# INSTITUTING A VALUE ADDED ASSESSMENT SYSTEM IN OHIO: THE PROFESSIONAL DEVELOPMENT IMPLICATIONS

# FROM THE PERSPECTIVE OF THE DISTRICT

# VALUE-ADDED SPECIALISTS

By

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# ASHLAND UNIVERSITY, 2008

DISSERTATION

SUBMITTED TO

College of Education

# ASHLAND UNIVERSITY

In Partial Fulfillment of the Requirements for

The Degree

Doctor of Education in Educational Leadership

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# ASHLAND UNIVERSITY

# ASHLAND, OH

2008

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entitled

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# INSTITUTING A VALUE ADDED ASSESSMENT SYSTEM IN OHIO: THE PROFESSIONAL DEVELOPMENT IMPLICATIONS FROM THE PERSPECTIVE OF THE DISTRICT VALUE-ADDED SPECIALISTS

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# Abstract

Although much has been written about the various value-added models from a statistical point of view, there is a considerable lack of literature related to the professional development implications of value added once a particular model has been chosen. This study illuminates and describes some of the professional development implications related to Ohio's scale up of its educational value-added assessment system from the perspective of those responsible for teaching its implications were explored using a survey instrument that was developed by the researcher. The results were reviewed and discussed. The practical implications of instituting a value-added assessment model include using value-added data with other forms of data in order to improve instructional practices. Suggestions were provided specific to Ohio's value-added scale-up and its impact on educators.

### DEDICATIONS

I dedicate this dissertation to my wife Rhonda, and my children Mason, Tommy and Maggie. They add value to my life and are the reason for my being. Raising a family and obtaining a terminal degree is a challenging endeavor that entails both personal and family sacrifices. Their understanding has been unwavering and it will never be forgotten.

To my mother for all of the personal sacrifices that she had to make throughout my childhood. Being a single mother and raising three boys had to be a challenge. To my brother Mark for leading the doctoral way and demonstrating that a couple of poor kids from Northeast Ohio really can obtain doctoral degrees.

> The purpose of education is to provide students with as many opportunities as possible. The Educational Value Added Assessment System measures whether or not we're providing an equitable educational opportunity for all students.

> > -Dr. William Sanders

#### ACKNOWLEDGMENTS

I would like to thank my dissertation chairperson Dr. Ann Shelly for her compassion and guidance throughout this process. In addition, my dissertation committee members, Dr. Harold E. Wilson, Dr. Louise Fleming and, Dr. Robert Shelly, were very supportive and encouraging during the development and revision process. Each professor helped me become a better writer and scholar throughout the dissertation in their own unique way and for that I could never thank them enough.

My appreciation goes to several professionals in the educational field. My thanks goes to Dr. Deb Telfer from the Ohio Department of Education for assisting me in gathering the information I needed to conduct this study. I wish to thank Dr. William Sanders for taking an interest in my dissertation and providing me with moments of his precious time and wisdom during a dinner meeting that I had with he and others during a cold winter evening in 2008. I would like to thank Daniel F. McCaffrey and Laura S. Hamilton from RAND. I contacted Dr. McCaffrey and he was gracious enough to permit me to use modified items from a previous study (McCaffrey & Hamilton, 2007). I owe gratitude to Drs. Jim Costanza and Todd Hoadley. Both of these superintendents offered words of encouragement and were supportive during the completion of my doctoral program. I am thankful to Marsha Lewis and Dr. A. Ruhil from Ohio University. They have been instrumental in conducting research on value-added implementation in Ohio and at the initiation of this study they provided encouragement and guidance. I would like to acknowledge my fellow Ohio DVAS who were randomly chosen to complete the survey. There were no monetary incentives offered to them for the information that they

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shared and nevertheless they provided me with very valuable data. I owe them a debt of gratitude.

I believe that it takes a special person to choose education as a career. Throughout what seems to be a lifetime of education there were several educators that made an impression on me and did indeed add value to my educational experiences. I would especially like to thank the following teachers from my K-12 education venture: Ms. Patricia Weiner (3<sup>rd</sup> grade teacher) for her kindness, Mr. Steve Harlan (6<sup>th</sup> grade teacher) for his creativity, Ms. Kay Erlenbach for believing in me and the late Mrs. Lu Hyde for challenging me. I'd like to thank Dr. Ted Cohen and Dr. Richard Leavy from Ohio Wesleyan University. Both professors had a significant impact on my scholarly development and I consider each to be both very kind and stellar educators. Finally, Dr. John Fraas, recently retired Ashland Professor, was perhaps the finest teacher that I've ever had the pleasure of learning from at any level.

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### CHAPTER I

## Introduction

Prior to the 2006-07 school year, public school districts in Ohio had an accountability system that measured student proficiency of grade level learning targets as measured through achievement tests administered in grades 3 through 8 and in grade 10. Legislation from the Ohio Legislature through House Bill 3 (2003) not only aligned Ohio's assessment accountability system with No Child Left Behind, it mandated an additional tier of accountability in grades fourth through eighth. Although the first layer of accountability sought to account for students achieving at a prescribed level of proficiency, the second layer stipulated that Ohio's public schools must measure annual student growth.

Through Ohio House Bill 3 (2003), the state incorporated both an achievement and growth model into its accountability system. Although the former was required through the regulations stipulated in No Child Left Behind, Ohio was one of ten states that submitted a proposal to the United States Department of Education in order to pilot a growth model in its accountability system. The student growth model, commonly referred to as the *value-added model*, was developed by Dr. William Sanders from the State of Tennessee. Much like Ohio's current phenomenon, in 1992 through Tennessee HB752, the legislature designated the Tennessee Value-Added Assessment system as the method the state would use for accountability purposes. This model has received a high degree of national attention by the media, educators and legislatures. Value-added analysis is a statistical method that helps educators measure the impact schools make on students' rates of academic progress (growth) from year to year. This dissertation employed a survey research methodology and studied the professional development implications of the institution of the value-added assessment system in the State of Ohio from the perspective of a sampled group of District Value-added Specialists at the time Ohio was implementing its growth measure throughout the state. Chapter One of the dissertation presents the background of the study, identifies the specific problem, describes its significance, provides an overview of the methodology used, reviews its limitations and defines key terms.

# Background of the Study

A multitude of studies and commissioned reports beginning in 1960 and continuing through the late 1980s created a call for educational reform. Many of these studies led to individual states creating more rigorous educational standards that were measured by a surge of new student achievement tests (Chubb & Moe, 1990). From a curriculum perspective, the report that had perhaps the largest impact on instruction was the release of A Nation at Risk in 1983 by the National Commission on Excellence in Education. The Commission made five recommendations in the areas of: (a) Content; (b) Standards and Expectations; (c) Time; (d) Teaching and (e) Leadership and Fiscal Support. In short, the Commission called for more rigorous academic content that was focused and measurable through the use of achievement tests; indicated that time focused on student learning was critical; teacher preparation and professional development mattered and finally, leadership within both educational administration and the Federal Government had a role in ameliorating the risk.

Prior to No Child Left Behind and the standards-based education movement Ohio did not have an agreed upon set of State learning targets for each grade level; however it did have state sponsored proficiency tests in grades 4, 6 and a high stakes test in grade 9. The construction of these tests were not based on an agreed upon set of academic content standards prior to their release despite the fact that the students in each respective grade level in which the tests were administered were required to take the test. Initially, educators were left to guess what the test was measuring as its content was not originally released. Later this practice was changed.

In 1995, President George H. W. Bush established a national panel of governors to promote the development of academic content standards in the United States. The meeting between President Bush and the governors in turn established a National Council on Education Standards and Testing (NCEST). This provided the catalyst for the Bush Administrations' *American 2000*, which subsequently became the Clinton Administration's *Goals 2000* (Holbein, 1998; Lewis, 1995). Bush's meeting with the governors was the predicate to individual state initiatives that included the writing and adopting of curriculum standards. In order to stimulate participation in this reform, the government began distributing grants to interested states who sought to write and implement higher standards. Although standardized assessments existed prior to the adoption of their content standards, as demonstrated in Ohio by its proficiency tests in grades 4, 6 and 9, the creation of these assessments further defined and ensured their place in the assessment milieu of student learning.

Approximately twenty years after the release of A Nation At Risk, on January 8, 2002 President George W. Bush signed into law the No Child Left Behind Act of 2001. The Act leveraged the Federal government into the business of educational accountability by requiring all states to submit plans to the Department of Education that would outline

how they would ensure that all students would be proficient in Math and Reading by 2014. In short, NCLB emphasizes high standards, annual assessments for students and it provides assistance and consequences for schools not adequately educating students (Morgan, 2002). The foundation of the Act rested on providing states incentives to increase their respective capacities to engage in standards-based instruction and assessment (Superfine, 2005).

The No Child Left Behind Act was a multifaceted piece of legislation. It created a mandate for public school districts to evaluate student performance in specified curricular areas through standard assessments in grades 3 through 8 (U. S. Department of Education, 2001). Further, it requires the disaggregating of test performances for identified groups in order to measure the groups' adequate yearly progress. This means that the performance of all students assessed is subdivided into the individual group performances of ethnic minorities, Limited English Proficient learners, students with disabilities and so on. Finally, there are a number of federally backed negative consequences that public school districts face if the requirements of the act are not met. However, there are no incentives if the goals are reached. In addition to the assessment requirements under No Child Left Behind, the Act requires states to establish high educational standards for all children and further requires each state to submit its standards to a review board for approval (Fine, Hsu, King, & Janow, 2003). This move gave national leverage for the creation of curriculum content standards. On December 11, 2001, the Ohio State Board of Education adopted its first set of academic content standards in English Language Arts and Mathematics (Ohio Department of Education, 2001).

No Child Left Behind required all 50 states to submit a plan to the United States Department of Education indicating how they would be in compliance with its provisions. Although there are many aspects to this law, one of the key requirements of No Child Left Behind was for each state to create academic content standards and begin testing the reading and math performances of students in grades 3 through 8 beginning in 2005-06 in order to see how students were learning the academic content standards. A number of states needed to bring their state assessment system into compliance with the provisions set forth in No Child Left Behind. Ohio was one such state. Ohio phased out its proficiency tests in grades 4, 6 and 9, and replaced them with achievement tests in reading and math in grades 3 through 8 and also in grade 10.

Tennessee HB752 (1992) was a piece of legislation that was created as a means to stimulate educational reform in its public school system. Although it was created prior to No Child Left Behind, it called for a similar reform agenda. Specifically, it reorganized funding, set new academic standards and established a revolutionary educational accountability system at the district, school and individual teacher level. The law enacted the Tennessee Value-Added Assessment System as the method whereby districts, schools and students would be measured. Tennessee tests its students every year in grades three through eight with a norm-referenced achievement test and uses a complex statistical analysis called the Tennessee Value-added Assessment System to analyze the data (Morgan, 2002).

Ohio's HB 3 (2003) provides another example of how a state changed its educational accountability program. Ohio HB 3 (2003) brought its educational accountability system into compliance with that which was required by the Federal

Government. Much like Tennessee, Ohio's HB 3 (2003) also extended itself beyond what was required by federal law. Ohio's HB 3 (2003) directed the Ohio Department of Education to incorporate a value-added progress dimension into district and building report cards by July 1, 2005. In addition, the law created a monitoring group initially called the Ohio Accountability Committee, and later changed the name to the Accountability Task Force, to monitor the implementation of the value-added factor in Ohio.

Through Ohio HB 3 (2003), the Ohio Legislature introduced a new form of accountability by incorporating a value-added metric into its State accountability system. Ohio's growth model called Educational Value-added Assessment System was put into action during the 2006-07 school year with the understanding that in 2007-08 public school districts would pilot the growth model, and beginning in 2008-09, the model would become part of Ohio's accountability system. Ohio's HB 3 (2003) created a need for a large professional development initiative aimed at increasing the capacity of educators to understand the complexity of the value-added assessment system, how to present it to teachers so they have an understanding of the accountability model, and perhaps most important, how value-added data can be used to improve instructional quality in Ohio.

The Ohio Department of Education partnered with Battelle for Kids, a nonprofit organization, in an effort to begin to build the State's capacity to implement Ohio's growth model. Ohio's professional development model was designed using a trainer of trainer's approach and although this model was not a unique professional development model, it was unique as it related to increasing the capacity of educators throughout a

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particular state attempting to successfully roll out a value-added assessment accountability model. Although a number of states are beginning to institute a student growth model, to date, there is an absence of literature in the field as it relates to the professional development implications of instituting a student academic growth model. Ohio's professional development scale-up of Ohio's Educational Value-Added Assessment System could serve as one example for other states engaging in such an endeavor.

In an effort to build capacity, the Ohio Department of Education created a group of core value-added professional development specialists called Regional Value-added Specialists. The Regional Value-added Specialists were provided a high level of training for the purpose of relaying Ohio's value-added methodology to individual school district representatives selected by the superintendents in Ohio's schools. Those selected by the superintendents to receive value-added training within the districts were called District Value-added Specialists. Ohio's Regional Value-added Specialists represented an attempt to build a regional professional development network throughout the state as it relates to Ohio's use of the value-added metric. In addition, Ohio's District Value-added Specialists were charged with the task of building a within-district professional development support system for implementing and supporting Ohio's value-added metric in each public school district.

The Ohio Department of Education began its professional development roll out to school districts during the 2006-07 school year in the form of a five day training session for the respective District Value-added Specialists that was provided by the Regional Value-Added Specialists. Ohio used its 80 Regional Value-Added Specialists to provide professional development to at least two individuals from each district to serve as local experts on Ohio's Educational Value-Added Assessment System who, after training, would work with other educators within their respective districts to build capacity.

# Problem Statement

Some states (e.g. Tennessee and North Carolina) have instituted a student growth model into their respective accountability systems and have been significantly criticized due to a lack of preparation and awareness of those who were to be held most accountable—educators. Recently states such as Ohio and Pennsylvania have incorporated a Value-Added model into their respective state educational accountability systems. The value-added assessment metric can be controversial due to its complexity and impact on school and teacher accountability. As a result, the importance of supporting the initiative through professional development becomes paramount. Ohio's District Value-Added Specialists were trained to scale up Ohio's value-added model to staff members in their local districts. This study sought out to explore the professional development perceptions, activities and efficacy of a randomly stratified sample of the Ohio's District Value-Added Specialists at the time Ohio's Educational Value-Added Assessment System scale-up was occurring.

Although more than one value-added model exists (McCaffrey, Lockwood, Koretz & Hamilton, 2003) no published studies were located that specifically outlined the professional development implications that exist at the local school district level with regards to instituting a value-added assessment system in any state including the challenges of "scaling up" the understanding of the concepts and reporting on any related issues associated with the scale up. There is a great need for additional information regarding the impact that a value-added model will have on local districts when one considers the professional development that will be needed in order to help facilitate the understanding and success of using the Educational Value-Added Assessment System not only in Ohio, but in other states as well.

# Professional Significance of the Study

Although much has been written about the different kinds of value-added assessment models from a statistical perspective (McCaffrey, Lockwood, Koretz, & Hamilton, 2003; McCaffrey, Lockwood, Koretz, Louis & Hamilton, 2004; Raudenbush, 2004; Tekwe, Carter, Ma, Algina, Lucas, Roth, Ariet, Fisher & Resnick, 2004), as previously mentioned, no studies were located related to the professional development implications of any individual state instituting a value-added metric once a model has been chosen. As a result, there is a considerable gap in the literature as it relates to the topic. A study such as this would provide meaningful results that are of value to practitioners in Ohio and states who are attempting to increase the capacity of educators' understanding of value-added assessment concepts and how to most practically use value-added assessment, particularly those that are considering the use of value-added methodology. Finally, this study is unique in that it examines a phenomenon that is currently taking place in the State of Ohio. There are regional and district personnel who are conducting activities within the state as a means to increase the capacity of Ohio's educators to understand and use value-added data to make instructional decisions. This topic is as relevant as it is timely.

This study illuminated, and explored the perceptions and activities of a stratified sample of District Value-Added Specialists from Ohio. The methodology for this study was quantitative in nature in that it used a survey as a method to gather information and describe the District Value-Added Specialists. Participants were a randomly selected and stratified sampled group of District Value-Added Specialists whose total population was approximately 1,400 members.

# Limitations of the Study

- 1. The researcher of the study was a District Value-Added Specialist and may have biased the results.
- There are approximately 1,400 District Value-Added Specialists in the State of Ohio. The researcher sought out to capture a stratified, random sample of this population. Although care was given to the selection process, there was a chance that sampling bias occurred.
- 3. The wording of items used in the survey may have biased the respondents negatively or positively and may have had an effect on the results obtained.

# Definition of Key Terms

The following terms were defined for the purpose of this descriptive-survey research study.

 Academic Growth/Progress: Growth and progress are used interchangeably and in this context indicate an increase in a student's learning from a baseline.

- 2. Achievement: The mastery of a particular academic skill or construct (Ravitch, 2007).
- 3. Achievement Test: Assessments created in order to measure student mastery of a particular academic skill or construct (Ravitch, 2007).
- 4. Adequate Yearly Progress (AYP): Ravitch (2007) defines this as "an individual state's measure of yearly progress toward achieving state academic standards, as described in No Child Left Behind (NCLB) legislation. AYP progress is the minimum level of improvement that states, school districts, and schools must achieve each year, as negotiated with the U.S. Department of Education" (p.12).
- 5. Alignment & Alignment-Based Reform: A reform effort to coordinate a district's academic standards to that which an individual state has chosen. Alignment reform would focus on coordinating teachers' daily lessons, instructional materials and assessments so that students are taught the academic standards as defined by a state.
- 6. Backward Mapping: Ravitch (2007) defines this as "a process in which educators determine what students need to know and be able to do at a selected end point, such as high school graduation, and then build the curriculum in earlier grades to reach those desired end goals for the purpose of making sure students are prepared when they reach the desired end point" (p. 26).
- Benchmark: In its Academic Content Standards for K-12 English Language Arts (2001), the Ohio Department of Education defines this as

"a specific statement of what all students should know and be able to do at a specified time in their schooling. Benchmarks are used to measure a student's progress toward meeting the standard" (p. 3)

- Ceiling Effect: Ravitch (2007) defines this as "the tendency of students at the top of the achievement scale not to increase their test scores dramatically because they have already reached 'the ceiling,' of the highest possible level of achievement" (p. 40).
- Content Standards/Standards: In its Academic Content Standards for K-12 English Language Arts (2001), the Ohio Department of Education defines this as "a general statement of what all students should know and be able to do" (p. 3).
- 10. Criterion Referenced Test: An assessment whose purpose is to measure a student's mastery of a skill or set of skills contained within a curriculum rather than compare students to one another.
- Data-Based Decision Making: A curricular decision making process that utilizes a collection of data in order to reach a decision rather than opinion (Ravitch, 2007).
- Diagnostic Test: An assessment method whose purpose is to identify student learning strengths or needs in order to plan for instruction (Ravitch, 2007).
- 13. Differentiated Instruction: According to Ravitch (2007), this is a "form of instruction that seeks to maximize each student's growth by recognizing that students have different ways of learning, different interests, and

different ways of responding to instruction. In practice, it involves offering students several different learning experiences" (p. 75).

- 14. District Value-Added Specialist (DVAS): A person who has received a scripted form of professional development by a Regional Value-Added Specialist for the purpose of helping to implement Ohio's value-added assessment model.
- 15. Educational Value-Added Assessment System (EVAAS): A statistical method developed by William Sanders that measures the effect that schools and teachers have on a student cluster's growth in learning over time (Ravitch, 2007).
- 16. Formative Assessment: An assessment method used to gather data related to a student's acquisition of the learning target for the purpose of making instructional adjustments (Ravitch, 2007).
- 17. Grade-level Indicators: In its Academic Content Standards for K-12 English Language Arts (2001), the Ohio Department of Education defines this as "a specific statement of knowledge that all students demonstrate at each grade level. These indicators serve as checkpoints that monitor progress toward the benchmarks" (p. 3).
- 18. Norm Referenced Test: A standardized test that is used to compare one group of students with another group of students randomly selected to represent the population as a whole.

- 19. Power Standards/Indicators: A subset of learning targets for a particular grade level and subject area that serve as the safety-net curriculum that all students in a particular grade should know (Ainsworth, 2003).
- 20. Professional Development: A focused effort to increase the capacity of educators to do their job more effectively (Ravitch, 2007).
- 21. Regional Value-Added Specialist (RVAS): Approximately 80 people who received professional development in order to become a regional support person to implement Ohio's value-added assessment model. These group of individuals provided professional development to the DVAS.
- 22. Scaling Up: Ravitch (2007) defines this as "efforts to expand the implementation of an innovation or a program from one or a few schools to a large number of schools" (p. 189).
- 23. Standardized Test: A test that is designed to be administered and scored under the same conditions and in the same way for all taking the test (Ravitch, 2007).
- 24. Standards-Based Education: Ravitch (2007) defines this as "an approach to schooling that begins with agreement among educators about what students should learn in each grade level, what level of achievement should be expected, and how academic performance will be evaluated" (p.202).
- 25. Standards-Based Reform: As defined by Ravitch (2007), this is "an effort by the federal government, states and school districts to reach consensus on and establish standards for what students should know and be able to

do at each grade or development level. This externally mandated strategy aims to improve education by stipulating what students are supposed to learn; testing to see whether they've learned it; and establishing consequences for students, educators, and schools that do not meet the standards" (p. 203).

- 26. Tennessee Value-Added Assessment System (TVAAS): The student growth model developed by William Sanders that uses scale score gain from an annual national norm-referenced student achievement test to determine the value that a teacher and school have on a student (Young, 1996).
- 27. Value-Added Progress Dimension: Ohio HB3 (2003) defines this as a measure of academic gain for a student or group of students over a specific period of time that is calculated by applying a statistical methodology to individual student achievement data derived from the achievement tests.
- 28. Value-Added Analysis: This is a statistical method that helps educators measure the impact schools make on students' rates of academic progress from year to year.

# Summary

Chapter 1 provided an introduction, the background information, the problem statement, the professional significance, the research questions and an overview of the methodology along with key terminology used. Chapter 2 will provide a review of the literature that describes the impetus of the student accountability and standards-based education movements. There will be a review of research related to professional development with specific focus on components of school and teacher quality and effective professional development. The Tennessee accountability movement will be reviewed. It was the impetus behind the value-added methodology used in the State of Ohio. Ohio's HB3 (2003), the piece of legislation that revised its accountability model and called for Ohio's value-added model will also be discussed. The chapter will close with a discussion relaying how Ohio created its RVAS and DVAS professional development support system.

#### CHAPTER II

## Introduction

The literature review section will be divided into five main components. First, it will illuminate some key external forces that have had an impact on the field of education. This section will initially focus on the general external forces that created the need for professional development in the field of education and will conclude with the external force (Ohio HB3, 2003) that mandated professional development for educators as result of the scaling-up of value-added assessment in Ohio. As this study will focus on illuminating the professional development implications of Ohio's Value-Added Assessment System, it is imperative that there is an understanding regarding the impact two selected external forces have had on education and how these forces have shaped reform efforts. This understanding will help researchers, practitioners and professional development planners in Ohio increase the probability that Ohio's revised accountability model will be more than simply abided by and complied with, but rather used as a mechanism for student learning and professional growth. Second, the evolution of the concept of the value-added assessment system will be explored. Third, research related to the components of school and teacher effectiveness will be discussed. Fourth, issues related to creating and delivering professional development will be illuminated. Finally, the creation and learning undertaken by Ohio's regional and district level professional development support teams (the Regional Value-Added Specialists and the District Value-Added Specialists) used to maintain the implementation of the value-added metric in Ohio will be reviewed.

