I, Greg E Finke, hereby submit this original work as part of the requirements for the degree of Doctor of Education in Urban Educational Leadership.

It is entitled:
The Student Placement Process: How Principals of High Performing Schools in Ohio Employ Value-Added Data in the Decision Making Process

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The Student Placement Process: How Principals of High Performing Schools in Ohio Employ Value-Added Data in the Decision Making Process

A dissertation submitted to the Graduate School of the University of Cincinnati in partial fulfillment of the requirements for the degree of DOCTOR OF EDUCATION (Ed.D.) in Urban Educational Leadership of the College of Education, Criminal Justice and Human Services by Greg Eugene Finke June 27, 2012 B.S., The Ohio State University, 1993 M.Ed., University of Cincinnati, 1997 Chair: Dr. Carlee P. Escue
ABSTRACT

This mixed-method study analyzed principal values and student placement decisions in high performing schools. The surveyed opinions of fourth - eighth grade building principals determined how they utilized objective and subjective data in the student placement process. The researcher cross-referenced quantitative descriptive statistics from the Student Placement Survey (SPS) with qualitative short answer responses from the SPS and interview data from the Student Placement Survey interview protocol (SPSi). The results indicated that the placement process of students was purposeful and not at all random. Principals and teachers collaborated a great deal on the placement process to ensure that students are matched with appropriate teachers. The overall goal of the placement process was to develop balanced classrooms both by academics and behavior so that all students could academically grow. Finally, the collaborative placement teams used vast quantities of objective and subjective data to selectively place students to ensure that these balances occur. The Student Placement Matrix was developed as a model that would identify key elements of student placement in order to predict change in the achievement of various subgroups of students. The Student Placement Matrix (SPM) as an initial model was not a statistically significant predictor in achievement change. However, some categories and individual variables did show some statistically significant positive change for individual subgroups of students.
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Chapter 1: Introduction to the Study

From 1992 to 2002, the State of Ohio had an accountability system that required each public school district to measure student proficiency through achievement tests for students in various grades. With the passage of Ohio House Bill 3 of 2003\(^1\), Ohio implemented a new accountability system in order to be aligned with the No Child Left Behind Act of 2001 (NCLB). In addition to a designated level of proficiency, House Bill 3 outlined that students must be annually measured by standardized assessments to ensure yearly student growth.

In 1984, Dr. William Sanders and Dr. Robert McLean of the University of Tennessee developed a new growth model, commonly titled value-added. In this metric, statistical analysis of student academic achievement allowed for the measurement of an educator’s impact upon students’ academic progress from year to year. This research study examined fourth – eighth grade school principals’ use of objective and subjective data in the student placement process and employed quantitative survey research, as well as, qualitative interviews of principals for a mixed-methodology. To measure the best of the best, the researcher studied the opinions of principals whose schools demonstrated three consecutive years of above average student growth to identify if purposeful student placement was a factor in the schools’ 3-year excellent performance. This section outlines the background of both national and State of Ohio level accountability systems,

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\(^1\) Ohio House Bill 3 (2003) amended sections 3301.079, 3301.0710, 3301.0711, 3301.0712, 3301.0714, 3301.0715, 3301.801, 3301.91, 3302.01, 3302.02, 3302.03, 3302.031, 3302.04, 3302.05, 3313.532, 3313.608, 3313.6010, 3313.6012, 3313.61, 3313.611, 3313.612, 3313.612, 3313.612, 3313.614, 3313.64, 3313.65, 3313.97, 3314.012, 3314.02, 3314.03, 3314.20, 3317.023, 3317.04, 3317.08, 3334.01, 3334.12, 3334.17, 3334.19, and 5705.412; to enact sections 3302.021 and 3314.033, and to repeal sections 3301.0713 and 3365.15 of the Ohio Revised Code to comply with the No Child Left Behind Act of 2001.
value-added Assessment, and an overview of the study including the research questions, problem statement, and research design (Sanders, Saxton, & Horn, 1997).

**Background of National Accountability**

Academic achievement gaps were the observed disparity on a number of educational measures between the performances of groups of students had existed for decades (Williams, 2011). Through U.S. Supreme Court rulings such as *Brown vs. Board of Education* (1954), *Lau vs. Nichols* (1974), and *Plyler vs. Doe* (1982) and federal legislation such as the Elementary and Secondary Education Act of 1964 (ESEA), the Equal Educational Opportunities Act of 1974 (EEOA), and the Individuals with Disabilities Education Act (IDEA), educational opportunities for all students – regardless of race, socioeconomic status, language, or disability should have been guaranteed under the law. Since the 1960s, the achievement gap between various subgroups of students and their higher achieving middle-and-upper class white peers has not been reduced (Verdugo, 2011). In fact, for most minority groups in America, an achievement gap had been well documented on almost every measure of achievement (Olszewski-Kubilius, Lee, Ngoi, & Ngo, 2004). Many policymakers, researchers, school leaders, educators, and others believe completely eliminating this gap was a moral and ethical mandate that must be accomplished.

Progressing from the late 1970s and into the early 1990s, ESEA had been reauthorized and reappropriated. The achievement gap in the early 1980s had been cut in half, but since that time, the gap has grown to a pre-1988 level in 2010 (Darling-Hammond, 2010). The release of *A Nation at Risk* in 1983 by the National Commission on Excellence in Education (Yell & Drasgow, 2005) called for changes in curriculum,
teacher development, and standardized student assessment at the state level as a means of reducing the performance gaps, but those efforts left districts with considerable discrepancies over implementation and instruction (Sunderman & Oldfield, 2006; Williams, 2011).

In 1989, President George H. W. Bush established a national panel of governors to promote this development of academic content standards in the United States. The meeting between President Bush and the governors in turn resulted in a National Council on Education Standards and Testing (NCEST). This provided the catalyst for the Bush Administrations’ America 2000, which subsequently became the Clinton Administration’s Goals 2000: Educate America Act (Yell & Drasgow, 2005). Across the entire country, a new focus on educational accountability was building. Politicians at the local, state, and federal level continued to attempt to address the challenges with public education, but the achievement gap continued to remain substantial (Lleras, 2008).

In 1994, a new reauthorization of ESEA, the Improving America’s Schools Act, designed to implement a standards-based education (Sunderman & Oldfield, 2006; Yell & Drasgow, 2005), by again having individual states write challenging curriculum standards, assessments for the standards, hold schools accountable for the results, and increase aid to high poverty schools (Cohen, 2002; Sunderman & Oldfield, 2006). This effort to improve student instruction and curriculum did not remedy differences in subgroup achievement levels (Lleras, 2008; Verdugo, 2011).

As the 21st century began, Congress and President George W. Bush began to dramatically retool ESEA in an effort to eliminate the achievement gap by the 2013-2014 school year. Research demonstrated that a gap in achievement exists even before
students begin public schooling. That gap often continued to exist and/or increase as students exited high school (Lleras, 2008). These gaps in academic achievement led to increased minority dropout rates (Darling-Hammond, 2007), widening gaps in graduation rates (Orfield, Losen, Wald, & Swanson, 2004), and disparities in employment opportunities (Williams, 2011); with this knowledge, another comprehensive overhaul of the ESEA legislation, No Child Left Behind Act of 2001 (NCLB), was enacted into law.

This legislation focused on greater accountability for the various state departments of education, local school districts, and individual schools. To reduce the achievement gap, state agencies requirements led to developing a formula of Adequate Yearly Progress (AYP) to measure the annual gain of students. For a school and district to meet AYP each subgroup, Economically Disadvantaged Students, Students with Disabilities, Limited English Proficient, and students from major racial groups – American Indian/Alaska Native, White, Non-Hispanic, Black, Non-Hispanic, Hispanic, Asian/Pacific Islander, and Multiracial (U.S. Department of Education, 2004), must reach an identical minimal level of proficiency for each school year. This minimal level increased until each subgroup reached 100% passage of the reading and mathematics state tests (e.g., Ohio Achievement Assessment) by the end of the 2013-2014 school year, effectively eliminating the achievement gap.

**Background of Ohio's Accountability System**

In the State of Ohio, the passage of NCLB called for a restructuring of accountability policy and practices. Prior to 2003, the structure of proficiency tests in 4th, 6th, and 8th grade had established a culture in many schools of teaching state curriculum in order to meet the minimum 75% passage rate. This minimal rate earned a school a
rating of proficient for that grade level from the Ohio Department of Education (ODE).
By forcing the state to look at students by various minority groups, instead of one large
collective of all students aiming for a minimum of 75% proficiency per grade level,
glaring gaps in achievement within small groups of students were quite visible.

To meet the NCLB mandates, the new tests had to be based on challenging state
standards in reading and mathematics, annual testing for all students in grades 3-8, and
annual statewide progress objectives ensuring that all groups of students reach
proficiency within 12 years (U.S. Department of Education, 2004). In 2006, Reading and
Math Achievement Tests in 3rd – 8th grade that met the yearly testing requirement
outlined in NCLB replaced the previous system of 4th, 6th, and 8th grade proficiency
testing. Each year, additions to the system to meet with NCLB legislation occurred. The
current system of 3rd – 8th grade criterion referenced assessments had the goal of
determining if a specific student had learned the designated curriculum, not whether a
student performed better or worse than his/her grade level peers. This type of
assessment is identified as norm referenced.

According to the ODE Guide to Understanding Ohio’s Accountability System
2009-2010 website (http://www.ode.state.oh.us/GD/ Templates/Pages/ODE/ODEDetail.aspx?Page=3&TopicRelationID=115&Content=72682), major components of Ohio’s
accountability system include:

1. The use of multiple measures to evaluate the performance of schools and
districts. Ratings are computed based on state indicators, performance
index, adequate yearly progress (AYP), and value-added data. These four
components measure the achievement and progress of students within a school building or school district.

2. Designations (Excellent with Distinction, Excellent, Effective, Continuous Improvement, Academic Watch, and Academic Emergency) for traditional and community schools.

3. Recognition and consequences for schools that do or do not show improvement.

4. Accountability for various groups of students, including the following: (a) economically disadvantaged students, (b) students from major racial and ethnic groups, (c) students with disabilities, and (d) students with limited English proficiency (Ohio Department of Education, 2009b).

In addition to the standardized testing and reporting guidelines, Ohio House Bill 3 (2003) required the creation of a policy enforcement group called the Ohio Accountability Task Force (OATF). The main purpose of OATF was to oversee the implementation of NCLB mandates of reporting district and school performance data (overall passage rate, performance index, two-year average, safe harbor and value-added growth) and the professional development for teachers and administrators on data analysis and data decision making (Ohio Department of Education, 2009a).

The initial criteria had been carried over from the previous testing structure. If the collective of students at a specific grade level within each tested subject scored a 75% passage rate, schools earned an excellent designation. This traditional method allowed for a quick snapshot of overall performance, masking the performance of individual groups of students.
To address schools that had a grade level score below 75%, an additional criterion called Performance Index was created. For schools that had a Performance Index of 100 or higher, an excellent designation could be earned. Utilizing the Performance Index, an individual student’s performance became more prominent; however, the singular focus on the Index’s total score still allowed for a large group of high performing students to hide the scores of their lower performing peers.

Additionally, if schools did not meet the overall 75% passage rate or the 100 points in the Performance Index, schools could utilize a factor called Two-Year Average to meet the increasing AYP target for minority subgroups. Currently, the State of Ohio identifies the following subgroups on state reports: Economically Disadvantaged Students, Students with Disabilities, Limited English Proficient, and students from major racial groups – American Indian/Alaska Native, White, Non-Hispanic, Black, Non-Hispanic, Hispanic, Asian/Pacific Islander, and Multiracial (Ohio Department of Education, 2009b). The Two-Year average was identified by averaging the current year’s score and the previous year’s score of specific groups of students (Chester, 2006). If the average met the benchmark, then attainment of the category excellent would be designated. Again, one group of high performing students could cover for a lower group, thus not ensuring the goal of each individual student showing growth toward a passing score.

Another opportunity to earn an excellent designation came from the idea of Safe Harbor. By focusing on each group, schools could show a 10% reduction in the number of students that did not pass (Chester 2006). This designation highlighted the need to reduce achievement gaps of individual subgroups. Beyond this, a final designation of
value-added was needed to force schools to look at each individual child in an attempt to not only earn report card designations, but rather to ensure 100% student passage rates.

**Value-Added Assessment**

Value-added was a methodology created in 1984 by University of Tennessee professors Dr. Robert A. McLean and Dr. William L. Sanders. Value-added stemmed from a mixed-model methodology to calculate a student’s growth based upon her/his individual starting point. The individual students’ profile scores were compared to national mean test score norms of their peers (Sanders & Horn, 1998), which provided a profile of student growth. When the Tennessee Department of Education initiated reforms in 1991 through the Educational Improvement Act, Sanders’ work became a cornerstone for evaluation of student performance in a program called the Tennessee Value-Added Assessment System (Sanders & Horn, 1994). A decade later, a Columbus, Ohio based company, Battelle for Kids, utilized the work Sanders and his team had been refining over the 1990s and implemented a pilot program called Student Online Achievement Reporting (SOAR). This program began with 40 Ohio School districts and focused on district, school, teacher, and individual student growth patterns (Battelle for Kids, 2006). Battelle designed professional development modules in correlation to NCLB Highly Qualified Teacher Guidelines (U.S. Department of Education, 2005) to show practicing educators how to utilize the various data by focusing on mean gains of quintiles by grade and teacher to show effectiveness.

The Battelle value-added metric, called Educational Value-Added Assessment System (EVAAS), described the predicted mean gain by using various standardized data sources (e.g., Ohio Achievement Assessments, Terra Nova Ability Test, IOWA Test of
Basic Skills) using a plus or minus two standard deviations format with a 95% confidence band (Battelle for Kids, 2006). The basic methodology of using a student’s past scores to predict some future score can be statistically possible by using a pooled within school matrix based upon statewide average means (Chester, 2006). Sanders’ nesting model was also possible, since Ohio nested schools and school districts within common feeder systems (i.e., students from elementary school A, typically travel to middle school A upon completion of their 6th grade year).

In order to show a student’s growth through the value-added determination, Battelle used the state’s baseline mean score versus the individual student’s observed mean gain to provide a mean gain score for each student. Mathematically stated:

\[
\text{student’s growth} = \text{observed (actual scores)} - \text{baseline}
\]

This score, when pooled with other students in a specific school’s grade level, could then be compared by subject. If the mean score was above the standard error by one or more standard deviations, then positive growth for that group would be achieved. If the range fell within plus or minus one standard deviation of the standard error then the designated expected growth was achieved; more than one standard deviation below the standard error demonstrated that a student did not show growth (see Figure 1). Ohio’s use of value-added met NCLB’s mandate of all students reaching proficiency in math and reading by 2013-2014 since it provided individual student projections that could identify a student as proficient if he were on track to earn a passing score in the next 2 school years. The use of value-added metrics (VAMs) was now a key element of Ohio’s accountability system, but many questions and concerns still persist. As this new metric becomes an aspect of teacher and principal evaluation with the passage of Ohio’s House
Bill 153 (2011), this study aimed to identify if other objective and subjective data had a relationship to a school’s value-added rating.

Figure 1. Independence Elementary 2009-2010 value-added mathematics growth. Reprinted with permission from Ohio Department of Education (2011, June).
Overview

The researcher posits if teachers and principals had access to more information surrounding student value-added metrics, they would be better equipped to make non-random placement decisions that increase student yearly gains to decrease the overall achievement gap (Harris, 2011). Building on the previously cited work of Monk (1987) and Heck, Marcoulides, and Glasman (1989), a study such as this would provide meaningful results important not only to educational scholars who continue to study the intricacies of value-added metrics, but also to practicing elementary principals who are looking to ensure that all of their students are scoring proficient marks in reading and mathematics to meet the NCLB mandate.

By placing low performing minority students with teachers that had high value-added growth for low performing students, then class formation can be utilized as a process in which both students and teachers are purposively assigned or matched together based on their strengths or characteristics (Burns & Mason, 1995). This process was completed in various ways (e.g., Principal Only, Teacher Only, and Principal-Teacher Combined) and with additional factors (e.g., student behavior, parental request, district mandates). By studying the student placement process as a whole, the objective and subjective variables can be judged individually, as well as, collectively to identify trends that led to positive student achievement through purposeful placement practices.

Research questions. Specifically, this study will examine this concept through the following research questions:

1. What other forms of assessment data are available for Ohio fourth – eighth grade principals?
2. How valuable do building administrators find value-added information?

3. How are class placements determined?
   a. In what ways do principals use value-added data to build class assignments?
   b. What other criteria do principals use in class placement procedures?
   c. Who is involved in these placement decisions?

4. Is there a relationship between the Student Placement Matrix and change inside of the identified subgroups?

**Problem statement.** In a meta-analysis focused on using value-added to measure teacher quality, Hanushek and Rivkin (2010) determined that the various studies show that teacher quality is an important determinate of achievement. It was important to note that teacher effectiveness studies were very dependent upon overall sample sizes and missing data (McCaffrey et al., 2004). In order to overcome those limited data deficiencies in the student test score data, multiple years of student test score cohorts must be utilized within the value-added calculations to produce a clearer picture of teacher effectiveness (Rothstein, 2009a; Sanders & Horn, 1994).

Utilizing the technical report from a Battelle for Kids commissioned study by the Voinovich Center at Ohio University, Amerin-Beardsley (2008) discovered that only 50%, or 6 of the 12, Ohio districts using value-added data posted greater gains than similar districts with which they were matched. Though the results of the report indicated that district leaders who took advantage of value-added information showed statistically significant gains in student achievement, the fact that only 12 districts responded that they were using value-added information demonstrated that value-added use was sparse. Furthermore, Ruhil and Lewis (2009) in a study of Ohio District Value-
Added Specialists (DVAS) found that only 4% of the DVAS (18 of 454 respondents) felt that their school districts had an excellent process on utilizing value-added data effectively.

One of the major contributors to this lack of usage was due to the fact that prior to 2011, local schools districts had to subscribe to Battelle’s services to receive detailed information regarding district, school, teacher, and student value-added scores (Battelle for Kids, 2011). Now that the Battelle sponsored SOAR program had been adopted by the Ohio Department of Education as the state data collection and dissemination service, through Ohio House Bill 153 (2011), the need for teachers and principals to use the data to positively affect student performance was required by State of Ohio law. This study does not aim to eliminate the need for value-added to be used as a summative assessment of teacher performance. Due to the fact that proper placement of students with effective teachers maximizes value-added’s statistical inferences of teacher effectiveness, the use of VAM as one data point to judge teacher effectiveness becomes more plausible as it becomes a part of the teacher evaluation system.

**Class placement randomization questions.** As politicians and scholars continue to study the merits of value-added and its relationship to teacher quality, researchers were beginning to ask questions regarding how principals place students in specific teacher’s classrooms (Rothstein 2009a, 2009b). One of the ways to address the challenges in placement decisions was by randomly assigning students to classroom teachers (Harris, 2011). Given the reality of the way schools and districts function in reaction to union contracts, parental expectations, and reductions in funding that lead to teacher reductions in force, this is an unrealistic solution to the problem. The lack of randomization of
student placement allowed for situations where it was extremely difficult to statistically distinguish between teacher effects that were due to teachers and effects that were a result of other characteristics in the student’s environments (Murane & Steele, 2007). By utilizing random assignment of students to classes, any failure to account for sorting on unobservable characteristics would potentially penalize teachers by giving some teachers more difficult students and other teachers more favorable students (Hanushek & Rivkin, 2010).

In various types of placement processes there were avenues in place that allow for subjectivity in student placement decisions. Monk’s (1987) study of 17 elementary schools and Heck et al.’s (1989) application of casual modeling methodology with 169 elementary schools demonstrated that principals had a significant effect on student assignment. More recently Rubin, Styart, and Zanutto (2004), Clotfeter, Ladd, and Vigdor (2006), and Kane and Saiger (2008) found that value-added models (when used in random samples) were able to generate unbiased and reasonably accurate predictions of casual short-term impact of a teacher on student test scores. The fundamental problem was that in traditional school settings, students and teachers were not matched by some random mechanism (Braun, 2004).

It was a widely publicized conclusion that random assignment of students does not take place (Clotfelter et al., 2006; Harris, 2011; Koedel & Betts, 2009; Rivkin, 2007; Rothstein 2009a, 2009b; Viadero, 2008, 2009). By studying the placement criteria that high performing schools, within high performing districts used to match teachers and students for class placement, this study will investigate the use of value-added metrics in
a non-randomized placement process by elementary school principals as a means of reducing or eliminating achievement gaps.

Summary

The accountability lens for student growth continued to be refined at the state and federal government levels. Initially looking at the local school district level, the focus continued to be heightened from individual school performance, to specific grade levels, to the teachers within each grade, and now to individual student through value-added growth. This chapter highlighted the problem statement and research questions that connect the use of data and the placement of students into classrooms. The next chapter delved into historical context of Federal accountability mandates and how those have molded State of Ohio Accountability policies. Additionally, a review of value-added and the history of student placement were connected to build the theoretical framework for the study. Definitions of commonly used terms in this study were found in the Glossary.
Chapter 2: Review of the Literature

The information presented in this literature review is organized into seven sections: the federal lens of public education accountability, the State of Ohio’s lens of public education accountability, the history of value-added accountability, Ohio’s implementation of value-added accountability, a scholarly review of value-added, the historical constructs of student placement and the theoretical framework of the study.

The first portion of this chapter outlines the process in which accountability systems have been organized and implemented across the United States for the past 60 years and for the past three decades in Ohio. As the accountability systems continue to push into deeper and deeper levels of data, various subgroups of students are continually showing achievement gaps with peers. The implementation of value-added metrics (VAMs), first in Tennessee and now across the nation has pushed principals and teachers to look at the growth rates of individual students to determine if academic progress is taking place, but there are still questions regarding the process in which value-added is determined. By connecting the use of VAMs for purposeful placement of students, the researcher looks to determine specific criteria in which all students can achieve academic excellence through initial grade level placements with a specific teacher, to maximize VAM effectiveness and reduce achievement gaps.

The Federal Lens of Accountability

In the Elementary and Secondary Education Act of 1964 (ESEA), President Johnson requested the Congress to authorize millions of federal dollars to be spent in an effort to reduce the aforementioned academic achievement disparities between African American and White students. For decades, gaps in state resource allocation had
dramatically skewed the opportunity for academic achievement against minority students (Gardner, 2007). Even as these funding gaps decreased, the achievement gap had not (Guskey, 2005). The Constitutional demand that public education was an individual state’s concern became and continues to be, a national concern.

The Congress declares it to be the policy of the United States that a high-quality education for all individuals and a fair and equal opportunity to obtain that education are a societal good, are a moral imperative, and improve the life of every individual, because the quality of our individual lives ultimately depends on the quality of the lives of others. (U.S. Department of Education, 2005, para. 1)

Since 1964, presidents requested, and Congress abided by, re-authorized and re-appropriated funds for ESEA. The release of A Nation at Risk in 1983 by the National Commission on Excellence in Education (Yell & Drasgow, 2005) called for more rigorous academic content. These new standards were focused and measurable through the use of achievement tests, and indicated that time focused on student learning was critical. Additionally, the Commission stated that teacher preparation and professional development mattered, and the educational administration and the federal government had a role in reducing the achievement gap.

President George H. W. Bush’s America 2000, and President William J. Clinton Administration’s Goals 2000: Educate America Act (Yell & Drasgow, 2005) plans were implemented, but gaps between African American and Hispanic Origin student achievement in math and their white peers still remained (see Table 1).
### Table 1

*Average NAEP Math Scores for 13 year-olds by Race and Hispanic Origin: 1978-2004*

<table>
<thead>
<tr>
<th>Year</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
</tr>
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<tbody>
<tr>
<td>2004</td>
<td>288</td>
<td>261</td>
<td>265</td>
</tr>
<tr>
<td>1999</td>
<td>283</td>
<td>251</td>
<td>259</td>
</tr>
<tr>
<td>1996</td>
<td>281</td>
<td>252</td>
<td>256</td>
</tr>
<tr>
<td>1994</td>
<td>281</td>
<td>252</td>
<td>256</td>
</tr>
<tr>
<td>1992</td>
<td>279</td>
<td>250</td>
<td>259</td>
</tr>
<tr>
<td>1990</td>
<td>276</td>
<td>249</td>
<td>255</td>
</tr>
<tr>
<td>1986</td>
<td>274</td>
<td>249</td>
<td>254</td>
</tr>
<tr>
<td>1982</td>
<td>274</td>
<td>240</td>
<td>252</td>
</tr>
<tr>
<td>1978</td>
<td>272</td>
<td>230</td>
<td>238</td>
</tr>
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</table>


In 1994, Congress passed the Improving America’s School’s Act which was a reauthorization of ESEA that served as a response to A Nation at Risk. It was designed to implement standards based education throughout the nation (Yell & Drasgow, 2005). Each individual state was required to write and adopt challenging curriculum standards, create and align assessments for all students to those standards, hold schools accountable for the results, and increase aid to high poverty schools (Cohen, 2002). In order to stimulate participation in this reform effort, the government began distributing grants to interested states who sought to write and implement higher standards.

