Understanding the Factors that Influence the Grouping and Assignment of Students to Elementary Classrooms

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Abstract

My dissertation examines the grouping and assignment of students to elementary school classrooms. Using a sequential mixed-methods design, I link classroom assignment outcomes (whether or not students are grouped and assigned to grade-level classrooms by prior achievement) to assignment practices to examine the factors that contribute to varying outcomes. Findings show that school educators value and work towards creating classrooms that balance student achievement across classrooms, although only some are successful at doing so. Schools that achieve ability balanced classrooms have more structured approaches to data use than those that don't. In these schools, principals played an important role in gathering and organizing student data to be used when making these decisions. These principals also actively engaged with teachers in the decisions about how to group and assign students to classrooms. When examining other factors that influence the grouping and assignment of students to classrooms, I found that perceptions of teacher effectiveness, and parental and teacher preferences played a role in these decisions. Perceived accountability pressures also influenced the degree to which educators focused upon student achievement data when forming classrooms. Inhabited institutions theory is utilized to understand how

institutional logics may influence and explain varying practices in different school contexts.

These findings have implications for educators, policymakers, as well as researchers of educator effectiveness. For educators who value classrooms that are not differentiated by ability, these findings suggest promising practices toward creating ability balanced classrooms. These findings also highlight important implications that individual accountability policies may have upon educator practices and preferences with regard to classroom assignments. Finally, these findings inform the assumptions that teacher effect measurements rely upon, hopefully offering insight that may be used to improve the accuracy of these models.

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Chapter 1: Statement of the Research Problem

The formation of an elementary school classroom is a practical school level process that all schools undergo each academic year. In some schools this is a straight-forward process: all grade-level students are grouped into a classroom and assigned to the grade-level teacher at their school. But in elementary schools large enough to have at least two classrooms per grade-level, or so small that combination, or multigrade, classrooms are formed, a choice must be made—how to group and assign cohorts of students to classrooms and teachers.

Classroom assignment has always been a decentralized decision process. Yet little research has examined this school-level process even though these decisions have implications for the accuracy of value-added and other teacher effect measurements (e.g. Rothstein, 2007; Dieterle, Guarino, Reckase, Woolridge, 2012), as well as the degree to which students may access more or less effective teachers and peer-effect benefits. The literature on teacher supply and distribution within schools (e.g. Clotfelter, Ladd, Vigdor, 2005, 2007; Feng, 2010; Kalogrides, Loeb, and Beteille, 2011) indirectly examines the classroom assignment process, but it tends to focus upon distributional patterns as opposed to the processes by which these outcomes are derived. They also emphasize the teacher portion of classroom assignment decisions. The vast tracking literature turns the lens toward student compositions across classrooms providing valuable insight into how ideas associated with ability grouping and the benefits of peer effects and unsegregated classrooms (e.g. National Education Association, 1990; Oaks, Gamoran & Page, 1992; Zimmer, 2000) likely influence classroom assignment decisions. However, these studies pre-date contemporary accountability policies (Cohen-Vogel, 2011). Very little is known

about how efforts to raise student achievement, especially among the lowest performing students, may also change priorities with regard to classroom assignment, and how priorities may be supported or constrained by teachers' concerns about outcomes-based evaluations that are increasingly constructed, at least in part, on the measurable achievement of their students.

In this dissertation, I examine classroom assignment decisions in elementary schools where the grouping of students by academic ability into grade-level classrooms is generally considered less common. I do not examine ability grouping *within* individual classrooms, but rather the grouping of students by ability *across* grade-level classrooms because it is this type of grouping that has important implications for the accuracy of value-added measurement techniques. Specifically, I explore whether different classroom assignment processes may account for varying assignment outcomes across elementary school classrooms. I also explore how, if at all, other organizational and individual factors may influence these assignment outcomes.

The overall goal of this study is to empirically examine the processes by which students are grouped and assigned to classrooms to inform the assumptions associated with value-added measurement techniques, which may hopefully improve their accuracy, but also to explore how different philosophies and practices may contribute to inequitable outcomes for students.

The research questions include:

1. In what ways do student assignment outcomes vary across elementary schools?

2. To what extent do these outcomes vary according to:

    - The purpose of the student assignment process
    - The processes by which students are grouped and assigned to classrooms
    - Organizational and individual factors
    - Accountability pressures and educator preferences

To answer these research questions, I conducted a sequential mixed-methods study of classroom assignment outcomes and processes in six elementary schools in one large urban district. I used differences in mean prior student achievement scores across grade-level classrooms to identify schools as having created ability grouped or ability balanced classrooms, or a combination of the two outcomes[1]. Then I conducted an in-depth examination of the classroom assignment process in six schools that had created classrooms with different assignment outcomes. The process by which students are grouped and assigned to grade-level classrooms functions as my unit of analysis. By focusing the analysis here, I shed light on a largely unexplored school level process and examine how differences in the process by which students are grouped and assigned to classrooms may help explain differences in the assignment outcomes.

[1] As I will explain further in Chapter Four, schools were considered to ability *balance* their classrooms, when there were no differences between the mean achievement levels of classrooms at a grade-level; ability *group* their students when there were statistically significant differences; and have *varied* outcomes when one year students were ability grouped and the other they weren't.

Overview

In Chapter Two, I review the empirical evidence related to classroom assignments in elementary school classrooms. In Chapter Three, I present my conceptual framework, which utilizes ideas associated with Inhabited Institutions theory. In Chapter Four, I present my research design and methods. In Chapters Five through Nine, I present my findings. Chapter Five includes findings on the classroom assignment outcomes for elementary schools across the district. In this chapter, I also identify the six case-study schools for a qualitative in-depth analysis of the classroom assignment process. In Chapter Six I present findings on the purpose of the classroom assignment process. Chapter Seven includes findings on the process by which students are grouped and assigned to elementary school classrooms. In Chapter Eight, I present findings on other organizational and individual factors that influence classroom assignment decisions. In Chapter Nine I present findings on the role accountability pressures play in classroom assignment decisions. In the final chapter, I review the major findings of this dissertation and discuss implications for policy and future research.

Chapter 2: Prior Research Related to the Grouping and Assignment of Students to Classrooms

In this chapter, I review five bodies of literature to explore what extant research can tell us about classroom assignments and the factors that influence this school-level process. In my review of the literature, I found only three studies that directly examined the classroom assignment process. Therefore, given the dearth of studies on this process, I also turn toward the literature on the distribution of teachers to students and the sorting of students into classrooms to inform this dissertation. While this research does not examine the classroom assignment process per se, these studies do provide important information about the outcomes of these decisions, and suggest hypotheses for why these patterns may exist.

Because I examine differences in the classroom assignment processes between schools that ability group and ability balance students, I also briefly review the literature on ability grouping. These studies provide valuable insight into how ideas associated with the benefits of peer effects and unsegregated classrooms likely make their way into the decisions about how to group and assign students to classrooms. Finally, as I will discuss further, classroom assignment decisions have important implications for outcomes-based accountability policies. Therefore, I also review the literature on the implications these policies may have upon educator preferences and priorities as they relate to classroom assignments.

Research on the Classroom Assignment Process

In this section, I review three studies that directly examine the classroom assignment process. The first study, while over 25 years old, was vital to informing my understanding of the factors associated with classroom assignments. Monk's (1987) qualitative study of principals' assignment of students to teachers found that principals varied considerably in the degree to which they were involved in these assignment decisions. Also notable, Monk (1987) learned that principals with shorter tenures in schools took a less active role in classroom assignment decisions and instead relied more heavily upon teachers to make these decisions. Monk (1987) also found that classroom assignment decisions were influenced by perceptions of the effectiveness of teachers at a grade level such that students were assigned differently when grade-level teachers were perceived as equally effective compared to situations where one teacher was considered "unacceptably weak" (p. 183). This study also identified parental preferences as an issue principals often considered when forming classrooms.

Monk (1987) examined differences among principals with regard to their reported practices, yet because this study relied upon self-reports and did not examine how students were in fact distributed across classrooms, we don't know whether different practices actually resulted in different outcomes. Also, because teachers were not interviewed, we don't know how practices differed in the schools where principals reported leaving these decisions to the teachers. Finally, this study predates contemporary accountability policies. We don't know whether outcomes-based accountability policies that hold individual teachers accountable for the achievement of the students assigned to

their classrooms, may influence the preferences or practices of teachers with regard to which students are assigned to their classrooms.

The second study examining the classroom assignment process focused upon differences between single-grade and combination, or multiage, classrooms. Burns and Mason (1998) examined the classroom assignment process in two districts to understand how principals with single-grade and combination classrooms made assignment decisions and whether these procedures resulted in different classroom compositions. Using a mixed methods study design, they interviewed principals in twenty-two schools in two school districts to examine the process by which they formed classrooms. Next they tested students to measures their academic ability and degree of independence. Burns and Mason (1998) found that principals considered student ability and temperament when making classroom assignment decisions, primarily to ease the burden of teachers assigned combination classes. They also discovered that even though the class formation *process* was generally similar across schools, classroom *composition* varied across schools, such that combination classrooms were comprised of higher ability and more independent students than single-grade classes. Interestingly, they found that "Despite the fact that most principals and teachers in this study had a strong heterogeneous assignment orientation" (Mason & Burns, 1998, p. 765), classrooms were created purposefully in ways that resulted in compositions that differed considerably in student ability and temperament.