## Part 1: External Forces on Education

According to 10<sup>th</sup> Amendment in the Bill of Rights in the United States Constitution, "the powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people." With regards to education, this Amendment implies that it is the role of state governments to determine the structure and function of their respective educational systems. By and large the role of the Federal government in education was marginal at the onset of our nation's history. Although our judicial branch of government has played a significant role in enforcing the 14<sup>th</sup> Amendment to our Constitution and how it affects individual citizens in their pursuit to obtaining an education in various states, until recently, with the exception of special groups (e.g. students with disabilities and the economically disadvantaged) our legislative and executive branches of government have demonstrated an approach that reserves the education of American youth to the states. Although the function of educating America's youth is a reserved power to the states, a historical sketch that spans over a fifty year period illustrates the profound influence that all branches of the federal government have impacted the states' role of educating our children. The external forces in this section that will be reviewed include two commissioned reports (The Coleman Report and A Nation at Risk) and two pieces of legislation; one federal (No Child Left Behind) and the other specific to the State of Ohio (Ohio HB3, 2003).

## Equality of Educational Opportunity (The Coleman Report, 1966)

The Coleman Report was created as a result of Section 402 of the Civil Rights Act of 1964. The Act stated the following:

The Commissioner shall conduct a survey and make a report to the President and the Congress, within two years of the enactment of this title, concerning the lack of availability of equal educational opportunities for individuals by reason of race, color, religion, or national origin in public educational institutions at all levels in the United States, its territories and possessions, and the District of Columbia. (p. iii)

The Coleman Report, commissioned by the federal government, represented an enormous research study commissioned by the federal government both in scope and sample size. Data were gathered in 1965 from over 4,000 public schools from all grade levels. More than 645,000 students were involved in the survey. Respondents represented the United States population fully in that they came from all parts of the Nation. The study was conducted in a survey format and data were gathered from six racial and ethnic groups. For the purpose of this review, the reviewer will use the word African-Americans in lieu of the terminology used in the Coleman Report to refer to this participant population. The six groups were African-Americans, Native Americans, Asian-Americans, Puerto Ricans, Mexican-Americans and whites. Four major questions structured the study. These were:

1. What is the extent of racial segregation in the schools?

- Do schools offer equal educational opportunities to all groups on indicators of educational quality?
- 3. How much do students learn as measured by a standardized achievement test?
- 4. What are the relationships between student achievement and the schools students attend?

The findings as reported in the Coleman Report were controversial as it came to three main conclusions. First, the difference in funding between Black and White schools was not as great as anticipated. Second, funding made very little impact on student achievement and family economic status was found to be more predictive of student achievement. Finally, whom students went to school with (i.e. peers) mattered more than all the other variables analyzed, including the impact of educators. The implications of the Coleman Report were very large. The finding that student achievement was minimally impacted by teachers and greatly impacted by peers with particular emphasis given to the kinds of peers one would attend school with led to the policy decision of the federal government's movement of racially desegregating schools. It was reasoned that if academic performance of students was largely influenced by the background characteristics of student peers and not by characteristics associated with teachers or schools, perhaps mixing the student peers would lead to greater student achievement for minority groups.

According to Chub and Moe (1990), critics were quick to point out that those researchers overlooked important variables such as leadership and quality of teaching and the impact that these have on student achievement. One can also look at the shortcomings of the Coleman Report as indicated by the authors themselves. They indicated that many characteristics of teachers were not measured in the survey. The conclusion that perhaps had the greatest negative connotation for educators from this report was that teachers and schools have very little impact on student learning. Although Coleman and his colleagues had an enormous sample size, it may have limited their ability to look at other important variables, variables that may have had an impact on their findings and could have consequently led to a different set of interpretations and an entirely different frame of reference with regards to the creation of educational policy. Coleman found that schools accounted for only 10 percent of the variance in school achievement. Other researchers who have investigated teacher and school factors that have an impact on student achievement have found that schools do in fact account for more variance than previously expected (Marzano, 2003; Teddlie, Reynolds & Sammons, 2000). More recent research related to the cumulative effect that effective teachers can have on student progress provides evidence that schools account for more than that which was estimated by Coleman and his colleagues. They found that the building that students attend accounts for approximately 30% of the variance of student academic progress and teachers account for 65% of the variance (Sanders, 2004).

A National at Risk: The Imperative for Educational Reform National Commission of Excellence in Education, 1983

The Nation At Risk report proclaimed, "The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people" (p. 5). The data that the authors reported that supported this claim largely included several examples that demonstrated a national decrease in achievement scores compared to other industrialized nations. Such a proclamation had a profound impact on the attention that the American public school had been receiving and one could argue that the report by the commission served as the catalyst for the standards-based education movement.

The commission that released A Nation at Risk (National Commission on Excellence in Education, 1983) concluded the report with a series of recommendations in the areas of content, standards and expectations, time, teaching and leadership/support. These recommendations contained both short and long term suggestions for U.S. schools. In addition, the recommendations included strategies for gifted students and those at-risk for academic failure. In short, the commission indicated that all students, whether destined for college or for industry, ought to have a quality, strategic educational experience.

As cited in the report, the commission was critical of the type of subject area content being taught in the United States public school system. The opinion was the course requirements were too low. As a result, the commission recommended what it called the 5 New Basics. In order to create a work force that would be able to lead the world, the following courses were recommended for high school graduates: four years of English; three years of math, science and social studies; one half of a year of computer studies and two years of foreign language study for those students who intended to pursue a college education. In each of the subject areas that were recommended, the commission indicated the subject specific content which should be taught. For example, math should focus on the understanding of probability and statistics, measurement, numeracy and math applications. Rather than simply stating "more math, or more English," the
commission recommended the specific areas of the subject that should be given emphasis.

The second set of recommendations from the commission was in the areas of standards and expectations. It was stated that student grades should provide an indication and evidence of student achievement and readiness for future study. Although the commission did not directly state that grade inflation was widespread, this recommendation does provide some indication towards that suspicion. In order to determine if students were achieving, the commission recommended the administration of standardized achievement tests at transition points for the purpose of confirming student knowledge, identifying intervention needs and verifying readiness for extension activities and advanced work. Further, a recommendation was made that extended assessment beyond a summative check. This came in the form of diagnostic assessment procedures to evaluate progress were also made.

The third set of recommendations from the Commission centered on the use of time during the school year and school day. As previously stated, the commission found that the school year in the United States was insufficient compared to other industrialized nations as evidenced by U.S. students attending school for approximately 185 days whereas students from other countries attended school for 220 days on average. The Commission also found that the same amount of U.S. instructional time was devoted to teaching cooking as compared to either reading or math. The recommendation of increasing the U.S. school year along with refocusing the amount of instructional time on the 5 Basics was made. In addition to increasing the school year and refocusing instructional time, the commission recommended that students could benefit from instruction on study skills. Finally, organizing and managing classrooms more efficiently was cited as additional technique that could garner teachers more instructional time.

The fourth set of recommendations related to *teaching* as defined by the preparation of teachers and the rewards and incentives they receive as result of teaching. The commission stated that teacher preparation programs should set higher educational standards and prospective teachers should demonstrate aptitude for teaching and be qualified to teach the subject content that they have been hired to teach. In addition, the teacher preparation programs (colleges and universities) should be judged based on how well they have prepared prospective teachers. The commission also recommended increasing teacher salaries and creating an evaluation system for teachers that included peer review and a career ladder program so that master teachers could be distinguished from novice teachers. Part of the role of the master teacher would be to assist universities and colleges with the enhancement and improvement of teacher preparation programs. Another recommendation by the commission as it relates to teaching was in the area of professional development for educators. It was recommended that teachers should work an eleven month contract so that there would be enough time available to increase the capacity of educators' skills in the area of curriculum through professional development.

The final areas of recommendation from the commission were in leadership and fiscal support. Specifically, the commission recognized the need for building and district leaders to be trained in methods that would allow them to function in leadership roles as opposed to simply being building or district managers. In addition, the commission recommended that educators and elected officials be held accountable for reform efforts.

Although local and state officials had the primary responsibility of financing and administrating educational programs, the Federal Government had a role to work cooperatively with these entities. They stated that national resources should be paired with local and state resources as the purported risk involved the entire nation and was in the nation's best interest. Specific national responsibilities that were cited by the commission included protecting the rights of students; collecting data and statistics on education; supporting research on curriculum, teaching and learning; supporting teacher professional development in critical areas of need; and finally, providing student financial assistance.

The Coleman Report and A Nation at Risk were two documents written that served as external forces on public education. Although the Coleman Report indicated that the nation's schools did not make as great an impact on student achievement as other factors such as family and peers, A Nation at Risk stated that the schools taught the wrong information (content), had students who graduated but failed to demonstrate mastery (expectations), failed to make full utilization of instruction (time) and had unprepared instructors (teaching). These reports created a sense of political and national urgency in the early 1980s. In short, education was reported as accounting for very little variance in student achievement and that which could be attributed to schools was doomed to fail due to a variety of different reasons as outlined in A Nation at Risk. Both reports served as the impetus for the standards based accountability movement and focus on student testing that was to follow in the late 1980s. Although the Coleman Report indicated that other factors beyond the control of schools contributed more to student achievement than teachers, others have discovered new statistical techniques that help explain the percentage of variance (Rosenthal, & Rubin, 1982) and call into question the Coleman Report's finding and found that schools do indeed make a difference. *No Child Left Behind Act of 2001 (NCLB)* 

By report, NCLB was an act that sought out to "close the achievement gap with accountability, flexibility, and choice, so that no child is left behind" (p. 1). The Elementary and Secondary Education Act of 1965 (ESEA) was re-authorized by the 107<sup>th</sup> Congress and signed into law by George W. Bush, 43<sup>rd</sup> President of the United States of America under a new title—No Child Left Behind. NCLB was a very large and encompassing act that contained many Titles—ten in all. In short, the law purported to:

- 1. have stricter accountability at both the local and district level;
- 2. mandate annual assessments in reading and mathematics;
- provide more educational choices for parents and students by permitting students to leave underperforming schools at the cost of the district;
- 4. mandate teacher quality; and
- 5. provide greater funding flexibility by permitting both states and local districts to consolidate funds under four major State grant programs.

For the purposes of this study, it is important to note the profound influence No Child Left Behind had on student accountability through annual assessments in reading and mathematics.

As stated No Child Left Behind was a re-authorization of the Elementary and Secondary Education Act which was part of Lyndon B. Johnson's War on Poverty. Its purpose was to pour large amounts of federal dollars into the education of racial and ethnic minority students as an attempt to close the achievement gaps between white students and others. No Child Left Behind took this a step further in that it required all states to submit a plan pertaining to how all students would be proficient in reading and math by the year 2014. In order to comply with this provision, the individual states needed to determine and define the calculation of adequate yearly progress (AYP), which is an annual measure of academic progress toward meeting the 2013-14 achievement proficiency goal based on all students' scores obtained from the statewide achievement tests. Although each state was granted autonomy with regards to their respective plan, the underlying goal was proficiency of all by 2014.

Although all students were required to be proficient by 2014, No Child Left Behind also required states to provide disaggregated data related to the adequate yearly progress of four subgroups which included: economically disadvantaged students, students with disabilities, limited English proficiency students and students from major racial and ethnic groups. The disaggregation component of the reauthorization of the Elementary and Secondary Education Act served as the tie to the original bill. In short, it recognized that certain subgroups of students had a long history of not performing as well as white middle class students. As such, the reauthorization required the specific tracking of those students' achievement levels to ensure they were making the kind of progress that was necessary in order to reach proficiency in reading and math.

No Child Left Behind mandated that each state submit a plan that would outline how all students would receive an instructional program that focused on challenging State standards in reading and mathematics (NCLB, 2001). The plan required the assessment of students in grades three through eight in both reading and math and also required an annual report by the states to the United States Department of Education that indicated the progress all groups of students were making towards the goal of each student demonstrating proficiency within 12 years of the law. The progress of students was disaggregated into subgroups that focused on poverty, race, ethnicity, disability and limited English proficiency. Local districts and schools that failed to demonstrate a state determined adequate yearly progress goal would be subject to focused monitoring and eventual restructuring.

#### *Ohio House Bill 3 (2003)*

HB 3 (2003) is an intricate bill. For the purposes of this study, only the parts relevant to Ohio's accountability system will be reviewed. Prior to the passage of Ohio HB3 (2003), Ohio was in partial compliance with that which was mandated through No Child Left Behind. The main purpose of HB3 (2003) was to make changes to former Ohio law and bring the state into compliance with No Child Left Behind in the areas of achievement testing, school district and building accountability, and school district and building report cards. No Child Left Behind required reading and math to be tested annually beginning in the 2005-06 school year. As a result, Ohio's HB3 (2003) added reading and math achievement tests in each grade where tests did not previously exist under prior law and phased them in with a timeline that coincided with the federal law.

Ohio HB3 (2003) also altered the previous public reporting mechanism that Ohio's districts and schools were currently using—district and building report cards. Ohio kept its previous report card components (student proficiency passage rates on all administered Ohio achievement tests) and added the federal adequate yearly progress calculation and an additional rating called the performance index score. The performance index is reported as a measure designed to show improved performance on the

achievement tests taken by students scoring at all performance levels on Ohio's achievement tests (limited, basic, proficient, accelerated and advanced). Each performance level is given a score and the performance index score is derived by applying a series of calculations to the number of students who took a particular test and the varying performance levels of students. In short, the higher the performance index, the greater the level of achievement as measured by the Ohio Achievement Test subject area. Growth on the performance index is meant to demonstrate whether or not a school or district is increasing its overall achievement. Thus, Ohio's accountability model through HB3 contained three methods of performance that were reported to the public. The first method is based on whether or not 75% of the aggregate students at a particular grade level passed the test they were administered. The second method reported on whether or not the district met its adequate yearly progress requirement. The third component was the calculated performance index. Although it is important to note that HB3 (2003) brought Ohio's testing accountability system into compliance with No Child Left Behind, it significantly extended it as well. This extension included a very important component that fully necessitates its being reviewed.

Ohio's legislature extended its educational accountability system by incorporating an academic growth calculation called value-added assessment. The legislature directed the Ohio Department of Education to begin using a value-added progress dimension in the performance ratings of districts within two years after July 1, 2005. The Act also required the creation of the Ohio Accountability Task Force (OATF) whose main job was to oversee the implementation of the value-added dimension to the accountability model and make recommendations (HB3, 2003). The primary purpose of Ohio's Accountability Task Force was overseeing the implementation of value-added into Ohio's accountability model. Per HB3 (2003), overseeing was defined as approving the system for collecting and analyzing data, the procedures for calculating the value-added progress dimension, the reporting of performance data to districts and buildings and the provision of professional development to teachers and administrators on the interpretation of the data. Further, the Act required that no later than seven years after the first Ohio Accountability Task Force meeting, the committee must make recommendations to improve Ohio's accountability system that are accepted by a majority vote of the task force. Finally, the Act specified that the Ohio Accountability Task Force include the following 13 members:

- 1. The chairpersons and ranking minority members of the House and Senate Education Committees who will serve as non-voting members;
- 2. A Governor appointed representative;
- 3. The Superintendent of Public Instruction or designee;
- A representative of teachers' unions appointed by the Speaker of the House of Representatives;
- A representative of school boards, appointed by the President of the Senate;
- A school district superintendent, appointed by the Speaker of the House of Representatives;
- 7. A representative of business, appointed by the President of the Senate;
- 8. A representative of a nonprofit organization led by the Ohio business community, appointed by the Governor;

- A school building principal, appointed by the President of the Senate; and
- A member of the State Board of Education, appointed by the Speaker of the House of Representatives.

Ohio House Bill 3 (2003) required that the individual appointments were to be made within 30 days of the Act's effective date and the committee was required to meet within 60 days after the effective date. Finally, the appointed members were to serve two years on the committee and meetings were to occur at least six times a year. The first Task Force meeting occurred on December 1, 2003 and ten meetings occurred after the initial organization meeting (Ohio Accountability Task Force, 2003).

As indicated, one component that dealt with overseeing the implementation of value-added in Ohio was the provision of professional development to teachers and administrators on the interpretation of data. Based on a review of the minutes from the ten Ohio Accountability Task Force meetings that were reported on the Ohio Department of Education's website, two meetings contained minutes specifically addressing professional development. The Ohio Accountability Task Force meeting that took place on June 2, 2004 alluded to a need to address the professional development and communication needs for educators, the public and the principals to be considered in the development of a prototype measure.

The second and final time that professional development was reported in the minutes of the Ohio Accountability Task Force occurred on March 15, 2006 whereby Dr. Michael Thomas, Director of Professional Development at Battelle for Kids, provided an update to the task force on the value-added training that had been occurring since the

adoption of HB3. Dr. Thomas indicated that more than 80 RVAS from across Ohio made a two year commitment to value-added assessment. The first year of the commitment entailed the RVAS learning about how value-added analysis takes place and how it can be used to improve instruction. The second year was devoted to providing training to the DVAS in order to help them understand, interpret and use value-added data.

## Part 2: The Educational Value-Added Assessment System (EVAAS)

Value-added modeling has received much attention and interest from both the statistical community and popular press. According to McCaffrey, Lockwood, Koretz & Hamilton (2003), this has happened for two reasons. First, the use of value-added assessment has the potential to explain the variances in student learning by isolating variables that are beyond educators' control (e.g. family background, socio-economic status, and so on) from factors that are within the control of the educators (the quality of instruction, the type of instruction, curriculum, and so on). Secondly, value-added assessment can show differences, as measured by standardized test scores, in schools, grade levels and even individual teachers. If there are true qualitative differences in teachers' instruction by way of applying quantitative methodology (i.e. the value-added metric), this might facilitate the improvement of instruction (McCaffrey, Lockwood, Koretz & Hamilton, 2003).

With the concept of value-added assessment considered, there is debate among researchers and statisticians as to which model represents the most valid and reliable option. The purpose of this study was not to debate the different value-added models (VAM) or to even describe the statistical intricacies of them; several studies and statistical reports have already done this (Ballou, Sanders & Wright, 2004; Braun,

2005; Kupermintz, 2003; McCaffrey, Lockwood, Koretz & Hamilton, 2003; Raudenbush, 2004; McCaffrey, Lockwood, Koretz, Louis & Hamilton, 2004; Rubin, Stuart & Zanutto, 2004; Sanders, 2006; Tekwe, Carter, Ma, Algina, Lucas, Roth, Ariet, Fisher & Resnick, 2004). Although this study did not focus on differentiating the value-added assessment models (VAMs), it is important to understand that there are different value-added assessment models. Finally, the State of Tennessee was the first to include value-added assessment into its accountability system. Since the inception of Tennessee's involvement in value-added assessment, the Center for Greater Philadelphia, reported that 17 other states have been using this methodology in one form or another. Regardless of the model chosen by a particular state, the need for professional development will exist. States that are new to instituting a growth model should look to other states in order to learn how the model can be implemented effectively.

The value-added assessment metric was created by a statistician named William Sanders who was working at the University of Tennessee (Hershberg, Simon & Lea-Kruger, 2004). As an educational accountability measure, value-added assessment has been in Tennessee's accountability system since 1992. It was included as part of Tennessee's educational reform bill (Tennessee HB752). Tennessee HB752 (1992) defines value-added as a "statistical system for educational outcome assessment" (p. 6). In short, the Tennessee Value-Added Assessment System uses students' scaled score gains obtained from nationally norm-referenced tests in order to determine if students made more than expected, expected or less than expected progress.

Tennessee's Value-Added Assessment System (TVAAS) begins by assessing each student in grades 2<sup>nd</sup> through 8<sup>th</sup> in the areas of Reading, Math, Language, Science and Social Studies. The statistical model then aggregates the growth in learning of students over time and accounts for missing data. In short, clusters of students are tracked over time in order to determine if the cluster has made anticipated growth, less than anticipated growth or more than anticipated growth. For example, students in Tennessee entering 5<sup>th</sup> grade have been administered achievement tests since their arrival into the system in 2<sup>nd</sup> (provided they have been in Tennessee's public school system). As a result, students in 5<sup>th</sup> grade would have three years worth of testing history. Students enter 5<sup>th</sup> grade with achievement test performances from 4<sup>th</sup> grade in a variety of subjects. Each observed test score per student serves as the student's baseline or starting point prior to receiving instruction throughout the 5<sup>th</sup> grade academic year. At the end of the 5<sup>th</sup> grade year, students are then administered another achievement test in the varying content subject areas. Using the value-added metric, the 5<sup>th</sup> grade students' scores are aggregated and the value-added metric is applied in order to determine if the students met the growth standard for 5<sup>th</sup> grade in Tennessee. In Tennessee, the state has rewards, aid and sanctions linked to the value-added rating that the school receives (Morgan, 2002).

Sanders' model of value-added assessment has been used for approximately 22 years. In a report that was given at the United States Governors' Education Symposium (Sanders, 2004), Dr. Sanders provided a summary of the conclusions drawn from his longitudinal analysis. Sanders indicated that there was more variability between teachers teaching within the same school as compared to the variability that might exist between the type of instruction that happens at one building compared to another within the same

school district. How does Sanders explain the variance between students when student academic growth is considered? Based on Sanders' research, the quality of instruction by the teacher explained the most variance (65%) followed by the quality of the individual school within a district (30%) followed by district itself (5%). Teachers add value as does the school and district a student belongs to; however teacher effectiveness is the overriding factor that affects the academic progress of students and it is most pronounced in mathematics (Sanders, 2004). In addition, Sanders reported that teacher effects are "cumulative and additive" in that they have a profound impact on a student's achievement over time. In addition, according to Sanders (2004), beginning teachers are less effective than teachers who average 10 to 15 years of experience as evidenced by the value-added assessment gains their students get. Beginning teachers have student gains that place them within the 35<sup>th</sup> percentile as compared to teachers with 10 to 15 years of experience whose student gains place them in the 55<sup>th</sup> percentile.

#### Studies of Value-Added Implementation

## Project SOAR

Although Ohio HB3 mandated value-added assessment into Ohio's accountability model, several districts across the state had already been participating in value-added data pilot project entitled Project SOAR (Schools' Online Achievement Reports) since the 2002-03 school year. SOAR began as a Battelle for Kids' school improvement pilot initiative in Ohio in 2002. According to SOAR's website, the project was a statewide pilot initiative that provided value-added analysis and professional development to school districts throughout the state. For a cost, Battelle for Kids provided this training and by 2006, over 100 Ohio school districts had participated in SOAR—a number that represents approximately 30 percent of the students in the State of Ohio.

A study by Lewis and Ruhil (2006) sought to examine the student achievement gains of school districts in Ohio participating in the SOAR project (SOAR Clusters I and II). The study employed a quasi-experimental design by matching each SOAR I and II pilot districts with four similar districts not part of the SOAR project. It is important to note that those districts participating in the SOAR project volunteered to do so. As a result, this study lacks random assignment of districts to groups. The study asked two primary research questions:

- 1. Was there a difference in the achievement gains between matched SOAR and non-SOAR districts?
- 2. Which academic areas demonstrated the greatest achievement gains between SOAR and non-SOAR districts?

The superintendents in the SOAR districts completed a questionnaire that asked how their district was using value-added data provided by SOAR, how involved the superintendent was in the pilot and what the key personnel in the superintendent's respective district had done to promote the use of value-added data.

The results of this study did not reveal any statistically significant differences between the 63 SOAR and matched districts; however, there are some very significant points worth mentioning. The researchers determined that there were significant differences among the 63 SOAR districts with regards to implementation. Of the 63 SOAR districts, only 14 were identified as "fully implementing." Efforts to engage in comprehensive school reform are sometimes met with varying degrees of implementation integrity. In short, some adopters of programs integrate that which has been learned with integrity whereas others do not (Berends, Bodily & Kirby, 2002). Many times, reform efforts and the professional development associated with them are met not only with resistance, but also in differences in implementation (Dusenbury, Brannigan, Hansen,Walsh & Falco, 2005). Reform efforts that have addressed both instructional characteristics of teachers and leadership characteristics of leaders have been difficult to assess (Supovitz & May, 2004).

Although the study did not show differences in the achievement levels as a whole, when the 14 "fully implementing" districts were separated, there were significant differences between matched, non-SOAR districts. According to the report of those fully implementing SOAR, value-added data use in these districts was used to gauge progress and identify students for intervention purposes. In addition, fully implementing districts used their SOAR value-added data in conjunction with other data sets in order to make more informed decisions about instructional practice and curriculum modifications. A very important finding of this study is that merely having access to value-added data provides no guarantee that it will be used by a district or building in order to make changes to instruction within the classroom and used for intervention purposes. As Ohio has begun to scale up its professional development associated with understanding and using value-added assessment, the results regarding value-added implementation integrity obtained in this study are important to keep in mind.

