○
manipulate raw data in excel to determine the number and percent of students scoring Below Basic, Basic, Proficient, and Advanced on each test.	○	○	○	○	○
create reports in tables, graphs, or external files at the summary or individual student level in eMetric.	○	○	○	○	○
disaggregate groups or subgroups, and/or score variables in eMetric.	○	○	○	○	○
access publicly available achievement and growth data to compare results across schools and districts.	○	○	○	○	○
access district and building level PVAAS data to determine growth of students as represented in quintiles and proficiency levels.	○	○	○	○	○
access teacher specific PVAAS scores (current year and three year averages).	○	○	○	○	○
access current student data by school, grade level and class using the district's employee portal.	○	○	○	○	○
compare individual longitudinal performance on state assessments using the district's employee portal.	○	○	○	○	○

| access state assessment data for a group of students broken down by reporting category, assessment anchor, points possible, and average percent using the district's employee portal. | ○ | ○ | ○ | ○ | ○ |
| export student data from the district's employee portal to identify students with an IEP, students who receive Title I services, students who are economically disadvantaged, and/or students who are English Learners. | ○ | ○ | ○ | ○ | ○ |

Q15 **Providing Leadership and Support**

Please indicate the extent to which you agree or disagree with the following statements about your role during the 2018-2019 academic year (including summer) in supporting the utilization of state assessment data for decision making and planning.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I provided a clear direction about how data should be used to improve instruction.	○	○	○	○	○
I clearly communicated that using state assessment data for informed decision making is fundamental to teachers' work.	○	○	○	○	○
I created many opportunities for my professional staff to use state assessment data.	○	○	○	○	○
I discussed state assessment data with my colleagues and staff.	○	○	○	○	○
I modeled effective techniques for interpreting and acting on state assessment data.	○	○	○	○	○
I provided my professional staff with formal feedback on use of state assessment data.	○	○	○	○	○
I monitored how the individuals I evaluate engage with state assessment data.	○	○	○	○	○
I led discussions on the meaning of state assessment data.	○	○	○	○	○
I developed reports using state assessment data tailored to specific building needs.	○	○	○	○	○
I provided important procedures to guide the use of state assessment data.	○	○	○	○	○

I structured time for collaboration around the use of state assessment data.	○	○	○	○	○

Q16 Describe other ways in which you have provided leadership and support in the utilization of state assessment data for decision making and planning.

Q17 To what extent, if any, is each of the following issues barriers to the expanded use of state assessment data for instructional decision making?

	Extreme barrier	Moderate barrier	Somewhat of a barrier	Not a barrier
Lack of information system that makes state assessment data accessible to staff at all levels of the system.	○	○	○	○
Lack of technical skills of school staff to access or use electronic data systems.	○	○	○	○
Lack of school staff-preparation on how to use data for instructional decision making (e.g. understanding of state assessment data).	○	○	○	○
Lack of communication or sharing of state assessment data across schools and/or departments within the district.	○	○	○	○
Lack of time for school staff to reflect on or use state assessment data for teacher collaboration.	○	○	○	○
Lack of explicit norms and expectations for use of state assessment data.	○	○	○	○
Lack of frameworks to use state assessment data.	○	○	○	○

Q18 List other barriers that impact the use of state assessment data for instructional decision making.

Q19 Please provide any comments concerning the use of state assessment data for decision making.

Appendix E Recruitment Letter

Dear Administrators,

Our district has been working towards a structured and systemic approach to data analysis. To further investigate administrators' perception of the value, validity and utility of state assessment data, a short web-based survey is being conducted.

This research study is being conducted to better support the role of administrators in leading assessment and accountability mandates. This survey will help to identify the sustainable aspects of data analysis and provide insight as to how state assessment data is used to inform decisions at the district and building level. As an administrator, it is critically important to gain information from you because you are an integral part of establishing effective means and practices for the use of state assessment data.

Your response to this survey is very important to the success of this study. Your perspective can provide valuable information as to the effectiveness of current data analysis practices based on your administrative experiences within your role. There are no foreseeable risks with this project and confidentiality will be ensured, as this is an anonymous survey. You can exit the survey at any time or skip any questions. Typical background information will be collected (administrative role, years of experience, etc.).