Burns and Mason's (1998) examination of the ways in which combination classrooms were different from single-grade classrooms, and how the classroom assignment process influenced these differences, provided crucial insight into how the

classroom assignment processes may influence outcomes. However, they did not explore how, if at all, these outcomes and processes differed *across* school contexts nor how organizational and individual factors may influence this. Also, the tests of academic ability and independence were not the same measures available to the educators making decisions within the schools. I wanted to know how educators made decisions with the information available to them because I thought that would help me better understand the motivations behind their decisions. Lastly, these findings were based upon one year of data and included only the perspective of principals. I wondered whether the outcomes would remain constant or change year to year, and I also wanted to know how teachers were involved in this process and whether practices differed when they were?

In the third paper, Paufler and Amrein-Beardsley (2014) examined the methods that principals used to assign students to classrooms to determine the extent to which students were non-randomly assigned to classrooms. In a survey of principals across one state, they found that in 98% of schools, students are not randomly assigned to classrooms. According to Paufler and Amrein-Beardsley (2014), administrators and teachers most frequently considered information about students' academic achievement, behavior and special education needs when forming classrooms. Interactions with other students and with teachers were also deemed important considerations when grouping and assigning students to classrooms. Paufler and Amrein-Beardsley (2014) also found that while no principal reported that teachers had sole responsibility to create classrooms at their school, they indicated that teachers played a significant role in this process. It's notable that in this anonymous survey, over one-third of principals acknowledged that they honored parental requests. Also relevant to this dissertation was the finding that the

majority of respondents did not believe that the random assignment of students to classrooms would be an appropriate response to concerns related to value-added measurement techniques.

This study was published after my design and conception of the research problem was finalized and analysis of the data complete. However, Paufler and Amrein-Beardsley's (2014) findings support those of this dissertation and also highlight a limitation and as well as a few important contributions that this dissertation makes to this limited body of research. As I report in the following chapters, only one principal acknowledged honoring parental requests. The use of an anonymous survey may have encouraged principals to be more forthright about this practice, likely demonstrating the more extensive practice of honoring parental requests when creating classrooms. However, because Paufler and Amrein-Beardsley (2014) did not interview their respondents, they could not probe on important issues related to parental requests that focus on matters of teacher effectiveness and teacher preferences. Nor could they seek clarifying information regarding the assignment process used in each school and how these varied by the people most involved in the process.

Also, the survey used to gather these data only asked two questions regarding the role of teachers. They learned, as did I, that teachers play a significant role in this process. Asking principals to respond "yes" or "no" to whether "teachers influence the assignment of students to classrooms in your school" likely masks important variations in the ways teachers are involved. Although principals were invited to elaborate on teachers' role in this process in an open-ended response option, important information about the role of teachers in this process was likely not captured. Finally, similar to the

previous two studies, this study does not consider how variations in the classroom assignment process or other school-level factors may account for differences in assignment outcomes.

Research on the Distribution of Teachers to Students

In this section, I examine the literature on the distribution of teachers to students. These studies do not directly examine the process by which students or teachers are assigned to classrooms, however, they provide insight into the outcomes of these decisions. Indeed, this research both informed and inspired my initial interest in examining the classroom assignment process. These studies find that, generally speaking, the least experienced and effective teachers are more likely to teach students with lower average achievement and other characteristics that suggest they are educationally disadvantaged, and instead of relying upon assumptions, I wanted to empirically examine why these patterns existed.

With regard to the distribution of teachers to classrooms these studies have found that the most experienced teachers and those with highest value-added measures are more frequently assigned classrooms with fewer black and low-income students, and fewer students with behavior incidences or frequent absences (Clotfelter et al. 2005, 2007; Feng, 2010; Kalogrides, Loeb, and Beteille, 2011). However, the *degree* to which teachers are inequitably distributed among students may differ by school context, with higher performing schools appearing to more equitably distribute their teachers to classrooms (Loeb, Kalogrides and Beteille, 2011).

These studies consist of large-scale quantitative analyses of teacher distribution patterns across states, typically focusing upon large urban districts. They offer valuable insight into troubling patterns regarding the distribution of teachers to students, yet leave the explanation of these patterns largely up to assumption. Some of these studies have hypothesized that teacher distribution and mobility patterns illustrate teachers' preferences for certain teaching assignments, neighborhoods, working conditions, and student characteristics (Boyd, Lankford, Loeb, Ronfeldt, Wyckoff, 2011; Donaldson and Johnson, 2010; Elfers, Plecki, Knapp, 2006; Boyd, Lankford, Loeb & Wyckoff, 2005; Leukens, Lyter, Fox & Chandler, 2004), administrator preferences for certain teacher characteristics (Boyd et al. 2011; Abernathy, Forsyth, & Mitchell, 2001; Cain-Caston, 1999; Harris, Rutledge, Ingle & Thompson, 2010; Theel & Tallerico, 2004) and the implications of district policies and practices (Cohen-Vogel, 2011; Rutledge, Harris, Thompson & Ingle, 2008; Clotfelter, Ladd, & Vigdor, 2006).

A few studies have sought to empirically examine these assumptions. For example, Cohen Vogel (2011) used a qualitative cross-case study to examine principal hiring practices, finding that principals weighed teacher preferences alongside evidence of teacher effectiveness, with every principal relying heavily upon student test score data to guide teacher classroom assignment decisions (Cohen-Vogel, 2011). Other studies have found that some principals may respond to pressure from teachers and parents by making assignment decisions that favor these individuals or their children (Finley, 1984), and that in some cases, principals must consider seniority provisions that allow veteran teachers to choose their teaching assignment if they hold appropriate certification (Ballou, 2000; Johnson & Donaldson, 2006).

The research on teacher distribution to students helps to shed light on the outcomes of classroom assignments. This body of literature suggests that factors such as teacher preferences for certain students and administrator preferences for certain teachers, as well as power dynamics within schools may play roles in these distributional patterns. Even though this research does not question *why* students are grouped in ways that permit their systematic exposure to less experienced and less effective teachers, it is helpful for identifying problematic patterns, and suggests that the grouping of students into classrooms need further examination.

Research on the Sorting of Students into Classrooms

The classroom assignment process has gained little attention among researchers and policymakers in the past. However, recently, the outcomes of these decisions have received increased attention in response to concerns about misclassification errors associated with value-added and other teacher effect measurement techniques. The accuracy of these models, some of which rely upon assumptions that students are randomly assigned to classrooms, are directly impacted by the ways in which students are assigned to classrooms.

The issues have to do with the systematic sorting of students into classrooms. Ideally, students would be randomly assigned to classrooms and teachers so that differences in value-added estimates would be attributable to the teacher and school effects being measured (Ballou, 2012; Ehlert, Koedel, Parson & Podgurskey, 2012; Glazerman & Potamites, 2011). Because this is unlikely, some models have sought to address this bias by controlling for student characteristics such as prior achievement,

race, ethnicity, eligibility for free and reduced price lunches, and ELL, special education and gifted education status (e.g. Braun, 2005; Goldhaber & Theobald, 2012; Meyer & Dokumaci, 2010). However, it is argued that even the most sophisticated models, which control for numerous observable variables, cannot control for the factors that impact student achievement and growth over time (Glazeman & Potamites, 2011; Rothstein, 2009; 2010) nor account for the numerous nonobservable factors that likely influence student achievement (Briggs & Dominigue, 2011; Harris & Anderson, 2013; Rivkin & Ishii, 2008).

Similar to the research on teacher distribution to students, the research on the sorting of students into classrooms does not examine the *processes* by which these outcomes derive. Instead of addressing issues related to the teacher labor market and the inequitable distribution of teachers, these studies tend to focus upon how variations in the distribution of student characteristics to classrooms impact the validity of measurements used to calculate teacher effectiveness. Nevertheless, these studies provide valuable insight into how student assignment outcomes differ across schools.

For example, to understand how non-random sorting of students into classrooms may bias value-added measurements, Dieterle, Guarino, Reckase, Wooldridge (2012) examined the variation of student characteristics between grade-level classrooms, finding evidence to suggest that some elementary students are grouped and assigned to classrooms based on their prior academic performance. Using an administrative data set, like those typically used in value-added estimations, Deiterle et al. (2012) found that lower performing schools, in particular, appeared to sort students into classrooms based on their prior academic performance. They also found that classrooms comprised of

higher performing students tended to be assigned fully certified and more experienced teachers with an advanced degree; lower performing classrooms were more likely to be taught by Black and Hispanic teachers.

A recent review of papers presented at the 2014 Association for Education Finance and Policy (AEFP) conference suggests that this body of research is on the rise as researchers seek to improve teacher effect measures and account for the non-random sorting of students into classrooms (e.g. Agasisti & Falzetti, 2013) as well as the benefits of peer-effects (e.g. Pivovarova, 2013) and behavior (e.g. Horoi and Ost, 2014) on student performance and teacher effect measures. These types of studies do not directly inform our understanding of the processes by which students are assigned to classrooms, however, their findings provide valuable insight into the outcomes of classroom assignment decisions and, like the research on teacher distribution to students, suggest that a further examination of this school level process is warranted.