### The Pennsylvania Value-Added Assessment System

A study by McCaffrey and Hamilton (2007) sought to evaluate the State of Pennsylvania's value-added roll out. Three primary research questions were asked:

- 1. What is the effect on student achievement of providing districts with information from a value-added assessment (VAA) system?
- 2. How does the use of data by educators whose districts participate in a VAA system differ from that of educators from nonparticipating districts?
- 3. How do educators respond to the VAA information they receive?

This study employed a quasi-experimental design in that participating districts volunteered to take part in piloting the Pennsylvania Value-Added Assessment System (PVAAS). In order to address the research questions, the researchers matched PVAAS districts with non-PVAAS districts on 100 variables and grouped those most similar. As a result, 47 PVAAS districts were matched with 46 non-PVAAS districts. The study surveyed all superintendents, 411 principals and 2,379 teachers from the 93 selected districts. The survey questions asked the educators about their attitudes towards state tests, the Pennsylvania accountability system and training related to data analysis and use. PVAAS districts were additionally asked about their PVAAS training, use of PVAAS data and their knowledge of the PVAAS methodology. This study reported the following findings:

- PVAAS pilot districts did not demonstrate higher academic achievement than matched districts not piloting PVAAS.
- PVAAS districts and non-PVAAS districts did not report different views and uses of data-based decision making.
- 3. PVAAS was regarded as positive. Specifically, all groups reported that using value-added data assisted them with their communications to parents and others. In addition, educators reported that PVAAS data helped their districts

look better when compared to AYP data as PVAAS measured student growth. Furthermore, the PVAAS was reported as helping to eliminate excuses for poor performances because it focuses on student growth rather than achievement. Finally, a minority of PVAAS pilot district administrators reported that they use their value-added data at a moderate or extensive level. They reported that PVAAS is most widely used for making curricular decisions, professional development and continuous improvement planning.

- 4. Many principals had limited experiences with PVAAS and did not make use of the data that was provided.
- 5. There were few differences between the principals in schools that had PVAAS when compared to matched districts.
- Teachers in PVAAS districts did not use PVAAS nor did they understand the concepts.

This study serves as an indication that despite the fact that Although the fundamental purpose of value-added assessment is to determine instructional effectiveness; those that it impacts most (teachers) neither use nor understand the concepts associated with it. It will be important for those working with the scale-up of such a model to ensure the understanding of it by teachers.

# Part 3: School & Teacher Quality

An educational accountability system that relies heavily on setting an arbitrary line of student achievement does not take into account the variations of the groups of students within the system prior to the measurement of such achievement. In short, there are many important factors that affect the achievement levels of students that are beyond the control of the school (Guthrie, 2005). Student composition variables such as prior achievement, gender, ethnicity, socio-economic status, language background and special education status have been cited by other researchers as factors that are not within the control of the school, but do account for student achievement variance among groups (Muthen, Huang, Jo, Khoo, Goff, Novak & Shih, 1995; Sammons, Nuttall, Cuttance & Thomas, 1995). Conversely, there is research to show that despite some of the factors that are beyond the control of the school, students can still achieve at high levels if certain factors that the school can control are indeed met (Reeves, 2000). In an ideal world, schools would be held account for student achievement and growth factors that are within their control; however our national accountability system as a whole is not able to make this a reality.

All states mandate some form of state testing through No Child Left Behind compliance, however the manner in which this is conducted varies greatly from state to state (Heck, 2000). Comparisons are made in the following ways: student average raw achievement outcomes, comparison to an established benchmark (e.g. 75% proficient in the State of Ohio), and student improvement or growth from entry baseline levels (e.g. Tennessee's value-added growth model). A study by Heck (2000) made preliminary adjustments for within-school student composition factors and then sought to determine what characteristics of schools help explain why some schools have higher adjusted outcomes than others and what characteristics of schools help explain greater improvement. Participants in the study were approximately 188,000 students in the Hawaii public school system. Participants in the study came from 243 elementary and secondary schools. In this study, schools that were rated as having "higher quality educational environments" demonstrated greater than anticipated student learning as measured by standardized achievement tests. Such an environment was characterized as a school that had a principal leader who was supportive and directed his or her school towards instructional excellence and improvement. Teachers in the schools that demonstrated greater than anticipated gains had classroom environments that dedicated more class time to instruction, had students who were more often engaged and provided students with interventions when needed. Teachers also provided challenging school work and were more transparent in their communication of the learning outcomes to both the students and their parents. Finally, communication between home and school was characterized as more positive and parents were involved more.

Heck cited 1996 research by Hill and Rowe (Heck, 2000) as evidence that school effects are long-term and cumulative and as a result

we should be interested in schools in which the quality of education (e.g., expectations, curriculum, teaching, monitoring of progress) is more uniform across classrooms and grades and the school leadership is more outstanding (e.g., greater parent support and involvement, more positive school climate). (p. 539)

Heck noted that there were factors outside of the school's influence that did indeed have moderate effects on outcomes. These included the community socio-economic status, the size of the school and the percentage of special education students. The researcher noted that although these are beyond the control of the school, understanding them and working to address them through different strategies will be important. Finally, Heck indicates that although states and schools collect a great deal of student information and achievement data, there has not been research explaining how this can be used to help schools improve student learning. Other researchers have supported the fact that although testing students contributes to information in an accountability system, it is not the system itself and does not improve student achievement by its mere existence (Darling-Hammond, 2004).

Ellett and Teddlie (2003) provided a historical overview of the teacher evaluation process, teacher effectiveness and school effectiveness in the United States. They note that teacher evaluation was not typically used as a means to help the teacher or the school improvement, but rather it was used for accountability, promotion and staff development. If the teacher evaluation process were to focus on helping teachers become more effective, and if school improvement efforts are focusing on the school transforming itself into a more effective body, then the teacher evaluation process could be linked to increasing both the teacher and school's effectiveness. In their review, Ellett and Teddlie (2003) link teacher effectiveness with school effectiveness and postulate that effective school characteristics could be used as part of the teacher evaluation process. Ellet and Teddlie cite past effective school characteristics research by Levine and Lezotte (1990). The top six characteristics of effective schools included outstanding leadership, effective instructional arrangements and implementation of programs, a focus on student acquisition of central learning skills, a productive school climate and culture, high expectations for students that are operationalized, and the appropriate monitoring of student progress towards learning objectives. The link between school and teacher characteristics is that teachers are the ones that perform the aforementioned activities with students and by doing so, greater levels of achievement and growth are the result.

Reynolds, Muijs and Treharne (2003) cite historic research evidence that school and teacher effectiveness is an international topic and that many of the characteristics of school and teacher effectiveness cited in research studies within the United States were exhibited in the United Kingdom as well. Some of the characteristics of school and teacher effectiveness that contributed to student learning included: teacher involvement in curriculum decision making, consistent instructional approaches by teachers, structured learning that was intellectually challenging, student engagement, clear communication between teacher and student, monitoring of student progress and parental involvement in student learning. Parental involvement notwithstanding, the other characteristics that have an impact on student growth and are within the control of school and those who teach within it.

If school characteristics and teacher quality contribute to greater student learning, the question then becomes what does quality teaching look like and how can local school districts ensure that it is being delivered? Although other research has indicated that high quality teaching yields greater achievement gains compared to low quality teacher (Haycock, 1998a), there has not been a great deal of research that has sought to define and describe what effective teachers know and how they instruct within their respective classrooms.

Schacter and Thum (2003) indicated that teacher quality research has led to two main conclusions. First, there are large differences between teachers with regards to their ability to improve student achievement as measured by tests of student achievement, and second these differences have not been captured by typical measures of teacher qualifications (such as number of years of teaching experiences or teacher licensure). They believed that in order to determine what constitutes teacher quality one needs to define teaching characteristics, observe them in practice and then measure whether or not the engagement in these characteristics yields student achievement gains using a value-added approach.

In Schacter and Thum (2003), 52 teachers from Arizona public school classrooms volunteered to participate in a study. Participants included 910 students assigned to the 52 teachers. The students were from a variety of different races with most classified as either Caucasian (424 students) or Hispanic (311 students). Classrooms contained a heterogeneous grouping of students. The researchers defined 12 teaching performance standards and described them using a 5-point rubric. The standards included: teacher content knowledge, lesson objectives, presentation, lesson structure and pacing, activities, feedback, questions, thinking, grouping students, motivating students, classroom environment and teacher knowledge of students. Each teacher was observed eight times. Observers were given extensive training in the observation instrument that had them rate the teacher on the 12 teaching performance standards, and inter-rater reliability of the observers was at acceptable levels. Students were administered a pre- and post-test using the Stanford 9 Achievement test in language, reading and math. There were two main findings of this study. First, teachers who implemented effective teaching practices as defined by the researchers' 12 teaching performance standards had students who made considerably larger achievement gains. The researchers cited that "quality teaching produced a .91 standard deviation gain in student achievement" (p. 419). The second finding was that although all classrooms had a heterogeneous mix of students, those that tended to have a greater number of Hispanic students, a higher incidence of English as a

second language and/or lower performing students on the Stanford 9 tended to have teachers who engaged in lower quality teaching as measured by the researchers 12 teaching performance standards. In short, teachers with these populations of students were observed to provide less instruction associated with the 12 teaching standards. The fact that the neediest children are taught by those with lower indices of teacher quality has been cited by other researchers as well (Darling-Hammond, 2004). In short, good teaching matters (Haycock, 1998a, Haycock, 1998b, Haycock, 2004).

Finally, if school and teacher effectiveness characteristics exist and some schools and teachers engage in these behaviors whereas others do not, the focus then becomes how can schools and those who teach within them begin to become more effective, given the fact that the majority of teachers within the profession are not new to the field? School leaders need to work collaboratively with teachers in defining what staff development is needed in order to help teachers and schools improve (Boudah, Blair & Mitchell, 2003; Sandholtz & Scribner, 2006). One answer to this dilemma is by engaging schools and teachers in high quality and effective professional development.

## Part 4: Professional Development

With the call for educational reform, many well respected authors have posited that change will only be realized through a reform of professional development practices (Fullan, 2002; Guskey, 2000; Guskey, 2002; Guskey, 2003a; Sparks, 2002; Sparks & Hirsh, 1997; Zimmerman & May, 2003). Although it is important to improve school facilities, enhance family and community involvement and adequately fund schools, the key to educational reform will depend largely on improving teacher quality (Mullens, Leighton, Laguarda & Obrien, 1996). A number of studies have indicated that teacher quality has the largest impact on student growth as it directly increases student learning (Ballou, Sanders & Wright, 2004; Marzano, 2003; McCaffrey, Lockwood, Koretz & Hamilton, 2003; Mullens, Leighton, Laguarda & Obrien, 1996; Sanders, 2000; Sanders & Horn, 1998; Sanders & Rivers, 1996; Sanders, Saxon & Horn, 1997; Wright, Horn & Sanders, 1997).

Reforming teacher preparation programs so that their preparation could more readily equip teachers with the skills necessary to assist with educational reform efforts could help facilitate reform efforts in the field. Current teacher preparation programs more thoroughly prepare prospective teachers to deliver high quality standards-based instruction to students; however the majority of teachers currently in the classroom are not new teachers. Many of the teachers currently in the classrooms have not come from reformed teacher preparation programs. In 1995 the NCES asserted that only 1 in 10 teachers in the field have received thorough pedagogical training from teacher preparation programs that have undergone a reformation in order to prepare them for the new task of educating students in Twenty-First Century Skills (Mullens, Leighton, Laguarda & Obrien, 1996). The task of increasing teacher quality for teachers who have been in the field for more than ten years becomes the responsibility of the school district where such teachers work. The question then becomes, if the majority of teachers in the field have not had high quality professional development, what can school districts do to increase the capacity and quality of their respective staff members so that they can help students achieve and progress that is aligned to current research-based practices?

Typical professional development has focused on single event workshops that educators attended. Historically, this form of professional development was not linked to improving teaching and learning in any real systematic way, but instead focused on one day events whose aim was to relay well defined skills. This type of professional development lacked the connection to individual and district goals; as a result, evaluation and implementation were difficult to document (Mullens, Leighton, Laguarda & Obrien, 1996). The United States Department of Education created a professional development team in 1995 in order to begin to maximize the best ideas about professional development (Mullens, Leighton, Laguarda & Obrien, 1996) and thus began to more formally define the characteristics of quality professional development practices.

In 1995, the United States Department of Education's (USDoE) Professional Development Team defined the mission of professional development. It stated that the mission was to prepare and support educators to help all students achieve to high standards of learning and development (ED, 1996). The team defined certain characteristics as indicative of quality professional development (PD) practices. According to the USDoE, quality PD focuses on teachers as central to student learning reflects current and the best research practices available, promotes continuous improvement, is evaluated by its impacts on student learning and teacher effectiveness and is collaboratively planned between teachers and administrators.

If the primary goal of education is to enhance student learning, then it would follow that professional development activities should be aimed at increasing educators' understanding of how to help facilitate student learning. As stated, a number of researchers have indicated that teacher quality has the largest impact on student growth as it directly increases student learning (Ballou, Sandars & Wright, 2004; Marzano, 2003; McCaffrey, Lockwood, Koretz & Hamilton, 2003; Mullens, Leighton, Laguarda & Obrien, 1996; Sanders, 2000; Sanders & Horn, 1998; Sanders & Rivers, 1996; Sanders, Saxon & Horn, 1997; Wright, Horn & Sanders, 1997). Professional development aimed at increasing teacher quality directly focuses firstly on a teacher's expertise in the content area that the teacher is responsible for educating students and secondly on a teacher's pedagogical expertise. Although the former is related to the discipline that the educator teaches in, the latter focuses more on the art of teaching through the creation of engaging lessons, differentiating instruction, assessment techniques, student management and creating a classroom environment that facilitates student achievement and growth.

If the key to sustained educational reform is effective professional development, the question then becomes what are the characteristics of effective professional development? Guskey (2003) reported that there have been a number of lists generated by a multitude of professional groups that have purported to outline the characteristics of quality professional development practices. He analyzed 12 widely disseminated lists that were well known and determined to be influential. Guskey (2003) used the Standards for Staff Development (National Staff Development Council, 2001) as a comparison list. There were 21 characteristics of quality professional development identified. Guskey then looked for common trends across the lists. Although most lists reported they were research based, he noted that they were not based on a degree of rigorous inquiry that sought to determine the relationship between the noted quality professional development characteristic and its impact on learning outcomes; in fact, most relied on the opinions of educators and researchers (Guskey, 2003).

Guskey (2003) found that the most frequently mentioned characteristic of professional development was the enrichment of teacher's content and knowledge of instruction. This characteristic appeared on 10 of the 12 lists as well as within the National Staff Development Council's standards. The second most common characteristic associated with quality professional development was the allocation of sufficient time and resources. This characteristic was contained on nine of twelve lists. Although time was consistent across most lists, previous research by Guskey (1999) indicated that merely having time wasn't as important as having organized and properly structured time to collaborate where the purpose is clear and focused on improving student learning. The remaining characteristics that were evident on at least fifty-percent of the lists cited the following common, quality professional development characteristics: promotes collegiality and collaboration, includes procedures for evaluation, aligns with other reform initiatives, models high quality instruction, and is school- or site-based. Guskey comes to the conclusion that there is "little agreement among professional development researchers or practitioners regarding the criteria for effectiveness in professional development" (p. 15) and he further indicates that this lack of consensus is a problem. If professional developers cannot agree on what the goals of professional development are and how best to demonstrate the accomplishment of them, the chances of improving the quality of professional development will be remote. Guskey (1999) postulates that significant improvement in professional development practices will not occur unless "both researchers and practitioners insist on the fundamental goal of improvement in student learning outcomes as the principal criteria of effectiveness" (p. 17).

A study by Pritchard and Marshall (2002) sought to determine characteristics of professional development in what they coined "healthy" and "unhealthy" schools. Pritchard and Marshall (2000) defined district health as indicative of how well it managed the daily operations along with the quality and climate of the school. Climate was determined by the level of commitment of teachers and administrators to continuously improving their school and evidence that the school's commitment to this continuous improvement process was focused on improving student learning outcomes and considering the positive and negative attitudes of students.

The researchers began with a sampling of over 1,500 sites that were part of a teacher-led professional development initiative in writing. This sample was further narrowed to 100 acceptable school districts that were classified as rural or urban. From the narrowed 100 districts, a stratified random sample of 24 school districts was selected. The primary method of data collection included over 400 hours of interviews with teachers, principals and central office administrators. In addition, 3,000 essays were gathered from students. The researchers also gathered artifacts such as photos, professional development offerings, district policy manuals and accreditation studies. The study asked four main research questions: (a) Do professional development activities in healthy districts differ from unhealthy districts? (b) When considering healthy and unhealthy districts, how connected is professional development to the district's organizational plan? (d) Does the achievement of students in healthy districts differ from unhealthy ones?

The researchers reported ten primary results and they were profound. In healthy districts professional development activities were not stand-alone efforts, but were embedded within the overall continuous improvement nature of the organization. Professional development wasn't focused on increasing test scores, but rather, was rooted exclusively in improving the teaching and learning in the district. A second finding was that healthy districts promoted professional development as part of a shared vision and it was viewed as an essential component of increasing student learning. Third, in healthy districts, the individual schools had a connection to the overall district mission as did the professional development efforts. Although the format of the professional development might vary between schools, the content and purpose was the same in healthy districts. Fourth, in healthy districts, teachers did not require incentives to participate in professional development as it was a cultural expectation. Fifth, healthy districts provided their educators with professional development opportunities that were engaging, job embedded and ongoing within the district. Sixth, healthy districts had administrators planning and participating in professional development activities. Seventh, in healthy districts, time was provided to staff members to engage in professional development during the course of the typical work day. Eighth, healthy districts had professional development centered on a common theme and purpose and met consistently over time. Ninth, needs assessments were used to design professional development not on meeting the individual needs of teachers, but in order to help educators advance the vision of the district to provide for highly quality learning experiences for students. Finally, healthy districts allocated a line item in the district budget that was protected and devoted to providing professional development to staff members.

It should be noted that the Ohio Department of Education has worked to create a set of standards for high quality professional development specific to the State of Ohio (Ohio Standards for Professional Development, 2005). In addition, a rubric was created in order to help determine whether or not prospective professional development vendors were providing high quality professional development. There are six indicators that Ohio used in order to make the determination that professional development was considered high quality. First, high quality professional development is purposeful, structured and is a continuous process that occurs over time. Second, high quality professional development is informed by multiple sources of data. Third, high quality professional development is collaborative. Fourth, high quality professional development includes varied learning experiences that accommodate an individual educator's knowledge and skills. Fifth, high quality professional development is evaluated by its short- and longterm impact on professional practice and achievement of all students. Finally, high quality professional development results in the acquisition, enhancement or refinement of skills and knowledge.

### Part 5: Ohio's Value-Added Assessment Professional Development Framework

Ohio HB3 (2003), included a provision for professional development for educators in Ohio in order to support value-added assessment. Although the bill did not stipulate the structure or mechanism for the training, it is important to note that there was a legal mandate that it indeed occur. Due to this fact, the Ohio Department of Education and Battelle for Kids worked collaboratively to begin to develop a trainer-of-trainers network throughout the State of Ohio. The basic design was to greatly increase the capacity of regional support teams' skill levels in value-added assessment during the 2005-06 school year and then provide training to those individuals selected by the local school district superintendents who would act as the district, value-added support mechanism.

## Regional Value-Added Specialists

In order to prepare for Ohio's value-added scale-up, Battelle for Kids and the Ohio Department of Education created a training program designed to develop the skills of a selection of educators who represented the 12 school improvement regions across Ohio. Eighty Regional Value-Added Specialists were selected through an application process. Applications required prospective Regional Value-Added Specialists to provide some demographic information followed by a 250 to 300 word description of their school or district-level experience with others in the following areas: improving academic achievement of students; using data to make decisions about improving instruction; coaching other education professionals; delivering professional development training; and using a computer and the Internet. Finally, each prospective Regional Value-Added Specialists was required to submit three references. Applications were sent to Mike Thomas at Battelle for Kids or Patricia Grey from the Ohio Department of Education (ODE).

According to a joint recruiting advertising brochure created by the Ohio Department of Education and Battelle for Kids, being a Regional Value-Added Specialists was a two year commitment, beginning in 2005 and extending through 2007. As indicated on the Regional Value-Added Specialists recruiting materials, the required skills for being a Regional Value-Added Specialists were the same areas mentioned in the aforementioned paragraph. The selection committee determined who the Regional Value-Added Specialists were. This committee consisted of Mike Thomas and Barbara Leeper from Battelle for Kids and Patti Grey and Lynn Wallich from the ODE. Based on report, more than 200 applications were submitted for the 80 Regional Value-Added Specialists positions (Battelle for Kids, 2007). Applications were organized into the 12 geographic regions of the Office of Field Relations for the ODE. The committee used the information provided by the applicants and took the top six to ten applications in each region and selected the Regional Value-Added Specialists; other people were added as their institutions were willing to pay for the training. The group was comprised of the following:

- 80% from Regional Service Delivery Providers such as ESCs, Data Acquisition Sites and SERRCs
- 10% from school districts such as superintendents, assistant superintendents, principals, teachers and technology staff
- ➢ 5% from Higher Education Representatives
- ➤ 5% Others

The Regional Value-Added Specialists served as the primary trainers throughout the state as they were regionally based and provided a scripted, five day professional development seminar to the selected District Value-added Specialists. Given the content of the District Value-added Specialists training, the Regional Value-Added Specialists were expected to:

 Demonstrate a capacity to understand the value-added metric and the ability to effectively teach others how to use the metric diagnostically for school improvement, and for the purposes of accountability.

- 2. Effectively connect the value-added metric to other relevant school improvement data and strategies.
- Commit to attend the 2005-06 Regional Value-Added Specialists training and to effectively deliver this training to assigned school district(s) in the 2006-07 school year.

During the 2005-06 school year, the Regional Value-Added Specialists were provided with nine days of professional development by representatives from Battelle for Kids, a non-profit organization that was selected by the Ohio Department of Education to provide the materials for the scale up of the Educational Value-Added Assessment System throughout the State of Ohio. In addition, each Regional Value-Added Specialist was provided additional training at the National Value-Added Assessment Conference in Columbus, Ohio. Each Regional Value-Added Specialist was provided with set of resources that consisted of a curriculum guide and Value-Added Toolkit in order to train the District Value-Added Specialists.

The professional development provided to the Regional Value-Added Specialists was structured into two days of training with only Regional Value-Added Specialists and an additional seven days of co-training with District Value-Added Specialists who were taking part in Battelle's SOAR IV pilot (M. Thomas, personal communication, January 3, 2008). The sequences for the first two days of Regional Value-Added Specialists training are outlined below.

Day One Regional Value-Added Specialists training outcomes and activities included:

1. An overview of the program, its scope, sequence, intent and responsibilities.

- An overview of the communication plan designed to prepare districts for District Value-Added Specialists training in the 2006-07 school year.
- 3. An overview of the value-added metric and its web-based delivery system.
- 4. Individual/group navigation through the web-based system using dummy data and navigation protocol.
- 5. An overview of the tools and resources designed to support the usage of the value-added metric.

Day Two Regional Value-Added Specialists training outcomes included:

- 1. Regional Value-Added Specialists will learn, on a conceptual level, the underlying statistical model that produces the value-added calculations.
- 2. Regional Value-Added Specialists will work through the interpretation scenario.
- Regional Value-Added Specialists will assess the learning they received from days one and two of the training.
- 4. Regional Value-Added Specialists will meet with their regional teams to begin to plan for the regional rollout.

# Goals for Regional Value-Added Specialists Training

Based on report (Battelle for Kids, 2007), there were four primary professional development goals with several strategies and performance indicators for the training of Regional Value-Added Specialists. These included:

Goal 1: Develop a statewide Regional Value-Added Specialists' Network.

Strategy 1: Select Regional Value-Added Specialists who can optimally rollout use of value-added metric.

Strategy 2: Develop plan to address attrition among Regional Value-Added Specialists.