In 2001, a coalition of House and Senate Democrats along with the newly elected Republican President George W. Bush once again signed the legislation, but this time with more significant changes. According to the U.S. Department of Education (2004):
The No Child Left Behind (NCLB) Act, which reauthorizes the Elementary and Secondary Education Act (ESEA), incorporates the principles and strategies proposed by President Bush. These include increased accountability for States, school districts, and schools; greater choice for parents and students, particularly those attending low-performing schools; more flexibility for States and local educational agencies (LEAs) in the use of Federal education dollars; and a stronger emphasis on reading, especially for our youngest children. (para. 4)

NCLB has had a profound effect on not only the large scale politics of federal and state educational policy, but also on the individual politics of school procedures that funnel down to the level of instruction and assessment of each individual child. At a federal political level, NCLB provided an opportunity for the federal government to become more involved with the states’ sovereignty of public education. The new law required all states to submit a plan for 100% proficiency through the design of coherent and rigorous content standards and encouraging the teaching of advanced skills (Yell & Drasgow, 2005). In order to comply with this new provision, each individual state was required to identify and define the new calculation of Adequate Yearly Progress (AYP).

The AYP calculation required states to identify a starting percentage for each subgroup of students. Each state had to compare the lowest subgroup score to the lowest school district score for each grade level in both reading and math. Subgroups included Economically Disadvantaged Students, Students with Disabilities, English Language Learners, and students from major racial groups - American Indian/Alaska Native, White, Non-Hispanic, Black, Non-Hispanic, Hispanic, Asian/Pacific Islander, and Multiracial
(Ohio Department of Education, 2009b). Once the scores were identified—15% passage rate for Students with Disabilities and a 22% passage rate for the lowest district in the state—then the higher of the two (22%) was selected as the starting point for calculating AYP (Yell & Drasgow, 2005). Once the initial percentage was determined, states were then required to gradually increase the percentage of students that would be at or above the proficient range in both reading and mathematics each year until 100% of all students met proficiency in 2013-2014. The law allowed for some flexibility for each state to identify, develop, and implement its own content standards and accountability procedures, but at least 95% of all students in all subgroups in third through eighth grade and once in tenth and twelfth grade would be required to take state assessments to determine proficiency level.

By disaggregating the data into the various subgroups the revised adoption of NCLB and the federal government fully recognized that certain subgroups of students struggled in achieving academic excellence when compared to their majority peers. 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 and thus eliminate the achievement gap.

At the end of each school year, the U.S. Department of Education would provide each state with annual reports highlighting their progress toward the stated goal of all students attaining a proficient level by 2013-2104. Ohio’s implementation of NCLB, which increased federal spending on education by 25% (Yell & Drasgow, 2005), began in 2003 with the passage of Ohio House Bill 3.
The State of Ohio’s Lens of Accountability

In the State of Ohio, the passage of NCLB provided a federal impetus for change. The pre-NCLB structure of proficiency testing in fourth, sixth, and eighth grade established a culture in many schools of teaching state curriculum in order to meet the minimum 75% passage rate to earn a level of proficiency from the Ohio Department of Education (ODE). By forcing the state to look at students by various minority groups – Economically Disadvantaged Students, Students with Disabilities, Limited English Proficient, and students from major racial groups – American Indian/Alaska Native, White, Non-Hispanic, Black, Non-Hispanic, Hispanic, Asian/Pacific Islander, and Multiracial (Ohio Department of Education, 2009b) instead of one large collective entity, glaring gaps in achievement became visible.

The achievement gap for minority students began prior to kindergarten and continues to grow throughout their schooling (Craig, Conner, & Washington, 2003; Harris, 2003; Jacobson, Olsen, Rice, Sweetland, & Ralph, 2001; Lleras, 2008; Phillips, Crouse, & Ralph, 1998). It is expected that each year students attend school they should make at least a year’s worth of educational growth. For minority students, standardized test score results have shown that many students are not growing at that expected pace (Jacobson et al., 2001; Lleras, 2008; Phillips et al., 1998). As Lleras (2008) pointed out, the largest predictor of math course selection in the first two years of high school is prior math achievement. As minority students continue to fall behind each year of elementary school, the cumulative effect of less than a year’s educational growth in multiple years ensures that the gap for minority students will not decrease as students move into
secondary education (Grigg, Donahue, & Dion, 2007; Jacobson et al., 2001; Phillips et al., 1998).

In order to further meet these new challenges outlined by NCLB, the Ohio General Assembly designated ODE to establish a task force, called the Ohio Accountability Task Force (OATF), to oversee the implementation of NCLB mandates of reporting district and school performance data (overall passage rate, performance index, two-year average, safe harbor, and value-added growth) and the professional development for teachers and administrators on data analysis and data decision making (Ohio Department of Education, 2009a). The OATF is a group of state legislators, the state superintendent of schools, and political appointees who serve as an oversight body to review state wide, district level, and school level assessment data. After reviewing this information, they provide recommendations to the Ohio State Board of Education for modifications to the state’s assessment structure. Through Ohio House Bill 3 from 2003, these new reporting structures came in the form of district and school report cards. For each district and school, a ranked designation - Excellent with Distinction, Excellent, Effective, Continuous Improvement, Academic Watch, or Academic Emergency (Ohio Department of Education, 2009b) would be earned based upon students’ performance on third through eighth grade standardized assessments in reading and mathematics and fifth and eighth grade standardized science assessments.

For each group of students, the AYP starting point was identified by comparing the lowest state and district passage levels per group and selecting the higher of the two. To further meet AYP in Ohio, a comprehensive accountability system was implemented by ODE. In order to eliminate the achievement gap in Ohio and meet the goal of 100%
proficiency for all students, The Ohio State Board of Education, under the Ohio Accountability Task Force’s recommendation designed Ohio’s AYP benchmarks for individual groups of students - ethnicity, disability, socio-economic status, and Limited English Proficient (Ohio Department of Education, 2009b). To meet increasing math and reading AYP goals for Ohio (see Table 2), a comprehensive accountability system was implemented by ODE.

Table 2

Ohio’s AYP Targets to 2014

<table>
<thead>
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<td>3</td>
<td>60.6%</td>
<td>68.5%</td>
<td>76.4%</td>
<td>84.2%</td>
<td>92.1%</td>
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<td>73.7%</td>
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<td>86.8%</td>
<td>93.4%</td>
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</tr>
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<td>79.8%</td>
<td>89.9%</td>
<td>100.0%</td>
</tr>
<tr>
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<td>82.1%</td>
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<td>47.3%</td>
<td>57.8%</td>
<td>68.4%</td>
<td>78.9%</td>
<td>89.5%</td>
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</tr>
<tr>
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<td>58.0%</td>
<td>68.5%</td>
<td>79.0%</td>
<td>89.5%</td>
<td>100.0%</td>
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<tbody>
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<td>82.7%</td>
<td>88.5%</td>
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</tr>
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<td>68.3%</td>
<td>74.6%</td>
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<td>89.5%</td>
<td>94.8%</td>
<td>100.0%</td>
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Note. Reprinted with permission from Ohio Department of Education (2009d).

The initial criterion, the percentage of indicators that were met, was a carryover from the previous testing regime. If the collective of students scored at or above the proficient score on Ohio’s third through eighth grade Achievement Assessments in reading and mathematics were at a minimum 75% passage rate, schools would earn an
Excellent designation. This traditional method (see Figure 2) allowed for a quick snapshot of overall performance, but individual subgroups of students could still be hidden by the collective student body.

![Figure 2. Percentage of students at and above the proficient level. Reprinted with permission of Ohio Department of Education (2009a).](image)

For schools that had a grade level score below 75%, an additional criterion called Performance Index (see Figure 3) was created. In this index, every student’s individual test outcome is consolidated to find the percentage of students in one of six categories (untested, limited, basic, proficient, accelerated, or advanced). In this index, every student that earned an advanced rating would earn a 1.2 weighted score. Students that were accelerated earned a 1.1, proficient students (passing level) a 1.0, basic students (just below passing) a 0.6, and limited students (well below passing) a 0.3 score. By simple summation, a school that had every student score of advanced could earn the maximum 120 points (Chester, 2006). In contrast, a school where every student scored
limited would earn a 30 point total. The percentages are then multiplied by a weighted score to find a point total for each category. A summation of these point totals then provides the school with an index score from 120 (100% advance students) to 0 (no one was tested).

![Performance Index Calculations chart](image)

**Figure 3.** Performance index calculations chart. Reprinted with permission from Ohio Department of Education (2009a).

A school where every student scored limited would earn a 30-point total. For schools that had a performance index of 100 or higher, an excellent designation could be earned (see Figure 4).
Figure 4. Ohio initial school designation chart. Reprinted with permission from Ohio Department of Education (2009a).

For this measure, individual student performance was important, but again, a large group of high performing students could overshadow lower performing peers. From the sample numbers in Figure 3, a 15% swing in the number of students from proficient to advanced or advanced to proficient, has a large impact on the total Performance Index Score (see Table 3).
Table 3

Sample of a Skewed Performance Index

<table>
<thead>
<tr>
<th>Percentage of students</th>
<th>Weight</th>
<th>Index Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited</td>
<td>3.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Basic</td>
<td>7.2</td>
<td>0.6</td>
</tr>
<tr>
<td>Proficient</td>
<td>9.9</td>
<td>1</td>
</tr>
<tr>
<td>Accelerated</td>
<td>27.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Advanced</td>
<td>51.7</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
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<td>3.5</td>
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</tr>
<tr>
<td>Basic</td>
<td>7.2</td>
<td>0.6</td>
</tr>
<tr>
<td>Proficient</td>
<td>39.9</td>
<td>1</td>
</tr>
<tr>
<td>Accelerated</td>
<td>27.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Advanced</td>
<td>21.7</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

If schools did not meet the overall 75% passage rate or the 100 points in the Performance Index, schools could utilize a factor called Two-Year Average to meet the increasing AYP target for minority groups. The Two-Year Average was identified by averaging the current year’s scores and the previous year’s scores of individual groups of students (Chester, 2006). If the average score met the AYP benchmark, then a rating of excellent rating would be designated. Again, one group of high performing students from the previous year could compensate for a lower group during the current testing cycle, thus not ensuring the goal of each individual student showing growth toward passage.
Another opportunity to meet AYP and earn a designation of excellent came from the idea of Safe Harbor. By focusing on each subgroup of students, schools could show a 10% reduction in the number of students that did not pass a specific assessment (Chester 2007). For example, in 2009-2010, a school had a cumulative total of 50% of its Hispanic students fail the reading assessment in Grades 3 through 6. In order to meet Safe Harbor for the 2010-2011 school year, a 10% reduction in the number of Hispanic students that failed the reading assessment would need to occur. Ten percent of 50% is 5%; therefore, the school would need to have no more than 45% of its Hispanic students fail the 2010-2011 Reading Assessment to meet Safe Harbor. This designation highlighted a way to reduce achievement gaps of individual subgroups.

In 2004, the OTAF began to research a new designation called value-added, which would require schools to look at the performance of each individual child, thus meeting the stated goal of NCLB. In this accountability system, students’ individual test performance would be measured against a predicted score. If the child met the score, then they achieved expected growth. To determine the school’s value-added measure, each student’s value-added rating would be determined and then pooled with peers to determine if the entire student body’s rating was above, at or below expected growth. By exceeding the new measure for 2 consecutive years, schools rated as excellent could be elevated to an excellent with distinction designation (see Figure 5).
The entire accountability process was designed to provide schools with multiple ways of earning the highest rating available. As the system was presented, a positive consequence permitted schools to focus on smaller and smaller groups of students, and therefore try to meet AYP and earning a rating of excellent. By implementing value-added as a final way for schools to be identified as excellent, many school districts began to research value-added’s origins.

The Historical Context of Value-Added Accountability

In 1984, University of Tennessee statisticians, Dr. Robert A. McLean and Dr. William L. Sanders began the study on what is now known as value-added accountability structures. It was originally a mixed model methodology to calculate a student’s growth based upon their individual starting point. The Tennessee Comprehensive Education Reform Act (CERA) of 1983, focused on the use of student achievement data as a basis for teacher assessment (Sanders & Horn, 1994). These researchers sought to prove the
feasibility of trivializing impediments to the use of student data, such as missing records, modes of teaching, changing teacher assignments, by developing an individual student growth profile score in comparison to national mean test score norms of their peers (Sanders & Horn, 1998). By analyzing each student’s individual profile with all of the other students in the reading or math class, Sanders could statistically demonstrate the teacher affect on student achievement.

In 1991, the Tennessee Department of Education initiated substantial educational reforms through the Educational Improvement Act (Sanders & Horn, 1994). This work, called the Tennessee Value-Added Assessment System (TVAAS), was a transformational piece of student performance data. The TVAAS system focused on the product of the educational experience and not the process by which it was achieved (Sanders & Horn, 1994). TVAAS allowed schools and teachers the opportunity to use any type of educational method they deemed fit to provide opportunities for all learners, the advanced as well as the at-risk learner. This focus on the individual child’s ability to learn is the key underpinning of value-added accountability (Sanders & Horn, 1994).

In order to assess each student appropriately, tests and testing scales needed to be highly correlated with curricular objectives in 2nd through 11th grade, the longitudinal testing pattern in reading, math, science and social studies from grades 3 to 8, needed to have newly designed, fresh non-redundant testing questions, and school personnel needed to have quality professional development regarding the use of the new data they were receiving (Sanders, 1998).

As stated previously, it was expected that a child who attends school for 1 year, should demonstrate an academic year of growth. For minority students, standardized test
score results were showing an opposite effect. As Lleras (2008) pointed out, the largest predictor of math course selection in the first 2 years of high school is prior math achievement. As minority students continue to fall behind each year of elementary school, the cumulative effect of less than 1 year’s educational growth in multiple years ensures that the gap for minority students will not decrease as students move into secondary education.

For students that already achieved proficiency prior to 2013-2014, since the student serves as his own control, the metric would provide a growth track to demonstrate continued academic excellence. The primary conjecture upon which successful implementation of the model is that past test achievement is a good predictor of current and future achievement.

By using all of an individual student’s previous achievement data to make these projections, the need to adjust for a student’s socioeconomic condition, ethnic background, prior knowledge, etc. is not necessary. This ensures that students with the same prior academic achievement will have the same projection regardless of the neighborhood in which the attending school is located or the student’s demographic characteristics. (Chester, 2006, p. 10)

Utilizing Sander’s research, the State of Ohio was ready to implement a pilot value-added system with voluntary districts across the state.

**Ohio’s Implementation of Value-Added Measures**

In Ohio, a national non-profit organization called Battelle for Kids implemented a value-added pilot program called Student Online Achievement Reporting (SOAR).
SOAR served as the catalyst for implementation of the value-added designation in Ohio House Bill 3 (Battelle for Kids, 2006). This program began in 2002, with 43 Ohio School districts and focused on district, school, teacher, and individual student growth patterns (Battelle for Kids, 2006). Battelle designed professional development modules in correlation with NCLB Highly Qualified Teacher Guidelines (U.S. Department of Education, 2005) to show practicing educators how to use the various data patterns that focused on mean gains of quintiles by grade and teacher to show effectiveness.

SOAR calculated the predicted mean gains by using various standardized data sources (e.g., Ohio Achievement Assessment, Terra Nova, Iowa, etc.) using a plus or minus two standard deviations format with a 95% confidence band (Battelle for Kids, 2009). The basic methodology of using a student’s past scores to predict some future score can be statistically possible based upon using a pooled within school matrix based upon statewide average means (Chester, 2006). Sanders’ nesting model was also possible, since Ohio nested schools and school districts within common feeder systems. A feeder system designates that a student from XYZ elementary is slated to go to XYZ middle school, and then to XYZ high school.

In order to show a student’s growth through the value-added determination, Battelle used the state’s baseline mean score versus the individual student’s observed mean gain to provide a mean gain score for each student. When pooled with other students at the same school’s grade level, each subject could then be compared to determine the growth of the cohort. If the mean score were above the standard error by one or more standard deviations, then positive growth for that group would be achieved. If the range fell within plus or minus one standard deviation of the standard error then
students’ expected growth was achieved. More than one standard deviation below the standard error demonstrated that a student did not show growth (Battelle for Kids, 2006).

By 2006, over 100 Ohio school districts had participated in SOAR. As the federal mandates from No Child Left Behind gained momentum, more and more schools were added to Ohio’s Value-Added Scale-up Plan (Ohio Department of Education, 2009b), until all school districts were reporting value-added measures in third through eighth grades in English Language Arts and Mathematics on their 2007-2008 local report cards.

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 select group of educators who represented the 12 school improvement regions across Ohio. Eighty Regional Value-Added Specialists (RVAS) were selected through an application process to attend a nine-day training session that provided them with the necessary technical and professional development skills to begin a train the trainer model with district level personnel. At the district level, the superintendent selected two members of their district to be trained as District Value-Added Specialists (DVAS).

Each of these DVAS went through an extensive five-day training that 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; and
3. Developing the capacity to take leadership action in their respective school districts and to use the networked resources available to them (Lloyd, 2008).
At the individual school level, the DVAS took their training and educated principals and assistant principals on the use of value-added data so that small group and individual student data could be used for daily instructional decision making.

By 2011, value-added data have been a part of each Ohio school district and each individual school report card for the past two years. Despite this, a great deal of uncertainty still exists as to what the next phase of value-added accountability will be. The heightened interest in accountability has recently spurred extensive methodological and computational developments in value-added modeling, which has also led to increasing use of value-added analysis systems in many states (Harris, 2011; Lewis, McCaffrey, Ruhil, & Kun, 2008). But just as quickly as the implementation of value-added has grown across the country, research on specific concerns with the various value-added accountability systems and its uses for teacher evaluation and student identification have become a source of contention between administration, teachers unions, parents, and among researchers.

**Scholarly Review of Research on the Value-Added Model**

Over the past few years, value-added accountability systems have become politically popular avenues for holding teachers accountable to meet the demands of AYP, the most recent adoption being House Bill 153 (2011), (Ohio Legislative Service Commission, 2011). As an increasing number of states implement the use of value-added to meet AYP goals, Arkansas, Colorado, Utah, Ohio, Pennsylvania, New York, Texas, North Carolina, and Florida (Lewis et al., 2008), current discussions among researchers focus on the merits of dismissing covariates (e.g., race, gender, socioeconomic status), outside of school variables, reporting growth even with missing data, and what effect the
quality of instruction, the type of instruction, and curriculum have on student achievement. Additionally, important questions ranging from how principals design class lists, to how value-added should be used to evaluate student growth, to merit pay implications are also being investigated (Harris, 2011).

**Value-added metrics.** At the beginning of the value-added phenomena, questions arose from researchers as to what value-added metric (VAM) should be used. McCaffrey, Lockwood, Koretz, Louis, and Hamilton (2004) discussed a model that is focused exclusively on scores from standardized assessments. This Hierarchical Linear Mixed Model (Tekwe et al., 2004) can derive a school’s value-added assessment by analyzing the change in score in student achievement by subtracting the current year score from the previous year. Theoretically, the teacher has a shared variability effect on his students’ score when compared to other students assigned to different teachers. What takes place in this model is that teacher effects might not always be constant. Historical factors such as student background and previous educational experience (McCaffrey et al., 2004) are included as different students bring their own educational backgrounds into the classroom. These different histories include prior teachers and their effects on a student’s continuing education. In this model the past teacher effect is labeled as unknown, since the assumption of a reduced teacher effect over time is not entirely credible (McCaffrey et al., 2004).

One of the most widely used VAM is the Educational Value-Added Assessment System (EVAAS) designed by Dr. William Sanders at the University of Tennessee. Initially named TVASS (discussed above), the core base of this system is now implemented across the country and has been renamed to EVAAS. In his system, the
method measures gain from a student’s own starting point (Ballou, Sanders, & Wright, 2004) based upon a 5-year data window that pools data throughout multiple cohorts within third through eighth grades. By pooling all of these data into a layered model; the model for later years added variables to the model to account for the effect of learning from earlier years (McCaffrey et al., 2004) the difference between the student’s actual score and the average score in the student’s school district is called the class effect (Braun, 2005). This effect is directly correlated with the individual teacher that a student has for each subject. In order to determine the effect of the teacher, many different elements, including the growth in learning of the students in the teacher’s class over a number of years, adjusted for the effects of previous teachers’ students in subsequent years, and the achievements of those students in different subjects over a number of years (Braun, 2005), are combined to estimate the specific teacher’s value to that student’s education. Since EVASS measures student’s growth from their starting point, outside effects or covariates (Raudenbush, 2004) such as socio-economic status, race, gender, and so forth are not a part of the calculation.

The discussion of the inclusion or exclusion of covariates is one that continually is applied to the EVAAS system. Covariates can work both positively and negatively, and the same factors may influence not just the starting level, but also the rate of progress (Ballou, 2004). As some students receive more supplemental instruction from home as compared to others, the proponents of the EVAAS system say the metric controls for these factors since it is based upon student progress, not on level of achievement; are not given credit or penalized for where students begin (Ballou, 2004; Harris, 2011).
The Dallas Value-Added Accountability System (DVAAS) is very similar to the EVASS system with a few distinctions. Differing from the EVAAS philosophy, the DVASS system does not take into account a student’s non-school related history, nor where the student begins on a developmental scale (Wiley, as cited in Harris 2011). It does not combine data from multiple grades; it is only looking at that specific year’s adjusted test score; and finally it takes into account other non-teacher related factors that are intended to account for the influence of the school on their achievement (Braun, 2005).

**Curriculum concerns.** More recently, studies from Braun (2005) identified peer-to-peer interactions, teacher’s skill level, and classroom climate as factors that can positively or adversely affect student value-added achievement. In 2008, Laura Goe of the Educational Testing service highlighted concerns over low sample sizes (Murane & Steele 2007; Rivkin, 2007), teaching to the test, so-to-speak and how additional assessment needs to be used especially in non-tested areas such as the fine arts and in AP courses (Sawchuck, 2011). Kane and Staiger (2008) focused on effects such as student motivation, parental engagement in supplemental instruction, and fade out effects of in-school student intervention that caused an increase in student achievement that did not correlate to teacher effectiveness.

Hanushek and Rivkin (2010) demonstrated that student variables such as cheating on the test and measurement errors such as guessing, poor performance due to random events that take place during testing could mis-rate teachers (Rivkin, 2007, Ravitch, 2011). Rothstein’s analysis showed a phantom effect of future 5th grade teachers effecting current 4th grade student performance. Additional questions derived from a
teacher’s purposeful desire to work with students that have greater value-added potential, for example, teachers asking that they do not have students that are already two standard deviations above the mean (Harris, 2011) and the use of multiple choice only tests that do not allow for a student’s reasoning and critical thinking skills to be measured (Ravitch, 2011).

**Missing student data.** Considering that one of the main proponents of utilizing VAMs is that growth can be seen in lower performing students, the possibilities of missing data becomes an increasing concern. This is especially concerning in students who believe that they will likely not do well on the test. In addition, lower performing students may be more likely to miss school on test day (Rubin, Stuart, & Zanutto, 2003).

In large school district settings, a database over time will generally have a substantial amount of missing data (Amerin-Beardley, 2008; Braun, 2005; Murnane & Steele, 2007; Rubin et al., 2004). There are many factors that play into this concern. Student mobility is a considerable concern. Losing specific student data as students transfer from school to school, to multiple districts, or students going by different names or spellings of their names (Harris, 2011) is a very realistic event. Missing data can also occur in the more administrative and application components of testing and schooling regarding the transfer of paperwork, miscoding students within grade levels and to specific teachers, and an overall lack of quality data on students, since what is used to calculate student value-added scores is typically based upon a single year of test scores (Harris, 2011). Sanders (1998, 2000) counteracted this assumption by explaining the student’s projections are based from thousands of items based upon multiple years of data and multiple subtest items.
Those more attuned to utilizing the data sets respond that incorporating 3 or more years of testing data for every student could produce more reliable projection results (Viadero, 2008), but to get a clearer picture of a teacher’s effect on their students’ learning more years of data from teacher’s classes (Viadero, 2009) needed to be utilized. Even with quality data sets, utilizing VAMs information to determine teacher effectiveness was still questionable, due to the lack of randomness in teacher class rosters (Harris, 2011). The lack of randomization of student placement can set up situations where it was extremely difficult to statistically distinguish between effects that were due to teachers and effects that were due to other characteristics in the student’s environment (Murane & Steele, 2007).

**Class roster randomization.** As Raudenbush (2004) pointed out, a parent might first select a school and then a teacher within a school. This type of school shopping was not a new phenomenon, but by accessing a school’s value-added results parents may be making educational choices for their students based upon biased information if it turned out that a school’s students were not randomly assigned to teachers (Viadero, 2008). This concern was very apparent at the school level as parents request and principals agree to place certain students with specific teachers. In addition, teachers with more seniority are usually given a wider range of selection in the schools and classes they teach (Braun, 2005). These challenges within a school have a tremendous effect on the randomization of classes (Rothstein, 2009b). A teacher adept in value-added analysis could in fact stack his class roster by teaching specialized courses or by agreeing to teach specific students, those on alternative assessment, new-coming ESL students that are exempt from testing, or accelerated classes whose value-added scores typically are high (Harris, 2011). These
are very realistic concerns, particularly since contract language on staff transfers is very
difficult to challenge. In addition, principals often cater to helpful parents, and building
administrators are very mindful of which children are placed with specific teachers.

The placement of students into classrooms has evolved from a context of a one-
room school house to an intricate balance of requests and intentional choices. As
Rothstein (2009b) highlighted, “assignments of students to teachers incorporate matching
to take advantage of teacher’s particular specialties, intentional separation of children
who are known to interact badly, efforts of the principal’s part to reward favored teachers
through the allocation of easy-to-teach students and parental requests” (p. 2). Even in the
21st century, students are placed into specific classes for specific reasons. The use of
such subjective means for developing class placements is again under scrutiny since the
use of VAMs are being used to not only show teacher effectiveness, but in some cases for
contractual purposes as well (Harris, 2011).