Your participation in this survey is entirely voluntary, and you may withdraw from this project at any time. If you are willing to participate, the survey will ask about your feelings about the value, validity and utility of statewide assessment data. This survey will take approximately 10 minutes to complete and will include both closed and open-ended questions to allow for a more comprehensive representation of how administrators are using state assessment data and what barriers to the use of state assessment data presently exist.

The results of this survey will be published as a dissertation and potentially in organizationally affiliated journals/periodicals.

To complete the survey, just click on this link: (link to survey embedded here)

The survey will open right away, or you may cut and paste this link into your internet browser or access it from a mobile device.

If you have questions or concerns about this survey, please feel free to contact me directly at mep139@pitt.edu. Thank you in advance for your help. Your participation is greatly appreciated.

Marie Palano

Appendix F IRB Approval

University of Pittsburgh
Institutional Review Board

APPROVAL OF SUBMISSION (Exempt)

Date:	October 22, 2019
IRB:	STUDY19070057
PI:	Marie Palano
Title:	Utilization of State Test Data to Address Student Achievement
Funding:	None

The Institutional Review Board reviewed and approved the above referenced study. The study may begin as outlined in the University of Pittsburgh approved application and documents.

Approval Documentation

Review type:	Initial Study
Approval Date:	10/22/2019
Exempt Category:	(1) Educational settings
Approved Documents:	• Palano Data Use Survey , Category: Data Collection; • M. Palano Survey Cover Letter.pdf, Category: Recruitment Materials; • Marie Palano , Category: Consent Form; • Marie Palano HRP 720 Exempt Application Form , Category: IRB Protocol; • Palano-Vitale Research Permission Letter.pdf, Category: External Site Permission Letter;

As the Principal Investigator, you are responsible for the conduct of the research and to ensure accurate documentation, protocol compliance, reporting of possibly study-related adverse events and unanticipated problems involving risk to participants or others. The HRPO Reportable Events policy, Chapter 17, is available at http://www.hrpo.pitt.edu/.

Clinical research being conducted in an UPMC facility cannot begin until fiscal approval is received from the UPMC Office of Sponsored Programs and Research Support (OSPARS).

If you have any questions, please contact the University of Pittsburgh IRB Coordinator, Larry Ivanco.

Please take a moment to complete our Satisfaction Survey as we appreciate your feedback.

Bibliography

ACT. (2020). Retrieved from: https://www.act.org/

Advanced Placement. (2020). Retrieved from: https://ap.collegeboard.org/

Black, D. W. (2017). Abandoning the federal role in education: The Every Student Succeeds Act. *California Law Review*, *105*(5), 1309-1374. https://doi.org/10.15779/Z38Z31NN9K

Caves, K., & Balestra, S. (2018). The impact of high school exit exams on graduation rates and achievement. *Journal of Educational Research*, *111*(2), 186-200. https://doi.org/10.1080/00220671.2016.1226158

Chenoweth, K. (2016). ESSA offers changes that can continue learning gains. *Phi Delta Kappan*, *97*(8), 38-42. https://doi.org/10.1177/0031721716647017

Cochran-Smith, M., Baker, M., Burton, S., Chang, W. C., Cummings Carney, M., Fernández, M. B., … Sánchez, J. G. (2017). The accountability era in U.S. teacher education: Looking back, looking forward. *European Journal of Teacher Education*, *40*(5), 572-588. https://doi.org/10.1080/02619768.2017.1385061

Conzemius, A. & Morganti-Fisher, T. (2012). *More than a smart goal: Staying focused on student learning.* Bloomington, IN: Solution Tree Press.

Data Recognition Corporation. (2019). *Education Services.* Retrieved from: https://www.datarecognitioncorp.com/

Dee, T. S., & Jacob, B. (2011). The impact of No Child Left Behind on student achievement. *Journal of Policy Analysis and Management*, *30*(3), 418-446. https://doi.org/10.1002/pam.20586

DuFour, R., DuFour, R., Eaker, R., Many, T., & Mattos, M. (2016). *Learning by doing: A handbook for professional learning communities at work.* Bloomington, IL: Solution Tress Press.