Goal 2: Teach Regional Value-Added Specialists to understand and use the value-

added metric for diagnostic, school improvement and accountability purposes.

- Strategy 1: Deliver a successful interactive "train-the-trainer" program for Regional Value-Added Specialists.
- Strategy 2: Develop an evaluation process to ensure an optimal training experience.
- Strategy 2.5: Continually use Regional Value-Added Specialists' informal feedback to adjust training content, materials and delivery.
- Strategy 3: Develop a summative evaluation process to measure training efficacy and Regional Value-Added Specialists' achievement of learning outcomes.
- Strategy 4: Use various communication channels to distribute updates and information regarding Regional Value-Added Specialists' training to support audiences.
- Strategy 5: Use interactive tools to communicate with Regional Value-Added Specialists, District Value-Added Specialists and support audiences
- Strategy 6: Arm Regional Value-Added Specialists with materials to present information sessions throughout Ohio to increase awareness of the value-added metric rollout.

Goal 3: Support Regional Value-Added Specialists' efforts to train 1,400-1,800 District Value-added Specialists in the 2006-07 school year.

- Strategy 1: Request each Regional Value-Added Specialists Network to suggest how to distribute Regional Value-Added Specialists across their region to ensure that every district has access to value-added training, and submit suggestions to Battelle for Kids and the Ohio Department of Education for approval.
- Strategy 2: Regional Value-Added Specialists will participate in three learning/support meetings during the 2006-07 school year.

Goal 4: Distribute resources to fiscal agents to fund the training of District Valueadded Specialists in the 2006-07 school year.

- Strategy 1: Distribute funds to fiscal agents to cover Regional Value-Added Specialists' costs in 2006-07.
- Strategy 2: Distribute funds to fiscal agents to cover District Value-Added Specialists' training costs in 2006-07 school year.

## District Value-Added Specialists

The District Value-Added Specialists were selected by the superintendents from each local district. Superintendents were provided funding through the Ohio Department of Education for the training of two district individuals to serve as District Value-Added Specialists. Superintendents were permitted to send additional district staff members to District Value-Added Specialists training at district expense. The cost of this endeavor was approximately \$900 per individual payable to Battelle for Kids. The suggested criteria to select District Value-Added Specialists included the person's ability to
understand and use data, have the ability to influence continuous improvement planning within the district and be given the necessary time to scale up the implementation of value-added assessment within the respective district. The latter component was important to mention due to the fact that if classroom teachers were chosen, they would need to be released from their classrooms in order to teach adults. The District Value-Added Specialists were provided five days of professional development by a Regional Value-Added Specialist in the area of the state that the Regional Value-added Specialist was dispatched to cover. The primary District Value-Added Specialists learning outcomes for these five days of training included:

- 1. Developing the capacity to access, interpret and use value-added progress information to promote high student achievement.
- 2. Developing the capacity to connect value-added progress information with other school data and with larger school improvement frameworks.
- 3. Developing the capacity to take leadership action in their respective school districts and to use the networked resources available to them.

Pre and post tests were given to the District Value-Added Specialists in order to determine growth from baseline on the learning outcomes based on the professional development that they received from their respective Regional Value-Added Specialist. Along with increasing the District Value-Added Specialists knowledge base as it relates to Educational Value-Added Assessment concepts, the culminating goal was for the District Value-Added Specialists to create a plan whereby they would facilitate the implementation of Educational Value-Added Assessment concepts within their respective districts. By the end of the 2006 fiscal year, approximately 1,400 District Value-added Specialists had been trained in Ohio's value-added assessment metric. Battelle for Kids also created a Value-Added Toolkit for the District Value-added Specialists that consisted of DVDs, and support presentation materials.

## Summary

This chapter reviewed the five components of the literature most relevant to the study. These were the external forces on education in the form of legislation, the Educational Value-Added Assessment System, school and teacher quality, professional development and Ohio's value-added assessment professional development framework. Although there have been many external forces on education, for the purposes of demonstrating how the standards-based education and testing movement began, the Coleman Report, A Nation at Risk and No Child Left Behind were reviewed. It is important to note that these reports served as external forces and had a significant impact on the creation of an agreed-upon set of learning targets for students in all states through academic content standards. Ohio House Bill 3 (2003) was reviewed as it was used to bring Ohio's accountability model into compliance with No Child Left Behind by creating a 3<sup>rd</sup> through 8<sup>th</sup> grade assessment in reading and mathematics. It also provided the catalyst for Ohio's Accountability Task Force and created the legislative mandate for Ohio's value-added assessment model.

The educational value-added assessment model was reviewed with an emphasis on the Sanders' model as it is what Ohio has incorporated as its value-added model. Prior to the popularity of Sanders' Model, the majority of educational accountability systems were built upon using only standardized achievement test scores. As was indicated, the Sanders' model incorporates a student learning growth measure and introduces a new, additional prong into student accountability. Sanders introduced a student growth model that is calculated using the Ohio Achievement Test. The model is based on a metric that measures where a student's achievement was at the beginning of a respective grade level and compares it to where he or she ended. Multiple calculations are conducted for students and then a determination is made as to whether or not aggregated student growth is considered more than anticipated, less than anticipated or within the anticipated range or gain. Two major studies that investigated and illuminated issues associated with implementing a value-added model were discussed (Project SOAR and PVAAS) as these studies serve as the only studies located that began to illuminate the practical and local school district issues associated with value-added assessment.

Research related to school and teacher quality was reviewed. As value-added assessment measures a district's and building's capacity to leverage student growth it follows that buildings and teachers who have students that demonstrate greater levels of growth as measured by the value-added metric most likely engage in quality school and teaching practices. If this is indeed true, and these are factors that are within the control of the school and teachers, identifying these characteristics and teaching them to teachers who may not be demonstrating them would be useful and could help improve student learning for all.

If the purpose of value-added is to measure student growth and buildings and teachers who engage in more effective practices have students who demonstrate such growth using the metric, then high quality professional development becomes the mechanism to help teachers improve their instructional practices for the purpose of helping students achieve and grow. The topic of professional development was reviewed with an emphasis on what characteristics are associated with quality professional development and importance of incorporating professional development within the context of the district and building improvement models. Finally, Ohio's value-added professional development framework was overviewed. The existence of an accountability system does not by itself improve student learning outcomes; it simply seeks to measure them. Ohio's framework was reviewed, as it will be important to determine whether or not it was scaled-up so that those using it (educators) will be able to help students learn at higher levels.

#### CHAPTER III

#### Introduction

This study employed a mixed method survey research methodology and sought to illuminate the initial professional development implications associated with scaling-up the value-added assessment system in the State of Ohio from the perspective of the District Value-Added Specialists (DVAS) at the time Ohio was implementing its growth measure throughout the state. A review of the literature indicated that much has been written pertaining to the statistical validity and reliability of the different value-added models. In addition, there was preliminary research related to how a particular state (Pennsylvania) was piloting the Sanders' model of value-added assessment. Furthermore, one study reviewed how school districts in Ohio that were participating in a voluntary value-added assessment model compared to similarly matched districts on state achievement tests. Finally, there was some preliminary data related to the selfperceptions of those responsible for teaching about EVAAS. What was lacking in the research literature was a description of the professional development needed in order to scale-up the understanding and usage of any value-added assessment system.

The State of Ohio added a growth model to its accountability system and sought to train a number of educators throughout its state. Ohio created a set of unique valueadded professional developers at the district level who were charged with the responsibility of teaching others about value-added assessment in their respective districts. The creation of such a model brings about several questions which could include, what did the DVAS learn; what where their perceptions regarding what they learned; and finally, what kinds of activities were they engaging in throughout the regions in the State of Ohio at the local level.

Although Battelle for Kids obtained pre and post data on the DVAS' acquisition of the identified learning outcomes of the training, no inquiry has been conducted to gather descriptive information from the point that this population concluded their training and began implementing value-added professional development within their respective districts. The research questions that guided this study were:

*Research Question 1:* What was the perceived efficacy of the District Value-Added Specialists with regards to the training they received from the Regional Value-Added Specialists after implementation began? That is, did they feel adequately prepared to lead the professional development scale-up of Ohio's educational value-added assessment system based on the training they received from the Regional Value-Added Specialists before and during the training they delivered to staff members? Did the DVAS suggest a common trend that could be used to improve upon the training received?

Research Question 2: What were the perceptions of the District Value-Added Specialists with regards to the training materials they received from Battelle for Kids? Was there a common trend in their suggestions to improve these materials? Research Question 3: What organizational impact will EVAAS have on the district from the perspective of the District Value-Added Specialists? Research Question 4: According to the District Value-Added Specialists, what factors will impact the success of EVAAS in Ohio? *Research Question 5:* Did the DVAS cite any common trends related to how they were using EVAAS to improve instruction and student achievement? *Research Question 6:* Did the DVAS cite any common barriers they have encountered in their efforts to use EVAAS to improve instruction and student achievement?

This descriptive study utilized a survey methodology as its primary data gathering mechanism. Secondary data collection methods included document reviews of posted minutes of the Ohio Accountability Task Force and my own experiences of being a DVAS. This chapter explained the methodology of the study along with its context and selection of participants. The instruments used to conduct the study and the procedures for data collection and data analysis were also described.

#### Context of the Ohio's Value-Added Assessment Professional Development

In order to support Ohio's implementation of EVAAS, a train-the-trainers professional development infrastructure was created throughout the state. These professional development specialists were called Regional Value-Added Specialists (RVAS) and District Value-Added Specialists (DVAS). The main context of this study was to tap into the experiences of a random, stratified sample of approximately 1,400 DVAS throughout Ohio. The purpose of the study was to illuminate the DVAS professional development perceptions, the current impact that value-added has had on their respective organizations and gathering information related to the kinds of activities they have been taking part in since the onset of their training.

At the time of this study, Ohio had more than 80 RVAS who had a more intense level of training compared to the DVAS. The RVAS were provided nine days of professional development by representatives from Battelle for Kids, a non-profit organization that was selected by the Ohio Department of Education, to provide the materials for the scale up of EVAAS throughout the State of Ohio. The professional development provided to the RVAS was structured into two days of training only with other RVAS and seven additional days of co-training with the DVAS (Battelle for Kids, 2007).

The RVAS training outcomes included:

- 1. An overview of the program, its scope, sequence, intent and responsibilities.
- An overview of the communication plan designed to prepare districts for DVAS training in the 2006-07 school year.
- An overview of the value-added metric and its web-based delivery system.
- 4. Individual/group navigation through the web-based system using simulation data and navigation protocol.
- 5. An overview of the tools and resources designed to support the usage of the value-added metric.
- 6. RVAS understanding, on a conceptual level, the underlying statistical model that produces the value-added calculations.
- 7. RVAS working through data interpretation scenarios.
- RVAS will assess the learning they received from days one and two of the training.

9. RVAS will meet with their regional teams to begin to plan for the regional rollout.

Each public school district was charged with appointing two DVAS. The cost of the training was paid for by the Ohio Department of Education. Districts could appoint more than two DVAS; however the cost was absorbed by the district. Most districts appointed two DVAS. The range was from zero to ten DVAS. DVAS were provided with five days of professional development by a RVAS in the area of the state that the RVAS was dispatched to cover. The primary DVAS learning outcomes for these five days of training included (Battelle for Kids, 2007):

- 1. Developing the capacity to access, interpret and use value-added progress information to promote high student achievement.
- 2. Developing the capacity to connect value-added progress information with other school data and with larger school improvement frameworks.
- Developing the capacity to take leadership action in their respective school districts and to use the networked resources available to them.

Prior to and after value-added training, Battelle for Kids gathered data from the DVAS pertaining to their demographic makeup, their reported leadership efficacy, their training confidence and their understanding of Ohio's value-added metric in order to determine growth from baseline on the professional development that they received from their respective RVAS. Along with increasing the DVAS knowledge base as it relates to EVAAS concepts, the goal was for the DVAS to create a plan whereby they would facilitate the implementation of EVAAS concepts within their respective districts. Although there was preliminary data related to the DVAS training efficacy immediately

following training, there has been an absence of inquiry to investigate the perceptions, activities and efficacy of District Value-Added Specialists after they received their professional development related to scaling-up Ohio's Educational Value-Added Assessment System model in their local districts. This was important data to gather. Evaluating whether or not the DVAS were proficient in the learning outcomes presented by the RVAS was important. However, determining how well the DVAS were able to train those in their respective district becomes, perhaps, more important.

### Methodology

#### Purpose

The primary purpose of descriptive research is to illuminate characteristics of a population by directly sampling it (Glatthorn & Joyner, 2005). A descriptive study determines and describes the way things are (Gay, Mills & Airasian, 2006). The researcher utilized survey research in the form of self-report surveys to collect data from Ohio's District Value-Added Specialists. Although there are many methods to sample a population the researcher used techniques from cluster and stratified sampling. Cluster sampling involves the sampling of intact groups whereby all members have similar characteristics (Gay, Mills & Airasian, 2006). Furthermore, cluster samples reduce the variability within the population. For the purposes of this study, the researcher used a clustering of all public school districts as determined by the Ohio Department of Education. It is important to note that the researcher did not create the methodology that put the public school districts into the respective cluster groupings. The methodology was created by the Ohio Department of Education and when the researcher made a request for

the cluster types along with the districts represented by each cluster, the Ohio Department of Education quickly provided these. These clusters included:

- 1. Island District or College Corner (4 Ohio Public School Districts represented)
- Rural, High Poverty, Low Median Income (96 Ohio Public School Districts represented)
- Rural, Small Student Population, Low Poverty, Low to Moderate Income (161 Ohio Public School Districts represented)
- Rural/Small Town, Moderate to High Median Income (81 Ohio Public School Districts represented)
- 5. Major Urban, Very High Poverty (15 Ohio Public School Districts represented)
- Urban, Low Median Income, High Poverty (102 Ohio Public School Districts represented)
- Urban/Suburban, High Median Income (107 Ohio Public School Districts represented)
- Urban/Suburban, Very High Median Income, Very Low Poverty (46 Ohio Public School Districts represented).

According to Gay, Mills and Airasian (2006), stratified sampling involves identifying and defining the population, determining the appropriate sample size, identifying the variable and subgroups of the population in order to guarantee appropriate sampling representation, classifying sampled members to an identified subgroup and randomly selecting an adequate number of participants from each subgroup. The advantage of such a selection method is that a more precise sample of the population is obtained as opposed to simply relying on an acceptable number of responses from the total population sample (Gay, Mills & Airasian, 2006). Ohio is a diverse state as it relates to socio-economic status, racial diversity and urban, rural and suburban variables. The Ohio DVAS population was estimated to be approximately 1,400 individuals who come from the aforementioned strata. In order to control for selection bias, a stratified sampling methodology was chosen. This method permitted the researcher to investigate any occurrence of group differences in perception, efficacy and activities between the different DVAS throughout the state.

Participation selection was conducted in a random, stratified manner. No monetary incentives were provided to participants. Participants were told that they could receive a copy of the study if they were interested. The participant selection goal was to gather a random, stratified sample of DVAS from seven of the eight clusters. An attempt was made to gather a sample of District Value-Added Specialists from each Cluster type that would be reflective of the percentage of District Value-Added Specialists when compared to the entire population. In order to do this successfully, the researcher oversampled each cluster by doubling the number needed from each cluster. Sampling in this method permitted the researcher to gather a sampled population more closely aligned to the actual population. This method of sampling also permitted the researcher the ability to conduct post-hoc comparisons in order to illuminate any differences in perception due to the cluster participation variable.

Table 1 contains data on the entire population of District Value-Added Specialists in Ohio. This represents the data that the sampled population was drawn from. Column one contains all eight Clusters. Column two contains the total number of districts that are contained in each respective Cluster. Column three contains the percentage of districts comprising the Cluster type when compared to all public school districts in Ohio. Column four contains the total number of District Value-Added Specialists and the Clusters that they represent according to the information provided by the Ohio Department of Education. Column five demonstrates the percentage of District Value-Added Specialists contained in each Cluster when compared to the entire population. Cluster 3 represented the greatest number of districts and also the largest number of District Value-Added Specialists.

## Population Cluster Types and Population Cluster Compositions Provide by the Ohio

Cluster Ty	pe	n Total Districts in Cluster	P of Districts Compared to Sum	n Total DVAS in Cluster	P of DVAS Compared to Sum
Cluster 1 <sup>a</sup>		4	0.65%	6	.44%
Cluster 2 <sup>b</sup>		96	15.69%	214	15.69%
Cluster3 <sup>c</sup>		161	26.31%	348	25.51%
Cluster 4 <sup>d</sup>		81	13.24%	178	13.05%
Cluster5 <sup>e</sup>		15	2.45%	33	2.42%
Cluster $6^{f}$		102	16.66%	220	16.13%
Cluster 7 <sup>g</sup>		107	17.48%	240	17.59%
Cluster 8 <sup>h</sup>		46	7.51%	125	9.16%
	Σ	612	100%	1,364	100%

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<sup>a</sup>Island District or College Corner. <sup>b</sup>Rural/Agricultural – high poverty, low median income. <sup>c</sup>Rural/Agricultural – small student population, low poverty, low to moderate median income. <sup>d</sup>Rural/Small Town – moderate to high median income. <sup>e</sup>Major Urban – very high poverty. <sup>f</sup>Urban – low median income, high poverty. <sup>g</sup>Urban/Suburban – high median income. <sup>h</sup>Urban/Suburban – very high median income, very low poverty.

## Subjects

Four hundred thirty-one District Value-Added Specialists were stratified and randomly selected from the total population Clusters. Table 2 represents the sampled participants in the study by cluster. Column A identifies the eight clusters that were provided to the research by the Ohio Department of Education. Column B contains the number of districts that were randomly sampled from a respective cluster. Column C shows the number of districts from the sample where at least one of the District Value-Added Specialists returned a questionnaire. Column D contains the total number of District Value-Added Specialists available from the sampled districts contained in Column B. For instance, 29 districts were sampled from Cluster 2 and within those 29 districts; there were a total of 64 District Value-Added Specialists. Column E contains the total number of District Value-Added Specialists from the cluster that returned surveys. The numerical value in Column F was derived by dividing the number of District Value-Added Specialists who responded within the cluster with the total aggregate number of District Value-Added Specialists who completed a questionnaire. The data contained in Column F demonstrates that the sampled population closely represents the actual population. As previously mentioned, the greatest number of District Value-Added Specialists in the State of Ohio comes from Cluster 3. In this study, the greatest number of District Value-Added Specialists also comes from Cluster 3. As can be seen in Table 2, the percent of the sampled District Value-Added Specialists very closely represents the percent of District Value-Added Specialists illustrated in Table 1. In essence, the sampled clusters have a proportionate number of District Value-Added Specialists within the sample that is reflective of how they occur when compared to the actual population.

Column A	L	Column B	Column C	Column D	Column E	Column F
Cluster Typ	be	n Sampled Districts in Cluster	n Sampled Districts in Cluster Returned	n Sampled DVAS from Cluster	n Sampled DVAS in Cluster Returned	P of DVAS Cluster Sampled
Cluster 1 <sup>a</sup>		Not	Not	Not sampled	Not sampled	Not sampled
		Sampled	Sampled			
Cluster 2 <sup>b</sup>		29	22	64	28	16.47%
Cluster3 <sup>c</sup>		46	27	102	38	22.35%
Cluster 4 <sup>d</sup>		25	13	53	18	10.58%
Cluster5 <sup>e</sup>		4	4	15	5	2.94%
Cluster 6 <sup>f</sup>		38	25	86	32	18.82%
Cluster 7 <sup>g</sup>		31	19	67	31	18.23%
Cluster 8 <sup>h</sup>		22	14	50	18	10.58%
	Σ	195	124	437	170*	12.46%**

Sampled Cluster Types and Cluster Compositions

<sup>a</sup>Island District or College Corner. <sup>b</sup>Rural/Agricultural – high poverty, low median income. <sup>c</sup>Rural/Agricultural – small student population, low poverty, low to moderate median income. <sup>d</sup>Rural/Small Town – moderate to high median income. <sup>e</sup>Major Urban – very high poverty. <sup>f</sup>Urban – low median income, high poverty. <sup>g</sup>Urban/Suburban – high median income. <sup>h</sup>Urban/Suburban – very high median income, very low poverty. \*There were a total of 172 surveys returned. Two surveys were returned from DVAS who changed jobs and did not represent any cluster.

\*\*This number derived by dividing the number of sampled DVAS with the total number provided to the researcher by the Ohio Department of Education (1,364).

The sampled District Value-Added Specialist population contained 49 teachers

(28.8%), 45 Principals and/or Assistant Principals (26.5%), 50 Central Office Employees

(29.4%) and 26 participants that described themselves as Other (15.3%). The two respondents who did not represent any cluster were removed from the data analysis. Within the sampled population of 170 participants, the mean number of years in education was 20.4 and the average tenure within their respective districts was 12.58 years. In addition, the average number of years that the District Value-Added Specialists worked in their current job was 6.65 years.

#### *Instrumentation*

The sampled population of DVAS were given a survey. The survey contained a series of questions pertaining to their perceptions of the efficacy of training they received from the RVAS, their perceptions of the training materials they were given, their perceptions pertaining to the impact that EVAAS will have on the districts they represent, and the perceived factors that will impact the success of EVAAS in Ohio. Survey items were obtained in a two-fold fashion. A portion of items were created by the researcher based on his knowledge of DVAS training and with permission granted, a portion were gathered from previous research studies related to value-added assessment implementation (Battelle for Kids, 2007; Lewis, M. S. & Ruhil, 2006; McCaffrey & Hamilton, 2007). A Regional Value-Added Specialist was a member of the researcher's dissertation committee. The survey is attached as Appendix C.

The survey instrument was field-tested using a two-step qualitative approach. The researcher received EVAAS training from a Regional Value-Added Specialist and was a DVAS. As a result, the researcher has a Value-Added training experience with which can be drawn from. Step one involved constructing the questionnaire based on the research questions and asking a convenience sample of DVAS for feedback regarding the clarity

of the items. Items were drawn from previous research studies (Battelle for Kids, 2007; Lewis, M. S. & Ruhil, 2006; McCaffrey & Hamilton, 2007) and consisted of two item types. Respondents were first asked 38 questions whereby they would respond using a 5-point Likert Scale ranging from Strongly Disagree to Strongly Agree. Each section of the questionnaire concluded with open ended item(s) that asked the respondent to put forth any suggestions he or she might have pertaining to the construct measured (e.g., Now that you have trained others in EVAAS concepts, what suggestions would you make to improve the training materials?). There were four open ended items in all. The survey was conducted in an on-line format through a commercial vendor. The researcher used the feedback from step one and reconfigured some of the questionnaire items. Step two consisted of administering the reconfigured questionnaire to a convenience sample of District Value-Added Specialists in order to generate the questionnaire in its final form. The method of utilizing a knowledgeable group of people who participated in valueadded training throughout this process assisted the researcher in creating an instrument that had external validity.

## Procedures

With the exception of the demographic information obtained, after field testing the survey instrument and receiving feedback from other DVAS, questionnaire items were grouped into four main constructs. The questionnaire consisted of a total of 42items. Thirty-eight items required the respondent to choose a response using a 5-point Likert Scale ranging from Strongly Disagree to Strongly Agree. The researcher required respondents to make a selection using the survey software. If a respondent did not complete an item, the survey software indicated that the item must be completed in order to move to the next set of questions. The four open-ended questions did not require a response. The questionnaire items were grouped in a manner so that the items were related to one another. Listed below are the constructs and the quantitative items that comprise each construct.

- Construct 1. DVAS Efficacy (8 items)
- Construct 2. EVAAS Impact on Organization (8 items)
- Construct 3. Factors Impacting the Success of EVAAS (10 items)
- Construct 4. Specific Professional Development Needed for EVAAS to Improve Instruction and Achievement (2 items)

In addition to the constructs above, the researcher was interested in obtaining information related to the materials that the DVAS used to implement value-added professional development. As a result, four quantitative items were devoted to providing insight into this area.