Most current VAMs assume that class assignments are developed by random
placement of students into classes by either principals, teams of teachers, or combinations
of both (Monk, 1987). But most students’ placements are not random at all (Braun, 2004;
Harker & Tymms, 2004; Koedel & Betts, 2009; Rothstein, 2009b). “One approach (to
investigate this) might be to assume that classroom assignments depend on the principal’s
best prediction of students unobserved ability, with predictions updated each year based
upon student grades and (standardized) test scores” (Rothstein, 2009b, p. 30). Even then,
judgments upon individual children, though not specifically due to race, ethnicity, class,
or even random placement to fill a class, could be skewed if previous placements resulted
in inflated or deflated achievement due to a variety of outside of school factors.
Principals could utilize other information in preparing class assignments besides predictive end of year achievement (Rothstein, 2009a). Again, a great deal of subjectivity can skew those data. Information such as classroom observation, teacher ratings, formal and informal teacher and parent communication, student ratings or reviews, and unplanned observations or recollections about teachers are all subjective sources of information that principals use not only in class placements, but also during the daily operations of the school (Heck et al., 1989; Rivkin, 2007). These personal attitudes and inferences about a teacher’s behavior can unduly influence a principal in the placement process.

In addition to teacher behavior, students’ behaviors can be altered both positively and negatively based upon the attitudes and behaviors of their classmates. As cited in Burns and Mason (2002), a great deal of research has been done on the compositional effects that students play in a classroom environment. Firstly, there are instructional explanations that point out that students in higher achieving classrooms often get better instruction from higher motivated or better qualified teachers and receive an added benefit of having high-ability classmates act as models (Harker & Tymms, 2004). Socially, students in higher achieving classrooms typically are exposed to a more positive learning environment, in regards to attitude, aspirations, and self-esteem, than those in low-ability rooms (Pallas, Entwisle, Alexander, & Stluka, 1994). Thirdly, students that are placed in low-ability classrooms often show a psychological stigma of labeling and often behave in inappropriate ways to escape an environment where they are expected to fail (Harker & Tymms, 2004).
Additionally, principal’s behaviors could allow for the manipulation of class lists to ensure that some teachers could post large value-added gains (Burns & Mason, 2002; Koedel & Betts, 2009); thereby rewarding favored teachers (Kane & Staiger, 2008; Rivkin, 2007; Rothstein, 2009b) with the opportunity to be distinguished as highly effective by value-added data sets. This stacking of classes is not specifically a principal driven effect as Monk (1987) highlighted that teachers who are a part of the assignment process also use subjectivity when assigning students to either an unusually incompetent or excellent teacher. In order to avoid the subjectivity of placing students with poor or excellent teachers, principals often provide grade level configurations templates, assignment rules, and criteria for class formation (Burns & Mason, 1998, 2002). Within this structure, students are placed into classes by a criterion score. Certain types of students are placed within specific classrooms to form a particular type of class cluster. As the class clusters are formed, the remaining pool of students quickly begins to deplete. Again, subjectivity comes into play as certain students are placed with clusters based upon engagement, motivation, or independence levels (Burns & Mason, 1998).

Finally, more and more “helicopter parents” (Gibbs, 2009) work viciously behind the scenes to manipulate a safe environment for their children by having classrooms stacked with their friends. Learning in these environments can be stunted as students spend more time socializing as intimidated teachers refuse to discipline them in fear of an unpleasant phone call or email from a parent (Gibbs, 2009). In some cases, these parental concerns and requests are validated from a principal’s firsthand experience (Monk, 1987), but most are based upon past parent satisfaction (Clotfelter et al., 2006; Jacob & Lefgren, 2005; Rivkin, 2007), usually due to older sibling academic success. Regardless
of which specific reason a student is placed with a teacher, history shows that the power of a building principal in placement decisions is comprehensive.

**Scholarly Review of Student Placement Decisions**

Since the beginning of the American educational system, students have been placed into various classroom settings for a number of reasons. For many decades in our history, students of all ages were combined together in small tutorial based (Ansalone, 2006) one-room school houses. This initial multi-grade structure was developed not out of learning pedagogy, but of a fiscal necessity of local townships and small cities that could only afford to pay for the salary of one teacher (Kowalski, 2006). During the Industrial Revolution exponential growth of the cities, child labor reform, and compulsory education laws resulted in a tremendous growth of students and the construction of many new elementary schools (Yudof, Kirp, & Levin, 1992).

As the Civil War was coming to an end, many poor White and African American southerners began moving into the industrialized cities in the North. This infusion of racial, ethnic, and socioeconomic diversification into the northern school systems caused many educational leaders to begin tracking students based upon their physical appearance (Pulliam & Van Patten, 2006). The dual systems of education initially provided hope for non-White students, but almost immediately, White power brokers utilized segregation laws and differing tax codes to unevenly distribute public funds for these separate but equal schools (Pulliam & Van Patten, 2006). In the South, schooling for African American students became a shattered dream, as large farm owners and planters saw the education of young African Americans as a threat to their workforce, since education workers would either leave menial agriculture work or demand higher wages (Spring,
By the early 1900’s, southern African American’s education opportunities were riddled with problems such as short school terms, high levels of illiteracy, ineffective administration, poorly trained and low paid teachers, and meager tax support (Pulliam & Van Patten, 2006).

Simultaneous to public schooling becoming a more viable option for the masses, another wave of poor and European immigrants moved into the new urban centers. The urban schools began to serve more students across racial, ethnic, and socioeconomic lines in an attempt to Americanize and socialize the less desirable masses (Ansalone, 2006). Unfortunately, these students had little to no prior educational experience and many—almost one in three—were thought to be mentally deficient (Ayres, cited in Biafora & Ansalone, 2008) in the professional judgment of their teachers and principals. Almost immediately, urban schools were organized by principals into factory-like structures where differentiated schooling could appropriately socialize the various groups of students into work roles appropriate to their class standing (Spring, 1997). Similar events were taking place on the west coast, as large communities of Hispanic and Asian immigrants were moving into California. These new Americans were forced to attend segregated schools until the San Francisco Board of Education allowed Chinese students to attend the city high school in 1905 (Spring, 1997).

Early educational reformists began to see this sorting of children as a racial, ethnic, and class segregation of students and called for immediate reforms. These challenges to the system of tracking by assumptions due to race, ethnicity, and class led to a new process of sorting or tracking of students based upon perceived ability (Ansalone, 2006); scientifically proven by the ideals of intelligence and social
Darwinism. In 1904, Alfred Binet developed a scale, the Intelligence Quorum (IQ), which he believed was capable of measuring the intelligence of elementary school children. By testing students in Paris schools, his goal was to identify the low-ability students and segregate them into separate classes. Almost immediately thereafter, Social Darwinist Lewis Terman brought the test to the United States as a tool to prove his theory that poor African American and predominately Eastern European immigrant children, were social deviants who watered down the achievement of other children (Burris & Welner, 2005). The prevailing wisdom of that time depicted these students were incapable of learning, and schools sought to make them efficient workers with their hands. A curriculum composed of the same abstract knowledge that challenged the typical student would not be suited for all students, but providing each ability level with the tools to obtain a trade or a profession was considered an equitable outcome of schooling (Ansalone, 2006).

Sorting of students into homogenous groups based upon their ability to achieve at a specific academic level continued into the mid-20\textsuperscript{th} century (Lynch & Baker, 2005, Richardson et al., 2002; Rubin, 2006). This type of grouping separated low performing students from their high performing peers throughout the educational day, as principals placed students into high school courses that prepared them for either lower wage blue collar positions, or provided a more liberal arts program for students that were college bound (Biafora & Ansalone, 2008). Concerns over this type of grouping began to emerge as evidence showed that once a student was assigned to a specific track, they almost always remained in that grouping until graduation (Richardson et al., 2002).
In order to provide students with the perceived opportunity to move from one track to another, principals began to utilize a process known as ability grouping. In this process, students that demonstrate mastery of specific skills would be able to move from a lower track to a higher one. As the research continued to show, racial, ethnic and socioeconomic segregation continued to be seen as more poor and minority students remained in the lowest levels (Vanfossen, Jones, & Spade, 1987; Yonezawa, Wells, & Sterna, 2002). This concern continues to this day as we see an ever widening achievement gap between White students and their minority peers (Verdugo, 2011).

Regardless of the fact that waivers to meeting AYP are beginning to be approved by the U.S. Department of Education, the moral dilemma of the increasing achievement gap requires a solution to be found.

Although much has been written about the different kinds of value-added metrics and the concerns that arise from its use, there is a considerable gap in the literature as to how value-added can be used to assist principals in the placement of students. Utilizing the foundational work on student placement of Monk (1987) and Heck et al. (1989), this study will be adding to the literature current research on the criteria elementary principals use to place students into classes, specifically focusing on value-added metrics.

Theoretical Framework

The theoretical framework for this study is based upon the Effective Schools research of Dr. Ron Edmonds and Dr. Larry Lezotte. The Effective Schools research emerged as a result of James Coleman’s 1966 report of 4000 public schools in which he hypothesized that the homes from which children come from make a greater difference than do the schools they attend (Raham, 2001). In an effort to determine the magnitude
of school characteristics on school performance, Dr. Ron Edmonds led a team of researchers who found that children from two low-income schools performed better than students in more affluent nearby schools (Edmonds, 1982). As the scope of the study increased, hundreds of schools in which children of high poverty levels were learning beyond expectations were explored. These schools became known as Effective Schools (Lezotte, 1992; McLaughlin, 1993). Other studies of individual effective schools were launched, in the mid 1960s to mid 1970s, to see if researchers could duplicate the findings what was being done differently in these schools (Edmonds, 1979a, 1979b; Edmonds, 1982; Klitgaard & Hall, 1973; Lezotte & Bancroft, 1985). This has become known as the Effective Schools movement.

According to Lezotte (2001), the first task of the Effective Schools research was to identify existing effective schools. These were schools that were successful in educating all students regardless of their socioeconomic status or family background. After the schools were identified, researchers synthesized common characteristics among the schools, which were later named the correlates of effective schools (Lezotte & Snyder, 2011). Initially published by Ron Edmonds in 1982, the correlates are the means to achieving high and equitable levels of student learning and thus eliminating the achievement gap between African American students and their White peers (Edmonds, 1982). The expectation behind the effective schools is that each year, children will minimally learn the essential knowledge, concepts and skills that are needed to be successful in their next year of schooling.

From this vast amount of scholarly study and practical implementation, seven correlates have been identified that serve as a template for the mission of learning-for-all:
• high expectations for success,
• strong instructional leadership,
• clear and focused mission,
• opportunity to learn/time on task,
• frequent monitoring of student progress,
• safe and orderly environment, and
• positive home-school relations (Lezotte & Snyder, 2011)

This study focuses on the correlate of strong instructional leadership and how principals use that leadership to place students in specific classrooms to enable their students and teachers the best opportunity to earn positive composite value-added growth for all fourth through eighth grade students, and in turn eliminate academic achievement gaps. By connecting Effective schools methodology and the value-added research of Dr. William Sanders of providing high quality instruction, school leadership, and school-based decision making, all students can and should learn commensurate with their abilities (Sanders & Horn, 1994).

**Instructional leadership.** The principals are not the sole leaders; they are the “leaders of leaders” (Lezotte, 1991) empowering teachers and including them in decisions about the school’s instructional goals. Teachers work together with the principal to ensure that expectations for student achievement are understood across classrooms and across grade levels. Principals serve as education leaders in a variety of ways. Acting as an instructional leader, the principal keeps the faculty focused on raising the bar to close the achievement gap (Fullan, 2007). This moral transformative leadership style (Marshall & Olivia, 2010) ensured the opportunity for success for all, by
teaching their faculties how to successfully understand and utilize data to ensure that yearly AYP targets are being met.

As a collaborative leader, the principal fosters strong relationships with the students, staff, and faculty to plan, organize, and implement (Carter, 2007) various policies and programs. Again in an effort to reduce academic gaps, principals provide opportunities for faculty to research high quality interventions and enrichment activities that challenge students to not only meet the previously cited essential skills, but also strive to build a depth of knowledge that propels each student in more advanced classes. This visionary leadership that Effective School principals utilize, Lezotte and Snyder (2011) call forward looking and it is the bridge between understanding VAMs as a function of effective instructional leadership to create an effective school.

Focused leadership demands that an effective school principal needs to monitor and evaluate daily all the actions of the school community (Ubben, Hughes, & Norris, 2007) to promote high levels of achievement for all students, and as a connected leader who is always looking to build strong community-school partnerships (Ohio Department of Education, 2008). These home-school partnerships are settings for additional instruction to take place (Lezotte & Snyder, 2011). Whether they are small group interventions or one-on-one mentoring sessions (Freeman, 2010) the goal for these programs is to find additional learning opportunities for students that are currently behind in the essential skills of their grade level work so that they can catch up to their peers. In more explicit terms, make the annual AYP gains for a school to be considered effective. As much of the work regarding Effective schools was gaining strength, individual students and schools were reducing the achievement gap (Lezotte & Snyder, 2011). In
order to reduce the achievement gap for all students, educational researchers were studying new ways to statistically determine student achievement (value-added metrics) to meet the No Child Left Behind Act (NCLB) mandates that all students will be proficient in reading and mathematics by the 2013-2014 school year.

**Utilization of value-added as a function of instructional leadership.**

Instructional leaders that have even begun to look at the data are at risk of misinterpretation of or misusing data, since the model hasn’t been shared widely enough or independently tested enough to merit its widespread use in any kind of education accountability system (Amerlin-Beardsely, as cited in Viadero, 2008). Ruhil and Lewis (2009) in a study of Ohio District Value-Added Specialists (DVAS) found that only 28% of the districts had a good-to-excellent rating on utilizing the data effectively. Now that the Battelle sponsored SOAR program was adopted by the Ohio Department of Education as the state data collection and dissemination service, the need for teachers and principals to use the data to positively affect student performance has changed from a voluntary program to an Ohio statute for all public school districts.

**Implementation of value-added principles.** In order to be 21st century instructional leaders, principals need to effectively and efficiently use data in all student decision making. As Lezotte and Snyder (2011) pointed out, frequently monitoring students’ progress is an essential element of effective schools. Student data can be gleaned in many forms – discipline rates, student attendance, formative and summative assessments (Lezotte & Snyder, 2011). For building principals, the decision about what type of data to use is quickly being answered for them by state legislatures. School performance measures are most likely here to stay (Harris, 2011), and in states like
Tennessee, Florida, Texas, and Ohio value-added data are where state governments and departments of education are looking to reduce the achievement gap (Lewis et al., 2008). Value-added scores alone will not eliminate the gaps. For building principals to be true instructional leaders, the use of value-added to effectively judge instructional practices and educational programs is an essential element to meeting the goal of academic success for all students (Harris, 2010).

Based upon Sanders (1998) initial philosophy that value-added is a measure of the product (the standardized test and value-added score) and not the process how the instruction took place), building principals should utilize Sanders’ practical applications to investigate and implement best practice strategies for the needs of their students. These formal opportunities to engage in additional supports must be in place to provide additional learning opportunities for at-risk students (Freeman, 2010). For example, for students that are second language English learners programs such as Sheltered Instruction, Observation Protocol (Echevarria, Vogt, & Short, 2008) provide students with clearly defined expectations that are linked to their background knowledge. Within the effective schools framework, these students will be held to a high expectation as well, and using value-added to measure their educational growth ensures that these students’ educational needs are not ignored (Harris, 2011).

Another intervention framework to meet the needs of struggling students is Response to Intervention (Wright, 2007). Response to Intervention (RTI) is a specifically designed time in the school day when students receive academic intervention for specific skills or enrichment of those skills through activities that promote deeper understanding. Flexibly grouping students for math and reading skills again provides additional small
group supports for at-risk students in addition to building the cultural capital by infusing additional art, music, food and other academic programs (Eaton, 2010; LaReau, 1987). These additional learning opportunities for students within the school day can be evaluated by using simple value-added growth measures of student performance against school peers as cited earlier (Harris, 2011). By monitoring the weekly and monthly progress of student achievement (Lezotte & Snyder, 2011), the overall goal of meeting end of year value-added targets is more likely.

Supplementing common core curriculum with transformative culturally rich (Lindsey, Robins, & Terrell, 2009) instruction provides all students especially ones of minority groups, an opportunity to develop the knowledge and skills needed to critically examine the current political and economic structure that they currently live within (Davis, 2004). Providing students with a voice within a school to change the conditions of social injustice fosters meaningful, equal status, cross cultural trusting relationships (Levine, 2010). Relationships increase engagement, and student engagement increases achievement (Levine, 2010). Trusting relationships between teachers and students build high expectations for each other, the key aspect of the effective schools framework (Lezotte & Snyder, 2011). As Lleras (2008) pointed out, when teachers provide academic rigor, a majority of students rise to the expectation level (Lleras, 2008), and so it is imperative that principals use strong statistically correct value-added data in the placement process in order to reduce the achievement gap (Harris, 2011). Under these principles, the creation of the Student Placement Survey (see Appendix A) and Student Placement Survey Interview protocol (see Appendix B) was designed to study the
opinions and practices of principals of highly effective fourth through eighth grade schools in Ohio.

Summary

This chapter described the historical context of the State of Ohio and federal accountability systems. In addition, an in depth literature review regarding value added metrics and the history of student placement was connected to the effective schools research on instructional leadership to build the theoretical framework for this study. The next chapter will outline the methodology, based upon the current research and the researcher’s own personal experiences, used in the creation of a Student Placement Survey and follow-up Student Placement Survey Interview protocol.
Chapter 3: Methodology

Building upon the theoretical framework outlined in Chapter 2, the researcher utilizes a mixed-method design that employees both quantitative and qualitative analyses. The study tries to identify a process that principals could use to effectively place students into classrooms with specific teachers in order to reduce the achievement gap. Mixed-methods research demonstrates value when a researcher tries to solve a problem that is presented a complex educational context (Teddlie & Tashakkori, 2009). By merging the data and results in a mixed methodology approach, the goal is to compliment the conclusions drawn by each method. The collective results could be used as a guide for practitioners in the placement of their students. In order to maintain the integrity of each data set, interpretations did not take place until the final analysis. This chapter outlines the research design of the study, the instruments utilized, and the participants involved in the survey and interviews. Additionally, the data collection procedures for this two-part study that are implemented by the researcher are discussed, and the data analysis procedures are outlined.

Research Design

This study adopted a mixed-methods approach that employed both quantitative and qualitative methods. Data collection took place through the Student Placement Survey (SPS) (see Appendix A) and through the Student Placement Survey interviews (SPSi) protocol (see Appendix B). This method allowed for the triangulation of the data through the combination of Likert rating survey information, responses to items, and written responses to open ended questions, and interview data. The expectation was to identify trends in the opinions and values of principals in highly effective fourth through
eighth grade schools regarding how they utilize objective and subjective data in the student placement process (Creswell, 2009).

To answer the research questions, the researcher collected data by asking Likert-scale questions and short answer questions in a web-based survey and conducted semi-structured face-to-face interviews. The survey was limited to 44 non-repeating questions that covered five areas of student placement decision making. This purposeful decision caused the survey to lack measures of internal consistency, but allowed the researcher to collect a wide variety of data on placement. In order to make the survey questions scalable, the researcher felt that the survey needed to be limited to only one or two aspects of placement (e.g., teacher information or student behavior), or that the survey would need to be approximately 150 questions. By limiting the SPS survey to 44 questions and then interviewing principals for additional data, the researcher believed that this design provided the best opportunity to maximize the number of participants, since it was impractical to ask currently serving principals to complete a two to three hour survey. By utilizing a variety of data collection procedures, the researcher was able to triangulate the data.

Subjectivity statement. The researcher was aware that it was impossible to detach myself from the study since my position as an elementary school principal inevitably influenced my approach and the outcomes of the study. In order to reduce my professional biases, the researcher situated the study within multiple bodies of research literature and used research procedures that were consistent with the theoretical framework and questions that guided the study. This approach was intended to establish reflexivity and underscore the fact that, as an investigator, the researcher was part of the
study and had influence over its outcomes. In order to minimize the effect of my biases, the researcher utilized a number of data collection, sampling techniques, and analysis strategies recommended by Mertens (2010) for survey research and Marshall and Rossman (1999), Miles and Huberman (1984), and Richards (2009) for interpretive research.

In terms of sampling and participant selection, the researcher wanted to be sure not to survey or interview principals who would tell him what he wants to hear; therefore, all 218 principals were asked to participate in the survey. Those that chose to be interviewed were randomly selected from various areas across Ohio, within self-determined criteria (school classification, school size, and number of subgroups). The criteria based approach to sampling ensured that the researcher was not biased in participant selection.

The researcher used several strategies to maintain the validity of the data. First, the survey data were collected via a web-based survey that was stored in a password protected server at the researcher’s place of employment. Additionally, paper copies of the survey responses were printed and stored in a locked cabinet in the researcher’s office.

For the voluntary interviews, the researcher voice recorded all the interviews, made observational notes, and transcribed data verbatim. These approaches ensured that the participants’ perspectives were captured accurately and served as the basis for data analysis. Both the transcriptions and voice recordings were stored in a locked cabinet in the researcher’s office.

To ensure that the researcher accurately and adequately represented a participant’s perspective the researcher incorporated a few checks. To preserve the voice of the
participant, the researcher used direct quotes from the interviews and group discussions. To rule out misinterpreting the participants, the researcher attempted to use member checking by asking interviewees to review my transcriptions of their interviews. The researcher did not receive feedback when he sent out the transcripts for review. This being a dissertation study, the researcher also received feedback from his dissertation chair and dissertation committee.

**Research questions.** The following questions were addressed in this study.

1. What other forms of assessment data are available for Ohio fourth through eighth grade principals?
2. How valuable do building administrators find value-added information?
3. How are class placements determined?
   a. In what ways do principals use value-added data to build class assignments?
   b. What other criteria do principals use in class placement procedures?
   c. Who is involved in these placement decisions?
4. Is there a relationship between the Student Placement Matrix and change inside of the identified subgroups?

**Instrument Development**

Prior to this study, the researcher conducted an initial investigation to study how effective school principals were using data at their schools for the placement of students into classrooms. Based upon the initial study’s data, the researcher used a similar process to develop the current study. In the initial study, four successful fourth through eighth grade principals from Southwest Ohio were interviewed through a semi-structured interview process (see Appendix C). After open coding the transcripts, four specific
nodes of data were identified: value of the data, use of the data, class organization, and the placement processes. After a second round of coding, specific themes (student behavior, teacher information, parental input, and prior student achievement) emerged under each node and relationships between the nodes were identified (Richards, 2009). From the initial investigation interview results, it was clear that the principals valued the teachers’ opinions in the placement process. Additionally, this collaborative effort focused on how students were grouped—both behaviorally and academically—by the team using various data points.

Utilizing the data from the initial investigation and based on the research of Vicente and Reis (2010), who investigated the response rates of web-based surveys, the web-based Student Placement Survey (SPS) survey was developed (see Appendix A). Conceptually, the current study examined the relationship between the principal’s use of value-added data and other student, teacher, and parent factors in the placement process. To measure the range of opinions from the principals regarding the importance of data use, as well as, the extent of which data were used, the SPS was developed using Likert formatted opinion questions.

In order to get the best response rate possible, an initial email (see Appendix D) describing the survey and reason for their selection was delivered. The researcher purposefully limited the number of survey questions (Shih & Fan, 2008), to maximize the number of participants who would be willing to participate and in turn, to increase the richness of the data. Building a survey that asked multiple variations of questions within the multiple subscales would have created a time intensive survey that would be impractical for busy principals to complete. Therefore, the survey design was organized
into a general demographics block and five categories: general value-added usage, general placement information, student behavior, parental input, and teacher information blocks that asked a specific question relating to an aspect of the placement process.

Within each section, two types of Likert questions were designed. The first set of were designed to asked respondents how often they used a specific type of data. These responses ranged, from 1 = never using data for placement decisions, 2 = rarely using data for placement decisions, 3 = sometimes using data for placement decisions, 4 = quite often using data for placement decisions, to 5 = very often using data for placement decisions. The second set of Likert questions categorized how important this type of data was. Responses ranged from 1 = not at all important, 2 = very unimportant, 3 = neither important nor unimportant, 4 = very important, to 5 = extremely important. Short answer responses provided participants an opportunity to expand upon their survey answers.

**General demographics.** The general demographics section provided an opportunity for participants to describe themselves (e.g., gender, race, experience, and educational achievement) and their schools (e.g., public-magnet-other, urban-suburban-rural, student population, grade levels, and AYP status). These questions were items 1 through 10 on the survey.

**General value-added usage.** The General Value-Added Usage section looked to identify if building principals were using value-added, teacher, and student data. Questions ranged from how often these data were used to how the principals valued the data. Items 11, 12, and 16 through 18 were in this section of the survey.

**General placement information.** General placement questions investigated the underlying framework of the placement process. These questions identified if principals
and teachers worked together to place students, the use of data in the placement process, if academic ability groupings occurred, and the ability to change initial placement. Items 13 through 15, 19 through 21, and 24 through 26 were in this section of the survey.