Ebbeler, J., Poortman, C. L., Schildkamp, K., & Pieters, J. M. (2017). The effects of a data use intervention on educators' satisfaction and data literacy. *Educational Assessment, Evaluation and Accountability*, *29*(1), 83-105. https://doi.org/10.1007/s11092-016-9251-z

Egalite, A. J., Fusarelli, L. D., & Fusarelli, B. C. (2017). Will decentralization affect educational inequity? The Every Student Succeeds Act. *Educational Administration Quarterly*, *53*(5), 757-781. https://doi.org/10.1177/0013161X17735869

eMetric. (2019). *Data interaction for Pennsylvania student assessments.* Retrieved from: https://solutions1.emetric.net/pa/

Englert, K., Fries, D., Martin-Glenn, M., & Michael, S. (2005). *How are educators using data? A comparative analysis of superintendent, principal, and teachers' perceptions of accountability systems*. Aurora, CO: Mid-Continent Research for Education and Learning (McREL).

Englert, K., Fries, D., Goodwin, B., Martin-Glenn, M., & Michael, S. (2004). Understanding how principals use data. *Education*. Retrieved from: http://www.mcrel.org/PDF/AssessmentAccountabilityDataUse/5041RR_UnderstandPrincipalData.pdf

Erkens, C. & Tadwell, E. (2020). *Leading by Design: An action framework for PLC at Work leaders.* Bloomington, IL: Solution Tree Press.

Every Student Succeeds Act of 2015. 1177, et seq. (2015)

Feng, L., Figlio, D., & Sass, T. (2018). School accountability and teacher mobility. *Journal of Urban Economics*, *103*, 1-17. https://doi.org/10.1016/j.jue.2017.11.001

Ferguson, M. (2017). The shape of the federal role in education. *Phi Delta Kappan*, *98*(8), 72-73.

Freeman, M., Mathison, S., & Wilcox, K. C. (2006). Performing parent dialogues on high-stakes testing: Consent and resistance to the hegemony of accountability. *Cultural Studies - Critical Methodologies*, *6*(4), 460–473. https://doi.org/10.1177/1532708606288647

Gummer, E. S., & Mandinach, E. B. (2015). Building a conceptual framework for data literacy. *Teachers College Record, 117*(4), 1-22.

Hakuta, K. (2017). Commentary: Policy-impactful research to improve Elementary and Secondary Education Act reauthorizations into the future. *American Educational Research Journal*, *54*(1_suppl), 279S-281S. https://doi.org/10.3102/0002831216678073

Hora, M. T., Bouwma-Gearhart, J., & Park, H. J. (2017). Data driven decision-making in the era of accountability: Fostering faculty data cultures for learning. *The Review of Higher Education*, *40*(3), 391-426. https://doi.org/10.1353/rhe.2017.0013

Howell, R. & Patton, S. (2008). *Understanding Response to Intervention: A practical guide to systemic implementation*. Bloomington, IN: Solution Tree Press.

Jenkins Robinson, K. (2018). Restructuring the Elementary and Secondary Education Act's approach to equity. *Minnesota Law Review, 67*(1), 1-54.

Kim, K. T. (2010). Connecting administrative and professional perspective in the era of accountability. *Asia Pacific Education Review*, *11*(3), 433-445. https://doi.org/10.1007/s12564-010-9083-3

Klotz, M., & Canter, A. (2007). *Response to Intervention: A primer for parents*. Retrieved from: http://www.nasponline.org/resources/handouts/revisedpdfs/rtiprimer.pdf

Koyama, J. (2014). Principals as bricoleurs: Making sense and making do in an era of accountability. *Educational Administration Quarterly*, *50*(2), 279-304. https://doi.org/10.1177/0013161X13492796

Ladd, H. F. (2017). No Child Left Behind: A deeply flawed federal policy: Point/counterpoint. *Journal of Policy Analysis and Management, 36*(2), 461-469. doi:10.1002/pam.21978