Each potential participant was emailed a web-link to respond to the survey. A total of 437 surveys were sent to a random, stratified sample of DVAS that was provided to the researcher by the Ohio Department of Education. In sum, 59 surveys were not deliverable for three main reasons. Eighteen surveys were not delivered due to incorrect email addresses obtained from the database and thirty-five addresses were delivered unsuccessfully due to server firewalls. Six participants opted out of the survey. One hundred seventy-two surveys out of a possible 378 were either partially or fully completed. Two surveys were deemed unusable as the respondents moved to occupations that were not within local school districts. Based on this fact 376 surveys

were distributed. The total number of surveys returned was 170 out of 376 distributed which represents a 45.21% return rate.

#### Data Analysis Procedures

Each respondent's survey data was captured using an on-line survey tool and analyzed using SPSS. Cronbach's Alpha was used in order to determine the reliability of the items on the questionnaire. Items that had sufficient evidence of reliability were determined "fit" to be part of the construct measured. This analysis will be thoroughly reviewed in the next chapter. Demographic and descriptive statistics such as measures of central tendency and variance were obtained on respondent questionnaires in order to illuminate the perceptions of the DVAS pertaining to the research questions. Analyses of Variance (ANOVAs) were conducted to determine if there were significant differences on the constructs measured between the groups (both the cluster groups and educator occupation groups) and Bonferroni post hoc comparisons were conducted in where any significant group differences might exist. Finally, the open-ended questionnaire items were analyzed and coded using an inductive analysis (Hatch, 2002) in order to investigate any response trends. Hatch describes inductive data analysis as starting with the specific and moving towards general themes. The qualitative analysis of the open-ended items was conducted in this manner. The qualitative data in this survey will be used in order to provide additional insight into the quantitative analyses.

#### Limitations of the Methodology

Participants in this study were obtained using a clustered and stratified random sample of DVAS from the State of Ohio. Although careful consideration was given to sampling, the potential of sampling bias is always a factor. In addition, some members of the sampled strata were not the first ones chosen. Although the researcher obtained an additional participant from the pool in the same manner that was used to sample an original member (i.e. stratified and random), it is nonetheless a limitation.

#### Generalizability

The results of this research can be generalized to the population of DVAS as a clustered, stratified random sampling methodology was successfully utilized. The survey has external validity as a result of three lenses being applied. First, I am a DVAS and went through the training. Second, a RVAS is a member of my dissertation study committee. Third, the survey was provided to other DVAS in order to make suggestions. It should be noted that this study explored Ohio's value-added assessment professional development experience. Each state will have a unique experience. Although the results can not be generalized beyond those in Ohio, they can be used to help other states considering implementing a train-the-trainer approach for any professional development endeavor pertaining to value-added assessment.

#### Summary

This chapter described the research methodology used in this study. The design, context of the study and purpose was thoroughly reviewed. As discussed, study participants were selected using a stratified random sampling methodology. Each participant's perceptions were gathered using a 42 item on-line survey. Four open-ended items were used in order to gather qualitative information from the respondents. After descriptive statistics were applied to the quantified data that included post hoc comparisons, qualitative data was analyzed using an inductive theme analysis in order to look for trends among respondents.

#### CHAPTER IV

#### **Results of Data Analysis**

The purpose of this study was to illuminate the perceptions of Ohio's District Value-Added Specialists. Through a quantitative survey methodology, the study sought to gather information from a representative sample that was stratified and random for the purpose of generalizing the findings to the larger body of DVAS in Ohio. The specific research questions investigated centered on the perceived efficacy of the DVAS' training received from their Regional Value-Added Specialists; their perceptions of the training materials they were given to conduct professional development in their local districts; their thoughts pertaining to the impact that the Educational Value-Added Assessment System (EVAAS) will have on their respective school districts and their opinions related to what factors will impact the success of EVAAS in Ohio. Further, through qualitative inquiry, DVAS were asked to comment on how they've begun to use EVAAS data in their local school districts and to elaborate on potential barriers that they've encountered in their attempts to provide value-added professional development.

This chapter includes an analysis of the gathered data. The results are presented in three sections. The first section presented a more detailed description of the respondent demographics compared to that which was presented in Chapter III. The second section reported the reliability of survey constructs. The survey constructs serve as the dependent variables. The third section addressed the specific research questions by first investigating any differences between the groups. The groups represent the independent variables. There were three primary comparison groups in this study. The first group was a function of the job classification or title of the respondent (i.e. teacher, principal/assistant principal, central office or other). The second group was contingent upon the cluster association that the respondent's district was a part of (Cluster 2, Cluster 3, etc.). The district cluster characteristics were defined by the Ohio Department of Education and were provided to the researcher upon request. The third group depended on the respondent's association with Project SOAR by Battelle for Kids.

## **Demographic Results**

One hundred-seventy respondents completed a survey that was used for the study. The tables below provide information related to the demographic variables that were considered in the study. In general, the sample could be described as having an equal distribution of classroom teachers, central office administrators and building level administrators. The "Other" job classification category had respondents who reported a variety of jobs including school psychologist, counselor, curriculum leader, technology coordinator and data analyst. Table 3 reports this data in greater detail.

Table 3

Job Classification	Frequency	Percent
Participants	s (n=170)	
Teacher	49	28.8
Principal or Assistant Prin	45	26.5
Central Office	50	29.4
Other	26	15.3

Study Participant Job Classifications

In general, although the sample participants' mean number of years in the field of education was 20.4, the largest frequency reported working in the field between 15 to 20 years. This data is represented in Table 4.

Table 4

Years of Experience	Frequency	Percent
Participan	ts (n=170)	
1-5 years	3	1.7
6 – 10 years	30	17.6
11 – 15 years	35	20.6
16 – 20 years	20	11.8
21 – 25 years	24	14.1
26 – 30 years	27	15.9
30+ years	31	18.3

Study Participant Years of Experience in Education

Cluster 3 represented the group with the largest frequency of sampled DVAS in the study followed by Cluster 7 and 6 respectively. Based on data provided by the Ohio Department of Education, Cluster 3 districts had the largest actual number of DVAS when compared to all other clusters followed by Cluster 7 and 6. This provides an indication that the sampled DVAS population was closely aligned to the actual DVAS population. A more detailed description of this data resides in Table 5.

Cluster Type	Frequency	Percent
	Participants (n=170)	
Cluster 1 <sup>a</sup>	Not sampled	Not sampled
Cluster 2 <sup>b</sup>	26	15.3
Cluster3 <sup>c</sup>	42	24.7
Cluster 4 <sup>d</sup>	18	10.6
Cluster5 <sup>e</sup>	4	2.4
Cluster 6 <sup>f</sup>	31	18.2
Cluster 7 <sup>g</sup>	33	19.4
Cluster 8 <sup>h</sup>	16	9.4

## Study Participant Cluster Membership

<sup>a</sup>Island District or College Corner. <sup>b</sup>Rural/Agricultural – high poverty, low median income. <sup>c</sup>Rural/Agricultural – small student population, low poverty, low to moderate median income. <sup>d</sup>Rural/Small Town – moderate to high median income. <sup>e</sup>Major Urban – very high poverty. <sup>f</sup>Urban – low median income, high poverty. <sup>g</sup>Urban/Suburban – high median income. <sup>h</sup>Urban/Suburban – very high median income, very low poverty.

In general, the majority of participants in the study indicated that their respective districts had no affiliation with Battelle For Kids' Project SOAR. Table 6 illustrates the number of study participants who indicated their association or lack thereof with the Battelle For Kids' SOAR Project that was described in Chapter 2 of this study.

## Study Participant Project SOAR Association

Association with Project SOAR	Frequency	Percent
Participants (n=	170)	
District IN Project SOAR	37	21.8%
District NOT IN Project SOAR	125	73.5%
NOT SURE if District in Project SOAR	8	4.7%

Table 7 illustrates the study participants that comprise their respective cluster. The number in parenthesis represents the frequency count by job classification and cluster.

Cluster	Teachers	Principals/ Assistants	Central Office	Others
	Participa	ant Percentage (sum	n =170)	
2	8% (4)	22% (10)	16% (8)	15.4% (4)
3	30.6% (15)	26.7% (12)	14% (7)	30.8% (8)
4	14.3% (7)	11.1% (5)	12% (6)	0% (0)
5	4.1% (2)	0% (0)	4% (2)	0% (0)
6	4.1% (2)	17.8% (8)	34% (17)	15.4% (4)
7	28.6% (14)	15.6% (7)	12% (6)	23.1% (6)
8	10.2% (5)	6.7% (3)	8% (4)	15.1% (4)

Study Participants Combined Status: Cluster & Job Classification

Note—Frequency counts for groups are in parentheses

# Reliability of Survey Construct Scales

In order to begin to address the research questions the hypothesized survey constructs were analyzed to determine if they demonstrated acceptable levels of reliability. Survey items one through six gathered the aforementioned respondent demographic information. Through a five-point Likert scale, survey items seven through fourteen assessed DVAS' reported level of training efficacy. Participants responded to questions such as "At the conclusion of my training from my Regional Value-Added Specialist(s), I felt prepared to lead the implementation of value-added in my district" and "Once I started the professional development implementation of value-added, I felt I had all of the value-added training I needed." The scale's reliability factor resulted in a Cronbach's alpha equal to .85. The correlation among the eight items ranged from a low of .14 to a high of .81. The lowest correlated items stated "At the conclusion of my training from my Regional Value-Added Specialist, I was confident in my ability to explain the rationale for using value-added information" and "At the conclusion of my training from Regional Value-Added Specialist, I felt that I was given sufficient support within my school or district to implement value-added." The highest correlated items stated "At the conclusion of my training from my Regional Value-Added Specialist, I felt that J was given sufficient support within my school or district to implement value-added." The highest correlated items stated "At the conclusion of my training from my Regional Value-Added Specialist, I felt prepared to lead the implementation of value-added in my district" and "At the conclusion of my training from my Regional Value-Added Specialist I understood value-added concepts well enough to train administrators and teachers."

The DVAS Efficacy construct scale's Cronbach's alpha value resulted in the scale demonstrating an acceptable level of reliability and thus ensuring its confidence in being analyzed more thoroughly. An additional reliability analysis was conducted to determine if removing an item from the scale had a significant impact on the scale's reliability. If this was the case, one could conclude that an individual item had more measurement power than the other items. When this analysis was conducted, the scale's Cronbach's alpha did not significantly change. The lowest reliability coefficient for the scale was .80 when this analysis was conducted. The mean item response rate for items seven through fourteen was 3.58 on a 5.0 scale. When the items were comprised into the DVAAS Efficacy scale, the mean scale statistic was 28.65.

The next hypothesized construct, EVAAS Impact on Organization, was comprised of questionnaire items 21 through 28. These items also required respondents to respond using a five-point Likert scale. Participants responded to questions such as "Value-added will require districts to more closely focus on instructional effectiveness by teachers" and "Our district has incorporated value-added into its continuous improvement plan and/or school improvement plan." The scale's reliability factor resulted in a Cronbach's alpha equal to .84. The correlation among the eight items ranged from a low of .12 to a high of .66. The lowest correlated items stated "Our school has incorporated value-added into its continuous improvement plan and/or school improvement plan" and "The information the district receives from value-added is more useful for instructional planning than the information we receive from other sources." The highest correlated items stated "Value-added has caused our district/school to increase its focus on how all students progress" and "Value-added has caused our district/school to increase its focus on the needs of high-achieving students."

The EVAAS Impact on Organization construct's Cronbach's alpha value resulted in the scale demonstrating an acceptable level of reliability and thus ensuring its confidence in being analyzed more thoroughly. An additional reliability analysis was conducted to determine if removing an item from the scale had a significant impact on its reliability. If this was the case, one could conclude that an individual item had more measurement power than the other items. When this analysis was conducted, the scale's Cronbach's alpha did not significantly change. Indeed the lowest reliability coefficient for the scale was .81 when this analysis was conducted. Finally, the mean item response rate for items twenty-one through twenty-eight was 3.46 on a 5.0 scale. When the items were comprised into the EVAAS Impact on Organization scale, the mean scale statistic was 27.69.

The next hypothesized construct, Factors Impacting EVAAS Success, was comprised of questionnaire items 29 through 38. These items required respondents to use a five-point Likert scale. Participants responded to questions such as "Value-added creates a greater need for local professional development aimed at teaching educators how to make data-based decisions" and "Support from the local teachers' association is critical to the success of value-added." The scale's reliability factor resulted in a Cronbach's alpha equal to .77. The correlation among the ten items ranged from a low of .06 to a high of .76. In addition, two items demonstrated a -.16 correlation. The lowest correlated items stated "I have the tools, resources, and expertise within the district to make and implement data-driven decisions" and "Professional development for central office administrators about value-added is critical to the success of the value-added initiative." The highest correlated items stated "Professional development about valueadded for principals is critical to the success of the value-added initiative" and "Professional development for central office administrators about value-added is critical to the success of the value-added initiative."

The Factors Impacting the Success of Value-Added constructs had a Cronbach's alpha value at an acceptable level thus ensuring its reliability and confidence in being analyzed more thoroughly. An additional reliability analysis was conducted to determine if removing an item from the scale had a significant impact on its reliability. If this was the case, one could conclude that an individual item had more measurement power than the other items. When this analysis was conducted, the scale's Cronbach's alpha did not significantly change. Indeed the lowest reliability coefficient for the scale was .73 when this analysis was conducted. Finally, the mean item response rate for items twenty-nine

through thirty-eight was 4.03 on a 5.0 scale. When the items were comprised into the Factors Impacting the Success of Value-Added scale, the mean scale statistic was 40.34.

The next hypothesized construct, Specific Professional Development for EVAAS to Improve Instruction and Achievement, was comprised of questionnaire items 39 and 40. These items required respondents to use a five-point Likert scale. The two questions asked respondents to deliver an opinion on "Value-added creates a greater need for educators to have training focused on how to make use of data rather than simply how to interpret it" and "Value-added creates a greater need for teachers to learn more about what constitutes quality assessment practices (e.g. formative assessment, clarity of learning targets, student involvement in the assessment process)." The two-item scale's reliability factor resulted in a Cronbach's alpha equal to .87. The correlation between the items was .77. The Specific Professional Development for EVAAS to Improve Instruction and Achievement construct had a Cronbach's alpha value at an acceptable level thus ensuring its reliability and confidence in being analyzed more thoroughly. Finally, the mean item response rate for items 39 and 40 was 4.19 on a 5.0 scale. When the items were comprised into the Factors Impacting the Success of Value-Added scale, the mean scale statistic was 8.38.

Listed below in Table 8 are the reliability coefficients expressed through Cronbach's Alpha for all of the survey constructs. An acceptable Cronbach's Alpha level of .60 was needed in order to determine if the items, when combined, comprised a reliable scale. The reliability analyses determined that each construct measured had sufficient scale reliability indicating that the scores were related to one another.

Survey	Cronbach's	Items Comprising
Construct	Alpha	Construct
DVAS Efficacy	.85	8
EVAAS Impact on Organization	.84	8
Factors Impacting Success of EVAAS	.77	10
Specific Prof. Dev. For EVAAS Success	.87	2

## Reported Reliability Coefficients for Survey Constructs

A two-tailed Pearson Correlation analysis was conducted in order to determine the strength of relationship between the survey constructs. The results indicate that three out of four survey constructs had a positive strength in relationship at a statistically significant level. Although not by a statistically significant margin, the DVAS Efficacy Scale and Specific Prof Dev for EVAAS Success Scale had a positive strength in relationship. The highest strength in relationship existed between the Factors Impacting the Success of EVAAS scale and the Specific Professional Development for EVAAS Success scale. The intercorrelations between the survey constructs are reported in Table 9.

## Intercorrelations Between Survey Constructs

	Construct	1	2	3	4
1.	DVAS Efficacy		.29**	.21**	.11
			n=159	n=154	n=156
			p=.000	p=.008	p=.19
2.	EVAAS Impact on Organization			.32**	.24**
				n=154	n=156
				p=.000	p=.003
3.	Factors Impacting Success of EVAAS				.60**
					n=153
					p=.000
4.	Specific Prof Dev for EVAAS Success				

\*\*indicates statistically significant relationship at a minimum alpha level of .01

Section 3: Analysis of Variance & Data Related to the Research Questions

In this study there were five primary research questions addressed. The study investigated the aggregated perceptions of all respondents and also sought to explore any differences between the groups. There were three primary groups investigated in this study. The first respondent group was contingent on the person's occupation (i.e. teacher, principal, central office employee or other). The second respondent group was dependent upon the person's membership to one of the cluster groups defined by the Ohio Department of Education. For the purposes of this study, the sample contained members from Clusters two through eight. The third group contained in this study was the respondents reported association with Battelle For Kids' Project SOAR. The statistical analyses investigated reported group differences and in instances where there were significant differences, inquiry followed to determine which groups did indeed vary.

The first research question was: What was the perceived efficacy of the DVAS with regards to the training they received from the RVAS after implementation began and were there differences between the groups on this construct? More specifically, did they feel adequately prepared to lead the professional development scale-up of Ohio's EVAAS based on the training they received from the RVAS? The DVAS Efficacy construct consisted of 8 questions. The mean for the scale was 28.65. The mean for the items was 3.58 on a 5.0 scale which would indicate that the average response across all groups was that DVAS were "Undecided," on their efficacy, but leaning towards "Agree". A series of one-way ANOVAs were conducted in order to determine if there were differences between the means of the three reported groups on the construct of DVAS Efficacy. The first one-way ANOVA indicated that means for the Teacher Group, Principal/Assistant Principal Group, Central Office Group and Other Group were not significantly different, F(3, 163) = 1.28, p=.28. The group means and standard deviations are located in Table 10.

Group	n	Mean	Std. Deviation
Teacher	49	27.71	6.43
Principal or Assistant	44	28.90	4.80
Central Office	49	28.60	4.52
Other	25	30.20	4.89
Total	167	28.65	5.26

# Group Means and Variance for DVAS Efficacy Scale

The second one-way ANOVA indicated that the means between the seven clusters under investigation were not significantly different, F(6,160) = .74, p=.61. The group means and standard deviations are located in Table 11.

Group	n	Mean	Std. Deviation
Cluster 1 <sup>a</sup>	Not sampled	Not sampled	Not sampled
Cluster 2 <sup>b</sup>	25	27.20	6.00
Cluster3 <sup>c</sup>	42	28.20	5.61
Cluster 4 <sup>d</sup>	18	29.94	5.38
Cluster5 <sup>e</sup>	4	31.00	1.83
Cluster 6 <sup>f</sup>	31	29.20	4.86
Cluster 7 <sup>g</sup>	32	28.84	5.35
Cluster 8 <sup>h</sup>	15	28.67	3.99
Total	167	28.65	5.26

Group Means and Variance for DVAS Efficacy Scale

<sup>a</sup>Island District or College Corner. <sup>b</sup>Rural/Agricultural – high poverty, low median income. <sup>c</sup>Rural/Agricultural – small student population, low poverty, low to moderate median income. <sup>d</sup>Rural/Small Town – moderate to high median income. <sup>e</sup>Major Urban – very high poverty. <sup>f</sup>Urban – low median income, high poverty. <sup>g</sup>Urban/Suburban – high median income. <sup>h</sup>Urban/Suburban – very high median income, very low poverty.

The third one-way ANOVA indicated that the means between SOAR and Non-SOAR groups were not significantly different, F(2, 164) = 1.57, p=.21. These results are located in Table 12.
#### Table 12

Group	n	Mean	Std. Deviation
In SOAR	36	28.36	5.27
Not in SOAR	123	28.94	5.05
Not sure	8	25.63	7.78
Total	167	28.65	5.26

Group Means and Variance for DVAS Efficacy Scale

In sum, when the three primary comparison groups were analyzed to determine significant differences between the groups (i.e. Job Classification, Cluster Membership or SOAR versus Non-SOAR), no statistically significant differences were found.

In order to begin to illuminate the suggested improvements in DVAS training, the following question was asked, "Now that you have trained others in value-added concepts, what suggestions would you make to improve the training of other district value-added specialists in the future (in this state and/or others)." Although there were an insufficient number of respondents that provided detailed comments to allow for comparisons between the groups, the researcher was able to identify some themes. Themes emerged through an inductive manner. One hundred twenty-one respondents chose to answer this question. For the purposes of this study at least four instances of a similar improvement suggestion needed to be mentioned by the respondents in order to qualify as a theme. Inductively generated themes included: Assistance, Content,

Structure, Time and Application. There were eight comments that indicated that the DVAS had not begun training in the district and nine unrelated comments were made. *Continued Assistance Theme* 

Thirty-four of the qualitative responses revealed a theme which indicated that the DVAS needed more assistance during the diffusion of the value-added concepts within their respective districts. This theme had the highest frequency.

Examples included,

Respondent: I didn't feel that I understood the information enough to be able to reasonably explain it to my staff. I can look at the charts and understand the information, but don't feel like I am competent. It wasn't my RVAS fault, it takes me several times to understand the information.

Respondent: Almost a year passed from the last training session...A refresher session would have been helpful once our own district data was entered. Respondent: This is a tough question. Most of my colleagues in training didn't feel completely confident afterwards, because there is so much information to convey. The obvious solution would have been more training and assistance, but who has the time with everything else that needed to be done? Respondent: RVAS should give refresher courses to DVAS on a regular basis. Respondent: I would like a teacher handbook specifically created to answer the most frequently asked questions which teachers could use as a reference as they work with the material. I would also like additional online training or videos which teachers could access from their computers. Respondent: The disconnect for me was that after the training I still didn't feel that I knew which materials to use to adequately train others—especially since their training would have to occur in a just a few hours.

# Changes to Training Content Theme

Thirty-one of the qualitative responses revealed a theme which suggested changes to the content that was delivered to the DVAS during their training.

Examples included,

Respondent: Too much information regarding the use of the data was presented without fully explaining the reports. Training was too fast for those who were not familiar with those types of reports and statistical data.

Respondent: When I was trained, they were teaching us things about SOAR and "un-SOAR" report data. They need to eliminate the SOAR stuff.

Respondent: The training was too detailed about the technical procedures used to formulate the data. Most teachers want to know the data and the interpretation of the data.

Respondent: Spend less time on the theory of value-added and give us real answers and training on how to use value-added and train others to use it. Respondent: The entire system needs to be more teacher friendly. Right now it is frankly too technical for teachers to understand with all that they are trying to do in their individual classrooms.

Respondent: Supply basic information. Don't be so concerned with detail reading of graphs but the understanding of what value-added is, how to improve and with it means to your district.

### Structure Theme

Sixteen of the qualitative responses revealed a theme which provided suggestions regarding changes to the structure of the training that the DVAS underwent

Examples included,

Respondent: I would recommend closer dates to remain more consistent within my understanding. Dates of training were widely scheduled and we lost a great deal of knowledge between sessions.

Respondent: Information was sketchy at best and seemed to change from one meeting day to another. I would have appreciated a roll out that was fully ready to implement and not full of uncertainty. If the state was uncertain what this was to look like for us, then why start training people when it is certain to change? Respondent: We had training and no data for a although, which made the training less effective.

Respondent: More hands on with current school data. Go through a presentation or with input from RVAS and then create a presentation although at training and have RVAS evaluate and look over ways to improve it prior to showing it to your district staff.

# Time Theme

Fifteen of the qualitative responses revealed a theme which indicated time was an issue as it related to the diffusion of the value-added concepts within their respective districts. Some DVAS asked that more time be devoted to training.

Examples included,

Respondent: Given the dynamic nature of value-added assessment, continued time, education, updates and support regarding implementation is critical. Respondent: More time on training. Too much to understand in a short period of time.

Respondent: More discussion time.

Respondent: Far too much time between training sessions.

Respondent: Much more time is needed working with real data.

Although a minority, some DVAS provided responses that asked for less time during training.

Examples included,

Respondent: I believe the amount of time (5 days) was excessive for the material. Respondent: Less time. Look at school data you are in, work on presentation at training.

Respondent: Not sure that quite so much time needed to be allocated for the task of training the trainers.

# Application Theme

Ten of the qualitative responses revealed a theme which provided insight to future trainers regarding how they could make training applicable for those trained in the local districts.

Examples included,

Respondent: I would designate a team by grade level and by building. Then they would train the rest of the staff.

Respondent: Make certain that staff members understand that value-added analysis applies to only reading and math. Provide training in a computer lab, access various reports and discuss as a group.