**Student behavior.** Student Behavior questions investigated responses to determine if a student’s behavioral needs outweighed a student’s academic needs. Additional questions focused on the importance of creating a balance of student behaviors across a grade level and the input of teacher and parent opinions on student behavior. Items 22, 23, and 27 were in this section of the survey.

**Teacher information.** Teacher Information questions identified the role of teachers in the placement process. The principals identified if they place students with or separate from specific teachers, what skill sets of teachers they valued as most important, and who was the most important person in the placement process. Items 28 through 31 were in this section of the survey.

**Parental input.** Parental Input questions judged the value that principals placed on parental opinions in the placement process. Questions asked if parental input was considered in order to connect their child to a specific teacher or with another student. Conversely, questions to see if parental requests to separate their children from teachers and other students occurred. Items 32 through 35 were in this section of the survey.

**Short answer qualitative questions.** Items 36 through 47 were short answer questions that addressed aspects of the previous five categories. To ensure that some qualitative data would be gleaned from the survey respondents, a limited number of open ended questions needed to be scrolled through before the respondent could exit the survey (see Appendix A). This occurred to provide more detailed information to
strengthen the results of the study. Respondents that showed more interest in the topic were also more likely to respond to the open ended questions (Holland & Christian, 2009). In order to ensure that topical interest occurred (Shropshire et al., 2009), the open ended response questions crafted from the data collected during the preliminary study. These open ended questions provided the respondent with a concise way to expand on their multiple choice answers. By providing an expanding text box, the opportunity for participants to complete the response increased (Vicente & Reis, 2010), since participants were not arbitrarily limited to a specific number of characters.

Testing Instrument Validity and Usability

Because the survey did not incorporate or rely on a pre-existing instrument, a few extra measures took place before distribution. An external panel of currently serving building principals reviewed the initial survey (see Appendix E) for content validity, (i.e., that the survey measured what it was intended to measure). Additionally, this group also completed the web based survey to determine usability. Following Mertens (2010) outline, the group comprised of males and females, varying experience levels, short tenure (1 or 2 years) and longer tenure principals (5 or more years), and levels of educational attainment. The eight principals who were selected were participant-described urban and suburban school settings with populations ranging between 251 students and 999 students. Each participant reported at least being responsible for two subgroups, and five having four or more subgroups; 100% of interviewees had met adequate yearly progress (AYP) for two or more years.

Once the initial SPS (See Appendix E) had been completed, the researcher took feedback via personal phone communication to address any ambiguities in the questions
(Richards, 2009). Data collection from the initial SPS comments addressed concerns of survey length. The concern over usability and flow of the initial SPS addressed by permitting participants to skip the short answer questions altogether and exit the survey after only completing the multiple choice questions. The initial SPS design had short answer questions at the end of each section (see Appendix E). For the final SPS version (see Appendix A), the movement of all short answer questions to the end of the survey, and the items per screen were limited to no more than ten, reduced the amount of scrolling. This edit eliminated the negative long survey effect (Toepoel, Das, & Van Soest, 2009) shared by the principals. All other comments suggested that the survey was easy to understand and navigate. The respondents’ final item asked if they would like a copy of the results upon study completion.

**Student placement interviews.** For the Student Placement Survey Interviews (SPSi) (see Appendix B), feedback occurred from the four principals of the initial investigation (see Appendix C) after each interview. Subtle changes in the interview questions, as well as inserting additional questions to the final version of the SPSi provided the final protocol for the voluntary interviews. The first question wording changed from “What do you think about value-added data?” to “What is your overall impression of value-added data?” The interview also included the following questions:

- In what ways do you use value-added data (such as EVAAS)?
- How are the data shared in your buildings?
- What skill sets of teachers are the most and least important for placement decisions?
- How do you and teachers work together on placements?
• Who is the most important person(s) in the placement process?
• Who has the final determination of student placement?

Participants

Initially, the researcher identified 245 Ohio school districts out of 611 school districts in the state that had an overall composite value-added measure of + (plus) on their district report card for the 2007-2008, 2008-2009, and 2009-2010 school years. The plus symbol demonstrated that the district had exceeded its expected growth (see Figure 6).

![Value-Added Measure](image)

**Figure 6.** Independence Elementary 2009-2010 value-added measures. Reprinted with permission from Ohio Department of Education (2009b).

To identify these districts, the researcher utilized the Ohio Department of Education’s interactive Local Report Card (iLRC) Power User Reports sortable database (Battelle for Kids, 2011). The exportation of each individual school district’s all tests value-added data for the 2007-08, 2008-2009, and 2009-2010 school years took place in an Excel file for sorting purposes. School districts with above average value-added growth, minimum one standard deviation gain over the standard error score for each
district for all 3 year’s worth of data, became the district pool. After identification of the 245 districts, the identification of 218 elementary schools within those districts that also had a value-added measure overall composite above expected growth on their district report card for the 2007-2008, 2008-2009, and 2009-2010 school years took place. To investigate the best of the best, the high performing schools selected also had to be a part of an equally high performing district.

By connecting the best schools from the best districts, via above expected value-added composite growth, invitations to principals of 218 schools took place through a direct email (see Appendix D). After the first request, 41 participants completed the survey. A week later, a second request increased the sample size to 87. After matching principals to unique identification numbers, each school principal completed the Student Placement Survey (SPS) utilizing the Qualtrics software (Qualtrics Labs, 2005). Qualtrics was a web based survey company that specializes in survey instrument designed and analysis.

Within the SPS, question 45 asked respondents if they would be willing to be interviewed for additional information. Thirty-three respondents indicated that they would be willing to participate. The 33 candidates sorted into the three self-described groups of urban \((n = 9)\), suburban \((n = 16)\), and rural \((n = 8)\). Random selection from each of these groups identified four urban, four suburban, and four rural schools from across the State of Ohio. The researcher contacted each via email (see Appendix F) to inquire of their willingness to be interviewed. The selection of four principals from each category provided an opportunity of equal balance within school settings (urban, suburban, and rural) and locations across the state (northwest, northeast, central,
southwest and southeast). The researcher deemed it important to proceed in this manner so that interviewees could provide a wide range of insight.

Of the 12 principals contacted, six principals were willing to be interviewed. Of these six, four women and two men, all of White ethnicity agreed to participate. Two interviewees had more than five years at the current school, one with three years, one with two years, and two had completed their first year at their current school (the 2010-2011 value-added score represented their first year as the building principal, thus the score was earned during their tenure as principal). The educational achievement of the interviewees ranged from one with a Ph.D., one with advanced graduate studies, three with masters-level degrees, and one indicating other.

The principals classified their schools as two urban, three suburban, and one rural setting, and the student populations demonstrated an even split with three buildings of 250 – 499 students and the other three at 500 – 750 students. Two of the schools had four or more AYP subgroups, two had two, and one school had one subgroup. Three of the schools had achieved the AYP targets for one year, one school had accomplished AYP for two years, another met the target for three years, and the final school had met AYP for five consecutive years (see Table 4).
Table 4

Qualitative Interviewees Demographics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Experience Level</th>
<th>Educational Achievement</th>
<th>School Self Classification</th>
<th>Student Population</th>
<th>Number of AYP Subgroups</th>
<th>Years AYP was Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>male</td>
<td>5 or more</td>
<td>Masters</td>
<td>Rural</td>
<td>250-499</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>female</td>
<td>1 year</td>
<td>Masters</td>
<td>Urban</td>
<td>500-750</td>
<td>4 or more</td>
</tr>
<tr>
<td>3</td>
<td>female</td>
<td>5 or more</td>
<td>Masters</td>
<td>Suburban</td>
<td>251-499</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>female</td>
<td>2 years</td>
<td>Advanced graduate studies</td>
<td>Suburban</td>
<td>500-750</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>male</td>
<td>1 year</td>
<td>Other</td>
<td>Suburban</td>
<td>500-750</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>female</td>
<td>3 years</td>
<td>Ph.D.</td>
<td>Urban</td>
<td>251-499</td>
<td>4 or more</td>
</tr>
</tbody>
</table>

Data Collection Procedures

As previously stated, 218 highly effective fourth through eighth grade school principals were identified to be surveyed. The researcher used the websites of each individual school to identify the name, gender, and email address of each participant. A few contacts needed to be made from telephone conversations with district office personnel due to building closures or consolidations or changes in principals. The researcher sent an initial email to the building principals to introduce the researcher and
explain the invitation to participate (see Appendix D). One week later, survey emails generated from the Qualtrics system were mass distributed. After the initial launch of the survey, 41 participants completed the survey. One week later, a second email acquired an additional 46 participants to complete the survey. Upon completion, respondents received an option to access a copy of the findings and an acknowledgement of their participation. In addition, the researcher reviewed each respondent’s survey to cross-reference the information to ensure completion as an alternative method for validity. For two surveys, one response was missing from the data set. The researcher contacted each principal via telephone to identify the missing response data and obtain the principal’s responses. The researcher entered the missing responses. For four other surveys, the extent of missing data caused them to be eliminated from analysis.

Student Placement interviews focused on a maximum of ten elementary school principals that volunteered to participate. Six principals identified themselves as being interested in completing follow-up qualitative surveys were interviewed. The interviews occurred in a semi-structured, digitally recorded session based upon the questions from the pilot study (See Appendix C). Each interview had all nine questions from the pilot study and the additional five added from the pilot’s information. The interviews were highly structured and took place at a location convenient to the interviewee. All participants received the same questions, and probes were only given when participants did not answer the question adequately. Each interview lasted approximately 35 minutes.
Data Analysis Procedures

The survey design obtained both qualitative and quantitative data, a mixed-methods approach for analysis. Quantitative data manipulation and data analysis took place using the R statistical package version 2.14.0 (R Development Core Team, 2011).

Research question 1. What other forms of assessment data are available for Ohio fourth through eighth grade principals? The researcher digitally recorded and transcribed each interview. Prior to analysis via open coding (Richards, 2009), the researcher reviewed each interview transcript in conjunction with the digital recording of the interview to ensure accuracy. After the review, the researcher read each transcript twice and underlined commonalities within the text with a similar color. The sorting of initial themes into various codes (Richards, 2009) occurred and the process of identifying an appropriate sorting design (Miles & Huberman, 2005) occurred. After completing open coding of the transcripts, additional analysis of the transcripts took place to refine the themes both across and among questions. The identification of specific themes within each node occurred and the color coding of each interview transcript to find relationships to be categorized took place.

Research question 2. How valuable do building administrators fine value-added information? The researcher downloaded descriptive data (e.g., means, variances, and standard deviations) from Qualtrics for analysis. The downloading of respondent totals for each question for analysis took place. The researcher sorted statistical data into a table so that it could be compared to the nodes and categories of the qualitative interviews (described above) to identify patterns and trends within the two data sets.
Research question 3. How are class placements determined? 3a. In what ways do principals use value-added data to build class assignments? 3b. What other criteria do principals use in class placement procedures? 3c. Who is involved in these placement decisions? The researcher downloaded each short answer response and descriptive data (e.g., means, variances, and standard deviations) from Qualtrics for analysis. Prior to analysis via open coding (Richards, 2009) the researcher reviewed each response by comparing it to the Qualtrics website to ensure accuracy. After the reviews, each short answer response list displayed commonalities within the lists that the researcher organized into similar categories. The initial categories were reviewed once again and a final sort into nodes (Richards, 2009) took place. The researcher organized the items in each node to determine an overall pattern, as well as, review for specific details that provided additional data. The comparison of short answer data to the interview nodes and categories with similarities allowed for the identification of patterns when matched to the descriptive statistics of the SPS.

Research question 4. Is there a relationship between the Student Placement Matrix and change inside of the identified subgroups? An exploratory analysis was conducted to examine the conceptually developed Student Placement Matrix (SPM) with assigned weights and change in student achievement. First, a pilot with one subgroup was conducted, and the assumptions for regression analysis were tested. Second, the SPM weights were altered based upon pilot data. Finally, an exploratory analysis was conducted on the other subgroups. It was expected that a statistically significant relationship between SPM and achievement gap change in the investigated subgroups:
Economically Disadvantaged students, Students with Disabilities, African American students, and Multiracial students.

*The student placement matrix.* The researcher designed the initial format of the Student Placement Matrix (SPM) exploratory study based upon his personal experiences as a nine-year veteran principal of a highly effective second – sixth grade elementary school and current research. The researcher designed a survey instrument to assess the opinions of 87 principals of highly effective fourth – eighth grade schools across the State of Ohio. The Student Placement Survey (SPS), (see Appendix A) asked principals Likert style factual questions within the areas of General Value-Added Use, General Placement Information, Balanced Behavior Concerns, Parental Information, Behavior over Academics, and Teacher Information. Transferring those data into weighted categories, the researcher ran multiple regressions to differentiate what types of data were best suited in the placement process to meet the goal of identifying achievement change in the subgroups of Economically Disadvantaged Students, Students with Disabilities, African American Students, and Multiracial Students.

Initially, the SPS questions and their corresponding nodes had a six theme organization (general value-added use, general placement information, balanced behavior concerns, parental information, behavior over academics, and teacher information). The researcher categorized the themes into two types of data sources: objective and subjective and assigned regression codes for each item for analysis (see Table 5).
Table 5:

*Objective and Subjective Student Placement Matrix Questions and Regression Codes*

**Objective:**

<table>
<thead>
<tr>
<th>General Value-Added Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do principals using Value-Added Data at the beginning of the year? VABeginning</td>
</tr>
<tr>
<td>Do principals use Value-Added Data during the year? VAduring</td>
</tr>
<tr>
<td>Do principals use Value-Added Data for intervention purposes? VAintervention</td>
</tr>
<tr>
<td>Do principals use value-added teacher data? Teacher.VA</td>
</tr>
<tr>
<td>Do principals use of value-added student data? Student.VA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Balanced Behavior Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are behavior concerns balanced across the grade level? behavior.balanced</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Placement Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do principals use other forms of data? OtherData</td>
</tr>
<tr>
<td>Do principals use teachers in the placement process? TCHPlace</td>
</tr>
<tr>
<td>Do principals complete placements individually? PrincipalOnly</td>
</tr>
<tr>
<td>Are principals forced to follow district mandates in placement decisions? Mandates</td>
</tr>
<tr>
<td>Do principals allow changes to initial placements to happen? IPchange</td>
</tr>
<tr>
<td>Are class rosters adjusted after the school year begins? Readjust</td>
</tr>
<tr>
<td>Do principals purposefully place a student with a teacher? child.teacher</td>
</tr>
<tr>
<td>Do principals purposefully separate a student from a teacher? child.from.teacher</td>
</tr>
</tbody>
</table>
Subjective:

Behavior Concerns over Academics

- A student’s behavior concern taking precedent over academic performance behavior.ACA
- A student’s behavior concern taking precedent over Value-Added projection behavior.VA

Parental Information

- What value is a parent’s request to separate students? P.SepStud
- What value is a parent’s request to match students? P.match.Stud
- What value is a parent’s request to separate a student from another teacher? P.SepStud.TCH
- What value is a teacher’s request to match a student with another teacher? P.Match.Stud.TCH

Teacher Placement Information

- Do principals use a teacher’s request to separate students? TCH.SepStud
- Do principals use a teacher’s request to match students? TCH.match.Stud
- Do principals use a teacher’s request to separate a student from another teacher? TCH.SepStud.TCH
- Do principals use a teacher’s request to match a student with another teacher? TCH.match.Stud.TCH

Heck, Marcoulides, and Glasman (1989) stated that principals used multiple criteria and data to make effective decisions on student placement. Utilizing a combination of personal experience and the research of Bruce & Ross (2008); Burns & Mason (1995); Eaton (2010); Elder & Padover (2010); Fuchs, Fuchs, & Phillips (1994); Harris (2011); Heck & Moriyama (2010); Heck et al., (1989); Jacob & Lefgren (2007); LaReau (1987); Lezotte (2011); Lezotte & Snyder (2011); Ma & Klinger (2000); Monk
(1987); Robinson, Lloyd, & Rowe (2008); and Sanders (1994), the design of the SPM intended for the weighting of specific categories and variables that demonstrated statistical significance in past research.

The objective data categories include: Value-Added Usage, General Placement Information, and Student Behavior. The objective data categories weights provided to be more impactful on the total SPM in response to the theories of Lezotte (2011) and Sanders (1994) which promoted the use of research based statistical data to increase student achievement. Due to its direct impact on student achievement, the objective data had a more robust 67% weight. The Subjective data categories were Parental Input, Teacher Information, and Behavior over Student Academics. Since the researcher felt that subjective data incorporated the intuition of parents and educators, this set of information was 33% of the SPM.

Objective data – value-added usage. A student’s academic past achievement has always played a role in their next year’s placement. Historically, public education utilized professional judgment as the accepted standard of proof of student achievement (Lezotte & Snyder, 2011). In the age of accountability, that standard no longer meets the burden of proof that students are making educational growth. The amount of subjective (opinion based) and objective (statistically based) student data that schools collect and value continues to increase, and the role of the instructional leader is to be able to identify and utilize the best data possible to improve teacher instruction and the environment surrounding instruction (Heck & Moriyama, 2010).

Considering that school value-added data provides fewer opportunities for systemic error (Harris, 2011), the utilization of these data sets not only in general, but
also for placement processes has an effect on the overall use of value-added data in a school and was given a 50% weight in the objective portion of the SPM. Within the conceptual framework, the use of value-added data variable consisted of practitioner indicators such as: Battelle for Kids Value-Added Student Projection Reports and Ohio Department of Education Teacher Value-Added Reports, and the utilization of these data sources throughout the school year for placement in core courses; as well as, instructional practices, quality of teaching, and time for intervention opportunities (Heck & Moriyama (2010).

In a meta-analysis of the impact of instructional leadership on student achievement by Robinson, Lloyd, and Rowe (2008), high expectations and goal setting (with an average effect size of 0.42 standard deviations) proved to have a moderately large positive impact on student achievement. Lezotte and Snyder (2011) emphatically demonstrated that effective schools not only have high expectations for their students, but also their teachers. Connecting these expectations to meaningful achievement goals for all students and staff that are judged by Sanders’ VAMs provided a scholarly basis for weighting the use of value-added data variable as 50% of the Objective data section. Schools that purposefully share data with staff for intervention purposes would create an increased contribution on the SPM; whereas, never referring to value-added data would have a decreased contribution.

Objective data – student behavior. The positive relationships between students and school staff provide the opportunity for the construction of a disciplinary climate conducive to academic success (Ma & Klinger, 2000). Effective schools use
combinations of students and teachers that are behavioral matches since those classes tend to be more orderly (Lezotte & Snyder, 2011).

Truly effective teachers should be able to work with any student, but professional experience demonstrated that the spreading of discipline concerns across all teachers in a grade level, a consideration highlighted by Heck, Marcoulides, and Glasman (1989) provided both students and staff the best opportunity to build strong relationships. They found that specific use of teacher student matching was one variable that both directly and indirectly affected the principal’s placement decisions.

Additionally, Robinson’s et al. (2008) meta analysis identified that ensuring an orderly and supportive environment with consistently enforced social expectations and discipline codes provided a small, but positive mean effect size of 0.27 standard deviations. Connecting the practitioner experience with the research enabled the Student Behavior variable, to be weighted at 30% of the overall Objective data portion of the SPM.

Objective data – general placement information. In their 1989 study of principal decision-making, Heck, Marcoulides, and Glasman (1989) grouped placement considerations such as principals’ perceptions on teachers’ for assignment, teacher attitudes, and teacher suitability into a category entitled Internal Political Concerns. Secondly, the pressures from district level factors (i.e., district mandates and overall staffing needs) were categorized as Organizational Concerns. Their research showed that these two categories had a small positive effect on the principal’s decision making process - Internal Political Concerns (0.22) and Organizational Concerns (0.13).
By utilizing professional experiences and additional research, many of the aspects that Heck et al. identified were matched together to construct a more robust General Placement variable. One aspect of this variable is a combination of questions regarding if principal’s placement decisions were driven by district mandates, curriculum mandates and intervention programs (Echevarria, Vogt, & Short, 2008; Wright, 2007), and if those initial placements changed during the year. Secondly, the use of other forms of data (i.e., reading and math assessments, report card data, and other standardized tests), Lezotte and Snyder (2011) identify as objective in nature, since they can be traced through in rigorous and relevant Core Instruction, (Davis, 2004; Levine, 2010; Lindsey, Robins, & Terrell 2009). Thirdly, the question of who is involved in the placement decision (i.e., principals and teachers or only principals) was derived from Monk’s 1989 research on placement decision making. Finally, if principals specifically matched or separated a teacher from a student was tested by Heck et al. (1989), showing one point of teacher student matching had a 0.15 increase on their allocation decision making. Additional research from Robinson et al. (2008) demonstrated this type of strategic resourcing and planning coordinating and evaluating teaching demonstrated effect sizes of 0.31 and 1.1 respectfully. By summarizing all of these academic foci into the General Placement variable, it represented the final 20% of the Objective data.

Subjective data – parental placement information. The connections between home and school have a profound effect on a child’s education (Jeynes, 2007). Parents want an assurance that their children were in safe and orderly schools, and teachers want parents to be active members of the school with behavior and academic support for their children (Lezotte & Snyder, 2011). The complex nature of the parent/teacher relationship
was demonstrated as parents show varying levels of support through communication with
the teacher, volunteerism at the school, and academic support from home (Epstein et al.,
2002).

From personal experience, not all parents provide input to the principal for
placement purposes; additionally the role of parental input in the placement process is not
evenly applied by principals, some use it, others do not. More active parents may believe
that they have more information, since they were in the building more often volunteering
or having lunch with their child. Parents may request that their child be placed with or
separated from a specific teacher due to information they collect while at school.
Additionally, parents used information from school, as well as, the neighborhood to
request that their child be placed with or separated from a specific student. Some of this
information can be valuable to a principal in the placement decision, but given the fact
that this information is not evenly applied for all students, Parental Information was
weighted at 40% of the subjective data total.

**Subjective data – behavior over academics.** In the effective schools
methodology, Lezotte and Snyder (2011), discuss student behavior in the global terms of
a safe and orderly school environment. Prior to students entering the school, teachers and
principals must be committed to developing an atmosphere where they were present and
vigilant and committed to consistently enforced rules and regulations (Lezotte & Snyder,
2011). Robinson et al. (2008) found that orderly and supportive environments do had a
small positive effect on student achievement (0.27 standard deviations) But, personal
experience and research demonstrated that other factors such as race and perceived
behavior concerns had at times trumped placement by a students’ academic abilities.
Renya (2000) pointed out that teachers, through emotional or behavioral cues, can have a negative impact on a student’s motivation and future achievement. Many of these cues were subjective in nature based upon stereotyping negative perceptions, and biases which influence teacher’s perception of student achievement (Riley, 2010). For teachers who hold high standards and positive feelings toward students and their work, Fuchs, Fuchs, and Phillips (1994) demonstrated that a large positive effect size of 0.68 was identified for low achieving pupils and a 0.46 effect size for average achieving students. By weighting behavior over academics as 30% of the overall 33% subjective data section of the SPM, placement based upon the variable of behavior over academics can have an effect on the SPM.

Subjective data – teacher information. Objective teacher information regarding the expectations and performance of their students will play a positive role in determining the usefulness of the SPM in reducing the achievement gap. However, there were other subjective forms of teacher information that play a less appropriate role on the SPM. As cited earlier, teachers that hold high expectations for students and provide adequate academic rigor provide greater opportunities to increase student achievement (Lleras, 2008). Effective schools philosophy clearly described the need for teachers to believe that all students can and will obtain mastery of intended curriculum (Lezotte & Snyder, 2011), but not all teachers were able to effectively judge their colleagues’ abilities. From personal experience, many teachers do not possess the observational or relational skills to adequately judge peer effectiveness (Bruce & Ross, 2008); those teachers that do had either been a peer-coach or had been coached by a properly trained mentor.
As Elder and Padover (2010) discussed, peer coaching was a method that can improve teacher practice. Structured approaches where pairs of teachers of similar experience and competence observed each other, developed and implement goals, and provided quality feedback after another round of observation took place does improve student achievement (Bruce & Ross, 2008; Elder & Padover, 2010), but this model took a great deal of time to build a strong trusting relationship between two peers. In some cases, initial peer-coaching relationships quickly ended as difficulties in making contact and sustaining conversations – especially when a substantive change was warranted (Bruce & Ross, 2008).

Identifying if students were purposefully connected to or separated from specific teachers would create a positive impact on the SPM if those conclusions were based upon patterns found within data, but many of those decisions were subjective in nature, since teachers cannot know how well a student would achieve with next years’ teacher. From the research, the researcher judged the teacher information variable as 30% of the subjective data section. Looking at all of the variables collectively, the conceptual framework for the SPM exploratory study was developed (see Figure 7).
Figure 7. Conceptual framework for Student Placement Matrix.

The entire SPM equation was represented by: the summation of the objective data

\[
\left[\left( V_{\text{Beginning}} + V_{\text{During}} + V_{\text{Intervention}} + T_{\text{TeacherVA}} + S_{\text{StudentVA}} \right) / 5 \right] \times 0.5 + \left[ \left( + OtherData + T_{\text{TCHPlace}} + PrincipalOnly + Mandates + IPchange + \text{Readjust} + \text{child.teacher} + \text{child.from.teacher} \right) / 8 \right] \times 0.2 + \text{(behavior.balanced)} \times 0.3 \quad \text{equaled two-thirds of the total SPM.}
\]
The second portion of the SPM, identified through one-third of the total subjective data section, was a summation of \[\{(\text{behavior.ACA} + \text{behavior.VA})/2\} * 0.3 + \{(\text{P.SepStud} + \text{P.match.Stud} + \text{P.SepStud.TCH} + \text{P.Match.Stud.TCH})/4\} * 0.4 + \{(\text{TCH.SepStud} + \text{TCH.match.Stud} + \text{TCH.SepStud.TCH} + \text{TCH.match.Stud.TCH})/4\} * 0.3\]. Summation of the objective data and the subjective data and weighted by two-thirds and one-third respectively provided the equation for the total SPM as SPM = objective data (.67) + subjective data (.33).