Research on Ability Grouping in Elementary Schools

Since the ideas associated with ability grouping and the benefits of peer effects and unsegregated classrooms likely make their way into the decisions that administrators and others make about how to assign students to classrooms, it is worthwhile briefly considering how this literature can inform research on the classroom assignment process. For instance, it has been argued that ability grouping is a logical response to organizing students with varying academic abilities, allowing teachers to adapt instruction to varying student abilities (National Education Association, 1990; Wilson & Schmidts, 1978). It is likely that educators consider this option when forming classrooms, especially now that

they face increasing pressure to raise student achievement especially among historically lower performing groups of students. It may be that individual educators differ in their beliefs and practices about how to best target educational resources and that, as a result, some schools ability group students when forming classrooms, which may be a factor in the observed differences in assignment outcomes.

However, these practices have also been argued to result in inferior instruction for low ability students (Oaks, 1985; Page, 1991), possibly increasing achievement gaps between high and low ability classes (Oaks, Gamoran & Page, 1992). In addition to differentiated instructional practices, some argue that grouping students by ability results in a reduction of peer effects (Zimmer, 2003). Not only do lower achieving students lose the possible spill-over effect of being exposed to higher-performing students, but these practices have also been criticized for inadvertently segregating students along social and economic lines (Oakes, 1990; Rosenbaum, 1976).

Because the process of assigning students and teachers to classrooms is so under-studied, researchers and policymakers know little about how individual philosophies and assumptions about the benefits of peer effects versus concerns about creating segregated classrooms, for example, influence the decisions educators make about how to group and assign students to classrooms. We know little about how these ideas may influence the classroom assignment process and the outcomes identified in previous research.

Research on the Implications of Accountability Policies

Finally, I turn toward the literature on the role that accountability pressures may play in this process. Because, as previously discussed, the value-added measures used to

determine teacher effectiveness are based upon assumptions about student assignments to classrooms, and because educators face mounting pressure to raise student achievement, I want to explore what is known about how accountability policies influence educator preferences and practices as they relate to classroom assignment decisions.

Contemporary performance-based accountability policies, like those encouraged by the Race to the Top initiative, increasingly hold individual school administrators and teachers accountable for the measurable achievement of their students. These policies rest on the assumption that school leaders, armed with students' test score data and held individually accountable for their performance, will make better decisions about how to improve the educational outcomes of their students. Studies that identify the productive outcomes of responses to accountability systems have found that these policies improve the identification of individual student needs, enhance the alignment of curriculum and instruction with standards, and improve teacher practices as well as the distribution of resources within schools (Stecher, 2004).

However, other research has identified more distortive uses of student test score data in response to accountability pressures (Jennings, 2012). In what has become known as the "triage effect," some educators, for example, respond to accountability pressures by using these data to identify students whose prior test scores suggest they may be more or less likely to pass the accountability test, and then directing resources to students they believe to be in reasonable reach of passing (e.g. Booher-Jennings, 2005; Brown & Clift, 2010). More extreme responses involve educators using test score data to identify low performing students' with the intent to alter their scores on high-stakes tests. Little is known about *why* school leaders use data differently in their response to accountability

policies although logic follows and there is some evidence to suggest that educators respond differently depending upon the degree of pressure they feel from accountability systems (e.g. Pedulla, Abrams, Madaus, Russel, Ramos, & Miao, 2003; Center on Education Policy, 2007).

The features of accountability systems vary (Jennings, 2012), and so it makes sense that educators, in their attempt to meet the goals of the systems for which they are accountable, may make different uses of data. Yet because one study found that variations in the use of data occur more frequently *within* schools as opposed to *between* schools (Marsh, Pane & Hamilton, 2006), it is important to consider how individual and organizational characteristics may also influence responses to accountability pressures. In a study of administrator staffing decisions, Cohen-Vogel (2011) found that every principal used student test score data to inform their decisions about teacher grade-level assignments, favoring the assignment of their most effective teachers to 'tested' grade levels. However, the pressures associated with performance based accountability policies encouraged the teachers in these schools to seek re-assignment away from tested grades.

With the movement of educational polices toward individual accountability, administrators and teachers within schools increasingly face different accountability goals (principals for the achievement of all students in a school and teachers for the achievement of those assigned their classroom). As accountability targets move around within schools, Jennings (2012) argues that the "locus of pressure" does too, which may have important implications for how data are used within schools. But because these policies are new, we know little about how these changes in emphasis may change priorities about, for example, how to distribute students to teachers and classrooms. Very

little is known about how pressures to raise student achievement within schools and classrooms may change priorities about how to group and assign students to teachers and classrooms, and whether administrators and teachers, faced with different accountability objectives, may make different assignment decisions in their efforts to meet accountability goals.

Implications for the Current Study

Overall, these studies indicate that students are not randomly assigned to classrooms, and that issues related to teacher effectiveness, parental pressures, and teacher and administrator preferences influence the grouping and assignment of students to classrooms. The research on the distribution of teachers to students and students to classrooms identifies problematic patterns: students are grouped in ways that allow for their systematic exposure to more or less effective teachers. Despite little being known about the process by which students are assigned to classrooms, ideas associated with ability grouping and the benefits of peer effects and unsegregated classrooms, as well as responses to accountability pressures, likely make their way into the decisions about how to group and assign students to classrooms.

These diverse bodies of literature have been important to shaping the way I think about this research problem and the design of my dissertation. Three studies, ranging over a period of nearly 30 years, is not sufficient to understand the complexities of this school level process, especially since these decisions have important implications for value-added measurement techniques, but also the equitable distribution of teachers who are argued to be students' most important school-level resource. The findings from the research on the distribution of teachers to students and students to classrooms led me to

ask: why are students grouped in ways that allow for their systematic exposure to more or less effective teachers? To get at this question, we first need to know how students are grouped and assigned to classrooms and how, if at all, practices differ across schools, questions that this dissertation seeks to answer.

Because I examine differences between the classroom assignment processes within schools that created ability grouped versus ability balanced classrooms, the literature on ability grouping helped me think about how philosophies associated with the benefits of peer effects and unsegregated classrooms may influence the decisions that educators make about how to group and assign students to classrooms. Finally, because this school district just unrolled a new educator evaluation policy that incorporates student growth measures on the state standardized test into teachers' performance evaluations, I wanted to know how, if at all, these pressures may influence how teachers feel about the students assigned to their classrooms. The literature on educators' responses to accountability pressures was very helpful in informing my thinking about this.

These literatures informed my understanding of the classroom assignment process but also the factors and organizational structures that may influence this process across schools and in the context of increasing accountability pressures. The teacher distribution literature tends to use theory to understand individual preferences and placement patterns. This focus on individual agency is important given that decision-makers likely have varying interests and commitments, and make different decisions in response to different goals. But because research suggests that high performing schools may more equitably distribute their students (Dieterle et al., 2012) and teachers (Loeb et al., 2011) to

classrooms, I believed it important to also consider how organizational contexts may too influence these decisions.

In the next chapter, I introduce my conceptual framework. To place individuals in the context of organizations, I utilize ideas associated with Inhabited Institution theory to understand how individual decision-makers, with their own assumptions, philosophies and preferences, make assignments in the context of schools inhabited by people (teachers, students, parents) and shaped by policies and practices about how to assign students and teachers to classrooms.

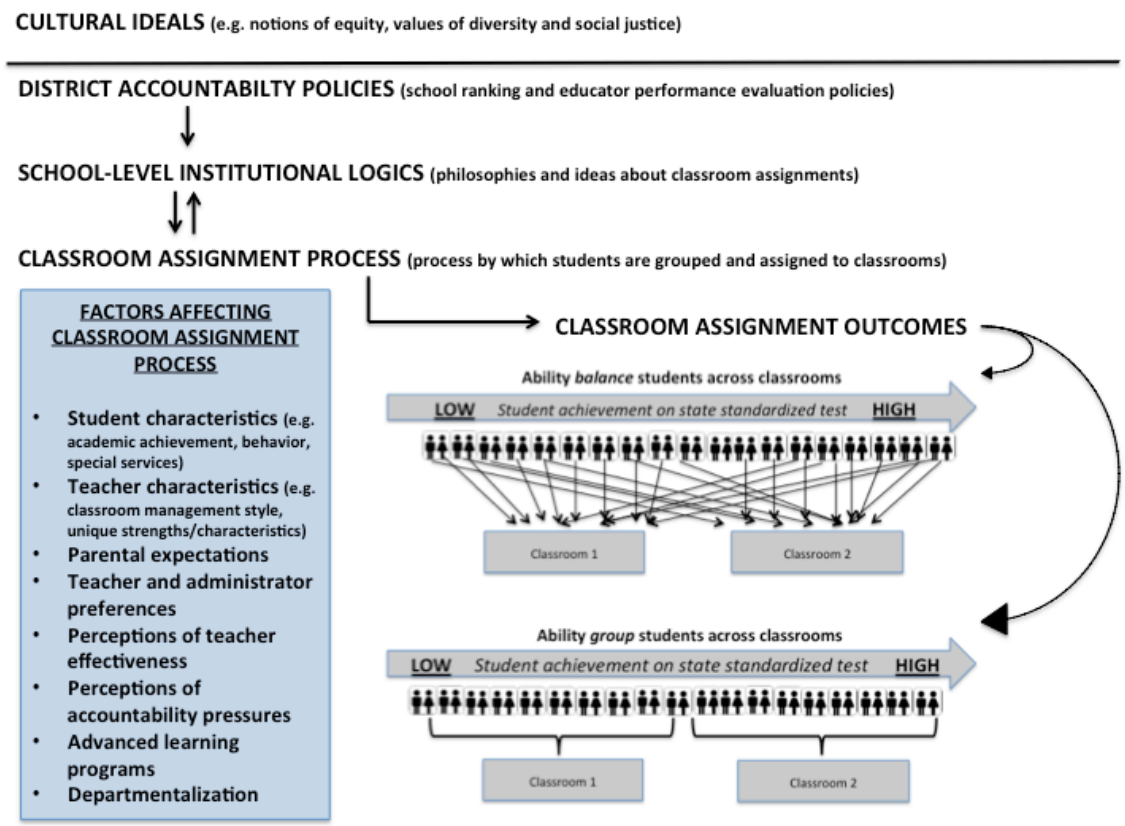
Chapter 3: Inhabited Institutions Theory as a Framework for Examining the Factors that Influence Classroom Assignment Decisions