Respondent: I found that the audiences varied and they only wanted the specifics of how it impacted them.

Respondent: Get a data team started to assist in the ongoing use of value-added data.

The second research question was: What were the perceptions of the DVAS with regards to the training materials they received from Battelle for Kids? This research question was investigated using items 16 through 20 on the survey. Items 16 through 19 were quantitative items whereas Item 20 was an open-ended item. The first question investigated DVAAS perceptions pertaining to having the necessary materials to train others in their respective districts. It asked: "At the conclusion of my training from my RVAS, I had the necessary training materials to conduct value-added professional development." The mean response of the sampled population for this item was 3.75 which would be indicative of an answer that is "Undecided" but approaching "Agree". Three ANOVAs were conducted in order to investigate group differences. A one-way ANOVA indicated that the means for the Teacher Group, Principal/Assistant Principal Group, Central Office Group and Other Group were not significantly different, F(3, 158) = .87, p=.46. A second one-way ANOVA investigated group differences on Item 16 contingent upon Cluster membership (i.e. Cluster 2, Cluster 3, etc.) and it indicated that

the means for the Clusters investigated were not significantly different, F(6, 155) = 2.01, p=.07. A third one-way ANOVA investigated group differences on Item 16 dependent upon the respondents association with Project SOAR and it indicated that the means between the groups were not significantly different, F(2, 159) = 2.81, p=.06.

At the conclusion of their training, all DVAS received a training kit that was created by Battelle for Kids. Respondents were asked a question about the use of this kit. The survey required respondents to respond to this statement: "I only used the Value-Added Toolkit for School Leaders provided by Battelle for Kids to conduct my training." The mean response for this item was 2.69 which would indicate that overall, the respondents either disagreed or were undecided with the statement. Three ANOVAs were conducted in order to investigate group differences on this item. A one-way ANOVA indicated that the means for the Teacher Group, Principal/Assistant Principal Group, Central Office Group and Other Group were not significantly different, F(3, 157) = 1.53, p=.21. A second one-way ANOVA investigated group differences on Item 17 contingent upon Cluster membership (i.e. Cluster 2, Cluster 3, etc.) and it indicated that the means for the Clusters investigated were significantly different, F(6, 154) = 2.24, p=.04. Post-hoc mean analysis using Bonferroni's statistic revealed a significant difference on this item between Cluster 3 (respondents from Rural/Agricultural-small student population, low poverty, low to moderate income) and Cluster 6 (Urban-low median income, high poverty). A third one-way ANOVA investigated group differences on Item 17 dependent upon the respondents association with Project SOAR and it indicated that the means between the groups did not significantly differ F(2, 158) = .56, p=.56.

In order to determine if the DVAS only used training materials that were personally created, DVAS were asked to respond to this statement: "I only used our district-created set of value-added training materials in order to conduct value-added training." The mean response for this item was 2.16 which would indicate that overall, the respondents generally disagreed with the statement. Three ANOVAs were conducted in order to investigate group differences on this item. A one-way ANOVA indicated that the means for the Teacher Group, Principal/Assistant Principal Group, Central Office Group and Other Group were not significantly different, F(3, 158) = 1.91, p=.13. A second one-way ANOVA investigated group differences on Item 18 contingent upon Cluster membership (i.e. Cluster 2, Cluster 3, etc.) and it indicated that the means for the Clusters investigated were significantly different, F(6, 155) = 3.77, p=.002. Post-hoc mean analysis using Bonferroni's statistic revealed a significant difference on this item between Cluster 5 (respondents from Major Urban—very high poverty) and the remaining Clusters included in the study. A third one-way ANOVA investigated group differences on Item 18 dependent upon the respondents association with Project SOAR and it indicated that the means between the groups did not significantly differ F(2, 159) =.59, p=.56.

In order to determine if DVAS used a combination of materials to provide professional development to staff, they were asked to respond to this statement: "Our district used a combination of the Value-Added Toolkit for School Leaders provided by Battelle for Kids and our own materials in order to conduct value-added training." The mean response for this item was 3.66 which would indicate that overall, the respondents were approaching "Agree" on this statement. Three ANOVAs were conducted in order to investigate group differences on this item. A one-way ANOVA indicated that the means for the Teacher Group, Principal/Assistant Principal Group, Central Office Group and Other Group were not significantly different, F(3, 157) = 1.95, p=.12. A second one-way ANOVA investigated group differences on Item 19 contingent upon Cluster membership (i.e. Cluster 2, Cluster 3, etc.) and it indicated that the means for the Clusters investigated were not significantly different, F(6, 154) = 1.00, p=.43. A third one-way ANOVA investigated group differences on Item 19 dependent upon the respondents association with Project SOAR and it indicated that the means between the groups did significantly differ F(2, 158) = 4.33, p=.02. In short, the respondents that reported an association with Project SOAR and without Project SOAR did not significant differ on this item. However, the respondents that reported "Not Sure" about their association with Project SOAR differed from those associated with SOAR and those that were not. Given the small number of respondents who reported "Not Sure" about their association with SOAR (n=8), this was likely statistical noise due to sample size.

Item 20 on the survey asked respondents "Now that you have begun training others in value-added concepts, what suggestions would you make to improve the training materials?" One hundred-three respondents provided qualitative data on this question. There was an insufficient number of respondents that provided detailed comments to allow for comparisons between the groups, however the researcher was able to identify some themes. The qualitative data on this item was analyzed in an inductive manner and themes emerged. The inductively generated themes included: No Changes, Make Easier, Make Practical, Make Accurate, Local District, Ohio Specific, Student Identification Numbers, No Training, Organization, and Support. For the purposes of this study at least four instances of a particular improvement recommendation needed to be mentioned by the respondents in order to qualify as a theme.

### No Changes Theme

Twenty-six of the qualitative responses comprised the first theme which was No Changes. In this theme, respondents indicated that the training materials were adequate and no changes were needed to make them more effective. Examples of responses pertaining to this theme included,

Respondent: I feel that the materials offered by Battelle for Kids were sufficient in the training process to provide an overview of value-added.

Respondent: I really felt the training materials were more than adequate.

Respondent: I would not change the training materials. They were very useful.

Respondent: None - the training materials were effective.

Respondent: I would not change the training materials. They were very useful.

Respondent: None at this time.

# Make Local Theme

Fourteen of the qualitative responses revealed a theme that asked for the training materials to be more "Local." Response examples included,

Respondent: The use of local data is critical in developing the sense of urgency.

Respondent: Need own material and data

Respondent: I think that using actual data that is pertinent to the district is most valuable in training.

Respondent: Be sure to have some specific to your district data to share. They are much more attentive when it is something that affects them directly.

Respondent: Help us to tailor training materials for our own districts. The more relevant the materials, the more teachers will take away from the training. Respondent: The materials should include information of presentations for school boards and more information on concise ways to get the message to superintendents.

### Make Easier Theme

Thirteen of the qualitative responses revealed a theme that requested the training materials be made easier. Response examples indicated,

Respondent: It needs to be less complex....make it simpler to use. Too many copies of the same thing.

Respondent: The Battelle materials are rather cumbersome. They provide a good background for those who serve as DVAS, but are way too much to give to teachers, or even building principals.

Respondent: Keep it simple. The teachers and administrators we are working with felt it was too much information to be helpful.

Respondent: Again, providing a very scaled-down user-friendly version would be helpful.

Respondent: Too much material made it difficult to decide what was really important.

Respondent: Again, make it easier to understand. Most teachers are not statistics experts. It is almost as if we are giving too much information. Let's determine what classroom teachers need to improve instruction and get them that data in an easy to read and concise format. Seven of the qualitative responses revealed a theme in which it was suggested that the EVAAS training materials be made more practical for educators. Response examples indicated,

Respondent: It would be beneficial to have more time to look at actual data of similar districts and try to evaluate factors that might lead to positive mean gains. This would give more practical data about what program or teaching methods seem to benefit students most. I spent several hours looking at the websites of schools in the green to try to determine what factors might have played a role. Sharing specific teaching programs, schedules and intervention plans provide a more relevant experience. It is interesting to see what seems to be working and what doesn't.

Respondent: Perhaps the inclusion of more DVD's that apply specifically to how teachers can use the information to improve student achievement. Another issue that has come up repeatedly is that teachers want the ability to go down to the individual student level how their class is doing. Patterns of achievement are fine for teachers but there is a missing link to them.

Make Ohio Specific Theme

Seven of the qualitative responses requested that the training materials be more specific to the Ohio EVAAS model and the needs of educators in Ohio. Response examples included,

Respondent: Delete the information that does NOT apply to Ohio. Respondent: Try to get training materials that pertain only to the Ohio model. Respondent: Make sure that there is data that looks like "Ohio data." There are some sets of data that do not align with the data types we will be using. It would also be beneficial to be able to copy and paste parts of the powerpoints instead of having to use all or none of the presentations.

# No Training Theme

Seven of the qualitative responses provided qualitative evidence that EVAAS training had not yet taken place in sampled districts. Examples included,

Respondent: I have not had to do any training yet.

Respondent: Very little has been done within the district to train teachers.

Make Accurate Theme

Five of the qualitative responses requested that the training materials be made more accurate and expressed concern pertaining to the accuracy of the materials. Response examples indicated,

Respondent: Materials were nicely put together but there were many pages that contained mistakes and had to be reworked

Respondent: The training materials we had were out of date when we had them in training. They need to reflect what folks are going to see on their computer screens.

# Support Theme

Five of the qualitative responses revealed a theme that suggested a need for continued support by the Regional Value-Added Specialists. Response examples indicated, Respondent: I don't believe there was anything wrong with the training materials. I found that I had some problems interpreting the charts; i.e., baseline questions etc. When I really delved into the materials, I needed more specific information. The training had been 6 months before.

Respondent: Provide ongoing expertise and support...have follow-up sessions. Ohio Student Identification Linked to Student Name Theme

Four of the qualitative responses provided qualitative data pertaining to the frustration of Ohio's EVAAS model. Unique student identification numbers are used by the Ohio Department of Education in EVAAS reports rather than student names. Examples included,

Respondent: The data doesn't show student names, just SSID numbers. Because of this, I don't think any administrator has "drilled down" and looked closer at the groups of kids in each quintile.

Respondent: Student names need to be on the individual reports, not just SSID numbers. It does the principal and teacher no good if we can't see who to help.

#### More Organized Theme

Four of the qualitative responses demonstrated a theme that requested the training materials be better organized. Examples included,

Respondent: Provide more explanation on the training materials. It allows a lot for interpretation, but having a guide would be beneficial.

Respondent: Organize materials into concise lesson. Day one with staff complete this. Day two this....etc... Have materials organized into one hour lessons.

The third research question was: What organizational impact will EVAAS have on the district from the perspectives of the District Value-Added Specialists? This research question was investigated using items 21 through 28 on the survey. The EVAAS Impact on Organization construct consisted of 8 questions. The mean for the scale was 27.69. The mean for the items was 3.46 on a 5.0 scale which would indicate that the average response across all groups was that DVAS were somewhere between "Undecided," and "Agree" on this construct. A series of one-way ANOVAs were conducted in order to determine if there were differences between the means of the three reported groups on the construct of EVAAS Impact on Organization. The first one-way ANOVA indicated that means for the Teacher Group, Principal/Assistant Principal Group, Central Office Group and Other Group were not significantly different, F(3, 155) = 2.28, p=.08. The group means and standard deviations are located in Table 13.

Group	n	Mean	Std. Deviation
Teacher	45	26.91	5.80
Principal or Assistant	41	29.54	4.70
Central Office	48	27.15	5.46
Other	25	27.08	4.79
Total	159	27.69	5.34

Group Means and Variance for EVAAS Impact on Organization Scale

The second one-way ANOVA indicated that the means between the seven clusters under investigation were not significantly different, F(6,152) = 2.05, p=.06. The group means and standard deviations are located in Table 14.

Table 14

Group	n	Mean	Std. Deviation
Cluster 1 <sup>a</sup>	Not sampled	Not sampled	Not sampled
Cluster 2 <sup>b</sup>	24	26.08	5.24
Cluster3 <sup>c</sup>	41	26.92	4.62
Cluster 4 <sup>d</sup>	17	30.06	4.64
Cluster5 <sup>e</sup>	4	27.00	6.06
Cluster 6 <sup>f</sup>	27	28.26	5.31
Cluster 7 <sup>g</sup>	31	29.26	5.67
Cluster 8 <sup>h</sup>	15	25.53	6.14
Total	159	27.69	5.34

Group Means and Variance for EVAAS Impact on Organization Scale

<sup>a</sup>Island District or College Corner. <sup>b</sup>Rural/Agricultural – high poverty, low median income. <sup>c</sup>Rural/Agricultural – small student population, low poverty, low to moderate median income. <sup>d</sup>Rural/Small Town – moderate to high median income. <sup>e</sup>Major Urban – very high poverty. <sup>f</sup>Urban – low median income, high poverty. <sup>g</sup>Urban/Suburban – high median income. <sup>h</sup>Urban/Suburban – very high median income, very low poverty.

The third one-way ANOVA indicated that the means between SOAR and Non-SOAR groups were significantly different, F(2, 156) = 3.58, p=.03. District Value-Added Specialists from SOAR districts had a higher mean scaled score on the EVAAS Impact

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on Organization Scale compared to the Non-SOAR group. The group means and standard deviations are located in Table 15.

Table 15

Group Means and	Variance for EVAAS	S Impact on Organization Scale	

Group	n	Mean	Std. Deviation
In SOAR	36	29.72	4.87
Not in SOAR	116	27.04	5.36
Not sure	7	27.86	5.43
Total	159	27.69	5.34

The fourth research question was: According to the District Value-Added Specialists, what factors will impact the success of EVAAS in Ohio? This research question was investigated using items 29 through 38 on the survey. The Factors Impacting Success of EVAAS construct consisted of 10 questions. The mean for the scale across all groups was 40.34. The mean for the items was 4.03 on a 5.0 scale which would indicate "Agree." In short, the aggregated opinion was consistent across all groups on the construct. A series of one-way ANOVAs were conducted in order to determine if there were differences between the means of the three reported groups on the construct of Factors Impacting Success of EVAAS. The first one-way ANOVA indicated that means for the Teacher Group, Principal/Assistant Principal Group, Central Office Group and Other Group were not significantly different, F(3, 150) = .55, p=.65. The group means and standard deviations are located in Table 16.

# Table 16

n	Mean	Std. Deviation
45	39.93	4.30
40	40.65	3.70
45	40.82	4.69
24	39.67	5.29
154	40.34	4.42
	n 45 40 45 24 154	nMean4539.934040.654540.822439.6715440.34

Group Means and Variance for Factors Impacting Success of EVAAS Scale by Job

The second one-way ANOVA indicated that the means between the seven clusters under investigation were not significantly different, F(6,147) = 1.80, p=.10. The group means and standard deviations are located in Table 17.

Group	n	Mean	Std. Deviation
Cluster 1 <sup>a</sup>	Not sampled	Not sampled	Not sampled
Cluster 2 <sup>b</sup>	22	39.59	5.40
Cluster3 <sup>c</sup>	41	39.22	3.98
Cluster 4 <sup>d</sup>	17	40.59	3.99
Cluster5 <sup>e</sup>	4	37.50	4.93
Cluster 6 <sup>f</sup>	26	42.12	4.17
Cluster 7 <sup>g</sup>	31	41.23	3.48
Cluster 8 <sup>h</sup>	13	40.00	5.40
Total	154	40.34	4.42

Group Means and Variance for Factors Impacting Success of EVAAS Scale by Cluster

<sup>a</sup>Island District or College Corner. <sup>b</sup>Rural/Agricultural – high poverty, low median income. <sup>c</sup>Rural/Agricultural – small student population, low poverty, low to moderate median income. <sup>d</sup>Rural/Small Town – moderate to high median income. <sup>e</sup>Major Urban – very high poverty. <sup>f</sup>Urban – low median income, high poverty. <sup>g</sup>Urban/Suburban – high median income. <sup>h</sup>Urban/Suburban – very high median income, very low poverty.

The third one-way ANOVA indicated that the means between "SOAR" and

"Non-SOAR" groups were approaching statistical significance, F(2, 151) = 2.95, p=.055. District Value-Added Specialists from "SOAR" districts had a higher mean scaled score compared to the "Non-SOAR" group and those "Not Sure." The group means and

standard deviations are located in Table 18.

Group	n	Mean	Std. Deviation
In SOAR	35	41.86	3.76
Not in SOAR	112	39.96	4.41
Not sure	7	38.86	6.34
Total	154	40.34	4.42

Group Means and Variance for Factors Impacting Success of EVAAS Scale by SOAR

The final survey construct was "Specific Professional Development for EVAAS Success." This construct was investigated using items 39 and 40. The mean for the scale across all groups was 8.38. The mean for the items was 4.19 on a 5.0 scale which would indicate a response trend in agreement with the items presented. In short, the aggregated opinion was consistent across all groups on the construct. A series of one-way ANOVAs were conducted in order to determine if there were differences between the means of the three reported groups on the construct of Specific Professional Development for EVAAS Success.

The first one-way ANOVA indicated that means for the Teacher Group, Principal/Assistant Principal Group, Central Office Group and Other Group were not significantly different, F(3, 156) = .20, p=.90. The group means and standard deviations are located in Table 19.

Group	n	Mean	Std. Deviation
Teacher	44	8.50	1.29
Principal or Assistant	41	8.32	1.23
Central Office	47	8.30	1.57
Other	24	8.42	1.50
Total	156	8.38	1.39

Group Means and Variance for Specific Prof. Dev. for EVAAS Success Scale by Job

The second one-way ANOVA indicated that the means between the seven clusters under investigation were not significantly different, F(6,149) = 1.65, p=.14. The group means and standard deviations are located in Table 20.

Group	n	Mean	Std. Deviation
Cluster 1 <sup>a</sup>	Not sampled	Not sampled	Not sampled
Cluster 2 <sup>b</sup>	24	8.25	1.45
Cluster3 <sup>c</sup>	41	8.17	1.36
Cluster 4 <sup>d</sup>	17	8.71	.98
Cluster5 <sup>e</sup>	4	7.00	2.16
Cluster 6 <sup>f</sup>	26	8.88	.99
Cluster 7 <sup>g</sup>	30	8.40	1.27
Cluster 8 <sup>h</sup>	14	8.21	2.08
Total	156	8.38	1.39

Group Means and Variance for Specific Prof. Dev. for EVAAS Success Scale by Cluster

<sup>a</sup>Island District or College Corner. <sup>b</sup>Rural/Agricultural – high poverty, low median income. <sup>c</sup>Rural/Agricultural – small student population, low poverty, low to moderate median income. <sup>d</sup>Rural/Small Town – moderate to high median income. <sup>e</sup>Major Urban – very high poverty. <sup>f</sup>Urban – low median income, high poverty. <sup>g</sup>Urban/Suburban – high median income. <sup>h</sup>Urban/Suburban – very high median income, very low poverty.

The third one-way ANOVA indicated that the means between "SOAR" and

"Non-SOAR" groups were not significantly different, F(2, 153) = 1.75, p=.18. The group means and standard deviations are located in Table 21.

Group	n	Mean	Std. Deviation
In SOAR	34	8.77	1.13
Not in SOAR	115	8.26	1.46
Not sure	7	8.43	1.13
Total	156	8.38	1.39

Group Means and Variance for Specific Prof. Dev. for EVAAS Success Scale by SOAR

The fifth research question was "Did the DVAS cite any common trends related to how they were using EVAAS to improve instruction and student achievement? This research question was analyzed using a qualitative approach. Question 41 asked, "In the space below, please feel free to describe specific ways your district is using the information from Ohio's value-added data to improve instruction and student achievement." There were an insufficient number of respondents that provided detailed comments to allow for comparisons between the groups, however the researcher was able to identify some themes. The qualitative data on this item was analyzed in an inductive manner and themes emerged. Ninety respondents chose to answer this question. Inductively generated themes included: Pre-Initiation Usage, Initiating Usage, Instructional Usage, Gifted Student Usage, and Data Analysis Usage. In addition, there were eight comments that did not relate to the question asked. Twenty-seven of the qualitative responses revealed a theme which indicated some districts were making changes to instruction as a result of their value-added data. Examples included,

Respondent: At grades 3-8 we had all teachers administer a reading assessment to determine a snapshot of reading levels because little growth was being made across groups and classroom practices for literacy had a whole group focus rather than understanding the different levels of students and teaching according. We increased lang arts times to 90 minute blocks at grades 3-4 and math blocks for grades 3-8 to 90 minutes.

Respondent: My district is using the information to make improvements in instruction as a whole.

Respondent: Teachers regularly look at value-added as they discuss the instructional needs of disaggregated sets of students.

Respondent: We had done poorly in the sixth grade value-added and next year we are adding teachers to make two teacher teams to better meet student needs. In the past each teacher taught all students all subjects from the grade level. Respondent: We have a focused emphasis on principles of Assessment for Learning, standards-based instruction, and the development of common assessments. From assessment for learning, we emphasize continual formative assessments to guide instruction and providing descriptive feedback to students rather than evaluative. We have also implemented co-teaching district-wide, as an educational delivery system for our students with disabilities, since data show us that they are not making the progress they should.

#### Data Analysis Theme

Seventeen of the qualitative responses revealed a theme which indicated some districts were engaging in data analysis to improve instruction and student achievement.. Examples included,

Respondent: The professional development has to be geared towards making data driven decisions using value-added data and less on the HOW VA works. In my opinion, there was so much emphasis on how to calculate value-added measures that I walked away (from training) feeling like I had to have a degree in Statistics to explain it to others. Once I stepped back and reflected on our work, I was then able to simplify so that it made sense to me and others.

Respondent: Value-Added is helping to continue our process of building a strong data-based assessment system.

Respondent: Training a data team to access their grade level value-added data and interpret it. This team will inform curriculum changes and strategies. Value-added data provides a focus for professional development and resources.

Respondent: This year we analyzed the data down to the classroom teacher in each grade. We made some changes in our honors classes to address some indicators that need to be reviewed due to a different course of study for those classes.

### Initiating Value-Added Theme

Fourteen of the qualitative responses revealed a theme which indicated some districts had begun initiating the use of value-added data. Examples included,

Respondent: This was a learning year for us...how to formulate, read, and interpret value-added data now available. Additional training on using this data will occur next year.

Respondent: We plan to use the data to help all students achieve.

Respondent: It is still too new to evaluate what impact it will have. The principals will have to take stronger leadership roles through the site and how to pull up our school/district data; however we have yet to plan out professional development for our teachers in regards to value-added.

### Pre-initiation Value-Added Theme

Twelve of the qualitative responses revealed a theme which indicated some

districts were at the Pre-initiation stage of using value-added data. Examples included,

Respondent: Still too early to make hard choices.

Respondent: Not much has been done with this yet.

Respondent: Unfortunately, in my building we are not using value-added data at all to improve instruction and student achievement. I don't know if the elementary building is doing so, but I know that the junior high and high school are not. The DVAS are the only ones with access to the data at this time.

Respondent: Minimal training has been done at the 5<sup>th</sup> grade and middle school.

### Instruction for Gifted Students Theme

Although there were 27 responses that revealed a theme of general instructional impacts of value-added, a theme emerged whereby respondents specifically talked about how value-added has impacted the gifted students within their respective districts. Twelve qualitative responses revealed an instructional impact for gifted students. Examples included,

Respondent: Revamping the instructional program relative to our gifted/talented students.

Respondent: The information from value-added has helped grade levels determine which subgroups are being impacted by instruction. Since we serve an at-risk population here at District A, spending an appreciable amount of time with the lowest two quintile groups although at times "ignoring" the higher performing children is done unconsciously. We know that ALL children need to grow, but our practices do not always reflect it. The data has brought all of this to light. Respondent: It has increased the need for looking at serving high-achieving students since we do not offer a gifted program.

Respondent: We have turned our focus to differentiation. Our results show we are doing a good job with our lower achieving students at the expense of our higher achieving students. We are implementing differentiated lessons across the board in order to meet the needs of all students.