**The student placement matrix data analysis procedures.** Utilizing the R statistical package version 2.14.0 (R Development Core Team (2011)) an exploratory study tested the construct variables of the SPM to determine if any relationships existed between the SPM as a whole, the objective or subjective sections, and/or any of the individual variables to reducing the achievement gaps of schools with Economically Disadvantaged (ED) students. For this pilot group, the researcher tested multiple regression analysis assumptions and visually checked each scatterplot. The researcher performed Matrix modifications based on results of t-tests run at a 0.05 significance level. The researcher updated and recalculated the model for the remaining subgroups to answer research question 4 based upon the remaining subgroups: Students with Disabilities, African American Students, and Multiracial Students.

**Summary**

This chapter described the research design and methodology for the study, the development and testing of instruments, participant selection, data collection, and data analysis procedures. Chapter 4 will present the data analysis for the study.
Chapter 4: Data Analysis

This chapter describes the mixed-methods analyses preformed to address the research questions. Analysis of descriptive data for the survey respondents and their schools provides a backdrop for the outcomes of the Student Placement Survey (SPS), (see Appendix A). Nodes, themes, and categories as well as descriptive statistics were from the short answer responses of the SPS survey and the Student Placement Survey interview (SPSi), (see Appendix B). They were used in collaboration with data from the SPS to provide a deeper understanding of the principals’ opinions.

Data from the SPSi answers the first research question. Research question 1 inquired if principals and teachers use a variety of objective (norm or criterion referenced) testing data during the student placement process. The interview results transcriptions and codes identified nodes, themes, and descriptions of specific tests used. Research question 2 inquired if principals appreciate and use value-added metrics. Descriptive statistics and results of individual survey questions from the SPS survey as well as coded results from the SPSi determine results. Research Question 3 and its three sub-questions were addressed that by cross referencing descriptive statistics from the SPS, results of the SPS short answer questions, and coded data from the SPSi transcripts schools utilize a wide variety of data to complete the placement process. Research question 4 examined the relationship between the Student Placement Matrix and student achievement.

Student Placement Survey Interview Nodes

Qualitative methods were used to discover how highly effective fourth through eighth grade principals used various forms of objective and subjective data in the student
placement process. Prior to analysis via open coding (Richards, 2009), the researcher reviewed the semi-structured interview transcripts of six currently serving elementary principals with the digital recording of their interviews. During the reviews, the researcher recorded various topic ideas (Richards, 2009) to begin the process of identifying an appropriate sorting design. The researcher identified two specific nodes: data understanding and data implementation. Within each node, subsets of themes and specific categories of information emerged (see Table 6). In conjunction with the data from the SPS, the nodes, themes, and categories described in this table provide results for each research question outlined later in this chapter.
Table 6

Student Placement Survey Interview: Nodes, Themes, and Categories

Node: Data Understanding

Theme: Difficulty in Understanding Value-Added

Theme: The Limitations of Value-Added
  Category: Student Concerns
  Category: Teacher Concerns

Theme: The Benefits of Value-Added
  Category: Student Growth
  Category: Guiding Instruction

Node: Data Implementation

Theme: Objective Data
  Category: Additional Data Sets
  Category: Student Behavior Balance

Theme: Subjective Data
  Category: Parent Information
  Category: Teacher Information/Collaboration

Student Placement Survey Participant Demographics

Eighty-seven respondents of schools that contained various combinations of fourth through eighth grade students completed the SPS. The following tables provided information related to the demographic variables of the participants. In general, the sample could be described as having a slight gender imbalance toward males with 61% of the surveys completed by male principals and 39% of the surveys completed by females (see Figure 8). In comparison, the national average of female elementary principals rose from 52% to 59% from 2000 to 2008 (National Center for Educational Statistics, 2011).
Figure 8. Gender demographics of Student Placement Survey respondents.

Of the 87 participants that completed the Student Placement Survey, a vast majority, 83 of 87 or 95%, were White principals. Of the other four participants one was African-American, one was Latino, one was Asian/Pacific Islander, and one was self identified as another race (see Figure 9).
Figure 9. Ethnicity demographics of Student Placement Survey respondents.

Experience level of the 87 participants skewed toward five or more years (42 of 87, or 48%). Principals finishing their first year as the building administrator consisted of 9% of the survey participants (8 of 87); 14% of the respondents were second year principals (12 of 87). Third year principals comprised 15% of the respondents, and fourth year principals were 14% of the respondents (see Figure 10).
Figure 10. Experience level demographics of Student Placement Survey respondents.

Educational achievement level of the 87 participants heavily skewed toward those with master’s degrees (76 of 87, or 87%), which was the minimum educational requirement to be a principal in the State of Ohio. Principals with a Certificate of Advanced Graduate Studies consisted of 5% of the survey participants (4 of 87). Another 5% of the respondents earned an Ed.D. (4 of 87). Ph.D. level principals comprised 2% of the respondents, and one principal (1%) had earned other degree status (see Figure 11).
Figure 11. Educational achievement demographics of Student Placement Survey respondents.

The respondents classified their schools based upon self description of urban, rural, or suburban. Within the three possible selections, 44 respondents considered their schools to be in suburban areas (51%). Another 14% of the respondents identified their schools to be in urban settings (12 of 87), and 31 or 36% of the respondents labeled their schools as rural (see Figure 12).
In addition to school classification, the respondents identified the student populations of their schools. Within a 250 student size group, only two schools or 2% of the sample had a student population of less than 250 students. Thirty-seven of the 87 respondents (43% of the sample) had schools with a student population between 251 – 499 children. An additional 45% (39 of 87) had student populations of 500 – 750, and 10% or nine of 87 had student populations between 751 – 999 students. None of the principals that participated in the survey had student populations over 1000 (see Figure 13).
Participants’ student populations further disaggregated to identify how many Adequate Yearly Progress (AYP) subgroups - Economically Disadvantaged Students, Students with Disabilities, Limited English Proficient, and students from major racial groups, namely, American Indian/Alaska Native, White, Non-Hispanic, Black, Non-Hispanic, Hispanic, Asian/Pacific Islander, and Multiracial (Ohio Department of Education, 2009b) were represented in each school. Six principals (7%) said that no subgroups were represented in their buildings, and eight principals reported that one subgroup was identified. Twenty-three schools (27%) described their buildings as having two subgroups; 22 schools (26%) had 3 subgroups, and for 31% or 27 of 87 schools, four or more subgroups were represented (see Figure 14).
All schools have at least one subgroup. In order to have a subgroup identified by the State of Ohio, 30 students must be represented for a subgroup. For all schools surveyed, there were more than 30 White students, and therefore an identified subgroup.

To identify schools meeting the increased passage rates on the Ohio Achievement Assessment of all subgroup populations in the school, according to Ohio’s Adequate Yearly Progress (AYP) Targets (see Table 2), participants responded to how many years their schools achieved the target score, and thus met AYP for all subgroups. 36% or 31 of the 87 participants stated that they attained the increased AYP targets for four or more years. Sixteen participants (19%) accomplished the AYP targets for three years; another 16 participants have met AYP for two years. Fifteen participants (18%) achieved AYP for one year, and seven participants (8%) stated that they had never exceeded the AYP targets and never met AYP (see Figure 15).
The SPSS demographic information provided a detailed backdrop of the participants that completed the survey to ensure that a diverse population of principals had their opinions collected. The next section of this chapter presents the data analysis for each research question.

**Research Question 1**

What other forms of assessment data are available for Ohio fourth – eighth grade principals? The researcher predicted that if teachers and principals utilized more information surrounding objective data, they would be better equipped to make placement decisions that increase student yearly gains.

To identify if principals used other types of assessment data in the placement process, question 13 of the SPSS (see Appendix A) directly asked participants to select the importance of other forms of data in the placement process. They rated their answers on a five-point Likert scale where a 5 represented that the data were *extremely important*, 4
corresponded to very important and a 3 denoted neither important nor unimportant. A score of 2 signified that the participants viewed using these data was very unimportant, and a 1 stood for a not at all important response. A relatively large mean of 4.22 demonstrated that a majority of principals felt strongly about the use of multiple forms of data in the placement process (see Table 7).

Table 7

**General Placement: Part 1 Descriptive Statistics**

<table>
<thead>
<tr>
<th>How important…</th>
<th>n</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>…are the use of other forms of data</td>
<td>87</td>
<td>4.22</td>
<td>0.94</td>
<td>0.97</td>
</tr>
<tr>
<td>(i.e., OAA scores, reading levels,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>math performance)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>…are teachers in the placement</td>
<td>87</td>
<td>3.92</td>
<td>1.01</td>
<td>1</td>
</tr>
<tr>
<td>process?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>…is it that principals complete</td>
<td>87</td>
<td>3</td>
<td>1.58</td>
<td>1.26</td>
</tr>
<tr>
<td>placements individually?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This mean score stated that participants felt that the use of other forms of data either very important (45.9%) or extremely important (43.7%) (see Table 8). To identify what specific types of data were being used in their buildings, responses to SPSi interview questions 2, 4, 6, 8, and 10 (see Appendix B) provided specific criterion and norm-referenced assessments within the data implementation node - objective data use theme - additional data sets category.
Table 8

*General Placement: Part 1 Results*

<table>
<thead>
<tr>
<th>How important…</th>
<th>n</th>
<th>Not at All Important</th>
<th>Very Important</th>
<th>Neither Important nor Unimportant</th>
<th>Very Important</th>
<th>Extremely Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>…is the use of other forms of data (i.e., OAA scores, reading levels, math performance)?</td>
<td>87</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>40</td>
<td>38</td>
</tr>
<tr>
<td>…are teachers in the placement process?</td>
<td>87</td>
<td>4</td>
<td>3</td>
<td>14</td>
<td>41</td>
<td>25</td>
</tr>
<tr>
<td>…is it that principals complete placements individually?</td>
<td>87</td>
<td>17</td>
<td>9</td>
<td>26</td>
<td>27</td>
<td>8</td>
</tr>
</tbody>
</table>

**Data implementation node – objective data use theme - additional data sets category.** The utilization of data was a key component in high performing schools (Lezotte & Snyder, 2011) and the use of efficient objective data was widely discussed by each interviewee. Four of the six specifically indentified the use of additional standardized nationally norm-referenced data sets to evaluate student growth beyond the use of value-added data. All six also discussed the use of Ohio’s criterion referenced assessments. Interviewee 1 utilized a combination of longitudinal Iowa Test of Basic Skills (ITBS)/Cognitive Abilities Test (COGAT) test scores, the Standardized Test for Assessment of Reading (STAR) assessments, and the Ohio Achievement Assessment (OAA), and student report card grades to build a data profile on each student. Interviewee 2 liked to use the Achievement Improvement Monitoring System
(AIMSweb) to monitor the progress (of a student) over several weeks, in addition to school and teacher level value-added reports, which “our district looks at it quite heavily.” Interviewee 3 discussed the use of “big data sheets that they (teachers) record everything on,” and interviewee 6 shared that the school was “constantly reviewing data every time we have an assessment.”

Interviewee 4 discussed the implementation of three different resources used to measure the growth of their students. District wide, they used the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) three times a year for all first through third grade students, and at risk fourth and fifth grade students. Additional assessment for comprehension came in the form of the Diagnostic Reading Assessment (DRA) in first and second grade (also used by Interviewee 5), and “for our students in third through fifth, we used Lexiles, so we can see where their comprehension rates are going.” In combination with OAA scores, this information was used to fill out a card on every student for school class lists. These in-house data collections highlighted Rothstein’s (2009b) conclusion that principals could (and do) utilize other information in preparing class placements to reduce achievement gap trends.

Research Question 2

How valuable do building administrators find value-added information? The researcher predicted that building principals find value-added information to be extremely valuable. To determine an answer for this research question, the researcher used a combination of quantitative descriptive statistics and qualitative interview results. Within the SPS, questions 11, 12, and 15 through 17 were asked (see Appendix A). The first section of questions asked, “How often were value-added data reviewed?”
Participants rated their answers on a 5-point Likert scale where a 5 represented that the data were reviewed *very often*, 4 corresponded to *quite often*, and 3 denoted *sometimes*. A score of 2 signified that the participants rarely reviewed value-added data, and a 1 stood for a *never* response. Reviewing the data at the beginning of the school year provided a strong mean score of 4.26 (see Table 9).

Table 9

*General Value-Added Usage Descriptive Statistics*

<table>
<thead>
<tr>
<th>How often are value-added data reviewed…</th>
<th>n</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>…at the beginning of the school year?</td>
<td>87</td>
<td>4.26</td>
<td>0.78</td>
<td>0.88</td>
</tr>
<tr>
<td>…during the school year?</td>
<td>87</td>
<td>3.37</td>
<td>0.75</td>
<td>0.86</td>
</tr>
<tr>
<td>…to identify students for intervention opportunities?</td>
<td>87</td>
<td>3.62</td>
<td>0.94</td>
<td>0.97</td>
</tr>
<tr>
<td>How important…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>…is the use of value-added teacher data?</td>
<td>87</td>
<td>3.06</td>
<td>1.75</td>
<td>1.32</td>
</tr>
<tr>
<td>…is the use of value-added student data?</td>
<td>87</td>
<td>3.17</td>
<td>1.7</td>
<td>1.3</td>
</tr>
</tbody>
</table>

When they did look at the value-added scores to identify students for intervention purposes, 39% stated that they *sometimes* used the data, 34% stated that they *quite often* use the data, and 20.6% referred back to value-added data *very often*. Participants rated
the use of teacher value-added data on a wide continuum; 36.7% of the participants rated teacher value-added data to be *neither important nor unimportant*. Fourteen and nine-tenths percent stated that it was *extremely important*, and another 22.9% stated that teacher value-added data were *very important*. An additional 21.8% felt that the data were *not at all important*.

Looking at student value-added data, similar results reflected the participants’ attitudes. More participants felt that student value-added data were *very important* (29.8%) to the placement process than teacher value-added data with a similar 32.1% indicating that they were *neither important nor unimportant*. On the opposite extremes, 14.9% stated that student added-value data were *extremely important*, and 19.5% said that they were *not important at all* (see Table 10).

Table 10

*General Value-Added Usage Results*

<table>
<thead>
<tr>
<th>How often are value-added data reviewed…</th>
<th>n</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Quite Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>…at the beginning of the school year?</td>
<td>87</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>31</td>
<td>42</td>
</tr>
<tr>
<td>…during the school year?</td>
<td>87</td>
<td>2</td>
<td>9</td>
<td>38</td>
<td>31</td>
<td>7</td>
</tr>
<tr>
<td>…to identify students for intervention opportunities?</td>
<td>87</td>
<td>2</td>
<td>6</td>
<td>33</td>
<td>28</td>
<td>18</td>
</tr>
</tbody>
</table>

(table continues)
How important…

…is the use of value-added teacher data?  87  19  3  32  20  13

…is the use of value-added student data?  87  17  3  28  26  13

Even though survey results demonstrated that the use of value-added data was at the beginning of the school year, additional clarification regarding the benefits and limitations of value-added data were discovered through SPSi questions 1 through 5 (see Appendix B).

Data understanding node - difficulty in understanding value-added theme.
Similar to Harris’ (2011) concerns, that there needed to be an understanding of how the data were developed, how to discuss the data with faculty, and how value-added data can be used with teachers, each interview respondent discussed various forms of difficulty in understanding value-added data. Interviewee number 6 was the most conversant about using value-added, but had been receiving the information from the superintendent, who “is very big into data analysis, and so he has been giving me the data.” Likewise, Interviewee Numbers 2 and 3 also had a general understanding of the results stating that “some of the teacher level reports are simply estimates” and understood that it was based from “one test point” and that “it is only an estimate” of teacher performance.

Interviewee Number 1 said that he, thought “it is a step in the right direction,” but did not feel that the teachers in the building “are necessarily very familiar with box and
whisker charts and I think it is sort of hard to wrap your mind around it if you’re not a mathematician.” Interviewee number 4 clearly stated, “I like, it, but have a hard time with it. I’m not a numbers person; I am more of a relations person.” Finally, Interviewees 4 and 5 “are not real big into value-added,” since “we honestly are just getting into it.” The final two concerns make logical sense, since prior to 2011, over 500 State of Ohio school districts were not using value-added information, since it needed to be purchased from Battelle for Kids in their SOAR program (Battelle for Kids, 2011). With value-added resources sparsely spread out across the state, natural limitations in the data are becoming more visible.

Data understanding node - limitations of value-added data theme - student concerns category. Value-added limitations came in two forms. The first was limitations based upon students, the second limitation focused toward teachers. Interviewee 2 was quick to highlight a concern lodged by both Harris (2011) and Viadero (2009) in that “it’s one data point on one day, on one year, over three years, so…three good years hopefully, but that necessarily doesn’t happen.” Though Sanders (1994) highlighted that the data compared a student to his/her own starting point, Interviewee 1, shared a limitation regarding that starting point for “special needs students that you look at their COGAT and SAS and they might have an IQ of 85.” This questioned if a child with a below average IQ would show growth on a grade level test, if the test is already two or more years above his/her level.

Conversely, Interviewee 4 pointed out the effect of a ceiling on higher achieving students, “where you have students that are performing so high that it is hard for them to make a year’s growth, since they are already through the roof.” In the same line of
thought, Interviewee 3 shared, “I think the fear (of teachers) that if they (students) are already at the top…how much more can I advance this child who is talented and gifted, already working at the peak.” Interviewees 5 and 6 did not discuss student limitations.

Data understanding node - limitations of value-added data theme - teacher concerns category. Interviewee 5 said that “right now we don’t have it for every grade level…so what are we going to do for first, second, well even third grade, since it’s moving from third grade to fourth grade.” Even for buildings that have data for their teachers, Interviewee 6 suggested a limitation that Kane and Staiger (2008) also discussed. “I have a teacher that is on a limited contract that hasn’t been, in my opinion using best practices in the classroom, and yet scored most effective.” Continuing on, “I’m surprised, I’m shocked. All of the teachers in the building are shocked that this particular individual was most effective according to value-added when in fact, there is no good practice that one could look at and say” and went on “okay that’s something that is helping the situation.” This concern was also shared by Interviewee 2 who shared that is was important to remember that these “teacher level reports are simply estimates.”

This becomes a limitation to using the data to place students, since various effects such as student motivation and parental engagement in supplemental instruction can cause an increase in student achievement that does not correlate to teacher effectiveness (Kane & Staiger, 2008). Interviewee 1 and 4 held a similar concern: “the biggest limitation that I have heard about is from high performing districts where you have students that are performing so high that it is hard for them to make a year’s growth, since they are already through the roof.” Interviewee 3 suggested that this effect was a challenge to the teacher
to “find a way to reach him (gifted student).” Though many limitations were pinpointed, the interviews also highlighted many benefits of value-added data.

**Data understanding node - benefits of value-added data theme - student growth category.** Similar to the limitations of value-added, the interviewees discussed two distinct categories of benefits to using the data. First, the notion of student growth was explicitly stated by three interviewees. Interviewee 1 noted, “A benefit is that you can see student growth over time…measuring that student against themselves in that content area.” Seconded by Interviewees 2 and 4, this benefit is the key descriptor of Sander’s EVAAS system (Sanders & Horn, 1994). Both Interviewee 2 and Interviewee 4 added that the use of value-added to show growth also “indicates that something is going right or wrong,” and “if they are not (showing growth), what kinds of things are happening in the classroom.”

Secondly, the other three interviewees shared that the data have changed their focus. Interview 3 shared, “we focused before on what we call the bubble kids, the kids that just a few more questions and they might be in the proficient range... [now] we are looking at all three distinct areas.” Interviewee 5 highlighted, “we are moving our kids forward; especially some of our subgroups.” Finally, Interviewee 6 stated, “I don’t know if we use value-added data, but we are constantly reviewing data every time we have an assessment...we chart that data on the Response to Intervention (RTI) cones” (Wright, 2007). These statements connect to Sanders (1998) work stating the strength of value-added is to also help guide professional development for individual teachers to use those data to guide instruction.
Data understanding node - benefits of value-added data theme - guiding instruction category. Building upon this notion, the role in which value-added data were used to guide instruction was raised by current practitioners. Interviewee 5 promoted one idea, “I hope that we are going to use it so teachers will use it to guide their instruction with their kids. To me that’s a really important piece of the value-added data.” Whereas, Interviewee 3 stated that the instructional choices at all levels were already happening:

We focused before that on what we called bubble kids, the kids that are just a few more test questions (correct), and they might be in that proficient range….So, our focus has changed in a way, but in a way it just became tripled, because know we are looking at all three distinct areas.

Summing up this notion, Interviewee 6 even went so far as to “reshuffle who’s doing what based upon that data” and even “trying to identify where their (students) strengths are and put those clusters in their (teachers) classrooms.” Her statement demonstrated a purposeful placement process as noted by Rothstein (2009b). These results provide an interesting story to value-added. Though principals use them primarily at the beginning of the year and teachers do not have a strong understanding of them, data from the reports are still being used to track student growth and drive instruction. This pointed to a conclusion that value-added scores were trustworthy data points, but additional professional development must continue to take place.

Research Question 3

For this research question, the broad initial question of “How are class placements determined?” was supported by three more specific sub-questions. In the broadest of
terms, the researcher predicted that schools utilized a wide variety of data within a collaborative environment of principals and teachers to place students. To answer the question, the data were organized by the three sub-questions.

3a. In what ways do principals use value-added data to build class assignments? The researcher expected that principals used value-added student performance data as well as the next year student projection data to connect students with high performing teachers. Building from the results of research question two, question 35 of the SPS (see Appendix A) asked participants: How were value-added data utilized in the placement process? From the 72 responses, three nodes of responses were open coded (Richards, 2009); 1 for no, it is not used ($n = 25$); 2 for it is sometimes used ($n = 19$); and 3 for yes, it is used ($n = 28$). The first node of responses stated that value-added data were not used. Within this node, two categories of no responses were subdivided. The first category of no response described that value-added data were not used. One reason for non-use was due to the fact that the data reports arrived at the sites after the placement process had been completed. Secondly, because the smallness of the staff (e.g., one teacher per grade level per subject) the data served no purpose in sorting students with it, because all students would have the same math or reading teacher. The second node was that value-added data were sometimes being used. Two participants stated that value-added data were used, but not for initial placements; value-added data were used for intervention programs. The third node for this question was that yes, value-added information were being used in the initial placement process. In this node, two categories were also developed. The first category had 15 responses that value-added data were a part of a comprehensive data package and they were one piece of that package. The
second category indicated that student and teacher value-added data were used to specifically match students and teachers together ($n = 11$). There is no clear consensus regarding the ways principals use value-added data to build class assignments. This is an area for further research.

3b. What other criteria do principals use in class placement procedures? The researcher expected that the main criterion in class placement was building balanced classrooms in terms of both student behavior and academic ability.

To determine the conclusion to this research question, responses to SPS questions 18 through 34 and 39 (see Appendix A) and SPSi questions 7 through 13 (see Appendix B) provided the data. The first section of questions for this research question asked the participants to “reflect on the process you use to place students into their next year’s homeroom or teacher of record for reading or math.” They identified how often each event affected the placement process. Participants were again asked to rate their answers on a 5-point Likert scale where a 5 represented that the event affected placement very often, 4 corresponded to quite often, and 3 denoted sometimes. A score of 2 signified that the events rarely affected participant’s placement decisions, and a 1 stood for a never response (see Table 11).
Table 11

*General Placement: Part 2 Descriptive Statistics*

<table>
<thead>
<tr>
<th>How likely…</th>
<th>n</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>…do district mandates/priorities dictate your placement decisions?</td>
<td>87</td>
<td>2.38</td>
<td>1.19</td>
<td>1.09</td>
</tr>
<tr>
<td>…do you group students homogeneously?</td>
<td>87</td>
<td>2.86</td>
<td>1.54</td>
<td>1.24</td>
</tr>
<tr>
<td>…do your initial placement decisions change?</td>
<td>87</td>
<td>2.87</td>
<td>0.41</td>
<td>0.64</td>
</tr>
<tr>
<td>…do you readjust class rosters after the school year begins?</td>
<td>87</td>
<td>2.6</td>
<td>0.85</td>
<td>0.92</td>
</tr>
<tr>
<td>…do you purposefully place a child with a specific teacher?</td>
<td>87</td>
<td>3.53</td>
<td>0.88</td>
<td>0.94</td>
</tr>
<tr>
<td>…do you purposefully separate a child from a teacher?</td>
<td>87</td>
<td>2.82</td>
<td>0.71</td>
<td>0.94</td>
</tr>
</tbody>
</table>

For a number of respondents, district mandates either *never* (27.5%), *rarely* (24.1%), or *sometimes* (33.3%) affected their placement decisions. After decisions had been made, 64.3% of the participants said that they *sometimes* changed initial placement decisions, and 25.2% stated that they *rarely* changed their initial placement decisions. Similarly, 40.2% indicated *sometimes*, and 34.4% said they *rarely* readjusted class rosters once the year had started.
Additionally, purposefully placing students with a specific teacher was sometimes done (43.7%), but more likely done *quite often* and/or *very often* with a combined 47.1% percentage (see Table 12).