Inhabited Institutions theory is an emerging organizational theory originating from the New Institutionalist and Symbolic Interactionist traditions (Everitt, 2012). As an organizational theory that accounts for individual agency, it links macro-level structures and micro-level interactions (Everitt, 2012; Thornton Ocasio & Lounsbury, 2012; Binder, 2007). According to the theory, multiple logics exist within institutions. These logics about how things are done provide the frames of reference that guide individual sense-making and vocabularies within institutions. These logics influence decisions by focusing decision-makers on issues and solutions that are consistent with prevailing logics (Thornton & Ocasio, 2008), yet because multiple logics may co-exist (Thornton et al., 2012) and individuals have agency, decisions may either embrace or depart from these logics (Binder, 2007).

School-level decision-makers respond to the needs and demands of unique student and community populations. Inhabited Institution theory, with its emphasis upon how logics influence inhabitants' decisions within organizations, is particularly well suited to understanding why classroom assignment processes may vary in different school contexts. While a district and school may have established policies and practices for assigning students and teachers to classrooms, the theory recognizes schools as complex places in which inhabitants' "personal interests and professional commitments, and interactional, on-the-ground decision making" results in decisions that sometimes depart from institutional logics, but also sometimes embrace these logics for a range of reasons (Binder, p. 547).

The following conceptual framework figure illustrates how I use these ideas to inform my thinking about how the classroom assignment process and the ideas educators have about how best to create classrooms influence classroom assignment outcomes across different school settings. It takes into consideration how educators' interpretations of predominant cultural ideals guide their response to district accountability policies and the formation of institutional logics about classroom assignments. These logics about how best to group and assign students to classrooms influence the classroom assignment process. The classroom assignment process in turn can influence, reinforce, and sometimes also change institutional logics.

Figure 1. Conceptual Framework Figure



The Role of Macro Cultural Ideals

This theory positions schools as "inhabited institutions" which differ according to the individuals that inhabit these organizations. Just as schools are not bureaucratic machines, individuals are not mindless cogs. They have agency, allowing them to act independently and make their own free choices. Still individuals exist in a larger cultural context and are influenced by macro cultural ideals. These larger cultural ideals represent valued collective cultural principles, which provide legitimating rationales across organizations (Nunn, 2014). They also sometimes conflict with practical activities (Hallett, 2010). In this framework, I consider how cultural ideals such as equity and diversity, for example, influence educators across and within schools, and how educators attempt to adhere to these ideals even when practical realities may complicate doing so. I consider how such pervasive notions influence educators' response to district accountability policies, the formation of local logics about how best to assign students to classrooms, and the design and implementation of classroom assignment processes. I also consider how these macro cultural ideals may influence the ways in which educators talk about classroom assignments and the rationales behind their decisions.

Institutional Logics in Classroom Assignments

Whereas macro cultural ideals are culturally pervasive valued beliefs, institutional logics represent the local interpretations of these ideals in the context of organizational realities. Thornton and Ocasio (1999) define institutional logics as the "socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize

time and space, and provide meaning to their social reality" (p. 804). These logics "guide the allocation of attention by shaping what problems and issues get attended to and what solutions are likely to be considered in decision making" (Thornton, Ocasio & Lounsbury, 2012, p. 90). In schools, these logics about how things are done guide individual sense-making and influence decisions by focusing the inhabitants of schools on issues and solutions that are consistent with prevailing logics. For example, when the predominant school logic assumes students learn better among a diverse set of peers, this logic may result in classroom assignment decisions that look differently than in schools with prevailing logics that assume students learn better when grouped among similar peers.

As Figure 1 illustrates, I assume that district accountability polices have some bearing on institutional logics about how to group and assign students to classrooms. I presume that these policies, which rank schools and evaluate educator performance in part by the performance of students on state standardized tests, may influence ideas about how to distribute resources within schools, which would also have an effect upon classroom assignment decisions. For example, educators facing substantial accountability pressure may use student achievement data to distribute lower performing students across classrooms in ways they consider fair to teachers, now that they are held increasingly accountable for the achievement of the students assigned their classrooms. Or they may use student achievement data to identify students in greatest need of support and assign these students to the teachers with the best track record of improving student achievement. In schools facing less external accountability pressure, educators may respond differently, by perhaps prioritizing other issues when forming classrooms. It is

important to note that I do not assume that high and lower performing schools inherently face different accountability pressures, but rather that differences in *perceived* accountability pressures may influence the development of different logics related to classroom formation.

Such hypothesized responses demonstrate the various and oftentimes diverse logics that can develop across and within schools. These assumptions, ideas, and rules associated with the grouping and assignment of students to classrooms influence decisions by focusing educators on issues and solutions that are consistent with the prevailing logics at a school, which may help to explain why processes and outcomes differ across schools.

Classroom Assignment Process and Outcomes

As illustrated above, I assume that institutional logics influence the classroom assignment process. Using the previous example, I assert that when educators preference logics that value placing their most high-need students with their most effective teachers, they may create different types of classrooms than in schools with logics that preference distributing high need students across classrooms. These diverse preferences and goals may result in classroom assignment processes that vary across schools.

However, I also assume that classroom assignment processes may influence institutional logics. For example, if the classroom assignment process results in assignments that favor some students or teachers over others, with time these outcomes may alter logics within schools as educators contemplate the implications of these outcomes. If novice teachers are systematically assigned the most challenging

classrooms, for example, school level logics that have historically valued letting teachers choose the students assigned their classrooms may begin to change as educators question the equity of these outcomes. This in turn may result in changes in the classroom assignment process as new procedures and protocols are adopted.

As the framework figure illustrates, I assume that the classroom assignment process influences classroom assignment outcomes, in this case, whether students are ability grouped into classrooms or not. However, I assert that various other factors have the potential to influence the classroom assignment process. For example, the unique characteristics of students and teachers within schools may result in different preferences and priorities across and within schools. It is possible that schools serving higher proportions of English language learning students, for instance, may make different decisions about how to group and assign students to classrooms based on practical realities that may differ in schools with fewer English language-learning students. Schools serving students with greater variations in academic achievement levels may make different decisions than schools with less variation in student academic achievement. Schools that implement departmentalized instruction in Math and English may make different decisions than those that seek to differentiate instruction within classrooms. Likewise, parental pressures may differ across schools, which may influence the process of grouping and assigning students to classrooms. These examples illustrate the ways in which other organizational and individual factors may influence the classroom assignment process and their outcomes.

In the following chapter, I explain how I explore the assumptions of this framework by designing a study to examine how variations in the classroom assignment

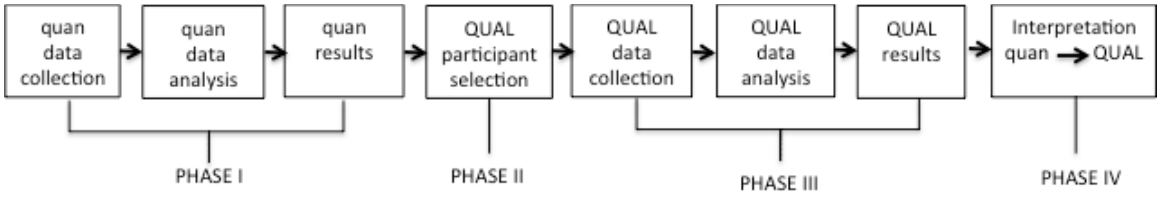
process align with different classroom assignment outcomes across schools, and how these various factors may influence this process.

Chapter 4: Research Design and Methods

I use a sequential explanatory mixed-methods design (Creswell & Clark, 2011) to link student assignment *outcomes* to classroom assignment *processes* across elementary schools in one large urban district in the Northwest. The goal of the quantitative component is to examine differences in the distribution of student achievement among grade-level classrooms, and to identify schools whose varying outcomes may suggest different practices. The goal of the qualitative component is to explore how, if at all, classroom assignment processes differ in schools with varying outcomes. While this design cannot determine a causal relationship between student assignment outcomes and classroom assignment processes, it allows me to examine how variations in the processes associated with grouping and assigning students to classrooms align with different assignment outcomes across school contexts, which provides an important first step in understanding the factors that influence the grouping and assignment of students to elementary school classrooms.

Specifically, I use Creswell and Clark's (2007) Explanatory Design Participant Selection Model, which uses quantitative data to "identify and purposefully select participants for a follow-up, in-depth, qualitative study" (p. 74). In this design, the qualitative phase is emphasized. This approach was helpful for identifying different assignment outcomes (whether students appeared to be ability grouped into grade level classrooms or not) so that I could explore whether assignment processes differed in these schools.