Lai, M. K., & McNaughton, S. (2016). The impact of data use professional development on student achievement. *Teaching and Teacher Education*, *60*, 434–443. https://doi.org/10.1016/j.tate.2016.07.005

McDermott, K. A. (2007). "Expanding the moral community" or "blaming the victim"? The politics of state education accountability policy. *American Educational Research Journal*, *44*(1), 77-111. https://doi.org/10.3102/0002831206299010

Mandinach, E. B., & Gummer, E. S. (2016). *Data literacy for educators: Making it count in teacher preparation and practice*. New York, NY: Teachers College Press.

Marsh, J. A. (2012). Interventions promoting educators' use of data: Research insights and gaps. *Teachers College Record, 114*(11), 1-48.

Mertens, D. (2015). *Research and evaluation in education and psychology.* Washington, DC: Sage Publications.

No Child Left Behind (NCLB) Act of 2001, 20 U.S.C.A. § 6301 et seq.

Park, V. (2018). Leading data conversation moves: Toward data-informed leadership for equity and learning. *Educational Administration Quarterly*, *54*(4). https://doi.org/10.1177/0013161X18769050

Pennsylvania Association of School Administrators, *PASA supports senate bill 1095: alternative pathways to graduation*. (2018a, April 3). Retrieved from: https://www.pasa-net.org/Files/Docs/2018/SB1095Release.pdf

Pennsylvania Association of School Administrators, Senate Bill 1095. (2018b, September 21). Retrieved from: https://www.pasa-net.org/Files/Docs/2018/SB1095Chart.pdf

Pennsylvania Department of Education (2019a). About. Retrieved from: https://www.education.pa.gov/about/Pages/default.aspx

Pennsylvania Department of Education (2019b). Assessment and accountability. Retrieved from: https://www.education.pa.gov/K12/Assessment%20and%20Accountability/Pages/default.aspx

Pennsylvania Department of Education (2014). *Educator effectiveness administrative manual.* Retrieved from: https://www.education.pa.gov/Documents/Teachers-Administrators/Educator%20Effectiveness/Educator%20Effectiveness%20Administrative%20Manual.pdf

Pennsylvania Department of Education (2015). *Every Student Succeeds Act.* Retrieved from: https://www.education.pa.gov/K-12/ESSA/Pages/default.aspx

Pennsylvania Department of Education (2019c). *Future Ready PA Index.* Retrieved from: https://www.education.pa.gov/K-12/ESSA/FutureReady/Pages/default.aspx

Pennsylvania Department of Education (2019d). *Future Ready PA Index.* Retrieved from: https://www.futurereadypa.org

Pennsylvania Department of Education (2019e). *PA School Performance Profile.* Retrieved from: https://www.education.pa.gov/Teachers%20%20Administrators/Educator%20Effectiveness/SPP/Pages/default.aspx

Pennsylvania Department of Education, (2020a). *Pennsylvania Alternative System of Assessment (PASA).* Retrieved from: https://www.education.pa.gov/K12/Assessment%20and%20Accountability/PASA/Pages/default.aspx

Pennsylvania Department of Education. (2019f). *Pennsylvania Consolidated State Plan.* Retrieved from: https://www.education.pa.gov/Documents/K12/ESSA/PennsylvaniaConsolidatedStatePlan.pdf

Pennsylvania Department of Education (2019g). Pennsylvania Value Added Assessment System. Retrieved from: https://www.education.pa.gov/K12/Assessment%20and%20Accountability/PVAAS/Pages/default.aspx

Pennsylvania Department of Education (2020b). *Principal Induction Program.* Retrieved from: https://www.education.pa.gov/Teachers%20%20Administrators/PA%20Inspired%20Leaders/Pages/Principals'-Induction-Program.aspx

Pennsylvania Department of Education. (2019h). *Statewide High School Graduation Requirement Guidance Act 158 of 2018.* Retrieved from: https://www.education.pa.gov/Documents/K12/Assessment%20and%20Accountability/Graduation%20Requirements/Emessage%20January%202019.pdf