Table 12

*General Placement: Part 2 Results*

<table>
<thead>
<tr>
<th>How likely…</th>
<th>n</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Quite Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>…do district mandates/priorities dictate your placement decisions?</td>
<td>87</td>
<td>24</td>
<td>21</td>
<td>29</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>…do you group students homogeneously?</td>
<td>87</td>
<td>15</td>
<td>19</td>
<td>25</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>…do your initial placement decisions change?</td>
<td>87</td>
<td>0</td>
<td>22</td>
<td>56</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>…do you readjust class rosters after the school year begins?</td>
<td>87</td>
<td>9</td>
<td>30</td>
<td>35</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>…do you purposefully place a child with a specific teacher?</td>
<td>87</td>
<td>2</td>
<td>6</td>
<td>38</td>
<td>26</td>
<td>15</td>
</tr>
<tr>
<td>…do you purposefully separate a child from a teacher?</td>
<td>87</td>
<td>2</td>
<td>29</td>
<td>44</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

The second section of questions asked the participants to “reflect on the process you use to place students into their next year’s homeroom or teacher of record for reading or math.” They again identified how often a student’s behavior affected the placement process. Participants were again asked to rate their answers on a 5 point Likert scale
where a 5 represented that the behavior affected placement very often, 4 corresponded to quite often, and 3 denoted sometimes. A score of 2 signified that student’s behavior rarely affected placement decisions, and a 1 stood for a never response. One of the key components in placing students based upon student behavior was a balance across all classes within a grade level, mean of 3.94 (see Table 13).

Table 13

*Student Behavior Descriptive Statistics*

<table>
<thead>
<tr>
<th>How likely…</th>
<th>n</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>…does a student's behavior concern take precedent over a student's academic performance?</td>
<td>87</td>
<td>2.61</td>
<td>0.8</td>
<td>0.89</td>
</tr>
<tr>
<td>…does a student's behavior concern take precedent over a student's value-added projection?</td>
<td>87</td>
<td>2.48</td>
<td>0.79</td>
<td>0.89</td>
</tr>
<tr>
<td>…are behavior concerns balanced across the grade level?</td>
<td>87</td>
<td>3.94</td>
<td>0.75</td>
<td>0.97</td>
</tr>
</tbody>
</table>

When placing students, the researcher asked if student behavior concerns took precedent over student academic performance in the placement process. Forty and two tenths percent of the respondents indicated that behavior sometimes takes precedent, but that was closely followed by respondents that indicated that behavior rarely (34.4%) trumped a students’ placement due to academic performance. Similarly, an equal number
of respondents felt that a student’s behavior concerns sometimes (36.7%) or rarely (36.7%) took precedent over placement due to a student’s value-added projection.

Interestingly, a large percentage of respondents purposefully spread out students with behavior concerns across multiple teachers. Close to half of the respondents (45.9%) indicated that those placements were done quite often and another 27.5% stated that it was done very often, and no one indicated that separating behavior students was never done (see Table 14).

Table 14

Student Behavior Results

<table>
<thead>
<tr>
<th>How likely…</th>
<th>n</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Quite Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>…does a student's behavior concern take precedence over a student's academic performance?</td>
<td>87</td>
<td>9</td>
<td>30</td>
<td>35</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>…does a student's behavior concern take precedence over a student's value-added projection?</td>
<td>87</td>
<td>12</td>
<td>32</td>
<td>32</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>…are behavior concerns balanced across the grade level?</td>
<td>87</td>
<td>0</td>
<td>6</td>
<td>17</td>
<td>40</td>
<td>24</td>
</tr>
</tbody>
</table>

The third section of questions asked the participants to “reflect on the process you use to place students into their next year’s homeroom or teacher of record for reading or math.” This time, they responded to how teacher information affected the placement process. Participants were again asked to rate their answers on a 5-point Likert scale.
where a 5 represented that the teacher information affected placement *very often*, 4 corresponded to *quite often*, and 3 denoted *sometimes*. A score of 2 signified that information from their teachers *rarely* affected placement decisions, and a 1 stood for a *never* response. The use of teacher information had the most consistent grouping of mean scores for all of the tested groups with a range of 0.66 for its four questions (see Table 15).

### Table 15

*Teacher Information Descriptive Statistics*

<table>
<thead>
<tr>
<th>How likely…</th>
<th>$N$</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>…are teacher requests to separate students implemented?</td>
<td>87</td>
<td>3.76</td>
<td>0.84</td>
<td>0.91</td>
</tr>
<tr>
<td>…are teacher requests to match students together implemented?</td>
<td>87</td>
<td>3.41</td>
<td>0.97</td>
<td>0.98</td>
</tr>
<tr>
<td>…are teacher requests to separate students with a specific teacher implemented?</td>
<td>87</td>
<td>3.1</td>
<td>0.93</td>
<td>0.96</td>
</tr>
<tr>
<td>…are teacher requests to connect students with a specific teacher implemented?</td>
<td>87</td>
<td>3.4</td>
<td>0.78</td>
<td>0.88</td>
</tr>
</tbody>
</table>

A majority of participants felt that it was important to follow a teacher’s recommendation to separate students from other students, since it was identified as *quite often* (39%), *sometimes* (28.7%), and *very often* (22.9%). Additionally, principals felt that the importance of following a teacher’s request to match students together by ratings of *quite often* (32.1%), *sometimes* (32.1%), and *very often* (14.9%).
Investigating if the participant’s followed teacher’s requests to separate a student from a specific teacher the responses centered more toward sometimes (41.3%) and evenly distributed between quite often (24.1%) and rarely (22.9%). When placing a student with a specific teacher, the responses again centered toward sometimes (41.3%), but leaned more towards quite often (32.1%) than rarely at 14.9% (see Table 16).

Table 16

*Teacher Information Results*

<table>
<thead>
<tr>
<th>How likely…</th>
<th>n</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Quite Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>…are teacher requests to separate students implemented?</td>
<td>87</td>
<td>0</td>
<td>8</td>
<td>25</td>
<td>34</td>
<td>20</td>
</tr>
<tr>
<td>…are teacher requests to match students together implemented?</td>
<td>87</td>
<td>0</td>
<td>18</td>
<td>28</td>
<td>28</td>
<td>13</td>
</tr>
<tr>
<td>…are teacher requests to separate students with a specific teacher implemented?</td>
<td>87</td>
<td>3</td>
<td>20</td>
<td>36</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>…are teacher requests to connect students with a specific teacher implemented?</td>
<td>87</td>
<td>0</td>
<td>13</td>
<td>36</td>
<td>28</td>
<td>10</td>
</tr>
</tbody>
</table>

The final section of questions asked the participants to again “reflect on the process you use to place students into their next year’s homeroom or teacher of record for reading or math,” but this time they were asked to rate how parent information affected the placement process. Participants were again asked to rate their answers on a 5-point Likert scale where a 5 represented that information from parents very often affected
placement, a 4 corresponded to *quite often*, and 3 denoted *sometimes*. A score of 2 signified that information from parents *rarely* affected placement decisions, and a 1 stood for a *never* response. The use of parent information had the second most consistent grouping of mean scores for all of the tested groups with a range of 0.68 for its four questions, though the means for parent information was lower than that for teachers (see Table 17).

Table 17

*Parent Information Descriptive Statistics*

<table>
<thead>
<tr>
<th>How likely…</th>
<th>$n$</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>…are parent requests to separate students implemented?</td>
<td>87</td>
<td>3.37</td>
<td>0.79</td>
<td>0.89</td>
</tr>
<tr>
<td>…are parent requests to match students together implemented?</td>
<td>87</td>
<td>2.69</td>
<td>0.82</td>
<td>0.91</td>
</tr>
<tr>
<td>…are parent requests to separate students with a specific teacher implemented?</td>
<td>87</td>
<td>3.05</td>
<td>1.02</td>
<td>1.01</td>
</tr>
<tr>
<td>…are parent requests to connect students with a specific teacher implemented?</td>
<td>87</td>
<td>2.85</td>
<td>0.95</td>
<td>0.98</td>
</tr>
</tbody>
</table>

Similarly to how they handled information from teachers to separate students from other students, a majority of participants indicated that it was important to follow a parent’s recommendation to separate students from other students, since it was identified as *quite often* (35.6%) and *sometimes* (39%). Differently from the teacher’s input, the
responses to initiating information from parent’s requests lean more toward the rarely (37.9%) and sometimes (36.7%) end of the scale with matching students with other students. Investigating the use of parent requests for separating students from a teacher and connected students to a specific teacher again leaned toward the sometimes to rarely end with a similar combined score of 65.5% (see Table 18).

Table 18

*Parent Information Results*

<table>
<thead>
<tr>
<th>How likely…</th>
<th>n</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Quite Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>…are parent requests to separate students implemented?</td>
<td>87</td>
<td>1</td>
<td>13</td>
<td>34</td>
<td>31</td>
<td>8</td>
</tr>
<tr>
<td>…are parent requests to match students together implemented?</td>
<td>87</td>
<td>6</td>
<td>33</td>
<td>32</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>…are parent requests to separate students with a specific teacher implemented?</td>
<td>87</td>
<td>4</td>
<td>22</td>
<td>35</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>…are parent requests to connect students with a specific teacher implemented?</td>
<td>87</td>
<td>7</td>
<td>24</td>
<td>33</td>
<td>19</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional information regarding placement criteria was disaggregated through question 39 of the SPM survey and nodes, themes, and categories of qualitative data from SPM interview questions.

**Discipline issues.** An additional question asked participants “When developing class rosters, explain how you place students with discipline issues.” Within this question the 82 participants were divided into four nodes. The first node demonstrated
that 34 participants spread students with behavior concerns across a grade level. The second node \((n = 19)\) indicated that students with discipline concerns were matched to a specific teacher. The third node was a combination of the first two. In this node, participants \((n = 14)\) stated that a combination of separating students and specific teacher matching was the process of placing students with behavior problems. The final node grouped 15 participants that said behavior data were not used in the placement process. Additional detail was provided through SPSi interview data.

**Data implementation node – objective data use theme - student behavior balance category.** Spreading out behavior concerns across all teachers within a grade level was a key aspect to the way the interviewees built their class rosters. “We want to look at behaviors first” stated Interviewee 6. Continuing, “we know that we are going to teach a wide range of abilities, but we would rather deal with that than a cluster of behavior problems.” Interviewee 4 asked of her staff, “is there anybody this kid should be separated from?”

Agreeing, Interviewee 3 stated, “I want to make sure that that is balanced and equal. I also look at severe behavior issues. Everybody gets a few.” On the same line of thought, Interviewee 2 shared, “I don’t want them all in one classroom…if you put them all in a room, you just get other kids learning bad behaviors or more bad behaviors.”

Ma and Klinger (2000) discussed the notion of building relationships between teachers and students to have well managed classrooms that promote academic success. Interviewee 5, noted that same idea, but with caution; “I also know that it is not right to give for instance, all the discipline problems to one teacher, just because they are better
with class management.” The importance of relationships between teachers and students is not limited to just core educators as described by Interviewee 1:

Then they look at students personalities, they look at well we know these two kids we really shouldn’t put together and I should back up to, because I get things from my specials teachers, and those teachers are usually quite helpful, because their class sizes are slightly larger.

To help build balance, principals often listened to parent request information.

**Data implementation node – subjective data use theme - parent information category.** Raudenbush (2004) pointed out that parents might first select a school and then a teacher with a school, usually from subjective data inputs that they hear from friends and neighbors. This type of data that was still valuable and had tremendous variance in its use by the six interviewees. Interviewee 1 stated, “I don’t get that very often anyway, and that’s just it. The only letters or contacts I might get were how come my kid did not get placed in accelerated math,” and Interviewee 6 said, “I would say I would get six or seven in a grade level out of a 100 children.” Interviewee 4 stated, “We don’t publicize that we honor requests, but we do,” and Interviewee 5 said that they “use input from parents, and when I say that, parents can talk about what type of teacher, or what environment might work best for a child.” All of these comments highlighted the complex relationship of parent and school (Epstein, 2002).

Without question, having balanced class rosters, both academically and behaviorally, was an important aspect to principals. The SPS data indicated that principals valued and extensively used a large amount of teacher and parent data to make
placement decisions. The next question studied the players that were involved in the actual placement process.

3c. Who is involved in these placement decisions? The researcher expected that a wide variety of teachers worked in a collaborative team with the principal to build class rosters. Though parental input was sought, parents were likely not a part of the actual placement process. To answer this question, responses to SPS questions 37 through 41 (see Appendix A) and SPSi questions 12 through 14 (see Appendix B) were used.

**Do principals and teachers work together on placement?** Additional information about how the process of placement was completed through the question of “Do principals and teachers work together on placement?” Question 14 of the SPS (see Appendix A) stated that 66 principals thought that teacher collaboration was either very important (41 principals) or extremely important (25 principals). See Table 9. Later in the survey, question 38, identified that a collaborative process between principals and teachers was quite evident. Of the 84 respondents, 79 stated that a team approach was used. Of those, 75 reported that the process was a combined effort throughout, and four indicated that teachers made an initial list and then the principals refined those lists. Only five principals reported that teachers were not a part of the process at all. These data were connected to Monk’s (1987) previous study on collaboration. Interview data verified these quantitative data.

**Data implementation node – subjective data use theme - teacher collaboration/information category.** The use of subjective teacher data was also widely discussed by the interviewees. Every principal used some form of teacher input when designing class rosters. This collaboration between principals and teachers in student
placement was similar to the findings of the Monk (1987) study in which he determined the various roles in which principals and teachers completed the sorting process. Monk (1987) described principals that do a randomized sorting of the students themselves, with limited teacher input is described as high principal involvement. None of the interviewees fell into that category.

Monk’s (1987) second level is medium principal involvement. This type of involvement is a more collaborative effort in that the principal and teachers prepare trial lists for a teacher to be assigned by the principal at a later date. Five of the six interviewees fell into this category. Interviewee 1 shared, “Then they (teachers) look at students personalities, they look at well we know these two kids we really should not put together” when discussing special education students. Additionally, for students that are placed in accelerated courses their school looks at:

- teacher recommendation is a piece of that puzzle, so we look at that as a data point, and that’s broken down into about four different parts. Attitude, attendance, organizational skills, and just an overall impression of the student’s relative strengths as a learner when making placement decisions.

Interviewee 2 stated “at the end of the year they (teachers) fill out a data sheet and make recommendations where they thought their student might fit best for next year.” In the same manner, interviewees 3, 5 and 6 all stated that they did take input from teachers in the form of requests and input, since “I think they have the most information.”

Finally, interviewee 4 can be characterized as having low principal involvement. In this school, the principal does a small amount of sorting of special education students, “but from there it’s all teacher driven. So, they get these cards and put classes together.
They submit the classes to me, an um, I make only a few changes, and those only would be parent requests.”

**Why would parent requests not be fulfilled?** The question of accepting or rejecting parental requests for their child’s placement held the largest variation of nodes. Additionally, principals were divided in their fulfillment of parent requests (see Table 19).

Table 19

*Percentage of Time Principals Would Fulfill Parent Requests*

<table>
<thead>
<tr>
<th>Question</th>
<th>Responses</th>
<th>Percentage Fulfilled</th>
<th>Participant Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>if no other factors were in play, what percentage of the time would you fulfill parents' requests?</td>
<td>38</td>
<td>0–20</td>
<td>44</td>
</tr>
<tr>
<td>were in play, what percentage of the time would you fulfill parents' requests?</td>
<td>9</td>
<td>21–40</td>
<td>10</td>
</tr>
<tr>
<td>would you fulfill percentage of the time parents' requests?</td>
<td>6</td>
<td>41–60</td>
<td>6</td>
</tr>
<tr>
<td>would you fulfill parents' requests?</td>
<td>7</td>
<td>61–80</td>
<td>8</td>
</tr>
<tr>
<td>parents' requests?</td>
<td>27</td>
<td>81–100</td>
<td>31</td>
</tr>
</tbody>
</table>

From the 83 short answer respondents, five specific nodes were identified. The largest factor in not supporting parental requests were captured in a node called misconceptions about the teacher (n = 31). Secondly, 17 respondents indicated that student placement was based upon objective data and that parent requests did not match what the data were demonstrating for ideal placement. Sixteen respondents indicated that fulfilling parental requests would cause an imbalance in the classes. The remaining responses fell within a node entitled Impossibilities. Within this node, seven participants indicated that it was impossible to fulfill all parent requests, so none were honored; nine said schedule limitations. Two indicated that Board policies or contracts rendered requests impossible, and one participant said that it would be impossible since the
requests were not always in the child’s best interest. Regardless of how often parental requests were fulfilled or not, principals overwhelmingly had last right of placement.

**The final say in placement decisions.** The final question asked of the participants was: “Who has the final say in placement decisions?” Of the 84 respondents, 78 stated that it was the principal’s duty to have the final say. Three others indicated that the teachers had the final say, and the final three stated that the superintendent had the final say in where students were placed.

**Research Question 4**

An exploratory analysis was conducted to examine the conceptually developed Student Placement Matrix (SPM). The researcher created the SPM and assigned specific weights from the research cited in Chapter 3, as well as, his professional experiences. The SPM was tested on survey schools with Economically Disadvantaged (ED) students. Due to the large number of schools within the survey participation group that had ED students (91.9%), the researcher felt that this subgroup would provide a large enough sample size to test the Matrix. Utilizing the R statistical package version 2.14.0 (R Development Core Team (2011), the researcher conducted the multiple regressions for ED students and tested the assumptions. From the pilot data, SPM weight adjustments occurred. The researcher ran multiple regressions for the subgroups of: Students with Disabilities, African American Students and Multiracial Students. These methods allowed for the collection of data that described the factors that influenced how the student placement process took place and which data points were most important within the actual placement of individual students with specific teachers.
Testing the multiple regression assumptions. To meet the assumption of independence, to the best of the researcher’s knowledge, everyone completed the survey individually, since it was done online. Additionally, the researcher double checked the districts to see if any district had more than one school.

To meet the assumption of linearity, the researcher graphed a scatter plot for each pilot subscale (e.g., objective data, student behavior, teacher information) against regression lines to observe for linearity. For all subscales, visual observation of the data was clearly evenly spread across the regression line in a linear fashion.

To meet homoscedisity, the researcher calculated a scatter plot and plotted against a linear regression line. For all pilot subscales, visual inspection demonstrated that the variance was equal across the regression line.

Finally, to meet normality, a scatter plot test for each pilot subscale was run. Each subscale test was calculated and plotted against a linear regression line and a majority of the data followed the X-Y regression line. Visual inspection of all the pilot Q-Q scatter plots satisfied the assumption.

Regression results for economically disadvantaged students. Initial analysis demonstrated that the overall SPM was not significant in either reducing the numbers of Economically Disadvantaged Students that were failing either the reading or math OAA tests (see Table 20). Further disaggregation demonstrated that again, there was no statistical significance in the reduction of failure rates for either reading or math for neither the objective data nor subjective data variables. Looking into each variable (objective and subjective), again there was no statistical significance to reducing the number of students failing reading or math in any of the subscales (value-added usage,
general placement, student behavior, behavior over academics, teacher information, or parent information). Only after disaggregating to the individual question within each subscale were any significant results discovered. For schools that used value-added data during the school year in reading, it showed a significant positive relationship predicting change in economically disadvantaged students \((p = 0.035)\).

Table 20:

**Overall SPM Regression Results – Economically Disadvantaged Subgroup**

<table>
<thead>
<tr>
<th>Category</th>
<th>(P) Value</th>
<th>Estimate</th>
<th>R-Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPM for Reading</td>
<td>0.691</td>
<td>-0.7388</td>
<td></td>
</tr>
<tr>
<td>SPM for Math</td>
<td>0.938</td>
<td>-0.1659</td>
<td></td>
</tr>
<tr>
<td>Objective Data - Reading</td>
<td>0.441</td>
<td>-1.144</td>
<td></td>
</tr>
<tr>
<td>Objective Data - Math</td>
<td>0.864</td>
<td>0.2916</td>
<td></td>
</tr>
<tr>
<td>Subjective Data - Reading</td>
<td>0.5871</td>
<td>0.7597</td>
<td></td>
</tr>
<tr>
<td>Subjective Data - Math</td>
<td>0.615</td>
<td>-0.8113</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>P Value</td>
<td>Estimate</td>
<td>Adjusted R-Squared</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------</td>
<td>----------</td>
<td>-------------------</td>
</tr>
<tr>
<td><strong>Objective Data - Reading</strong></td>
<td>0.441</td>
<td>-1.144</td>
<td></td>
</tr>
<tr>
<td>Value Added Usage</td>
<td>0.0714</td>
<td>-1.7933</td>
<td></td>
</tr>
<tr>
<td>VA Beginning</td>
<td>0.349</td>
<td>-0.8621</td>
<td></td>
</tr>
<tr>
<td>VA During</td>
<td>0.035*</td>
<td>-2.0454</td>
<td>0.04258</td>
</tr>
<tr>
<td>VA Interventions</td>
<td>0.128</td>
<td>-1.297</td>
<td></td>
</tr>
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<tr>
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<td>Behavior over Academic</td>
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<td>Teacher Match Student with Teacher</td>
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<td>-0.4111</td>
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</tbody>
</table>

*Note. *p < .05, **p < .01, ***p < .001.

Utilizing the data from the initial investigation, showed that the Value-Added usage during the school year (VAduring) was more important than other factors due to it
being the only statistically significant variable, the \textit{general value added usage} category weights were up weighted so that Value-Added usage during the school year (VA\text{during}) would represent 0.6 of the category; whereas, the remaining four would represent only 0.1 apiece. The \textit{general value added usage} category would be represented as: \((0.1)\) VA\text{beginning} + \((0.6)\) VA\text{during} + \((0.1)\) VA\text{interventions} + \((0.1)\) Teacher.VA + \((0.1)\) Student.VA for assessing the three other subgroups that maintain at least a 39% representation in the sample size – African American (37 of 87 in reading, 34 of 87 in math), multiracial (37 of 87 in reading, 43 of 87 in math) and students with disabilities (84 of 87 in reading, 80 of 87 in math).

\textbf{Regression results for students with disabilities.} After the adjustments to the SPM calculations, linear regressions, similar to the initial model, occurred for Students with Disabilities (SWD). Initial analysis demonstrated that the overall SPM was not significant in reducing the numbers of SWD that were failing either the reading or math OAA tests (see Table 21). Further disaggregation demonstrated that again, there was no statistical significance in the reduction of failure rates for either reading or math for neither the objective data nor subjective data variables.

Looking into each variable (objective and subjective), again there was no statistical significance to reducing the number of students failing reading or math in any of the subscales (value-added usage, general placement, student behavior, behavior over academics, teacher information, or parent information). Only after disaggregating to the individual question within each subscale were any significant results discovered. Teacher information to separate students from teachers during the school year.
(TCH.SepStud.TCH) in reading showed a significant positive relationship predicting change in students with disabilities ($p = 0.000576$).

Table 21:

**Overall SPM Regression Results – Students with Disabilities Subgroup**

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<thead>
<tr>
<th>Category</th>
<th>P Value</th>
<th>Estimate</th>
<th>Adjusted R-Squared</th>
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</thead>
<tbody>
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<td>Objective Data - Reading</td>
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<td>0.09786</td>
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<tr>
<td>Objective Data - Math</td>
<td>0.983</td>
<td>0.06185</td>
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</tr>
<tr>
<td>Subjective Data - Reading</td>
<td>0.07963</td>
<td>4.256</td>
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</tr>
<tr>
<td>Subjective Data - Math</td>
<td>0.868</td>
<td>0.4303</td>
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<tr>
<td>Objective Data - Reading Usage</td>
<td>0.97</td>
<td>0.09786</td>
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<td>Estimate</td>
<td>Adjusted R-Squared</td>
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<tr>
<td><strong>Subjective Data - Reading</strong></td>
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<tr>
<td>Behavior over Academics</td>
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<td>Behavior over Academic Performance</td>
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</table>
Regression results for African American students. Initial analysis demonstrated that the overall SPM was not significant in reducing the numbers of African American students failing either the reading or math OAA tests (see Table 22). Further disaggregation demonstrated that again, there was no statistical significance in the reduction of failure rates for either reading or math for neither the objective data nor subjective data variables.

Looking into each variable (objective and subjective), again there was no statistical significance to reducing the number of students failing reading or math in any of the subscales (value added usage, general placement, student behavior, behavior over academics, teacher information, or parent information). Only after disaggregating to the individual question within each subscale were any significant results discovered. Change the initial placement (IPchange) of a student in reading, showed a significant positive

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<th>Category</th>
<th>P Value</th>
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</table>

Note. * p < .05, ** p < .01, *** p < .001.
relationship predicting change in African American students ($p = 0.00526$).

Additionally, Readjusted Classes (Readjust) due to additional data in reading, showed a significant positive relationship predicting change in African American Students ($p = 0.0333$). In math, the Change the Initial Placement (IPchange) showed a significant positive relationship predicting change in African American Students ($p = 0.037$).

Secondly, using Parent Information to match students together in math (P.match.Stud) showed a significant positive relationship predicting change in African American Students ($p = 0.0079$).
Table 22:

*Overall SPM Regression Results – African American Subgroup*

<table>
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<td>Teacher Separate Students</td>
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</table>

*Note.* *p* < .05, **p** < .01, ***p** < .001.