Figure 2. Explanatory Design Participant Selection Model (Creswell & Clark, 2007)



Phase I.

During Phase I of the study, I examined two consecutive years of student-level achievement data to investigate the degree to which schools differed in the ways they assigned students to classrooms and identified elementary schools with varying outcomes.

Phase II.

In Phase II, I selected six schools that varied in their assignment outcomes and school-level academic achievement.

Phase III.

During Phase III, I conducted semi-structured interviews with administrators and teachers in the six case-study schools identified in Phase II.

Phase IV.

In Phase IV, I integrated the quantitative and qualitative data to examine how variations in the processes by which students are assigned to classrooms and other factors aligned with the different classroom assignment outcomes.

Overview of Quantitative Component

Because school leaders make classroom assignment decisions at each grade-level, the quantitative analysis also focuses on this decision-point. The purpose of this analysis is to examine variations in student achievement across grade-level classrooms in schools, and identify schools as having one of three assignment outcomes: ability balanced, ability grouped, or varied.[2] Whereas educators rely upon many sources of information to make classroom assignment decisions, the quantitative analysis specifically examines whether classrooms vary by prior student achievement. I focus on this outcome variable because I didn't have access to the other data used to make decisions, (e.g. behavioral and personal knowledge information), but also because creating classrooms that vary by ability may suggest different philosophies toward classroom formation and, perhaps, different school level pressures and constraints. These data are also the measures that administrators and teachers are held accountable for in the district accountability systems. I utilize prior year test scores because decision-makers would also have access to these test scores when making assignment decisions.

The outcome data come from a state longitudinal warehouse for two consecutive years, 2010-2011 and 2011-12. These student-level data provide detailed student demographic and performance data for each student in the district. They link students to their classes and provide the entire distribution of students within a classroom. Elementary schools with more than one single grade classroom per grade-level are

[2] As I will explain further, schools were considered to ability *balance* their classrooms, when there were no statistically significant differences between the mean achievement levels of classrooms at a grade-level; ability *group* their students when there were statistically significant differences; and have *varied* outcomes when one year students were ability grouped and the next they weren't.

included in the sample.[3] Combination classrooms were removed from the sample because educators did not consistently use them. Some schools created these multi-grade classrooms more than others, however even among these schools, some years they relied upon combination classrooms more than other years. The factors associated with these decisions are important (e.g. teacher attrition, variations in student enrollment across grade-levels), however, including combination classrooms in the sample would have complicated my comparison of mean achievement scores across each grade-level. This decision was further supported by Burns and Mason's (1998) finding that combination classrooms were created differently from single grade classrooms. Prior student achievement is an outcome variable and so the sample is limited to grades with access to that data (4th and 5th grade).

To identify schools that ability group students into classrooms, this study employs an analytic strategy used by Collins and Gan (2013). Dummy variables are created for each class and the mean scores of classrooms are compared by running the following regression at each grade-level in elementary schools in the sample:

$$S_{ijt-1} = \beta_1 + \sum_{j=2}^{J} \beta_j D_j + \varepsilon_{ij}$$

Where

s_{ijt-1} is student i's test score in the prior year

β_1 is the mean score for the first class

$\beta_2, \beta_3, \ldots, \beta_j$ show the differences in score relative to the first class

[3] Single grade classrooms refer to classrooms comprised of students from the same grade level. While the majority of classrooms are single grade classrooms, schools also sometimes create combination, or multi-grade classrooms, which consist of students from different grade levels grouped into the same classroom.

D_j is a dummy variable for class j

Schools that ability balance grade-level classrooms will have no difference in the prior year test score means among classrooms. However, schools that ability group students will show significant differences in the average scores on the state achievement test.

For each two year period, I categorized schools as either ability *balanced* or ability *grouped* depending on the results of the regression analyses. Schools were considered to have ability *balanced* classrooms if student achievement was distributed across classrooms in both grade levels and to have ability *grouped* classrooms if student achievement was significantly different across classrooms in one or both grade levels. When I examined classroom assignment outcomes over the two-year period, I added an additional outcome. Schools were considered to have *varied* classroom assignment outcomes if the distribution of student achievement differed year to year such that one year they ability grouped students and the other year they ability balanced students across grade-level classrooms. I included schools that *varied* in their outcomes because I wanted to know if there were differences between these schools and those that consistently created ability balanced classrooms during the two year period. I wanted to examine whether the assignment processes were different in these schools compared to the other schools, and whether they faced other constraints that may make it challenging to group students into classrooms in consistent ways.

Of course, the formation of a classroom involves the grouping and assignment of students to a classroom but also the assignment of a teacher. This study did not include

teacher characteristic data in the quantitative analysis because the variables included in the data set were limited to *teacher experience* and *highest degree earned*. Large scale studies of teacher effectiveness and distribution have found novice teachers be less effective than their more experienced counterparts (Harris & Sass, 2007; Clotfelter et al., 2006; Rockoff, 2004; Rivkin, Hanushek & Kain, 2005), and more likely to be assigned classrooms comprised of lower-performing students (e.g. Feng, 2010; Kalogrides, Loeb, and Beteille, 2011), yet teachers assigned to the tested grades in the six case-study schools included in this analysis did not vary by experience in theoretically meaningful ways. For example, within a grade-level at a school, the teachers would have 12, 15, and 17 years experience which provided little theoretical basis for understanding why one of these teachers was assigned the classroom with the lowest performing students. There were a few grade-levels in this sample where teachers differed by experience such that one had 2 years experience and the other had 15, but these variations did not exist across the grade-levels within schools. Because these instances were inconsistent and limited across the six case-study schools, including teacher experience in the quantitative analysis of classroom composition characteristics across grade-level classrooms thus proved less helpful in understanding assignment outcomes in these schools.[4] However, issues of teacher effectiveness and other teacher characteristics featured prominently in the qualitative findings about how to group and assign students to classrooms, and will be included in the findings.[5]

[4] The decision to exclude teacher experience data was further supported by qualitative data, which revealed that, in a number of these schools, teachers considered *least effective* were sometimes those that had more tenure in a school.
[5] From this data set, it is possible to calculate value-added measurement scores for teachers, and I considered the merit of doing so. However, because this study focuses on the data and information that decision-makers use to inform these decisions, and administrators and teachers in this district did not have access to these data during the decision period (2010-11 to 2011-12), I chose not to include this measure.

Overview of Qualitative Component

The classroom assignment *process* data come from semi-structured interviews with administrators and teachers in elementary schools in schools strategically selected by their varying outcomes. To explore how, and if, classroom assignment processes differ in schools that consistently or sometimes ability group or ability balance their classrooms, I conducted semi-structured interviews with administrators and teachers in six elementary schools in the district. By examining this process in schools within one district, I am able to hold district accountability policies constant, while considering how unique school contexts and established practices about classroom assignment shape administrators and teachers decisions about classroom assignment.

From the quantitative findings, I selected six schools to participate in the qualitative study. Among the three outcome categories (ability grouped, ability balanced, or varied), one high performing and one medium to low performing school (hereafter referred to as *lower* performing) were selected. I differentiated on school level performance because I wanted to explore how, if at all, accountability pressures influence classroom assignment processes and decisions about how to group and assign students to classrooms, but I also wanted to understand why schools with varying performance measures might make decisions that lead to the same outcome even though they may face different accountability pressures. I do not directly examine whether different accountability pressures lead to different classroom assignment outcomes, but rather how variations in perceived accountability pressures may influence educator preferences and priorities when forming classrooms.

Within each of the six schools, semi-structured interviews were conducted in person with the administrator overseeing the classroom assignment process (the principal in 5 out of 6 cases), as well as the 4th and 5th grade teachers. The interviews took place during a three-month period in the fall of 2013. In all, seventeen interviews were conducted across six schools. Numerous artifacts, which consisted of examples of data-gathering instruments, placement tools, and letters to parents were also collected. These artifacts provided important information used to corroborate the accounts provided by principals and teachers in the interviews, but they also offered valuable insight into how educators organized themselves to make these decisions and how these practices differed across schools.

The interviews ranged from 45 minutes to 1.5 hours. Discussions centered on the processes by which students are grouped and assigned to classrooms, as well as how other factors influence these decisions. Principals and teachers were each individually asked to describe the classroom assignment process at their school, allowing me to triangulate the data at each school, or 'compare and cross-check data" (Merriam, 2009, p. 216). Questions included, for example, "Tell me about the process through which students are grouped and assigned to classrooms in your school?" and "What data and information do you rely upon to make these decisions?"

This district is in its first year of implementing outcomes-based evaluations for teachers. Because the student-growth percentiles provided by the district have only become available to teachers and administrators this year, these data do not coincide with the quantitative outcome data. However, participants were asked to consider how a new evaluation policy that bases teachers' evaluations, in part, on the measureable

achievement growth of their students on the state achievement test, might change classroom assignment practices in their school. Interview questions probed current and previous assignment practices, as well as the philosophies or "logics" associated with these practices. Interviews were audio recorded and transcribed verbatim. The benefit of recoding data was that "everything said is preserved for analysis" (Merriam, p. 109) and "verbatim transcription of recorded interviews provides the best database for analysis" (ibid, p. 110).