Pennsylvania General Assembly. *Public School Code – Omnibus Amendments.* Act 82. Regular Session 2011-2012. House Bill 1901. (2012, June 30). Retrieved from: https://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2012&sessInd=0&act=82

Pennsylvania School Board Association (2020). *Approved Act 158 Keystone Exam Composite Score*. Retrieved from: https://www.psba.org/2020/01/approved-act-158-keystone-exam-composite-score/

Pennsylvania Training and Technical Assistance Network (2020). Multi-Tiered System of Supports. Retrieved from: https://www.pattan.net/Multi-Tiered-System-of-Support/MULTI-TIERED-SYSTEM-OF-SUPPORTS

Petrides, L. A., and Nodine, T. R. (2003). *Knowledge management in education: Defining the landscape*. Half Moon Cay, CA: Institute for the Study of Knowledge Management in Education.

Robinson, G. (2016). A federal role in education: Encouragement as a guiding philosophy for the advancement of learning in America. *University of Richmond Law Review, 50*(3), 919-950.

Robinson, K. J. (2018). Restructuring the Elementary and Secondary Education Act's approach to equity. *Minnesota Law Review, 67*, 916-998.

SAT Suite of Assessments. (2020). Retrieved from: https://collegereadiness.collegeboard.org/sat

Schildkamp, K., Poortman, C. L., Ebbeler, J., & Pieters, J. M. (2019). How school leaders can build effective data teams: Five building blocks for a new wave of data-informed decision making. *Journal of Educational Change, 20*. https://doi.org/10.1007/s10833-019-09345-3

Skalski, A. K., & Romer, M. (2011, January). Data-based decision making. *Principal Leadership,* 12-16. Retrieved from: https://www.nasponline.org

Spillane, J. P. (2012). Data in practice: Conceptualizing the data-based decision-making phenomena. *American Journal of Education*, *118*(2), 113-141. https://doi.org/10.1086/663283

Traynor, A., & Chapman, A. E. A. (2015). Impeded attainment? The role of state exit examination-alternative route policy combinations. *Teachers College Record. 117*(9). Retrieved from: https://www.researchgate.net/publication/283551490_Impeded_Attainment_The_Role_of_State_Exit_Examination-Alternative_Route_Policy_Combinations

Ullucci, K., & Spencer, J. (2009). Unraveling the myths of accountability: A case study of the California High School Exit Exam. *Urban Review*, *41*(2), 161-173. https://doi.org/10.1007/s11256-008-0105-y

U.S. Department of Education. (2019). *Every Student Succeeds Act (ESSA).* Retrieved from: https://www.ed.gov/essa?src=ft

van der Scheer, E. A., & Visscher, A. J. (2018). Effects of a data-based decision-making intervention for teachers on students' mathematical achievement. *Journal of Teacher Education*, *69*(3), 307-320. https://doi.org/10.1177/0022487117704170

van Geel, M., Keuning, T., Visscher, A., & Fox, J. P. (2017). Changes in educators' data literacy during a data-based decision making intervention. *Teaching and Teacher Education*, *64*, 187-198. https://doi.org/10.1016/j.tate.2017.02.015

Vanlommel, K., & Schildkamp, K. (2018). How do teachers make sense of data in the context of high-stakes decision making? *American Educational Research Journal*, *56*(3), 792-821. https://doi.org/10.3102/0002831218803891

Waters, T., Marzano, R., & McNulty, B. (2003). *Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement*. Aurora, CO: Mid-Continent Research for Education and Learning (McREL).

Young, C., McNamara, G., Brown, M., & O'Hara, J. (2018). Adopting and adapting: School leaders in the age of data-informed decision making. *Educational Assessment, Evaluation and Accountability*, *30*(2). Retrieved from: https://doi.org/10.1007/s11092-018-9278-4

Young, M. D., Winn, K. M., & Reedy, M. A. (2017). The Every Student Succeeds Act: Strengthening the focus on educational leadership. *Educational Administration Quarterly*, *53*(5), 705-726. doi.org/10.1177/0013161X17735871