**Regression results for Multiracial students.** Initial analysis demonstrated that the overall SPM was not significant in either reducing the numbers of Multiracial Students failing either the reading or math OAA tests (see Table 23). Further disaggregation demonstrated that again, there was no statistical significance in the reduction of failure rates for either reading or math for neither the objective data nor subjective data variables.

Looking into each variable (objective and subjective), the Teacher Information category showed a significant positive relationship predicting change in reading for Multiracial Students (*p* = 0.0324). With continued disaggregating to the individual question, Teacher Separate Students (TCH.SepStud) showed a significant positive relationship predicting change in reading for Multiracial Students (*p* = 0.0272), and Teacher Match Student with Teacher (TCH.match.Stud.TCH) showed a significant positive relationship predicting change in reading for Multiracial Students (*p* = 0.014).
In math, the Student Behavior category showed a significant positive relationship predicting change for Multiracial Students \( (p = 0.0386) \).

Table 23:

*Overall SPM Regression Results – Multiracial Subgroup*

<table>
<thead>
<tr>
<th>Category</th>
<th>P Value</th>
<th>Estimate</th>
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<tr>
<td>Objective Data - Math</td>
<td>0.314</td>
<td>4.512</td>
<td></td>
</tr>
</tbody>
</table>

| Objective Data - Reading                | 0.182   | -4.689   |                    |
| Subjective Data - Math                 | 0.487   | -2.782   |                    |

| Objective Data - Reading                | 0.374   | 3.514    |                    |
| Value Added Usage                      | 0.984   | 0.06021  |                    |
| VA Beginning                           | 0.1369  | 4.426    |                    |
| VA During                              | 0.491   | -1.754   |                    |
| VA Interventions                       | 0.98    | -0.05948 |                    |
| Teacher VA                             | 0.2085  | 1.817    |                    |
| Student VA                             | 0.556   | 0.9682   |                    |

| Student Behavior                       | 0.0673  | 4.54     |                    |

<p>| General Placement                      | 0.872   | 0.6244   |                    |
| Other Data                             | 0.516   | 1.16     |                    |
| Teacher Involvement                    | 0.394   | 1.495    |                    |
| Principals Only Placement              | 0.532   | -1.10737 |                    |
| District Mandates                      | 0.245   | 2.198    |                    |
| Change of Initial Placement            | 0.978   | -0.1142  |                    |
| Class Readjustment                     | 0.955   | -0.1547  |                    |
| Principal Place Child with Teacher     | 0.377   | -2.122   |                    |
| Principal Separate Child from Teacher  | 0.304   | -2.79    |                    |</p>
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<td>Behavior over Academic Performance</td>
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*Note.* *p* < .05, **p* < .01, ***p* < .001.

**Summary**

Disaggregation of the qualitative data proved that principals worked collaboratively with teachers on the placement process. The use of multiple data sources was an essential part of the placement conversations, but limited value-added data use for placing students into intervention programs occurred. Students with behavior concerns were separated from other students with similar concerns, and the construction of academically and behaviorally balanced classrooms was viewed as essential. The SPM data demonstrated that it was not statistically significant in identifying change in the achievement gap of subgroups. In Chapter 5, a summary of the study, the findings, conclusions, implications for policy, practice and future research, limitations of the study, and a final conclusion for this study are presented.
Chapter 5: Summary, Finding, Conclusions, and Implications

The information presented in this chapter provides a summary of the study, findings for each research question, conclusions, implications for policy, practice, and research, limitations, and a final conclusion.

Summary of the Study

This investigation was a mixed-method study analyzing principals’ values regarding student placement decisions in high performing schools. A survey of fourth–eighth grade building principals identified principals’ opinions to determine how they utilized objective and subjective data in the student placement process to reduce the achievement gaps of their students. By studying the student placement process as a whole, the objective and subjective data used in placement could be judged individually, as well as, collectively to identify trends that led to positive student achievement. The researcher applied the data into an exploratory examination of a matrix that would identify key aspects of the placement process to produce change in student achievement.

Literature review. The national trend for teacher accountability to demonstrate student growth provided the State of Ohio with a backdrop to initiate the value-added research of Dr. William Sanders (Sanders & Horn, 1998; Sanders, 1998). In the past, the State of Ohio used various measures to demonstrate student growth (e.g., grade level proficiency passage rates, performance indices, two-year averages, and safe harbor calculations), but achievement gaps continued. By providing an individual value-added score for each child, the Ohio Department of Education could statistically demonstrate each child’s academic growth.
Current research demonstrated that there were difficulties in using the value-added results to judge student growth. Braun (2005) indicated that multiple classroom climate factors could affect student performance, and missing student data (Amerin-Beardley, 2008; Braun, 2005; Murnane & Steele, 2007; Rubin et al., 2004) were a common occurrence.

Another investigated concern centered on the connection of a student’s value-added data to teacher effectiveness. Kane and Staiger (2008) identified factors such as student motivation and parental supplemental instruction that effected growth, but did not correlate to teacher effectiveness. Hanushek and Rivkin (2010) shared that a student guessing or cheating on a test and other random events could also mis-rate performance.

As highlighted in the research, value-added methodology was based upon the assumption that class placements were random in design, but that was not an accurate assumption (Braun, 2004, 2005; Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012; Harker & Tymms, 2004; Harris, 2011; Hill, Kapitula & Umand, 2011; Koedel & Betts, 2009; Newton, Darling-Hammond, Haertel, & Thomas, 2010; Raudenbush, 2008; Rothstein, 2009b; Viadero, 2008; Weiss, Payzant, & Ladd, 2011).

The work of Monk (1987) and Heck, Marcoulides, and Glasman (1989) described class formation as a detailed and complex process, and Burns and Mason (1995) suggested that student placement could be utilized as a process in which both students and teachers were purposively assigned or matched together based on their strengths or characteristics. In the past, the methods for placing a student in a classroom were completed in various ways: Principal Only, Teacher Only, or Principal-Teacher Combined (Monk, 1987). Within each of these methods, multiple data points (e.g.,
Guided by this research, this study’s purpose was to investigate how currently serving principals of high performing fourth through eighth grade schools in the State of Ohio place students into classes, what data were used, and if these practices produced change in student achievement.

**Research questions.** Specifically, this study examined this concept through the following research questions:

1. What other forms of assessment data are available for Ohio fourth – eighth grade principals?
2. How valuable do building administrators find value-added information?
3. How are class placements determined?
   a. In what ways do principals use value-added data to build class assignments?
   b. What other criteria do principals use in class placement procedures?
   c. Who is involved in these placement decisions?
4. Is there a relationship between the Student Placement Matrix and change inside of the identified subgroups?
**Research design and methodology.** The researcher utilized a mixed-method design that employed both quantitative and qualitative analyses. Connecting the effective schools research (Lezotte & Snyder, 2011) with Sanders (1998, 2000) work on value-added research, the study tried to identify processes and practices that principals could replicate to effectively place students into classrooms with specific teachers in order to reduce the achievement gap. Data collection took place through the Student Placement Survey (SPS) (see Appendix A) and through the Student Placement Survey interviews (SPSi) protocol (see Appendix B). This method allowed for the triangulation of the data through the combination of Likert rating survey information, written responses to open ended questions, and interview data.

To answer the first three research questions, the researcher collected data by asking Likert-scale questions, short answer questions, and conducting semi-structured face-to-face interviews. The survey was composed of 44 non-repeating questions that covered five areas of student placement decision making. This purposeful decision allowed the researcher to collect a wide variety of data on student placement.

Research Question 4 was exploratory in nature. Specifically, it asked if there were a relationship between the researcher-designed Student Placement Matrix (SPM) and student achievement in identified subgroups. The researcher found that the SPM as an initial model was not a statistically significant predictor in achievement gap change. However, some categories and individual variables did show some statistically significant positive change for individual subgroups of students – Economically Disadvantaged students, Students with Disabilities, African American students, and Multiracial students.
Findings

By triangulating the descriptive data from the Student Placement Survey (SPS), the qualitative short answer responses from the SPS, and the data from the Student Placement Survey Interviews (SPSi), the first three research questions were answered. After developing and testing the Student Placement Matrix (SPM) with specified weights, the relationship of the SPM with change in student achievement was examined to answer the fourth research question.

Research question 1. What other forms of assessment data are available for Ohio fourth – eighth grade principals? The survey research demonstrated that principals utilized various norm-referenced and criterion-referenced data points in the placement process. Of the 87 respondents, 43.7% discussed that the use of data was extremely important and another 45.9% shared that data use was very important. Lezotte & Snyder (2011) discussed that the utilization of data was a key component in high performing schools, and all six of the interviewees shared that data from Ohio’s criterion referenced assessments (Ohio Achievement Assessment) was an often used data point. The construction of individual data profiles also included the use of: longitudinal Iowa Test of Basic Skills (ITBS)/Cognitive Abilities Test (COGAT) test scores, the Standardized Test for Assessment of Reading (STAR) assessments, student report card grades and Achievement Improvement Monitoring System (AIMSweb).

To monitor the progress over several weeks, data from the Dynamic Indicators of Basic Early Literacy Skills (DIBELS), Diagnostic Reading Assessment (DRA), and Lexile Reading levels were used. Each interviewee used some combination of this information on every student for constructing class lists. These in-house data collections
supported Rothstein’s (2009b) conclusion that principals utilized other information in preparing class placements to reduce achievement gap trends.

**Research question 2.** How valuable do building administrators find value-added information? Another data set that was specifically investigated was value-added metrics (VAMs), (Sanders, 1994). The survey research revealed that 83.9% of the participants stated that they looked at value-added data at the beginning of the school year, as an indicator of student growth and teacher effectiveness. Unfortunately, the delivery dates (late September to early October) of the VAM, including student and teacher projection data, dictated that its use for initial class placement was limited. The interviewees felt that some important uses of VAM information, all of which takes place throughout the school year, included: identifying students that needed additional intervention supports, tracking student growth, and guiding teachers on future instruction practices to maximize class time (Sanders, and Horn, 1998; Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012).

**Research question 3.** How are class placements determined? For this question, three sub-questions provided results.

3a. In what ways do principals use value-added data to build class assignments? Open-ended survey responses from 72 respondents indicated that the use of value-added data for class placements varied tremendously. Forty-four participants did not use either student or teacher value-added reports in the placement process. These participants cited that non-use was due to either the smallness of the staff (e.g., one math teacher for all 8th graders) or the data arrived after placements had occurred. Nineteen of the 44
respondents stated that value-added data provided opportunities to match students for intervention purposes.

Of the 28 participants who indicated that value-added was used, 15 specifically stated that it was a key data point in an overall comprehensive data package and 11 indicated that value-added data was important to matching students and teachers together. This data highlighted that there is no clear consensus regarding the use of value-added in the placement process.

3b. What other criteria do principals use in class placement procedures? Survey data from the Student Placement Survey (SPS) demonstrated a wide variety of criteria used in the placement process. The most important criteria identified by the participants were the notion of balancing student behaviors across a grade level. Of the 87 participants, 24 indicated balancing behaviors was done quite often, with another 40 stated that it was done very often.

In terms of teacher input, participants stated that following a teacher’s request to separate students from each other was done quite often (39%), very often (22.9%), and sometimes done 28.7% of the time. Similarly, participants implemented teacher requests to match students together quite often (32.1%), very often (14.9%), and sometimes (32.1%). Using teacher data to match and separate teachers with students was less likely to occur. For both occurrences, participants stated that matching or separating teachers from students was sometimes done 41.3% of the time. Specific matching teachers to students occurred very often (11.4%) and quite often (32.1%), whereas separating teachers from students occurred very often (8%) and quite often (24%).
A majority of the participants indicated that it was important to follow a parent’s recommendation to separate students from other students with 35.6% indicating it occurred *quite often* and 39% stating it occurred *sometimes*. Conversely, the responses indicated that information from parents to match their student with another student took place *rarely* 37.9% and *sometimes* 36.7% of the time. Based upon a parent’s request, participants *rarely* (25.2%) or *sometimes* (40.2%) matched their child with a specific teacher, and similarly *rarely* (27.5%) or *sometimes* (37.9%) separated their child with a specific teacher. The results indicated that the placement process of students was done specifically and purposefully.

3c. Who is involved in these placement decisions?

Principals and teachers collaborated a great deal on the placement process to ensure that students were matched with appropriate teachers. Survey data showed that 47.1% of the participants believed that principal/teacher collaboration was *very important*, with another 28.7% stating it was *extremely important*. Later in the survey, open-ended responses demonstrated that 94.0% of the participants utilized a team approach to class placements, but 78 of 84 participants stated that the principal had the final say. In summary, the collaborative placement teams used vast quantities of objective and subjective data to develop non-random, balanced classrooms both by academics and behavior so that all students could grow academically.

**Research question 4.** Is there a relationship between the Student Placement Matrix and change inside of the identified subgroups? The Student Placement Matrix (SPM) was developed and tested in order to identify what, if any, relationships existed among the individual and collective data source variables and change in student
achievement of various subgroups of students. Overall, the SPM was not statistically significant, so it is impossible to make accurate interpretations regarding its use as a method of student placement, but some variables that showed a significant positive relationship in predicting change that matched correlates of the effective schools research (Lezotte & Snyder, 2011).

In the analysis, the only variable that showed significance for a strong positive relationship for predicting change for Economically Disadvantaged Students were principals that used value-added data during the year. Unfortunately, the delivery of value-added data comes well after the placement of students with a core reading or math teacher, but it was available for determining students that required additional intervention opportunities. This type of data-driven decision making was an aspect of the instructional leadership correlate within the effective schools research (Lezotte & Snyder, 2010).

A second variable that was significant was the willingness of principals to change the placement of African American students in reading and math classes after the year had begun. For both reading and math, this variable showed a positive statistical relationship in predicting change in achievement gap rates. The willingness to move a student or to completely readjust a class roster to ensure that students had a better opportunity to succeed is an example of both instructional leadership and the high expectations for success correlates from the effective schools research (Lezotte & Snyder, 2010).

Finally, the SPM also provided support for the effective schools (Lezotte & Snyder, 2010) correlate of safe and orderly environment. The two variables included:
teachers that separated Students with Disabilities from other teachers and teachers purposefully separating Multiracial students. As a current practitioner, these results were also verified in practice. Not all teachers have the skill sets needed to work with Students with Disabilities; therefore, it is in the child’s best interest to place the student with teachers who were professionally equipped to provide safe and orderly learning environments. Similarly, separating students that do not behave well together and disrupted the learning environment create a behavior balance that allows all students the opportunity to succeed.

Even though the overall Student Placement Matrix did not prove to be a statistically significant process to guide principals in the placement of students, aspects of the study supported the choice in methodology. Variables such as initial placement change for African American students, teachers separating students from other teachers for Students with Disabilities, and teacher information to separate students from other students proved to be significant in both reading and math and are worthy of additional study.

**Conclusions**

By triangulating the descriptive data from the Student Placement Survey (SPS), the qualitative short answer responses from the SPS, and the data from the Student Placement Survey Interviews (SPSi), three themes were discovered. First, collaboration between teachers and principals in the student placement process was extensive. Second, within these collaborative teams, designing rosters that were balanced both academically and behaviorally were critical, and finally in order to build these balances, data use was
extensive. Collectively, all three of these themes demonstrated that the student placement process was far from random.

**Collaboration.** The student placement process was and continues to be an important aspect of the principals’ school year. Similar to Monk’s (1987) research, current principals and teachers work together to complete the placement process. The connection of students and teacher was extremely important (Glasman & Heck, 1987; Sanders & Horn, 1998; Sanders, 1998) and the process of matching the two together weighed heavily upon the principals. Principals felt compelled as Interviewee 5 shared, to find “which personalities of the kids are going to work well with which teachers.” In order to meet this expectation, 75.8% of the surveyed principals stated that collaboration with teachers in the placement process was *very or extremely important*. In some cases, this collaboration improved teacher buy-in; as Interviewee 6 shared “I would say teachers are happier with the way we are doing it now and (they) feel more a part of the process,” but the overall goal of “helping me decide where the clusters should go…and where the supports should be to be successful” was key. These thoughts match Lezotte and Snyder’s (2011) description of the instruction leader where collaboratively working principals and teachers solve difficult problems, such as the student placement puzzle.

In some instances, teachers began the process by providing principals with data sets for each student and the principal made initial rosters that were tweaked by teams of teachers. In others, the teachers made the initial rosters for principals to adjust. In 81 of 84 of the study participants, the final say in where a child was placed was up to the building principal or district level administration. Regardless of who started the process,
the data showed that teachers and principals worked together to collaboratively build non-random rosters of students.

**Building a balance.** In this collaborative atmosphere, the aspect of building balanced class assignments was imperative, so that one teacher was not given a disproportional number of students who had greater challenges (Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012). The research revealed that placement decisions occurred through the lens of academic or behavioral balance. For academics, interviews provided insight into factors that would lead to the construction of a balanced class. Interviewee 4 shared, “well, I think that by having a balanced class, that’s a direct impact on how the kids do. Because, there [are] role models for kids in the classroom…I think everybody experiences more growth when there is that distribution.” Further, Interviewee 4 discussed how that looked instructionally, “so again, you have to look at what’s best for instruction, and that’s a heterogeneous mix, but again you don’t want to get to a point to where you have extremes.” To eliminate the extremes, principals adjusted students initially placed into a specific classroom as more information from parents provided an impetus to change to a higher level course. Parallel discussions, from the principal and teacher vantage point were also identified. Interviewee 2 stated “I am going to accelerate kids. If I have kids performing well in sixth grade, we accelerate them to seventh” to challenge their abilities.”

Behaviorally, the spreading of challenging students to create safe and orderly environments was an important factor in the placement decision making process (Braun, 2005; Lezotte & Snyder, 2011). As Interviewee 6 stated, “we want to look at behaviors first.” Additionally, not all students and teachers mesh. Some initial placements were
discovered to not be in the best interest of an individual student, their classmates, or the teacher, and those placements were changed. Interviewee 3 said, “It is not that we are setting that other teacher up kind of thing, they have a good camaraderie among them (students)…sometimes, they [current teacher] will say to me, I think that he will do better with her.” By demonstrating a willingness to be open to early and mid-year data confirmed placement changes, these principals developed an environment for all students to meet educational excellence (Lezotte & Snyder, 2011).

**Data usage.** The placement of students into classrooms had changed a great deal in the past few decades. From Monk’s (1989) initial study that looked solely at the process of organizing classes to today’s exponential use of data to ensure that classes were balanced both academically and behaviorally, the process had become more and more data driven (Lezotte & Snyder, 2011). Interviewee 3 highlighted this change in placement philosophy: “The thing that I used to worry about years ago was boy/girl ratio and that there aren’t three Sally’s in one room, and that’s like the last thing I look at now.” The concern over matching names has now evolved to matching appropriate data points. The study data demonstrated that utilizing various objective and subjective data to purposefully place students in various combinations was widespread (Rothstein, 2009b). Across the state, principals and teachers used multiple data points (Rothstein, 2009b) around performance and ability such as Iowa Test of Basic Skills (ITBS)/Cognitive Abilities Test (COGAT) test scores, the Standardized Test for Assessment of Reading (STAR) assessments, the Ohio Achievement Assessment (OAA), the Dynamic Indicators of Basic Early Literacy Skills (DIBELS), and the Diagnostic Reading Assessment (DRA) to organize academically balanced class rosters.
Another data set that was specifically investigated was value-added metrics (VAMs), (Sanders, 1994). The research revealed that 83.9% of principals stated that they looked at value-added data at the beginning of the school year, as an indicator of student growth and teacher effectiveness. Unfortunately, the delivery dates (late September to early October) of the VAM, including student and teacher projection data, dictated that its use for initial class placement was limited. The interviewed principals felt that important use of VAM information, all of which takes place throughout the school year, included: identifying students that needed additional intervention supports, tracking student growth, and guiding teachers on future instruction practices to maximize class time (Sanders, and Horn, 1998; Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012).

Finally, descriptive statistics and qualitative data indicated that principals valued both teacher and parent subjective data, but parent data were not always utilized. In some cases, the parent data were either a misconception about the teacher, did not match what the objective data was showing, or that the request would cause an imbalanced class. These misunderstandings highlighted the complex relationships between schools and parents (Epstein et al., 2002) and the assumptions that were created. Teacher information on where to place students and with which students they should be teamed was a key data point in the overall placement process, and demonstrated that principals used multiple data sources (Rothstein, 2009b).

**Implications for Policy, Practice, and Research**

The detailed use of data in collaborative settings to build non-random balanced academically and behaviorally classrooms had important implications for policy,
practice, and research as new legislation regarding teacher evaluation and waivers from No Child Left Behind (NCLB) and its Adequate Yearly Progress (AYP) targets were initiated.

**Implications for policy.** The achievement gap still existed in many schools across the State of Ohio, and the placement of a student with the correct teacher and in the correct environment was important (Glasman & Heck, 1987; Sanders & Horn, 1998; Sanders, 1998) due to the amount of time that the student was with that teacher. How to fairly place students in classrooms was a two-tiered problem that still needed to be answered especially in light of new legislation at both the state and federal levels.

*Teacher evaluation.* On February 15, 2011, the Fiscal Year 2012-2013 Operating Appropriations Bill (HB 153, 2011) was introduced to Ohio’s 129th General Assembly. This bill, as enrolled, has specific language regarding teacher evaluation and the use of value-added metrics:

(A) Not later than December 31, 2011, the state board of education shall develop a standards-based state framework for the evaluation of teachers. The framework shall establish an evaluation system that does the following:

(1) provides for multiple evaluation factors, including student academic growth, which shall account for 50% of each evaluation;

(6) identifies measures of student academic growth for grade levels and subjects for which the value-added progress dimension prescribed by section 3302.021 of the Revised Code does not apply;
(7) implements a classroom-level, value-added program developed by a nonprofit organization described in division (B) of section 3302.021 of the Revised Code;

(8) provides for professional development to accelerate and continue teacher growth and provide support to poorly performing teachers.

(Legislative Information Systems, 2012, sec. 3319.112)

For currently serving principals and teachers in the State of Ohio, this was a seismic shift in evaluation policy and protocol. Past practices and negotiated agreements dictated that evaluation centered on issues of class management, organization, and communication, but if HB 153 becomes law, teachers and principals in the State of Ohio will be held contractually responsible for student growth.

Since class roster development was shown to be non-random, this could allow for the unethical manipulation of class lists to ensure that some teachers could post large value-added gains (Burns & Mason, 2002; Koedel & Betts, 2009), and thereby rewarding favored teachers with the opportunity to be distinguished as highly effective by value added data sets (Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012; Kane & Staiger, 2008; Rivkin, 2007; Rothstein, 2009b). The research showed that the need for academic balance was critical due to the fact that teachers with accelerated students often scored higher value-added results than teachers with special education students (Hill et al., 2011; Newton et al., 2010). This unfair advantage for some teachers could allow for the possibility of expensive litigation, if class design became a competition to get the best value-added growth students and not to reduce the achievement gap for all students. Knowing this, taking steps to determine efficiency and
effectiveness of the placement process, such as the Student Placement Matrix still needs to be investigated.

**Student achievement.** In addition to the concerns of treating teachers fairly, the substantial concern of multiple subgroups of students not meeting basic grade level proficiency rates continues to challenge many Ohio school districts. Ohio requested a waiver from No Child Left Behind provisions in February 2012 (U.S. Department of Education, 2012). In order to qualify for the waiver, the Ohio Department of Education had to design a plan to reduce existing achievement gaps, currently being piloted in Race to the Top (RttT) districts (U.S. Department of Education, 2012). The former Adequate Yearly Progress (AYP) targets would be replaced with an Achievement Gap Closing measure (U.S. Department of Education, 2012). These measures embedded and enhanced most of the current components of AYP. The state would continue to disaggregate and publish the proficiency rate of ten subgroups in reading and math, and set a target of cutting the state’s achievement gap in half by 2017 (U.S. Department of Education, 2012).

**Implications for practice.** This study provided direction for current teachers and principals as they complete the placement process each year, as well as, for the educators of our future teachers and administrators. For currently serving teachers and administrators the research is clear that student placement needed to be done in collaborative teams of teachers and principals. These teams must use a wide variety of objective and subjective data to specifically place students in academically and behaviorally balanced classes.
Professors that educate pre-service teachers must provide instruction on objective and subjective data and quality instruction, enrichment, and intervention programs for a wide range of learners. New teachers can be overwhelmed with data. Providing teachers with a skill set to evaluate and interpret data is an essential expertise that principals are looking for. The current population trends vividly predict that the students of 2030 will have much broader cultural background of current students. New teachers must have the tools to not only meet the education needs of diverse children, but also be prepared to serve their social and emotional needs in a culturally proficient classroom (Lindsey, Robins, & Terrell, 2009).

Teachers and principals striving to achieve advanced degrees in educational leadership, and teacher education should be required to receive instruction in the fine art of collaboration. Collaborative practices to lead other educators are much easier discussed than implemented. New educational leaders need to be taught and must understand that trust is not a right of the principalship, but an asset that great leaders earn. In order to earn that trust, new leaders must be willing to work collaboratively with the faculty to meet the needs of all students, to follow up on discipline concerns, and support teachers to take educational risks (e.g., constructivist instruction strategies).