The sixth and final research question asked, did the DVAS cite any common barriers they have encountered in their efforts to use EVAAS to improve instruction and student achievement? This research question was analyzed using a qualitative approach. Question 42 asked, "In the space below, please feel free to describe any specific barriers you or your staff have encountered in your efforts to use the information from Ohio's value-added data to improve instruction and student achievement." There was an insufficient number of respondents that provided detailed comments to allow for comparisons between the groups, however the researcher was able to identify some themes. The qualitative data on this item was analyzed in an inductive manner and themes emerged. Eighty-six respondents chose to answer this question. Eleven responses contained multiple themes. For the purposes of this study at least four instances of a particular barrier needed to be mentioned by the respondents in order to qualify as a theme. Inductively generated themes included: Time, State Student Identification Numbers, General Internal District Barriers, General External District Barriers, Resistance, SOAR, Accuracy and Money.

## Time Barrier Theme

Twenty-five of the qualitative responses revealed a theme which indicated that Time was a specific barrier to use value-added data to improve instruction and student achievement. Examples included,

Respondent: The only barrier that is always there is time to schedule meetings on a regular basis so the dialogue can be ongoing and purposeful and meaningful. Respondent: Time. We find out great information, but lack the immediate followup time to process, plan and research. More time is essential to get a thorough understanding as well as to prepare immediate training. Respondent: The biggest resource we need is more time! It takes time to help people change. Just throwing the term value-added on a district report card will not help teachers learn how to use data.

Respondent: Time to review the data and have time to analyze it.

# General Internal Barrier Theme

Eighteen of the qualitative responses revealed a theme by which DVAS reported a General Internal Barrier that has been encountered in their efforts to use value-added data to improve instruction and student achievement. Examples included,

Respondent: They are fearful that this will jeopardize their job status (teachers) so they are reluctant to use it.

Respondent: The administrative team needs to embrace value-added and support the staff in implementation.

Respondent: Not all teachers are buying into it yet. There is resentment among staff that this is just one more mandate the state has put upon us. Some are using it but it is a slow trend.

Respondent: We have received no support from our administration about valueadded other than to send us for the training. We had one in-service to explain value-added to the staff at the beginning of the school year and have not heard another word about it since.

Respondent: Many teachers felt this. Like so many other things will come and go. Others feel they are too close to retirement to focus on something new.

### General External Barriers Theme

Ten of the qualitative responses revealed a theme by which DVAS reported General External Barriers that they have encountered in their efforts to use value-added data to improve instruction and student achievement. Examples included,

Respondent: The data and format of the data is not teacher/user friendly. Respondent: The data is still pretty shallow. I feel that at this point it is best to look at it critically and cautiously.

Respondent: We MUST have this data much, much earlier in the year. We cannot expect teachers to start their school year, then drop everything three months later to examine data.

Respondent: I think that the inability to sort data by teacher takes away a valuable source of information on "what works" in the classroom.

#### State Student Identification Number Barrier Theme

Ten of the qualitative responses revealed a theme related to the fact that the valueadded reports districts receive do not have student names, but rather contain the students' State Student Identification Number. Examples included,

Respondent: The State of Ohio needs to allow for student names to be attached to the data rather than the SSID numbers. Since we don't know quickly who is in each quintile group on the value-added diagnostic report, it takes a lot of extra time to read the data.

Respondent: The SSID number makes interpreting very confusing because technically, teachers are not to have access to that information so they have to find all their students from a list that is kept in the principal's office. Respondent: The lack of students' names with the data inhibit individual student diagnosis.

Respondent: Seeing the SSID number and not a student name is frustrating. Time is such a problem and now we have to sort and look up names four our reports. Teachers are not buying in to the amount of work needed to find the actual students involved.

# Resistance Barrier Theme

Six of the qualitative responses revealed a theme related to resistance from others. Examples included,

Respondent: Some feedback from teachers include the fact that they don't feel they need to know how to interpret the data.

Respondent: Some of our teachers don't understand the usefulness of valueadded. They don't see low value-added scores as a reflection of their teaching methods.

# Project SOAR Barrier Theme

Five of the responses indicated that Project SOAR presented itself as a potential barrier to using value-added data to improve instruction and student achievement. Examples included,

Respondent: Too many forms of data. Ohio's value-added data is different from Battelle's data.

Respondent: The two different models of the State and SOAR has caused some confusion.

Four of the qualitative responses indicated a concern pertaining to the accuracy of the value-added data and thus it was seen as a potential barrier. Examples included,

Respondent: There is a level of uncertainty and non-trust with the results of the middle school reading scores. We are not willing to pass judgment without a few more years of data.

Respondent: The seventh grade reading data from last year has been under attack. Can we trust the calculations? There have been many questions around the reliability of the information.

# Money Barrier Theme

Four of the qualitative responses indicated concerns pertaining money. Examples included,

Respondent: Money!!

Respondent: The cost and availability of substitutes prohibits us from making a more concerted effort.

Respondent: ...our budget is shrinking as our needs for materials and staff are increasing.

### Summary

This chapter reported the results of the study. The demographics of the respondents were first reported and there were approximately an equal number of teachers, Principals/Assistants and Central Office personnel who were DVAS. There were four hypothesized scales that existed within the survey instrument. Four Cronbach's Alpha analyses were completed and the survey's scales demonstrated appropriate levels

of reliability thus ensuring their confidence in being analyzed. Descriptive statistics were gathered for all four scales as were group means. Respondents were divided into three separate groups that were <u>not</u> mutually exclusive from one another. A Pearson Correlation was conducted in order to determine the strength of relationship between the scales. Although all scales demonstrated a positive strength in relationship, three out of four were statistically significant. After the scales were determined to demonstrate acceptable levels of reliability, respondent group means were then calculated. The study analyzed response differences between three groups. Group membership was contingent upon the respondent's job classification, the respondent's Cluster Group (e.g., Cluster 2, Cluster 3, etc.) and the respondent's association with Battelle's Project SOAR. Several ANOVAs were conducted in order to determine if there were statistically significant differences between the group means and, if so, post-hoc comparisons were completed in order to detect where differences might exist. This chapter reported the group differences on the four scales measured by the survey.

There were three survey questions that were qualitative in nature. There were an insufficient number of respondents who provided detailed comments to allow comparisons between groups, however general response themes surfaced through inductive analysis and they were reported.

#### CHAPTER V

#### Summary

This chapter provides a review and discussion of the most notable findings presented in the previous chapter. The demographic makeup of the respondents is more fully explored, the research questions are restated and the implications for practice are reviewed. Through legislation Ohio has committed itself to the institution of calculating a growth model in its Federal, No Child Left Behind Plan. A significant amount of resources were allocated to train Regional Value-Added Specialists who in turn trained District Value-Added Specialists. Ohio is in the initial stages of scaling up the growth model. The main purpose of this chapter is to begin to illuminate the professional development implications of Ohio's value-added model from the perspective of the District Value-Added Specialists.

## **Demographic Variables**

The respondent population from this study were District Value-Added Specialists (DVAS). These individuals were chosen by the superintendents in their respective districts to attend training outside of the district for at least five days. The local public school districts were provided with funds from the Ohio Department of Education to offset the cost to train two DVAS from the district. There are approximately 612 public school districts in the State of Ohio which would indicate that the Ohio Department of Education paid for the training of at least 1,224 DVAS. The reimbursement to each district was approximately \$800 per DVAS. An approximate cost in initial training was \$979,200.

Based on the information provided in this study, the sampled population comprised approximately 28% teachers, 26% building level administrators, 29% central office administrators and 15% who reported an "Other" job classification. Although this sample of DVAS indicated that the highest frequency of time worked in education was between 11 to 15 years, the majority of sampled DVAS reported working in education 15 years or more. Indeed almost half of the sample (48%) reported working in education 21+ years. The sampled DVAS population largely stratified the actual DVAS population which enhances the ability of the results to be generalized.

### Summary of Results

Research Question 1a: What was the perceived efficacy of the District Value-Added Specialists with regards to the training they received from the Regional Value-added Specialists since implementation began?

This research question was explored using the DVAS Efficacy Scale from the survey. The main purpose of the items that comprised this scale was to begin to illuminate how confident the DVAS felt in their ability to train educators within their respective districts. Efficacy was viewed through three different lenses. The first was the job classification of the DVAS, the next was the Cluster the DVAS was associated with and the final lens was the DVAS association or lack thereof with Project SOAR. Although there were no significant differences between the group means when looking through all three lenses, however, the lowest scoring groups on this scale were those who reported being teachers and those that worked in rural/agricultural districts with high poverty and low median income. Those that were associated with SOAR, and those that were not, had scores that were virtually the same on this scale.

As a group the respondents indicated that their degree of EVAAS efficacy was between "Undecided" and "Agree." Although no statistically significant group differences were found, from a practical perspective, a relatively ambiguous level of EVAAS efficacy could be cause for concern as a DVAS degree of efficacy could likely be due to the training the DVAS received. When the training efforts of RVAS and DVAS began, the objective was to increase the capacity of the educators in the State of Ohio to understand EVAAS, connect it with other school improvement frameworks and then diffuse this knowledge to others in their respective districts. The sampled groups of respondents from this study were carefully selected, albeit in a random manner, to be reflective of the entire DVAS group in order to increase the power of generalization. When considering the sampled respondents from this study, their level of efficacy is not at the level it needs to be for such an important initiative throughout the state. *Research Question 1b: Did the DVAS suggest a common trend that could be used to improve upon the training received*?

The DVAS who responded to the open-ended survey question that illuminated this research question offered useful data pertaining to training improvements. In addition, the most frequent theme gathered from the qualitative analysis (additional assistance) begins to provide some insight as to why the DVAS did not demonstrate a higher degree of confidence in training others on EVAAS concepts as measured by the DVAS Efficacy Scale. The DVAS responses indicated a trend of needing more assistance with the interpretation of EVAAS data and how to practically diffuse the information to staff. As a group, they requested more assistance with professional development and training within their respective districts. Another common suggestion to improve upon
the training the DVAS received was in the information that they were taught. As a group the DVAS asked that the training content be more teacher-friendly and provide hands-on experience with district relevant data. They asked for more guided practice with their own district data rather than an emphasis on the statistical nature of how EVAAS was created. In sum, suggested changes from the DVAS perspective indicated, "provide us with continued assistance, make the content teacher friendly, decrease the amount of time between training sessions and make the data relevant by allowing us to look at our district information."

Research Question 2a: What were the perceptions of the District Value-Added Specialists with regards to the training materials they received from Battelle for Kids?

This research question was explored through individual questions on the survey. The main purpose of the questions was to begin to illuminate what training materials the DVAS were using when conducting EVAAS professional development in their districts. This scale was again viewed through three different lenses—the job classification of the DVAS, the Cluster the DVAS was associated with and the DVAS association or lack thereof with Project SOAR.

When the first lens was applied, the job classification of the DVAS did not impact the perceptions of the DVAS when training materials were considered. In general when job classification was the independent variable, although building level administrators reported a higher level of agreeing with the statement that they had the necessary materials to conduct the training, it was not statistically significant. Regardless of job classification, the DVAS indicated that they were more likely to use a combination of training materials that included the Battelle Toolkit and those that were locally created to conduct training.

When viewing this question through the cluster association lens there were reported perceived differences in training materials. Although there was not a difference in opinion with regards to DVAS from clusters having the necessary training materials, Cluster 3 DVAS (those from Urban-low median income-high poverty) reported a lower score on using the Battelle Toolkit when compared to the Cluster 6 DVAS (those from Rural/Agricultural-small student population, low poverty, low to median income) districts. Further, DVAS from Cluster 5 (the Major Urban-very high poverty) indicated a higher score on training their respective staff members with training materials that they created themselves when compared to all remaining clusters. This might provide an indication that the Battelle Toolkit materials might not be as useful when conducting professional development with urban districts when compared to other types of districts in Ohio. In addition, the DVAS from Cluster 3 perhaps had more time and expertise to develop their own training materials as compared to more rural districts that typically have fewer people and less time to create materials.

The final lens used SOAR participation as the independent variable to investigate the perceptions of EVAAS training materials. In general, regardless of SOAR or non-SOAR affiliation, DVAS reported approaching "Agree" pertaining to having the necessary professional development materials to conduct training and by and large used a combination of training materials that included the Battelle Toolkit and those locally created. This fact is interesting given that SOAR districts have taken a more advanced interest in EVAAS due to the level of value-added assessment data that is generated. A more advanced interest could generate a high degree of agreement when training materials are considered. These results provide reinforcement to that which was reported in Lewis and Ruhil (2006) in which the researchers found within subject implementation differences for SOAR districts. They revealed that there were low implementing SOAR districts and "fully implementing" SOAR districts. Perhaps a group of SOAR districts categorized as "fully implementing" might have reported a higher degree of agreement pertaining to having the necessary materials to conduct EVAAS training.

Research Question 2b: Was there a common trend in their suggestions to improve these materials?

Although there were an insufficient number of respondents that provided detailed comments to allow for comparisons between groups there were common trends in the DVAS' suggestions to improve training materials. The theme with the highest frequency in this area provided evidence that some DVAS felt the training materials should not be changed; however 59 comments offered improvement suggestions. Specifically, other DVAS indicated that the training materials should be altered. The common trends to improve the materials included:

- > Make the training materials more relevant to each district.
- > Make the training materials easier to understand and more user-friendly.
- Make the materials more practical and specific to show how teachers can use the EVAAS information to improve student achievement.
- > Make the training materials specific to Ohio's value-added model.
- > Increase the accuracy of the materials as there were some mistakes within them.

- Provide on-going support and assistance to the DVAS as they use the materials to train others.
- Organize the training materials in a format that allows DVAS to know the sequence that they can use when training their respective staff members in the local district.

Research Question 3: What organizational impact will EVAAS have on the district from the perspective of the District Value-Added Specialists?

This research question was explored using the EVAAS Impact on Organization Scale from the survey. The main purpose of the items that comprised this scale was to begin to illuminate how Ohio's Educational Value-Added Assessment System (EVAAS) has impacted the individual school district organizations that the DVAS are a part of. This scale was viewed through three different lenses. The first was based on the job classification of the DVAS, the next was the Cluster the DVAS was associated with and the final lens was the DVAS association or lack thereof with Project SOAR.

When job classification was the independent variable, there were no reported differences between the groups; however building level administrators reported a higher score pertaining to the impact that EVAAS will have on the organization. When the second lens was applied and cluster association became the independent variable, the differences between the mean scores were approaching significance. The DVAS from Rural/Small Town—moderate to high median income reported the highest score on the scale whereas DVAS from Urban/Suburban-very high median income, very low poverty reported the lowest Impact on Organization score. Finally, the third lens investigated mean differences between DVAS that represented SOAR districts compared to those that did not. SOAR DVAS reported a significantly higher score on the EVAAS Impact on Organization scale indicating that they as a group; believed that value-added assessment will have a larger impact on the school district compared to those who were not from SOAR districts.

These results generate further questions. Although not statistically significant, why do building level administrators see value-added as having a larger impact on the organization when compared to central office employees? Perhaps they believe that data related to student growth will begin to require districts to more closely focus on how all students progress. When this question was analyzed, the mean response for DVAS who were building level administrators was "Agree" and the response for DVAS who were teachers was "Undecided." Further item analysis of the EVAAS Impact on Organization scale provides evidence that when job classification was the independent variable, DVAS indicated that they were in agreement that value-added will require districts to more closely focus on instructional effectiveness by teachers. The District Value-Added Specialists from SOAR districts reported a higher group mean score on the EVAAS Impact on Organization scale compared to non-SOAR districts. Perhaps the higher score was an effect of witnessing a district commitment to value-added assessment. School districts join Project SOAR and pay a fee for doing so. They are required to administer additional assessments in order to begin to gather data in subject areas in which the Ohio Department of Education doesn't require a test. This financial and time investment may have led to DVAS reporting a greater impact of EVAAS on their organizations because they indeed have seen it.

Research Question 4: According to the District Value-Added Specialists, what factors will impact the success of EVAAS in Ohio?

The Factors Impacting the Success of EVAAS Scale did not demonstrate significant differences between the three groups. The fact that the aggregated mean response for the scale was "Agree" provides evidence that regardless of job classification, cluster association or affiliation with Project SOAR, the sampled DVAS were in agreement that the factors identified on the questionnaire were things that could impact its success. The theme on this scale was professional development. In short, the DVAS agreed that further professional development is needed for teachers, principals and central office administrators in order to impact the success of value-added. Two more general questions from the instrument explored the idea of additional training for teachers in the area of using data to make instructional decisions. Data from DVAS suggests that:

- Value-added creates a greater need for local professional development aimed at teaching educators how to make data-based decision.
- Staff in the DVAS' districts need additional training in data analysis that extends beyond the use of value-added data.

The final scale identified by the survey, the Specific Professional Development for EVAAS Success scale, explored specific professional development implications from the perspectives of the DVAS. Although there were no significant differences between the groups when the three lenses of analyses were applied to this scale, there are some interesting findings. First, regardless of group affiliation (job classification, cluster association or SOAR affiliation) the DVAS spoke with a unified voice on the issue of specific professional development. They agreed that Ohio's value-added assessment system created the need for more training focused on making use of data rather than simple interpretation. In short, there must be an application component. Second, valueadded creates a greater need for teachers to learn more about what constitutes quality assessment practices. This would include using formative assessment strategies for student learning, involving students in the assessment process and ensuring that the learning targets for students are clear. Although significant differences between the groups did not exist, teachers who were DVAS scored highest on this scale. District Value-Added Specialists from Major Urban districts had a lower mean score on this scale when compared to the DVAS from the other districts. Finally, DVAS from Project SOAR districts scored higher on this scale when compared to those not from SOAR districts. *Research Question 5: Did the DVAS cite any common trends related to how they were using EVAAS to improve instruction and student achievement?* 

The DVAS in the study did indicate several common trends pertaining to how they were using EVAAS to improve instruction and student achievement. Specifically, staff members in districts where the DVAS were from indicated that they were using EVAAS data to improve instruction. Although EVAAS data did not provide specific instructional strategies to use it did provide an indication that a particular group of students were not making expected growth. This leveraged further analysis by staff members who began to discuss the instructional needs of disaggregated sets of students. In order to investigate disaggregated students, data analysis becomes a priority. The DVAS provided evidence that perhaps the most impacted group of students were those who were identified as gifted. There was a theme in the DVAS' answers that indicated an increased need for looking at serving high-achieving students. The theme of differentiated instruction becomes paramount for all students; not just the perennial lowest achievers.

Research Question 6: Did the DVAS cite any common barriers they have encountered in their efforts to use EVAAS to improve instruction and student achievement?

The DVAS provided initial insight into barriers that have prevented them from leveraging the use of EVAAS data within their districts. In order to conduct thorough data analysis of any kind, time to do so becomes an important resource. The DVAS indicated that this has been a barrier within their respective districts. Another commonly cited barrier dealt with factors that were internal and within the control of the districts those that were external and beyond control. One such barrier was a general resistance by teachers and others regarding value-added data (internal). There is a potential fear associated with investigating EVAAS data as it purports to specifically measure the instructional impact that teachers have on students. Although this can be addressed through focused staff development, it is nonetheless a barrier. Another barrier cited by DVAS hinges on the fact that rather than a student's name being cited in the EVAAS reports, a nondescript and innocuous number is used to identify students. This puts an additional burden on those trying to use EVAAS data to impact instruction and due to the fact that time was cited as the most common barrier in using value-added data, this does not help matters.

#### Summary for Educational Decision Makers

This study sought to illuminate the professional development implications associated with the institution of Ohio's Value-Added Assessment System. It took the perspective of the District Value-Added Specialists, the professionals who have received additional training in EVAAS and those that have been charged with scaling-up the concepts at the local level. As with any train-the-trainers model, there are potential concerns with diffusing obtained knowledge from the trainer to the trainees. Although assessing a person's understanding of the concepts trained in is an important component of professional development, one should not assume that those concepts will be adequately relayed to others. In addition, there are a number of potential barriers and issues within one's organization that can also prevent the diffusion of knowledge and ideas. This study sought to continue to build upon the knowledge base that was started by Young (1996), Lewis and Ruhil (2006) and McCaffrey and Hamilton (2007).

Implications for Educational Decision Makers

### Work Smarter

Politicians and educators should not assume that the mere existence of an accountability system will leverage system reform. Creating an accountability system or modifying one that has been in existence does not, in and of itself, increase student achievement or impact student growth. Changing the way in which the adults behave within the accountability system makes impacts in these areas. Investing in costly educational interventions, programs and materials do not in and of themselves make the difference in student achievement and growth as programs do not typically result in adult behavioral change. We know that teacher quality accounts for 65% of the variance in student growth (Sanders, 2004). Given this fact, professional development needs to focus on the kinds of instructional strategies that teachers will be able to use in order to leverage even higher levels of student growth.

As a profession we educators would greatly benefit by behaving in such ways that other professions do. Professionals learn from one another and actively seek out ways and opportunities to do so. Physicians observe each other conducting procedures and share practices. They attend conferences whereby other physicians relay the most current and best practices in their field. In the field of education, it has been difficult to recognize the individual excellence of teachers. Educators occasionally do not want to be acknowledged for doing an exceptional job for fear of isolation from colleagues or professional jealously. In order to improve as a profession, this needs to change and school administrators need to work with teachers in a collegial manner in order to make it a priority.

We should utilize the resources within our own state to improve. We need to leverage the experts among us. An example might include conducting action research with teachers across Ohio who have demonstrated the ability to continually have their students exceed predicted levels of growth. Conducting research on the teaching practices of these teachers and then diffusing this information through a network to other educators by other educators would be an initial step in using the experts among us. Further, professional development teams should not assume that simply providing high quality professional development ensures its implementation. Building level professional development teams comprised of administrators and teachers should work collaboratively to monitor the implementation of professional develop for the purpose of ensuring its diffusion. Indeed a building leadership team should conduct a very structured data-based analysis by identifying the results that it gets and conducting an appreciative inquiry to determine why those results occur. Building level leadership teams should collectively determine the kinds of professional development that its staff members require to improve the quality of teaching and levels of student learning for all stakeholders.

Professional development should be part of a district shared vision. It should be focused and embedded within the overall continuous improvement nature of the organization. Indeed, professional development should be focused on increasing the capacity of educators to becoming even better educators. High quality instruction and high quality administrative leadership are two such things that have demonstrated the ability to add value to student growth. Thirty percent of the variance in student progress has been attributed to factors that occur within the building (Sanders, 2004). Other studies have linked gains in student achievement to the practices of building leaders as well (Marzano, Waters & McNulty, 2005). Practices that result in a building increasing student achievement and growth need to be shared with district and building leaders in practical terms so that student achievement and growth can continue.

Within the field of education we have an abundance of research pertaining to what works. Through countless meta-analyses researchers have identified classroom strategies that work (Marzano, Gaddy & Dean, 2000). Furthermore, we know that providing educators with professional development related to providing quality, formative feedback to students has a profound effect on student learning (Black & Wiliam, 1998). We know through research and inquiry that formative assessment provides students with clearer learning targets, as it informs them where they are in relationship to where they need to be (Stiggins, Arter, Chappuis & Chappuis, 2004). When educators engage in classroom assessment techniques that provide formative feedback to students as opposed to simply proving points to calculate a grade, student learning significantly increases (Black, Harrison, Lee, Marshall, & William, 2004). Our professional development focus needs to be on things that we know work. *Increase DVAS Efficacy* 

The DVAS in Ohio are conducting important work as they are engaging professionals within their respective districts and are looking to change adult behavior to impact student achievement and growth. In order to do this more effectively, an effort to increase their degree of EVAAS Efficacy would be beneficial. Knowing about valueadded concepts is an important component of teaching it to others; however it should not end there. Adults tend to learn differently from students and training should take into account the variability of adult learning styles. In short, decision makers in Ohio should use the Regional Value-Added Assessment Specialists in additional ways to support the important work that the DVAS are doing. Regional Value-Added Specialists can meet with DVAS and building level data teams in order to help facilitate the conversations that need to happen in order to improve teaching practices. These meetings need not continually occur. The RVAS can show the DVAS how to facilitate these conversations by being there with them when they occur. Other suggestions might include: hosting regional workshops and collaboration on sharing best practices for value-added professional development, utilizing technology and establishing a state-wide communication network for the DVAS so that they can communicate with one another and share ideas and resources. Finally, assist DVAS with strategies to make value-added training materials more relevant to those interacting with them.