Once the interviews were transcribed, I began the process of coding the data by developing a list of "tentative codes" (Creswell, 2013). To do so, I used both "descriptive coding" and "process coding" to identify topics but also, where appropriate, "observable or conceptual action in the data" (Miles, Huberman, and Saldana, 2014, p. 74-75). Using these two coding strategies was particularly helpful because I wanted to understand the *process* by which students were grouped and assigned to classrooms, but I also wanted to identify other factors that may influence differences in this process and the assignment outcomes.

Once all the transcripts had been coded, I created a series of case-ordered descriptive matrices in separate Microsoft Excel files. According to Miles and Huberman (1994), case-ordered descriptive-matrices allow the researcher to aggregate and sort information, making it easier to look for themes within the data. Identifying the categories was an iterative process, finalized only after data had been input from several schools and the categories were exhaustive of the data.

Case-ordered descriptive matrices typically require numerous cycles of aggregation before themes can emerge from the data (Miles & Huberman, 1994). Cases

were sorted by the outcome variable identified in the quantitative analysis (whether schools had ability balanced, ability grouped, or varied assignment outcomes) as well as by their school and participant demographic characteristics (e.g. principal and teacher tenure at the school, whether the school had an advanced learning program, whether the school had an active parent community, etc). Additional matrices were created for each segment of the second research question. For example, to examine how the purpose of the classroom assignment process varied across schools, I created a matrix that included data about the history of classroom assignments at each school and educators' definition of a "balanced" classroom. To examine the process itself, I created matrices that identified the various steps described by the participants, but also information about, for example, the final decision maker(s), whether teachers selected their students' next teacher, and whether schools sent home letters to parents about the assignment process. These categories allowed me to look for similarities and differences in the process by which students were grouped and assigned to classrooms and also consider the other factors that administrators and teachers consider when forming classrooms.

From these codes, I developed the major themes, or "broad units of information that consist of several codes aggregated to form a common idea" (Creswell, 2013, p. 186) to use in the analysis of these data. I wanted to compare the classroom assignment process across the six case study schools and these matrices and the themes they generated were fundamental to this process. They also allowed me to identify cases where I had inconsistent or missing data. Having the data organized this way, also allowed me to see relationships within the data that I had not predicted.

Validity

I took a number of measures to ensure the validity of my claims. First, I relied upon interview data from multiple participants within schools. Although these data derive from self-reports, I interviewed up to three educators separately at each school site, allowing me to triangulate their responses[6]. I also relied heavily upon the artifacts provided by schools to corroborate their reports, but also to get a clearer picture of how the organization of this process differed across schools.

I used the semi-structured nature of the interview protocols to probe respondents for additional and clarifying information. For example, all participants said they created "balanced" classrooms. By probing the respondents to elaborate on what they meant by "balanced" and why they valued these classrooms I uncovered both the philosophical but also practical attributes that these participants ascribed to balanced classrooms. As data collection progressed, I also discussed my emerging hypotheses with participants. Time permitting, following the interviews, I discussed these emerging hypotheses. In doing so, participants' insights served as a sort of "member check," and also revealed important information to be considered in future interviews.

Finally, by returning to the matrices and reviewing the coded transcripts, I actively sought disconfirming evidence when writing these findings. When I found disconfirming evidence, I adjusted the findings to reflect this exception or returned to my conceptual framework to determine whether or not the evidence corresponded with another concept.

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[6] In every school but one, I interviewed both the fourth and fifth grade teachers. However in the lower performing ability *balanced* school, the principal had faced significant opposition from some teachers at her school when she changed the classroom assignment process. Classroom assignment decisions remained a sensitive process at this school and the principal provided me with the name of just one teacher. The teacher at this school confirmed this situation in our interview, explaining that "factions" of teachers in the school were still unhappy with the changes.

Integration of the Data

An important component of the study design is the linking of the quantitative and qualitative findings. Although the linking of these data do not allow me to make causal claims, the qualitative findings serve the purpose of helping to explain the quantitative outcomes. This is a particularly important contribution to the literature on teacher distribution to students because this body of research tends to focus upon distributional patterns as opposed to the processes by which these outcomes are derived.

The qualitative results were emphasized in this study because they allowed me to explore the classroom assignment process and other factors that influence classroom assignment decisions. However, the quantitative results were vital to this study. All educators told me they created "balanced" classrooms. Whereas their conception of a balanced classroom was more broad than student achievement, all educators interviewed expressed their belief that it was important to balance classrooms by student ability. Without access to schools' classroom assignment outcome data, I would not have known that some schools in my sample had, in fact, created ability grouped classrooms. By knowing whether or not schools had previously created ability grouped or ability balanced classrooms, I was able to consider whether and how assignment processes differed in schools with these different outcomes, and explore how other factors may contribute to these differences.

The incongruent qualitative and quantitative findings also prompted me to explore *why* stated intentions differed from outcomes in some schools. If all schools say they create balanced classrooms, what was keeping some schools from creating the ability balanced classrooms they say they value? What did "balanced" mean to these educators?

Did definitions vary across schools, and what purpose did balanced classrooms serve in the different schools? These linked data also allowed me to consider whether other factors such as the use of data, the role of parental and teacher preferences, and perceived accountability pressures aligned with the quantitative outcomes. This design does not enable me to generalize beyond the six case-study schools, however, by aligning the qualitative *process* data with the quantitative *outcome* data, it does allow me to explore how variations in the classroom assignment process may help explain the different assignment outcomes across these schools. This information may offer insight into the patterns observed across the district. Findings also have the potential to bring to light classroom assignment practices that may enable schools to more successfully create the ability balanced classrooms they say they value.

District and School Policy Contexts

District

The district included in this study is one of the largest in the Pacific Northwest region. The two major district level accountability systems, as identified by participants in this study, were 1) a school segmentation system that ranked schools across 5 levels of achievement, in its fourth year of implementation; and 2) a new educator performance evaluation system, in its first official year of implementation. Both accountability systems rely upon student performance data from the state standardized achievement test. The calculation of school segmentation levels is based primarily on students' absolute scores on the achievement test, although student growth scores are considered for schools with medium-low absolute scores, and subgroup data are considered for schools with

high absolute scores.[7] The teacher performance evaluations are based upon student growth percentiles.

Principals in this study reported greater attention to the school segmentation system, which is used to rank schools in the district and determine school autonomy and the need for interventions. Teachers, on the other hand, overwhelmingly discussed the implications of the new performance evaluation policy. This newly implemented evaluation system bases 20% of a teacher's evaluation on their students' growth percentiles. The policy is currently low-stakes. Teachers with high student growth percentiles may be eligible for additional career opportunities. Teachers with low student growth percentiles will face additional observations and support, but at this time, low ratings are not grounds for dismissal (personal communication with district personnel, March 3, 2014).

Schools

The study schools differed by segmentation level so that, within each outcome category (ability grouped, ability balanced, varied), one level 4-5 and one level 2-3 was selected. I refer to these schools as high performing (4-5) or lower performing (2-3).

Every school in the sample but one had an advanced learning program, although the scale of the programs differed by school. Advanced learning programs refer to the accelerated curriculums offered to students identified as academically gifted. Schools

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[7] Student growth scores are based on a growth model that considers the year-over-year academic gains of students on the state standardized achievement test. Subgroup data are used to calculate achievement gap scores by examining the difference in achievement between low income students at the school who qualify for free/reduced priced lunch and all other students in the school (per district strategic plan).

with an advanced learning program offer district- and teacher-identified students an accelerated and rigorous curriculum using an inclusive service delivery model so that these students are distributed across classrooms[8]. The presence or scale of an advanced learning program did not correspond with the assignment outcomes meaning that, among the six case study schools, those with an advanced learning program were not more likely to have outcome data that showed they grouped students by prior achievement. This was likely a result of their shared philosophy toward classroom assignments. Among these schools, the schools with the largest advanced placement programs were committed to distributing advanced learning students in clusters across the grade-level classrooms.

As I move into the results, it is important to note that these findings do not rest on the assumption that ability *grouped* classrooms are less effective at raising student achievement or inherently inequitable. It is possible that decisions are made to group students into classrooms by achievement so that resources may be targeted toward students depending upon need, for example. Ability grouping students into classrooms is considered problematic in this dissertation only because all administrators and teachers interviewed in this study valued and worked toward creating ability balanced classrooms. It is this discrepancy in outcomes and stated intentions, and the role that different classroom assignment processes and other factors may play in the varying outcomes that this dissertation seeks to understand.

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[8] Only one school had separate tracks for the general education and advanced learning groups. The advanced learning program dominated the general education program in this school 3 to 1, meaning that among the four grade-level classrooms, three classrooms were comprised of advanced learning students and one was comprised of general education students. In this school, the classroom assignment process for general education students was a non-issue. All the general education students were placed in the one corresponding grade-level classroom each year. The outcome data only consider the advanced learning classrooms since these are where classroom assignment *decisions* take place in this school.

Limitations

This study design has three main limitations. The first is that the outcome data that identify a school as ability *grouped*, *ability balanced* or *varied* come from school years 2010-11 and 2011-12. These data precede the interview data, which took place during the 2013-14 school year. Therefore it is not possible to temporally link outcome data to the procedures described in the interviews. However, among the six schools, every principal had been at the school during the time frame captured in the quantitative data, with the exception of one school. At this school, the teachers interviewed each had over a decade of tenure at the school and they (and all interviewees) were asked to discuss how, if at all, practices have changed over time, which helped to account for the time lag between the quantitative and qualitative data.