Secondly, new leaders must be equipped with the skills of data based decision making. It is easy to look at a set of numbers and determine who tested well and who did not, but it takes great skill to be able to disaggregate the numbers to determine who is actually learning. Graduate level institutions need to connect with their Kindergarten through twelfth grade colleagues to build practitioner based programs that graduate well
rounded leaders that will be equipped to meet the changing accountability and cultural climates of the next decades.

**Implications for research.** Additional research on the process of completing student placement needs to take place. The study concluded that the use of data in a collaborative setting to build non-random, academically and behaviorally balanced classrooms took place in a majority of highly effective schools, but could these procedures be the same with lower performing schools? What were the essential data points that effective schools use in placing students? Did it matter if principals or teachers begin the process? Should placement be solely based upon purposefully assignment or should some random assignment occur? No matter which direction the data would lead, student placement must take place; therefore it is important to ensure that every student is provided the best opportunity to succeed.

Secondly, there is a need to continue to study the relationship between student placement and reducing the achievement gap. This study was limited to 87 high performing schools that were reducing achievement gaps. The interviews proved that the placement process was an important first step to an academically successful school year. Did these schools utilize data differently than lower performing schools? Could weight adjustments or additional variables be entered into the SPM to make it statistically significant? Did core class placement even matter? What if interventions were more important than core instruction in value-added gains?

Further study needs to be done on the various types of student data that exist. Can VAMs be a true picture of student growth, if they are actually based upon specific placement and not random? Are there better ways of predicting student success than
VAMs? Is test score data more important than subjective teacher or parent information? How accurate is a teacher’s assumption regarding a peer’s ability to work with specific types of students? If Ohio teachers and principals are going to be evaluated on a students’ value-added growth, then it will be important to ensure that the first step toward a classroom that promotes achievement is an optimal relationship between teacher and student (Lezotte & Snyder, 2011).

Though the Student Placement Matrix as a whole was not statistically significant, variables such as initial placement change for African American students, teachers separating students from other teachers for Students with Disabilities, and teacher information to separate students from other students proved to be significant in both reading and math and are worthy of additional study. What if these variables are truly significant over a larger population, could these aspects of placement reduce the achievement gap? Principals and policy makers need to continue to investigate processes that place students with teachers and how these placements can reduce achievement gaps. For placements to occur in an equitable manner, principals and teachers must maximize the use of additional data sets, continue to work collaboratively in placement, and design balanced classes to provide opportunities for students to grow academically.

**Limitations of the Study**

The methods used for this study were adequate tools to assess principals’ perspectives on the student placement process. There were, however, several limitations discussed in this section. First, the researcher for the study was a public elementary school principal and may have biased the results. In combination with the research, the
placement of items in the objective and subjective categories were based upon the researcher’s personal experiences.

This study may be limited by the fact that the Student Placement Survey was not able to be judged for reliability. Due to the purposeful construction of the survey to glean as much information from as many principals as possible, the lack of reliability was a limitation. Redesigning the survey to only focus on one or two aspects of placement (e.g., student behavior or parental input) would allow for an opportunity to ask additional questions that could provide increased reliability.

There were approximately 218 schools in the State of Ohio that met the criteria needed to be included in the survey. The researcher sought out to capture the opinions of all 218 principals of this population. Although care was given to the selection process, there was a chance that sampling bias occurred, since not all principals participated.

Increasing the number of participants to include a balanced number of schools with excellent and non-excellent report card ratings would have provided greater diversity in the data. This study contained only excellent ranked schools, and that may not have been an adequate representation, identified by the skewed descriptive results of many of the survey items. By sampling principals across a wide spectrum of ratings, true differences in how principals and teacher teams place students could be discovered by eliminating the similarities and focusing on the aspects of placement that only excellent schools use.

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. The
researcher attempted to reduce this limitation by utilizing as many State of Ohio definitions of terms as possible.

There were limitations to the spectrum of objective and subjective data within the Student Placement Matrix (SPM). As new data sources come with additional accountability measures, the types of data used in this matrix could not only change in weight, but could also be removed entirely.

**Summary**

This study demonstrated that a wide range of factors were put into play as teachers and principals work together to purposefully plan class rosters for the ensuing school year. As most parents, teachers, and principals can attest, having the right match between a student and a teacher is an incredibly important first step to ensure that student academic growth occurs (Glasman & Heck, 1987; Sanders, 1998; Sanders & Horn, 1998). This study discovered aspects of placement that principals understood to be important. These included: collaboratively working with teachers, designing balanced classrooms, and utilizing a wide range of data to ensure the best possible placement outcome so that the achievement gap can finally be reduced or eliminated.

Secondly, when studied either individually or collectively, all of these factors eliminate the possibility of random placement of students which should be a tremendous concern for practitioners, researchers, and policy makers (Braun, 2004, 2005; Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012; Harker & Tymms, 2004; Harris, 2011; Hill, Kapitula & Umand, 2011; Koedel & Betts, 2009; Newton, Darling-Hammond, Haertel, & Thomas, 2010; Raudenbush, 2008; Rothstein, 2009b; Viadero, 2008; Weiss, Payzant, & Ladd, 2011). As new teacher and principal evaluation polices
based upon value-added results become implemented, the incorporation of value-added metrics and their assumption of randomization into teacher and principal evaluations can provide an avenue for litigation as educational professionals are provided contract extensions or non-renewal notices based upon the faulty assumption of randomization.

As discussions of the merits of value-added results in teacher evaluation continue (Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012; Hill et al., 2011; Newton et al., 2010), a larger concern continues to be vast numbers of students not meeting basic grade level educational attainment. A collaborative effort between principals, teachers, and parents to ensure that every child is placed in a classroom that provides them with the best opportunity to succeed is a moral obligation that must be met.
References


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Glossary

The following terms are defined for the purpose of this mixed-methods research study:

Achievement: The mastery of a particular academic skill or construct measured by a standardized assessment.

Achievement gap: The observed disparity on a number of educational measures among the performances of groups of students.

Achievement Test: Assessments created in order to measure student mastery of a particular academic skill.

Adequate Yearly Progress (AYP): 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 (Yell & Drasgow, 2005). AYP is calculated by determining the annual improvement needed to have all students at or above proficiency in reading and mathematics by 2013-14.

Current-year results: The proficiency level, weighted across all tested grades, for the subject is at or above the AYP goal (Ohio Department of Education, 2009b).

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.

Economically disadvantaged students: Percentage of students that receive federally funded free and/or reduced lunch.

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.

Growth model: A statistical projection for a non-proficient student who is on a path to proficiency within Two-Years. Those students are treated as proficient in the current year. (Ohio Department of Education, 2009b).

Helicopter parents: Parents that hover around every aspect of their child’s life, due to an obsession with their child’s success (Gibbs, 2009).
Homogenous grouping: students are placed into a similar classroom based upon their current academic performance level.

Ohio Accountability Task Force (OATF): A commission created in 2003 by Ohio House Bill 3 to guide the implementation of ‘value-added’ progress measures into the accountability system and report performance data to school districts and buildings (Ohio Department of Education, 2009a).

Overall composite: The progress a school has made with its students since last school year. The ranking is a summation of reading and mathematics grade level Value-Added scores.

Random assignment: The placement of students into classrooms without any specific direction and/or method.

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. This group of individuals provided professional development to the DVAS.

Safe harbor: A student group must make a 10% or greater reduction in its percentage of non-proficient students from the previous year, and they must meet the AYP goal in the secondary indicator (graduation rate and/or attendance rate) (Ohio Department of Education, 2009b).

Stacking: The assignment of specific students to a teacher for the purpose of ensuring a high Value-Added teacher effectiveness score.

Standardized student assessment: A test that is designed to be administered and scored under the same conditions and in the same way for all.

Student Online Achievement Reporting (SOAR): A statewide (Ohio) school improvement collaborative comprised of more than 100 of Ohio’s 614 school districts committed to using comprehensive value-added analysis to improve teaching and accelerate progress for all students (Battelle for Kids, 2009).

Students with disabilities: A student with a disability may need specially designed instruction to meet his or her learning goals. A student with a disability will usually have an Individualized Education Plan, which guides his or her special education instruction (U.S. Department of Education, 2011).

Performance index: The summation of the percentage of students scoring at each performance level which is multiplied by a point value assigned to that performance level (Ohio Department of Education, 2009b).
Tennessee Value-Added Assessment System (TVAAS): The student growth model developed by William Sanders that uses scale score gains from an annual national norm-referenced student achievement test to determine the value that a teacher and school have on a student.

Two-year combined results: The proficiency level weighted across all tested grades is at or above the current year AYP goal when results from the current year are combined with the results from the prior school year (Ohio Department of Education, 2009b).

Value-Added Progress: 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.

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.
Appendix A: Student Placement Survey (SPS) Final Version

The following is for your information regarding this survey. Please take a moment to review. Click the "Start Survey" button at the end to begin.

Information Sheet for Research
University of Cincinnati
Department: Urban Educational Leadership
Principal Investigator: Greg Finke
Faculty Adviser: Dr. Carlee Escue

Title of Study: An Investigation of How Effective Fourth – Eighth Grade Schools in Ohio Use Value-Added Data for Student Placement?

Introduction: You are being asked to take part in a research study. Please read this consent form carefully and ask questions about anything that you do not understand.

Who is conducting this research study? The person in charge of this research study is Principal Greg Finke (Principal Investigator – PI) of the University of Cincinnati UCUC) Department of Education, Urban Education Leadership Program. He is being guided in this research by Dr. Carlee Escue.

What is the purpose of this research study? The purpose of this research study is to investigate the use of Value-Added data (1. The State of Ohio Value-Added Designation on the building report card, 2. The Battelle for Kids EVAAS data, or 3. The Value-Added score reports from the Ohio Department of Education) by school administrators in making class placements. This study further investigates how the building principal utilizes information from teachers and parents in the placement process– regardless if Value-Added is being utilized.

Who will be in this research study? Approximately 200 active building principals will take part in this study. You were chosen to participate because your building has at least Two-Years of “above” ranking on your Overall Composite Value-Added Measure on the State of Ohio Building Report Card.

What will you be asked to do in this research study, and how long will it take? You will be asked to complete a Web based survey. It will take approximately 20 minutes. The research will take place at a location that is comfortable to you.

Are there any risks to being in this research study? It is not expected that you will be exposed to any risk by being in this research study.
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How will your research information be kept confidential? All data will be kept secure in a password protected computer or a locked file to ensure that there will be no exposure of data and participants will be kept anonymous. Each participant and school will be given pseudonyms and random identification numbers to protect identities. Raw data with actual identifying information will be kept in a separate location from the transcriptions.

Your information will be kept in a password protected computer or a locked file cabinet for three years. After that, it will be destroyed by Greg Finke.

Agents of the University of Cincinnati may inspect study records for audit or quality assurance purposes. The researcher will ask people to keep the discussion confidential. The PI cannot promise that information sent by the internet or email will be private.

What are your legal rights in this research study? Nothing in this consent form waives any legal rights you may have. This consent form also does not release the investigator, the institution, or its agents from liability for negligence.

What if you have questions about this research study? If you have any questions or concerns about this research study, you should contact you can reach Greg Finke (PI) at 617-0366, 894-3399, or at finkege@mail.uc.edu. The faculty adviser to this pilot study is Dr. Carlee Escue, she can be reached at 556-2006 or at escuece@ucmail.uc.edu.

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Do you HAVE to take part in this research study? No one has to be in this research study. Refusing to take part will NOT cause any penalty or loss of benefits that you would otherwise have. If you choose to not answer certain questions, you are permitted to do that. You may start and then change your mind and stop at any time. To withdraw
from the study, you should tell Greg Finke at 617-0366, 894-3399, or at finkege@mail.uc.edu.

BY TURNING IN YOUR COMPLETED SURVEY YOU INDICATE YOUR CONSENT FOR YOUR ANSWERS TO BE USED IN THIS RESEARCH STUDY.

PLEASE KEEP THIS INFORMATION SHEET FOR YOUR REFERENCE.

Start Survey

Block 2

Demographic Information

1. What is your gender?
   - Male
   - Female

2. What is your race?
   - White/Non-Hispanic
   - African-American
   - Latino/Hispanic
   - Asian/Pacific Islander
   - Multiracial
   - Other

3. How long have you been principal of this school?
   - one year or less
   - Two-Years
   - three years
   - four years
   - five or more years
4. What is the highest degree you hold?
   - Master’s Degree
   - Certificate of Advance Graduate Studies
   - Doctoral Degree (Ed.D)
   - Doctoral Degree (Ph.D)
   - Other

5. How would your school be best described?
   - Standard public
   - Chartered magnet
   - Other

6. How would you classify your school?
   - Urban
   - Suburban
   - Rural

7. What is the student population of your school?
   - less than 250
   - 251 - 499
   - 500 - 750
   - 751 - 999
   - over 1000

8. What grades are currently served at your school?
   - 4th
   - 5th
   - 6th
   - 7th
   - 8th
9. How many AYP subgroups (i.e. Economically Disadvantaged Students, Students with Disabilities, Limited English Proficient, and students from major racial groups – American Indian/Alaska Native, White, Non-Hispanic, Black, Non-Hispanic, Hispanic, Asian/Pacific Islander, and Multiracial (Ohio Department of Education, 2009) were in your building for the 2009/2010 school year?

- 0
- 1
- 2
- 3
- 4 or more

10. Since 2007/2008, how many years has your school met AYP for all subgroups?

- 0
- 1
- 2
- 3
- 4 or more

**Block 3**

For the purpose of this survey, Value-Added data is defined as data that comes from:
1. The State of Ohio Value-Added Designation on the building report card,
2. The Battelle for Kids EVAAS data, or
3. The Value-Added score reports from the Ohio Department of Education.

11 – 14. While placing students in reading and math classes? How important

<table>
<thead>
<tr>
<th>Not at all Important</th>
<th>Very Unimportant</th>
<th>Neither Important nor Unimportant</th>
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<th>Extremely Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>is the use of Value-Added Teacher data?</td>
<td></td>
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<tr>
<td>----------------------</td>
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</tbody>
</table>

is the use of other forms of data (i.e. OAA scores, reading levels, math performance)?

are teachers in the placement process? is it that principals complete placements individually?

15 – 17. How often is Value-Added data reviewed...

<table>
<thead>
<tr>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Quite Often</th>
<th>Very Often</th>
</tr>
</thead>
</table>

at the beginning of the school year?
during the school year?
to identify students for intervention opportunities?

18 – 26. For this section, please reflect on the process you use to place students into their next year’s homeroom or teacher of record for reading or math. How often...

<table>
<thead>
<tr>
<th>Never</th>
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<th>Sometimes</th>
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<th>Very Often</th>
</tr>
</thead>
</table>

do district mandates/priorities dictate your placement decisions?
do you group students homogeneously?
do your initial placement decisions change?
does a student's behavior concern take precedent over a student's academic performance?
does a student's behavior concern take precedent over a student's Value-Added projection?
never rarely sometimes quite often very often

<table>
<thead>
<tr>
<th>Question</th>
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<tr>
<td>do you readjust class rosters after the school year begins?</td>
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<td>do you purposefully place a child with a specific teacher?</td>
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<tr>
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<tr>
<td>are behavior concerns balanced across the grade level?</td>
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</table>

27 – 34. Parent and Teacher Information – For this section, please reflect on the process you use to place students into their next year’s homeroom or teacher of record for reading or math.

How often...

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
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<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>are teacher requests to separate students implemented?</td>
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</tr>
<tr>
<td>are teacher requests to match students together implemented?</td>
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</tr>
<tr>
<td>are teacher requests to separate students with a specific teacher</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>are teacher requests to connect students with a specific teacher</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>are parent requests to separate students implemented?</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
35. How is Value-Added data utilized in the placement process?

36. How is Value-Added data shared in your buildings?

37. Who has the final say in student placement decisions (principal, teachers, parents, central office administration, other - please identify)?

38. Do you and teachers work together on placements? If so, why. If so, why not?

39. When developing class rosters, explain how you place students with discipline issues?

40. If no other factors were in play, what percentage of the time would you fulfill parents requests?

   - 0 - 20%
   - 21 - 40%
   - 41 - 60%
   - 61 - 80%
   - 81 - 100%

41. Please explain what reasons you have for not fulfilling parental requests.

42. What skill sets of teachers are the most important?

43. What skill sets of teachers are the least important?
44. Who is the most important person(s) in the placement process (principal, teachers, parents, central office administration, other - please identify)?

45. I would be willing to participate in a follow-up interview. Please send me additional information regarding consent procedures at the following email address.

46. Would you like to receive a report of the findings? All information will be summarized in aggregate form. No identifying information will be given.

☐ Yes, I would like to receive a report.
☐ No, I do not want a copy.

Survey Powered By Qualtrics
Appendix B: Student Placement Survey Interview (SPSi)

1. What is your overall impression of value-added data?
2. What types of value-added data are available for you to use?
3. In what ways do you use value-added data (such as EVAAS)?
4. In what ways do you use value-added data to build class assignments?
5. How valuable do you find value-added information?
6. What other criteria do you use in class placement procedures?
7. (Name) I see that your school has admirable value-added scores. Can you explain what’s happening here to help you earn those scores?”
8. What are the themes, patterns, or categories being utilized for class placements?
   a. What events, beliefs, attitudes, or policies shape your philosophy?
   b. How do these forces interact to result in the actual placement of students?
9. How do these specific placements aid in achieving your value-added goals?
10. How is the data shared in your buildings?
11. What skill sets of teachers are the most and least important for placement decisions?
12. How do you and teachers work together on placements?
13. Who is the most important person(s) in the placement process?
14. Who has the final determination of student placement?
Appendix C: Pilot Study Interview Protocol

1. What do you think about value-added data?

2. What types of value-added data are available for you to use?

3. In what ways do you use value-added data to build class assignments?

4. When value-added research data (such as EVAAS) is available do you use this data?

5. What other criteria do you use in class placement procedures?

6. How valuable do you find value-added information?

7. (Name) I see that your school has admirable value-added scores. Can you explain what’s happening here to help you earn those scores?”

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9. How do these specific placements aid in achieving your value-added goals?
Appendix D: Introductory Email to Building Principals

August 28, 2011

My name is Greg Finke, and I am principal of Independence Elementary in the Lakota Local School District and a doctoral candidate at the University of Cincinnati. Below you will find a description of my dissertation research study that I will be investigating during the 2011/2012 school year.

Due to your school’s performance on the overall composite value-added measure for the last 3 years, you are being invited to participate. I am looking to study how high performing (above expected Overall Composite Value-Added scores) school principals develop the class rosters for their fourth – eighth grade core academic subjects. The goal is to determine if purposeful student placements are being used to meet AYP subgroup targets.

In the next week, you will receive an email invitation to complete a brief web based survey. Each survey has a specific numeric identifier that will remain confidential. I am requesting that you complete the survey at your earliest convenience.

If you have any questions regarding this study, you can reach me at (513) 617-0366 (cell), (513) 894-3399 (home), (513) 755-8300 (school), or at finkege@mail.uc.edu. The faculty advisor to this study is Dr. Carlee Escue; she can be reached at 556-2006 or at escuece@ucmail.uc.edu.

Best Wishes on Your Upcoming School Year,

Greg Finke
Principal
Independence Elementary School
phone 513.755.8300
cell 513.617.0366
fax 513.755.6941

********PRIVATE AND CONFIDENTIAL ************
This electronic message transmission contains information from the Lakota Local School District that is privileged, confidential or otherwise the exclusive property of the intended recipient or the Lakota Local School District. This information is intended for the use of the individual or entity that is the intended recipient. If you are not the designated recipient, please be aware that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this electronic in error, please notify us by telephone (513) 644-1200, collect, or by electronic mail email@lakotaonline.com and promptly destroy the original transmission. Thank you for your assistance.
Appendix E: Student Placement Survey (SPS) Initial Version

The following is for your information regarding this survey. Please take a moment to review. Click the "Start Survey" button at the end to begin.

Information Sheet for Research
University of Cincinnati
Department: Urban Educational Leadership
Principal Investigator: Greg Finke
Faculty Adviser: Dr. Carlee Escue

Title of Study: An Investigation of How Effective Fourth – Eighth Grade Schools in Ohio Use Value-Added Data for Student Placement?

Introduction: You are being asked to take part in a research study. Please read this consent form carefully and ask questions about anything that you do not understand.

Who is conducting this research study? The person in charge of this research study is Principal Greg Finke (Principal Investigator – PI) of the University of Cincinnati UCUC Department of Education, Urban Education Leadership Program. He is being guided in this research by Dr. Carlee Escue.

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Who will be in this research study? Approximately 200 active building principals will take part in this study. You were chosen to participate because your building has at least Two-Years of “above” ranking on your Overall Composite Value-Added Measure on the State of Ohio Building Report Card.

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BY TURNING IN YOUR COMPLETED SURVEY YOU INDICATE YOUR CONSENT FOR YOUR ANSWERS TO BE USED IN THIS RESEARCH STUDY.

PLEASE KEEP THIS INFORMATION SHEET FOR YOUR REFERENCE.

Start Survey

Block 2

Demographic Information

1. What is your gender?
   - Male
   - Female

2. What is your race?
   - White/Non-Hispanic
   - African-American
   - Latino/Hispanic
   - Asian/Pacific Islander
   - Multiracial
   - Other

3. How long have you been principal of this school?
   - one year or less
   - Two-Years
   - three years
   - four years
   - five or more years
4. What is the highest degree you hold?
- Master’s Degree
- Certificate of Advance Graduate Studies
- Doctoral Degree (Ed.D)
- Doctoral Degree (Ph.D)
- Other

5. How would your school be best described?
- Standard public
- Chartered magnet
- Other

6. How would you classify your school?
- Urban
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- Rural

7. What is the student population of your school?
- less than 250
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- over 1000

8. What grades are currently served at your school?
- 4th
- 5th
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9. How many AYP subgroups (i.e. Economically Disadvantaged Students, Students with Disabilities, Limited English Proficient, and students from major racial groups – American Indian/Alaska Native, White, Non-Hispanic, Black, Non-Hispanic, Hispanic, Asian/Pacific Islander, and Multiracial (Ohio Department of Education, 2009) were in your building for the 2009/2010 school year?

- 0
- 1
- 2
- 3
- 4 or more

10. Since 2007/2008, how many years has your school met AYP for all subgroups?

- 0
- 1
- 2
- 3
- 4 or more

**Block 3**

For the purpose of this survey, Value-Added data is defined as data that comes from:
1. The State of Ohio Value-Added Designation on the building report card,
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3. The Value-Added score reports from the Ohio Department of Education.

11 – 14. While placing students in reading and math classes? How important

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<td></td>
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15. How is Value-Added data utilized in the placement process?

16 – 18. How often is Value-Added data reviewed...

19. How is Value-Added data shared in your buildings?

20 – 28. For this section, please reflect on the process you use to place students into their next year’s homeroom or teacher of record for reading or math. How often...

- do district mandates/priorities dictate your placement decisions?
- do you group students homogeneously?
- do your initial placement decisions change?
- does a student's behavior concern take precedent over a student's academic performance?
- does a student's behavior concern take precedent over a student's Value-Added projection?
do you readjust class rosters after the school year begins?

Never   Rarely   Sometimes   Quite Often   Very Often

do you purposefully place a child with a specific teacher?

Never   Rarely   Sometimes   Quite Often   Very Often

do you purposefully separate a child from a teacher?

Never   Rarely   Sometimes   Quite Often   Very Often

are behavior concerns balanced across the grade level?

Never   Rarely   Sometimes   Quite Often   Very Often

29. When developing class rosters, explain how you place students with discipline issues?

30. Who is the most important person(s) in the placement process (principal, teachers, parents, central office administration, other - please identify)?

31. What skill sets of teachers are the most important?

32. What skill sets of teachers are the least important?

33 – 40. Parent and Teacher Information – For this section, please reflect on the process you use to place students into their next year’s homeroom or teacher of record for reading or math.

How often...

Never   Rarely   Sometimes   Quite Often   Very Often

are teacher requests to separate students implemented?

are teacher requests to match students together implemented?

are teacher requests to separate students with a specific teacher implemented?

are teacher requests to
Never    Rarely    Sometimes    Quite Often    Very Often

connect students with a specific teacher implemented?

are parent requests to separate students implemented?

are parent requests to match students together implemented?

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41. Who has the final say in student placement decisions (principal, teachers, parents, central office administration, other - please identify)?

42. Do you and teachers work together on placements? If so, why. If so, why not?

43. If no other factors were in play, what percentage of the time would you fulfill parents requests?

- 0 - 20%
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- 81 - 100%

44. Please explain what reasons you have for not fulfilling parental requests.

45. I would be willing to participate in a follow-up interview. Please send me additional information regarding consent procedures at the following email address.
46. Would you like to receive a report of the findings? All information will be summarized in aggregate form. No identifying information will be given.

☐ Yes, I would like to receive a report.
☐ No, I do not want a copy.

Survey Powered By Qualtrics
Appendix F: Sample Email Request to Interview to Building Principals

Participant,

Thank you for completing my survey for my dissertation. The second part is a follow-up interview with 10 principals across the state to look into the data through a different lens. You had indicated that you may be willing to sit down with me for a follow-up interview. Please see attached questions and UC’s Adult Consent form that I must use.

I was trying to organize interviews in different sections of the state on similar dates and was hoping that you could spare 45 minutes on Friday, October 14th at 8:00 am. Please let me know if you are willing and available at that time.

Sincerely,

Greg Finke
Principal
Independence Elementary School
phone 513.755.8300
cell 513.617.0366
fax 513.755.6941

*******PRIVATE AND CONFIDENTIAL *************
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