At the local school district level organizational improvement is typically managed through the use of continuous improvement planning. A unified and non-competing effort should be made to incorporate student growth data within current data structures for the purpose of improving district and school organizations. There have been instances in Ohio when the Ohio Department of Education is engaging in an important continuous improvement process and Battelle for Kids is engaged in the same kind of work. Although unintentional, the dual initiatives confuse educators at the local level who are working to improve student learning as both groups release data analysis tools into the field. Efforts to coordinate the work have been made and they should continue.

The Ohio Department of Education created the Ohio Leadership Advisory Council as an effort to bring a group of educational leaders together throughout the state in order to begin to define the most important areas of continuous improvement focus. The Ohio Leadership Advisory Council identified the following areas: Data and the Decision Making Process, Focused Goal Setting Process, Instruction and the Learning Process, Community Engagement Process, Resource Management Process, and Board Development and Governance Process (Ohio Leadership Advisory Council, 2008). Part of the diffusion of these leadership practices includes Ohio's Improvement Process framework.

The Ohio Improvement Process is a framework that a school district could utilize in order to begin to engage in the kind of data-driven decision making that is needed in order to leverage improvements in student learning. It is backed by State resources and the Ohio Department of Education has regional consultants who can assist district and building leaders in utilizing the framework. The analyses begins with district and/or building leadership teams that are comprised of multiple stakeholders (administrator, teachers, school board members, members of the community, and so on) engaging in a focused needs assessment that includes looking at student data (achievement, valueadded data, graduation rate, attendance rate, and so on) curriculum alignment, and the alignment of curricular materials with research-based instructional practices. Further inquiry is conducted as to whether or not the district and/or building engage in high quality professional development.

Value-added assessment data should be used in conjunction with other data sources that Ohio's educators are collecting. Using EVAAS data to determine how students are progressing within the district will be a valuable component to improving educational outcomes for all students within a school district. Value-added analysis has the potential to identify and help celebrate student growth for districts that have had a tendency to fall short of proficiency benchmarks. It also calls attention to groups of students who have had a tendency to be proficient on grade level standards at the beginning of the school year. Continuous improvement efforts should be more strategic in that they should analyze effect data (e.g. student achievement scores and value-added information) and cause data (e.g. the things that the adults in the system do to bring about the effect). Value-added assessment at the teacher level can begin to help educators identify effective classroom practices within their respective districts and seek to replicate the effectiveness by permitting teachers to learn from one another.

### **Remove Barriers**

There were common barriers cited by the DVAS. The obvious one that will make an immediate impact is the use of student names connected to EVAAS data rather than using the State Student Identification Descriptor (SSID). If Ohio's state legislators want educators to become more accountable then it would seem logical that alleviating or removing barriers in order to make this happen would follow. Time was the most frequent barrier associated with using data for student learning. Under the current EVAAS data system, educators spend additional time matching SSID numbers to student names in order to determine how to provide interventions for students and professional development for teachers. The process to convert these identification numbers to student names is not as simple as "point and click" and the districts throughout Ohio's have different levels of capacity in being able to perform such an operation. As a result, some districts do not use EVAAS data as it is too cumbersome. Eliminating the use of the SSID and incorporating student names within the data structures would certainly help educators. The next step would be to require value-added analysis at the individual teacher level, but do it respectfully and in a professional environment. Teacher quality is the one variable that accounts for much of the variance in student growth. If Ohio is serious about student growth, EVAAS analysis at the classroom level will help leverage conversations and begin to alter teacher instructional behavior in order to help students progress and achieve at even higher levels.

#### **Future Research Suggestions**

The purpose of this study was to begin to illuminate some of the professional development implications of scaling up value-added assessment in Ohio. It provides a

preliminary look at the challenges that DVAS face. The answers to the research questions and the data provided stimulate other questions. These include, how are urban districts using EVAAS and do they need specific training materials that are more relevant to their respective staff members? A larger urban DVAS population sample would be a worthwhile analysis. In addition, why did the DVAS from the wealthiest districts report a lower score on the EVAAS Impact on Organization scale? Wealthy districts have a higher probability of being rated as Excellent within Ohio's Accountability Model. Do they not view EVAAS as having an impact on their respective organizations? Perhaps organizational impact needs to be more clearly defined. Is organizational impact defined by changes to a district's continuous improvement plan/ strategic plan or changes to resource allocations such as money or time? Is it an increased focus on improving instructional quality? Did DVAS not observe changes to District continuous improvement plans or do they believe that a focus on value-added data isn't worthy to be included in a district strategic plan?

Finally, although the survey instrument used in this study demonstrated acceptable levels of reliability, retrospective analysis reveals that it could be improved. For instance, some of the questionnaire items could be realigned to be more sensitive to the thoughts of groups about how EVAAS will impact instructional improvement of teachers.

#### Limitations

The ability to generalize the results of this study is relatively strong, nevertheless, there are some weaknesses as well. Comparisons between the clusters could be somewhat compromised due to the fact that the Major Urban DVAS only accounted for four of the 170. In addition, there were significant differences between DVAS that were from SOAR districts compared to those that were not. The sample size for the SOAR DVAS was relatively small and may have not been a representative sample. Finally, twelve percent of the Ohio DVAS population took part in this study. Although the sample size was adequate an increase in the sample size for this study would certainly add to its generalization power. In addition, with a larger sample size covariance statistical techniques could have been utilized to determine if there were any interaction effects for DVAS.

#### Summary

The Educational Value-Added Assessment System (EVAAS) is part of Ohio's No Child Left Behind Federal Accountability Plan. There has been a large investment in creating a professional development infrastructure within Ohio in order to scale-up the understanding of EVAAS. A group of over 80 Regional Value-Added Specialists were provided several days of professional development. They were then charged with the responsibility of diffusing this information to over approximately 1,400 District Value-Added Specialists in the state. The role and function of the DVAS was to organize and provide professional development to the educators at the local district level. This study explored the perceptions of a stratified random sample of DVAS throughout Ohio. The results provide a high degree of insight into the confidence that the DVAS have in fulfilling their professional development responsibilities.

The data were gathered and viewed through three main lenses. The lenses included the DVAS job classification, the District Cluster their school was associated with and their affiliation with Battelle's Project SOAR. Regardless of which lens was

used, the DVAS did not report a high level of efficacy in being able to teach other educators value-added concepts. Although personally understanding the model is important, diffusing the information to others and teaching them to use it in a meaningful way in order to impact student achievement and growth is a much higher level of application. Based on the data provided, continued support and professional development for the District Value-Added Specialists appears needed in order to help them make the kind of impact on their respective school organizations; however the kind of professional development that is needed will likely extend beyond using only value-added data in order to impact teaching and learning. The DVAS indicated that providing further professional development in the area of data analysis and specifically how to use EVAAS data to practically impact student achievement and progress was needed. As a group, the DVAS indicated that they were in agreement with the need for additional professional development focused on the development and use of quality The DVAS identified common trends pertaining to how they were using EVAAS data in order to impact achievement and instruction and they identified barriers as well. The Ohio Department of Education, who has invested a large amount of time and money into the development of the RVAS and DVAS, should use the data provided in this study in order to determine how to remove the common barriers that were mentioned and diffuse the ways in which the DVAS were using EVAAS data to make a positive contribution to the achievement and progress of students.

Along with its investment in EVAAS, the Ohio Department of Education has worked carefully at creating a very practical leadership development framework that is coupled with a continuous improvement process. It begins with establishing a district leadership team who conducts a very thorough needs assessment aimed at identifying cause and effect data (e.g. cause—adult behavior, effect—greater student learning). A focused plan is created with a limited and manageable number of goals. All resources including district and building activities are directed toward the accomplishment of a very limited and attainable number of goals. Building leadership teams are formed in order to undergo the same level of needs assessment. These groups are composed of teachers, building administrators and other stakeholders. They create a building improvement plan that is aligned with the district plan. In this format, Educational Value-Added Assessment data isn't analyzed separately, but is viewed as a part to the whole.

In closing, the purpose of this study was to illuminate the professional development implications of Ohio's value-added scale-up from the perspective of the District Value-Added Specialists. A final interpretation of the data provided in this study reveals that value-added data is a piece to the school reform puzzle. The existence of value-added assessment provides building data teams with an additional opportunity to look at student learning through a different lens in addition to achievement measures. It reveals how all students (both high and low achieving groups) progress and grow towards the accomplishment of academic content standards. Measures of student progress and student achievement are student effect data and become most powerful when administrators and teachers collectively analyze the adult behaviors that caused them. This cause and effect analysis serves as a district and building needs assessment. Through a collaborative process, district and building teams create a focused set of district and school improvement goals. These are then implemented and monitored. The professional

engage in data mining processes in order to identify the exceptional instructional practices that provide educational opportunities for children. These practices need to be discussed collaboratively between educators and efforts should be made to diffuse them to other teachers. In order to truly leave no child behind and add value to students, it becomes paramount that teachers be provided with the time to analyze student data and confirm with one another what quality instructional practices leverage achievement and growth. Teachers need time to reflect on what they do and observe the instructional quality of their peers. Professional development and teacher in-service programs should focus on providing these kinds of opportunities for educators as they are likely to add a considerable amount of value to student progress.

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APPENDIX A

HUMAN SUBJECT REVIEW BOARD APPROVAL



The Graduate School

то:	James L. Lloyd
FROM:	Randy Gearhart, Chair
DATE:	May 1, 2008
RE:	Human Subjects Review Board Approval

The Human Subjects Review Board has approved the research proposal you submitted. You may proceed with this project.

The primary function of the HSRB is to ensure protection of human research subjects. As a result of this mandate, we ask that you pay close attention to the fundamental ethical principles of autonomy, justice, and beneficence when establishing your research proposal. These ethical principles pertain specifically to the issues of informed consent, fair selection of subjects, and risk/benefit considerations.

If you have any questions, please contact me.

Sincerely, Roll In sendent P.

Randy Gearhart Phone: 419-207-6198 Fax: 419-289-5460 E-mail: <u>rgearhar@ashland.edu</u>

APPENDIX B

# REGIONAL VALUE-ADDED SPECIALISTS TRAINING OVERVIEW

### Regional Value-Added Specialist Training Overview

Regional Value-Added Specialists (RVAS) Training

The RVAS training is designed to prepare them to teach District Value-Added Specialists to use the value-added metric for diagnostic, school improvement and accountability purposes. The RVAS training will consist of two days prior to DVAS training, five days of co-training with the DVAS and two days of training at the end of the DVAS training. The DVAS training is designed to do the following

## **DVAS** Training

- 1. Develop the capacity of DVAS to access, interpret and use value-added progress information to promote higher student achievement.
- 2. Develop the capacity of DVAS to connect value-added progress information with other school data and with larger school improvement frameworks.
- 3. Develop the capacity of DVAS to take leadership action in their school districts and to use the networked resources available to them.

Given the content of the DVAS training the RVAS are expected to:

- 1. Demonstrate a capacity to understand the value-added metric and the ability to effectively teach others how to use the metric diagnostically, for school improvement, and for the purposes of accountability.
- 2. Effectively connect the value-added metric to other relevant school improvement data and strategies
- 3. Commit to attend the 2005-06 RVAS training and to effectively deliver this training to assigned school district(s) in the 2006-07 school year.

# Overview of the 9-day program

Day One:

- Overview the program, its scope, sequence, intent and responsibilities
- Overview the communications plan designed to prepare districts for DVAS training in 2006-07 school year.
- Overview the value-added metric and its web-based delivery system
- Individual/group navigation through the web-based system using dummy data and navigation protocol.
- Overview the tools and resources designed to support the usage of the value-added metric.

## Day Two:

- Learn, on a conceptual level, the underlying statistical model that produces the value-added calculations
- Work through the interpretation scenario
- Assess the learning from days 1 and 2.
- Meet with regional teams to begin to plan for the regional rollout.

## Days Three –Seven are a co-training experience with the DVAS

## Day Three

- RVAS serve as table captains in the RVAS training
- Overview the program, its scope and intent
- Introductory brochure and video

- Overview of the value-added progress measure (PowerPoint)—Demonstrate the use of the overview PowerPoint on the CD.
- Demonstration of web-based system (Online demonstration)
- Individual/group navigation through the web-based system using dummy data and navigation protocol.

Between days Three and Four RVAS will take part in value-added presentations to districts and/or regions of the state.

## Day Four: (immediately follows day three)

- Overview of strategic and diagnostic use of value-added information including the databased decision making schematic
- Overview value-added interpretation and describe CD and written resources
- Small group interpretation activity
- Interpreting your data
- Action planning your homework

Homework: 1) Apply what you have learned to your own data. 2) Teach the leadership in at least one school how to understand, access and interpret value-added information. Write a one-page reflection on your experiences. 3) Find at least one place in your data that you are having problems interpreting. Write a one reflection for items 1 and 2

## Day Five:

- Using value-added information for school improvement—Joel Giffin
- School based interpretation and goal setting activity—Use data-based decision making schematic
- Probing district data dilemmas

Homework: 1) Take your rollout school(s) through the interpretation and goal setting activity. 2) Do the same thing with their data. Write a one page reflection on your experiences. 3) Read <u>The Thin Book of Appreciative Inquiry</u>. 4)For day four: Bring copies of you're a) district valueadded report, b) school value-added reports, c) diagnostic reports.

## Day Six:

- Connecting value-added information to data-based decision making
- Connecting the Dots activity— Overview data-based action planning
- Text-based discussion of the Thin Book
- Overview of Appreciative Inquiry and Positive Deviance

Homework: Develop an action plan for the district-wide rollout of value-added information. This should cover the 2006-07 school year.

## Day Seven:

- Sharing and tuning district action plans
- Experiencing other resources that can impact school improvement efforts
- Feeding back impressions of SOAR professional development and Value-Added Primer

# Day Eight:

- Review of the resources available to carry out RVAS responsibilities
- Open-Space technology: What are the issues and opportunities associated with provided DVAS training across the state of Ohio?

• Meet in regional teams to prepare to do the work
APPENDIX C

### DISTRICT VALUE-ADDED SPECIALIST SURVEY INSTRUMENT

#### 1. Introduction and Demographics

My name is Jim Lloyd and I am a doctoral candidate in Educational Leadership at Ashland University in the College of Education and I will be conducting a research study that will illuminate and examine the professional development implications of value-added assessment in the State of Ohio from the perspective of those who underwent value-added training—the District Value-Added Specialists. Like you, I was also trained as a value-added specialist.

There is a considerable research gap related to the professional development implications of instituting a valueadded model. As a district value-added specialist your role is to assist with the scaling-up of value-added assessment understanding in your district. This study will collect data related to what is needed in order to assist a successful scale-up of value-added in Ohio. The aggregated feedback obtained through this study will be reported back to all district value-added specialists, the Ohio Department of Education and Battelle for Kids.

There are approximately 1,400 District Value-Added Specialists in Ohio and you were randomly selected to participate.

If you agree to be in the study, the following will occur:

1. It is important that you answer all items and do so to the best of your ability.

2. You will take an online survey that will ask you to rate your professional development experiences and perceptions related to your value-added assessment training experiences.

3. The survey will present open ended items to you and ask you to provide feedback relative to your value-added training.

These procedures will be done through an electronic survey and will take approximately 20 minutes to complete.

Although the first question will ask which district you are from, no individual district personnel or district names will be used in any reports or publications that may result from this study. The purpose of this question is to identify which of the 8 district clusters you represent in Ohio.

There will be no monetary incentive for taking part in this study. I am hopeful that you will see the value in the information that I'm collecting. My pledge to you will be to distribute a copy of a summary of results along with their implications. I believe this will be useful to you as you teach others about value-added assessment.

Please complete the survey by June 15th.

If you have any comments or concerns about participation in this study, you should first contact Jim Lloyd at 440-427-6531. If for some reason you do not wish to do this, you may contact the Human Subjects Review Board, which is concerned with the protection of volunteers in research projects. You may reach the board office between 8:00 and 5:00, Monday through Friday, by calling (419) 289-4142 or (800) 882-1548.

PARTICIPATION IN RESEARCH IS VOLUNTARY. You are free to decline to be in this study, or to withdraw from it at any point. Your decision as to whether or not to participate in this study will have no influence on your present or future status as an educator.

1. Please enter the name of your school district below.

NOTE--no individual district personnel or district names will be used in any reports or publications that may result from this study. The purpose of this question is to identify which of the 8 district groups your district represents in Ohio.

2. How long have you been in education?

# 3. How many years have you worked in your current district (specify in years only and round up to the nearest full year)?

4. The position in your district that you hold is best described as a(n)

€ Teacher

- 🗧 Principal or Assistant Principal
- € Central Office Administrator
- € Other

Other (please specify)

5. How long have you worked in your current position (specify in years only and round up to the nearest full year)?

#### 6. Our district...

- $_{\text{In}}$  WAS part of the SOAR Project before or during my value-added training.
- TO WAS NOT part of the SOAR Project before or during my value-added training.
- in I am not certain as to whether or not we were part of Project SOAR during my value-added training.

### 2. DVAS Perceptions of Training

The purpose of this page is to gather your unique perceptions of the quality of your value-added training.

There are 9 questions in this section.

Your responses will be collectively reported with all others taking this survey and will be held confidential.

7. At the conclusion of my training from my Regional Value Added Specialist(s), I felt prepared to lead the implementation of value-added in my district.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

8. At the conclusion of my training from my Regional Value Added Specialist(s), I was confident in my ability to explain the rationale for using value-added information.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

9. At the conclusion of my training from my Regional Value Added Specialist(s), I was confident in my ability to identify learning targets that would help guide value-added training to others.

to Strongly Disagree to Disagree to Undecided to Agree to Strongly Agree

10. I attribute the acquisition of my knowledge and expertise of value-added to the training I received from my Regional Value Added Specialist (RVAS).

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

11. At the conclusion of my training from my Regional Value Added Specialist(s), I understood value-added concepts well enough to train administrators and teachers.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

12. Once I started the professional development implementation of value-added, I felt I had all of the value-added training that I needed.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

13. At the conclusion of my training from my Regional Value Added Specialist(s), I felt that I was given sufficient support by my RVAS(s) as I was implementing value-added in my district.

jn	Strongly Disagree	jn Disagree	jn Undecided	jn Agree	jn Strongly Agree
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14. At the conclusion of my training from my Regional Value Added Specialist(s), I felt that I was given sufficient support within my school or district to implement value-added.

jn Strongly Disagree	jn Disagree	jn Undecided	jm Agree	jn Strongly Agree
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15. Now that you have trained others in value-added concepts, what suggestions would you make to improve the training of other district value-added specialists in the future (in this state and/or others)?



### 3. Perceptions of Value-Added Training Materials

The purpose of this page is to gather your unique perceptions of the quality of the value-added training materials you received.

There are 5 questions in this section.

Your responses will be collectively reported with all others taking this survey and will be held confidential.

16. At the conclusion of my training from my Regional Value Added Specialist(s), I had the necessary training materials to conduct value-added professional development.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

17. I only used the Value-Added Toolkit for School Leaders provided by Battelle for Kids to conduct my training.

in Strongly Disagree in Disagree in Undecided in Agree in Strongly Agree

18. I only used our district-created set of value-added training materials in order to conduct value-added training.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

19. Our district used a combination of the Value-Added Toolkit for School Leaders provided by Battelle for Kids and our own materials in order to conduct value-added training.

the Strongly Disagree the Disagree the Undecided the Agree the Strongly Agree

20. Now that you have begun training others in value-added concepts, what suggestions would you make to improve the training materials?



### 4. Value-Added's Impact on the Organization

The purpose of this page is to gather your unique perceptions of the impact that value-added will have on your district/school.

There are 8 questions in this section.

Your responses will be collectively reported with all others taking this survey and will be held confidential.

21. Value-added will require districts to more closely focus on instructional effectiveness by teachers.

jn Strongly Disagree	jn Disagree	j∩ Undecided	jn Agree	jn Strongly Agree
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22. Our district has made changes to instructional leadership or school improvement efforts in response to information from value-added.

in Strongly Disagree in Disagree in Undecided in Agree in Strongly Agree

23. Value-added is discussed frequently during staff planning meetings in our district or school.

n Strongly Disagree n Disagree n Undecided n Agree n Strongly Agree

24. Our district has incorporated value-added into its continuous improvement plan and/or school improvement plan.

m	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
		] [		11	] [

25. Value-added has caused our district/school to increase its focus on how all students progress.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

26. Value-added has caused our district/school to increase its focus on the needs of high-achieving students.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

27. The information on student growth in value-added helps school staff because they can/will see their efforts paying off.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

28. The information the district receives from value-added is more useful for instructional planning than the information we receive from other sources.



### 5. Factors Impacting the Success of Value-Added

The purpose of this page is to gather your unique perceptions regarding some factors that will impact the success of value-added.

There are 10 questions in this section.

Your responses will be collectively reported with all others taking this survey and will be held confidential.

29. I see my own role in the implementation of value-added as vital to its success in improving student achievement and growth in my district.

in Strongly Disagree in Disagree in Undecided in Agree in Strongly Agree

30. I have the tools, resources, and expertise within the district to make and implement data-driven decisions.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn	Strongly Agree
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31. Value-added data will positively impact the overall success of our district.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

32. Value-added creates a greater need for local professional development aimed at teaching educators how to make data-based decisions.

in Strongly Disagree in Disagree in Undecided in Agree in Strongly Agree

33. Staff in my district need additional training in data analysis that extends beyond value-added data.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

34. I need more support to assist the teachers in my district in their efforts to use value-added data for improving curriculum and instruction.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

35. Professional development about value-added for teachers is critical to the success of the value-added initiative.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

36. Professional development about value-added for principals is critical to the success of the value-added initiative.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

37. Professional development for central office administrators about value-added is critical to the success of the value-added initiative.

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

38. Support from the local teachers' association is critical to the success of valueadded.

jn Strongly Disagree jn Disagree

ree

jn Undecided

jn Agree

jn Strongly Agree

### 6. Use of Value-Added to Improve Instruction and Achievement

The purpose of this page is to gather your unique perceptions regarding how you're currently using value-added data and any barriers you've either experienced or anticipate in using this data.

There is 2 multiple choice question and 2 open-ended questions in this section.

Your responses will be collectively reported with all others taking this survey and will be held confidential.

39. Value-added creates a greater need for educators to have training focused on how to make use of data rather than simply how to interpret it.

n Strongly Disagree n Disagree in Undecided in Agree in Strongly Agree

40. Value-added creates a greater need for teachers to learn more about what constitutes quality assessment practices (e.g. formative assessment, clarity of learning targets, student involvement in the assessment process).

jn Strongly Disagree jn Disagree jn Undecided jn Agree jn Strongly Agree

41. In the space below, please feel free to describe specific ways your district is using the information from Ohio's value-added data to improve instruction and student achievement.



42. In the space below, please feel free to describe any specific barriers you or your staff have encountered in your efforts to use the information from Ohio's value-added data to improve instruction and student achievement.



APPENDIX D

MEMBERS OF OHIO'S ACCOUNTABILITY TASK FORCE

#### August 11, 2005 Ohio Accountability Task Force

#### Roster

 Senator Joy Padgett, Senate Education Cmte. Chair Ohio Senate Senate Office Building, Room 035 Columbus, Ohio 43215 (614) 466-8076 sd20@mailr.sen.state.oh.us

- Senator Teresa Fedor, Senate Education Cmte. Ranking Minority member Ohio Senate Senate Office Building, Room 223 Columbus, Ohio 43215 (614) 466-5204 sd11@mailr.sen.state.oh.us
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- Representative Ken Carano, House Education Cmte. Ranking Minority member Ohio House of Representatives 77 South High Street, 10<sup>th</sup> floor Columbus, Ohio 43215 (614) 466-6107 district59@ohr.state.oh.us
- Susan Tave Zelman, Superintendent of Public Instruction Ohio Department of Education 25 South Front Street, MS 701 Columbus, Ohio 43215 (614) 466-7578 <u>susan.zelman@ode.state.oh.us</u>

#### Senate President Appointees

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