A second main limitation of this design is the reliance on self-report qualitative data. Asking principals and others involved in the classroom assignment process to reflect on decisions previously made provided different information than if I were to have directly observed classroom assignment meetings. The timing of the research didn't allow me access to those meetings. But, as I learned in this study, because the final outcomes often differed significantly from the decisions made in the initial classroom formation meetings, observations alone would have also been insufficient in understanding how differences in the classroom assignment process aligned with assignment outcomes. I hope that by having asked multiple decision-makers within and among schools to describe their assignment processes and walk through how they would make decisions based on hypothetical students and teachers, that these findings, at least, provide a starting point for understanding how different assignment processes, in the context of

varying accountability pressures and individual and organizational logics, align with classroom assignment outcomes.

Also, it is important to note that much as student achievement data were an important source of information for decision-makers, educators valued and used multiple sources of data to make classroom assignment decisions. As one principal reported, "Well, we don't want to use just one measure, ever. Everybody knows that that's not effective. Right?" To the extent that these standardized test scores fail to coincide with a composite assessment of achievement or teacher's knowledge of their students' academic ability, the quantitative outcome data, which identified a school as ability grouping or balancing their students, may be inaccurate. In other words, it's possible that a school may in fact be balancing classrooms on a more nuanced and fine-grain understanding of academic ability than the state achievement tests can measure. However, because it is these measures that the district accountability policies are based to assess school performance level and educator effectiveness, the distribution of these scores (if not students) still mattered to a number of decision-makers in some of the schools.

Finally, the findings reported in the following chapters suggest that variations in classroom assignment processes may contribute to different assignment outcomes, but they do not establish causation nor are they generalizable to broader populations of schools. Rather, I hope these findings provide an important first step in understanding why students are grouped and assigned to grade-level classrooms differently across schools.

Chapter 5: Student Assignment Outcomes Across Grade-Levels Within Schools

In this chapter, I investigate my first research question: In what ways do student assignment outcomes vary across elementary schools? Specifically, I examine how, if at all, schools differ in the extent to which students are ability grouped across grade-level classrooms? To answer this research question, I rely upon the quantitative student-level data to examine variations in student achievement across grade-level classrooms within schools and to identify schools as having created ability *grouped* or ability *balanced* classrooms. I focused this analysis on the mean score differences in student achievement across classrooms at a grade-level because this is the level at which decisions are made. This strategy is valuable for examining whether classrooms appear to be ability grouped across a grade-level and for identifying schools with different assignment outcomes. However, because of the highly nested nature of these data (students are nested in classrooms, within a grade-level, in a school), it is not possible to compare the differences in mean achievement scores across grade-levels or schools in the district.

The following findings report the results of the regression analyses for all schools across the district that met the criteria of having at least two single grade classrooms per grade level. Combination classrooms, or those that group students across grade-levels, were removed from the sample, limiting the sample in some schools that rely upon these classroom configurations. Findings are limited to grades 4 and 5, and are presented for each year of the study (2010-11 and 2011-12) as well as for the combined two-year period.

Among the schools that met these criteria, I ran regressions at each grade-level and over a two year time-period. Therefore, a school-by-school presentation of these findings, while informative, is not practical. Instead, I present the results for two schools in the district to illustrate how I used the regression analyses to identify a school as ability grouping or balancing their students.

In the following example, I identify a school as ability *balancing* their students across grade-level classrooms. This school has three classrooms of fourth graders. The average math score for class 1, provided by the constant, is 424.82 (the maximum math scale score is 575). The average reading score for class 1 is 431.10 (the maximum reading scale score is 475). The coefficients for class 2 and 3 are not significantly different from zero indicating that there are no significant score differences in the math and reading scores among the classes.

Table 1: Mean Prior Year Test Scores by Classes (Ability Balanced School Example)

VARIABLES	(1) Math score	(2) Reading score
Class 2	1.71	-0.52
	(9.63)	(9.11)
Class 3	-6.97	-5.20
	(9.75)	(9.22)
Constant (Class 1)	424.82 ***	431.10***
	(6.73)	(6.36)
Classification	Ability Balanced	Ability Balanced
Observations	62	62
R-squared	.014	.006

Standard errors in parentheses
*** p<0.01, ** p<0.05, *p<0.1

In the next example, I identify a school as ability *grouping* their students across grade-level classrooms. This school also has three classrooms of fourth graders. The average math score for class 1, provided by the constant, is 447.41. The average reading score for class 1 is 438.89. In contrast to the example above, the estimates for class 2 and 3 are both statistically significant, indicating significant differences between the average test scores of these classes. For the math scores, the point estimate for class 2 is 28.11 points lower than class 1. The estimate for class 3 is 25.85 points lower than class 1. The average reading scores follow a similar pattern, with the point estimates for both class 2 and class 3 being significantly lower than class 1.

Table 2. Mean Prior Year Test Scores by Classes (Ability Grouped School Example)

VARIABLES	(1) Math score	(2) Reading score
Class 2	-28.11*** (7.51)	-17.69*** (5.56)
Class 3	-25.85*** (7.07)	-23.29*** (5.24)
Constant (class 1)	447.41 ***	438.89*** (3.63)
Classification	Ability Grouped	Ability Grouped
Observations	71	71
R-squared	.215	.238

Standard errors in parentheses
*** p<0.01, ** p<0.05, *p<0.1

When average scores were significantly different for any of the classroom dummies in math or reading, I identified a school as ability *grouping*. To be identified as an ability

balancing schools, there were no significant differences in the average scores among any of the classroom dummies for both math and reading.

Table 3 provides a summary of the results from all schools during the two-year study period. Collins and Gan (2013) found that across one year of data, nearly three quarters of schools grouped their students into classrooms across numerous characteristics, whereas one quarter of schools showed now significant differences in student characteristics across classrooms. These results are consistent with the results from study year 2. However, study year 1 indicates a different pattern, which I will discuss further.

Table 3. Assignment Outcomes for Year 1 and Year 2

	Schools with Ability *Balanced* Classrooms	Schools with Ability *Grouped* Classrooms	Total Schools
Year 1: 2010-11	62% (18)	38% (11)	29
Year 2: 2011-12	25% (10)	75% (30)	40

Year 1: 2010-11 School Year

As Table 3 illustrates, in the 2010-11 school year, 29 elementary schools met the criteria of having at least two non-combination classrooms per grade-level. Across these schools, I analyzed student achievement data for 139 classrooms and 3,639 students. I found that among the 29 schools with at least two non-combination classrooms per grade-level, 18 schools (62 percent) created ability *balanced* classrooms across both 4^{th} and 5^{th} grades. Among these schools, eleven (38 percent) created classrooms that ability *grouped* students across one or both grades.

Year 2: 2011-12 School Year

In the 2011-12 school year, 40 elementary schools met the criteria of having at least two non-combination classrooms per grade-level. Across these schools, I analyzed student achievement data for 189 classrooms and 4,714 students. I found that 10 schools (25 percent) created ability *balanced* classrooms across both 4th and 5th grade and 30 schools (75 percent) created classrooms that ability *grouped* students across one or both grades.

These findings show that schools were proportionally far more successful in creating ability *balanced* classrooms in the first study year than in the second year. The quantitative data suggest (and the qualitative findings confirmed) that schools rely upon combination classrooms differently year to year. Depending upon the number of students enrolled at each grade level and other constraints such as teacher attrition, schools rely upon combination classrooms more in some years than others. By removing combination classrooms from the sample, I found that some schools were not included in the sample during study year 1 but were included in the year 2 sample. In other cases, schools had fewer classrooms included in the analysis from study year 1 to study year 2.

This accounts for the different number of schools included in the two study years (29 schools versus 40 school). It may also help explain the different proportions of ability *balanced* and *grouped* classrooms from study year 1 to year 2. Burns and Mason (1998) found that schools created classrooms differently when forming combination versus same-grade classrooms. Specifically they found that combination classrooms were created purposely to include more independent and higher performing students to ease the burden of these classrooms for teachers. To the extent that schools relied more upon

combination classrooms in study year 1, I might have removed more classrooms and schools from the sample that rely upon ability grouping during that year. When schools use ability grouping to form combination classrooms, perhaps they are more likely to balance the remaining students across the other classrooms. This study does not consider differences in the creation of single-grade versus combination classrooms, and so additional examination of these data are needed to make this assertion. However, Burns and Mason's (1998) findings may help to explain some of the differences in assignment outcomes observed across the two year study period. Next, I share results for the schools included in the study across the two year period.

Classroom Assignment Outcomes Across the Two-Year Study Period (2010-11 to 2011-12)

Twenty-six schools were included in both study years (2010-11 and 2011-12). Among these schools, ten (38 percent) schools consistently created classrooms that ability *balanced* student achievement across grade-level classrooms. In other words, these schools were identified as having created ability balanced classrooms during both study year 1 and study year 2. Five schools (19 percent) consistently created ability *grouped* classrooms across both grades during the two year period. These school were identified as ability grouping students into classrooms during both study years. The remaining eleven schools (42 percent) *varied* in their outcomes across the two-year period.

Table 4. Classroom Assignment Outcomes Across the Two-Year Study Period

	Schools that Consistently Ability *Balanced*	Schools that Consistently Ability *Balanced*	Schools that *Varied* year to year	Total Schools

	Classrooms	Classrooms		
Year 1- Year 2	38% (10)	19% (5)	42% (11)	26

These findings demonstrate that schools distribute students across grade level classrooms differently based upon their prior test scores. Over a third of schools in this sample consistently *balanced* student achievement across grade-level classrooms during the two-year period, whereas one in five schools created classrooms that *grouped* students by their prior ability. The majority of schools in the district *varied* in their outcomes over the two year period. In the next chapter, I begin to explore the classroom assignment process to understand why schools assign students to classrooms differently, and why these outcomes vary year to year. But first, I use these findings to identify schools for the in-depth qualitative portion of this study, which I describe next.

Sample Selection

The purpose of the quantitative component was to examine differences in achievement levels across grade-level classrooms so that I could identify schools with varying assignment outcomes. From the 26 schools that were included in the analysis for both study years, I selected six schools for further in-depth qualitative analysis based on their outcomes.

Six schools were selected by the following outcomes:

- Two schools that consistently created ability *grouped* classrooms
- Two schools that consistently created ability *balanced* classrooms
- Two schools that *varied* in their outcomes over the two-year period

I selected schools that *varied* in their assignment outcomes because I wanted to examine how, if at all, the classroom assignment process may differ in these schools as opposed to the schools that consistently created ability *grouped* or ability *balanced* classrooms over the two year period. Within each outcome category (consistently ability grouped, ability balanced, or varied), I selected one high and one lower performing school because I also wanted to explore how, if at all, different accountability pressures may influence classroom assignments. Please see Table 5 for more details about the selected schools.

Table 5. Sampled School Characteristics

School	Assignment Outcome	Enrollment	% FRPL	% ELL	% Special Education
Evergreen Elementary	Balanced	> 400	40%	5%	10%
Cascade Elementary	Balanced	500-600	15%	0%	10%
Grandview Elementary	Grouped	600-700	60%	15%	25%
Harbor Heights Elementary	Grouped	400-500	30%	5%	15%
Baywood Elementary	Varied	600-700	65%	10%	15%
Pinecrest Elementary	Varied	400-500	15%	0%	10%

Note: Schools have been given pseudonyms, and data are rounded and provided in ranges to protect anonymity. Shaded rows indicate level 2-3 schools (lower performing). Schools with no shading are at level 4-5 (high performing). FRPL refers to the percentage of students designated as receiving Free and Reduced Priced Lunches. ELL refers to the percentage of students designated as English Language Learners.

Chapter Summary

In this chapter, I answered my first research question: In which ways do student assignment outcomes vary across elementary schools? I found that over a third of all schools in the two-year sample created classrooms that *balanced* student ability across a grade-level, and nearly one in five schools ability *grouped* students across classrooms. Across the two year period, the largest proportion of schools *varied* in their outcomes

suggesting that schools may struggle to consistently create ability balanced classrooms. I noted earlier that I do not assume ability *grouped* classrooms to be inherently problematic. But because all participants in this study reported that they created "balanced" classrooms, in the next chapter, I investigate what balanced meant to these educators and begin to explore how, if at all, differences in the philosophies toward classroom assignments may contribute to the discrepancy between intentions and outcomes.

Chapter 6: The Purpose of the Classroom Assignment Process

In this chapter, I begin to examine how variations in the classroom assignment *process* may contribute to the varying assignment *outcomes* reported in Chapter 5. To do so, I rely upon findings from the six case-study schools for which I have both quantitative and qualitative data. Although the assignment outcomes differed across the six case study schools, all seventeen participants reported that they relied on the classroom assignment process to meet the same goal: to create "balanced" classrooms. As a principal in a lower performing school reported, "That's why we have the process."

Conceptions of a balanced classroom were more broad than student achievement scores alone, yet no principal or teacher interviewed reported a philosophical preference for ability grouped classrooms. Because the quantitative findings demonstrate, at least in terms of prior achievement on the state achievement test, that a large percentage of schools across the district consistently or sometimes create ability grouped classrooms, in the next section, I briefly examine what "balanced" meant to these school leaders.

The Value of a Balanced Classroom

All principals and teachers in the six case study schools understood balanced classrooms to be those in which students were evenly distributed among grade-level classrooms by various student characteristics, including academic achievement. These school leaders expressed an orientation toward balanced classrooms that was first philosophical, however, with closer scrutiny, balanced classrooms also posed a practical response to outside influences and pressures.

Philosophically, balanced grade-level classrooms honored administrators' and teachers' shared orientation toward equitable, diverse classrooms. Creating classrooms with diverse achievement levels, and behavioral, racial, linguistic and cultural characteristics was believed to provide a more engaging learning environment, where students can better learn from one another. The counselor at a racially and linguistically diverse lower performing school that *varied* in its assignment outcomes explained the school's philosophy toward classroom assignment,

> I think it is grounded in this idea of honoring the whole child and creating a classroom that also honors the diversity in our school. We create balanced classrooms for a reason. We want kids exposed to kids who don't live the same life, eat the same foods, and also classrooms that work together socially, solve problems together….can work through conflict. I think it is about balance, equity.

Creating diverse classrooms was also important among schools with little racial and ethnic diversity. A teacher from a high-performing and less racially diverse school that consistently ability *balanced* classrooms expressed the importance of dispersing achievement among classrooms, "I think when you have just a high-achieving group all together, it's a disadvantage for everyone. It needs to be mixed up because everyone brings something different to the table."

Balanced classrooms were considered more equitable for teachers, too. A teacher at a high performing school explained, we "try to balance, for teachers and for students. Equitable classrooms where your not going to see a teacher has all the heavy hitters and

it's difficult to get through the day. We try to balance that out." Administrators and teachers also discussed the benefit of distributing "high ability role models", as well as creating good "classroom chemistry". However, balanced classrooms were also used as a strategy for responding to other school-level influences and pressures, allowing principals to navigate parental preferences and pressures, as well as manage perceptions of teacher quality at a grade-level.

Among all three high performing schools, balanced classrooms were favored, and used, as a way to manage parents. From a teacher of a high performing school,

> Part of it, I would have to say, is to make the parents happy. That they don't feel that their kid has been put in a room with a bunch of kids that are going to disrupt the learning. They don't feel that their kid's in a classroom with the bad teacher. I think a lot of is, is parent perception. They're our clients. We've got to make them happy. That's kind of the, that's I think an unspoken, but pretty important thing that we always think about.

Much as the principal at this school expressed being adamantly opposed to honoring parental requests and made that known throughout the school community, decisions were still made with the expectations and preferences of parents in mind. For instance, knowing that multiage classrooms are "not attractive" to parents, this principal reported that if she assigns her "powerhouse teacher" to these classrooms, "then parents disappear." When a teacher is looping (moving up a grade level with their students), another strategy that she has used to manage parents is to offer them the option of having

their children move up a grade-level with their current teacher. In her experience they do. She reported, “There is some gaming that goes on.” Another principal explained that creating balanced classrooms was important because, “Parents are very aware of a class that feels like it’s got all the good students or not. We’ve had years…we do miss the mark sometimes in terms of that balance and parents are pretty quick to point it out.”

An important component to navigating parental preferences and pressures was managing perceptions of teacher quality at a grade-level, and creating ability balanced classrooms was a useful strategy for doing this. When classrooms are imbalanced by student achievement so that one classroom is comprised of higher achieving students and another of lower achieving students, teachers reported that status was often associated with teachers who taught the higher performing classrooms. A teacher in a high performing school explained, “the perception became in the community, ‘These teachers are exceptional, those other teachers aren’t. My child needs to be in this class with this teacher.’” A teacher in another high performing school reported, “It [classroom assignment] is so emotionally charged that I feel that is why I tend to restore the balance. I think what is good for all kids is to have balanced classrooms so that everybody gets a certain amount of attention.”

A Conflicting Philosophy among Principals

Even though every participant initially expressed their philosophy toward creating balanced classrooms, a competing philosophy emerged among principals. Every principal interviewed also expressed a conflicting philosophy that valued placing the lowest performing students with the most effective teachers at a grade-level. As this principal of

a lower performing school expressed, they run into conflicts with the balanced classroom approach especially when they perceive grade-level teachers to vary in effectiveness,

> I'm just going to use this example I have here [pointing to a spreadsheet of student data]. I have a weak teacher. That group of kids, a third of them would go into a classroom with a weak first grade teacher. What I know in looking at the data… is that the kiddos that in the second grade happen to also have a weak teacher, what I'm finding are those kiddos, are the kids that need tier 2 intervention and it started in Kindergarten. The kiddos that were in that kindergarten class [pointing to different group of students], maybe it wasn't the strongest, [but] they had a really strong first grade teacher. She's getting those kids up to grade level…You can see the lineage of who those teachers were and that disturbs me.

Based on her examination of these data, she wondered out loud if there was "a better way to do this?" One approach she has taken is to use student data and her knowledge about teachers' effectiveness to insure that students placed with a teacher perceived to be less effective one year were placed with a more effective teacher the following year. This approach may have allowed her to honor this competing philosophy, while also successfully balancing classrooms by student achievement. No other principal reported this tactic, yet they each reported philosophies that favored placing their lowest performing students with their most effective teachers. A principal from a lower performing school that consistently groups students by ability across classrooms reported,

"we're pretty careful about putting our neediest kids with our most experienced, best 'data' teachers." She elaborated,

> We have to put our most vulnerable kids with our teachers who have a track record of getting vulnerable kids across the line. If you talk to any administrator in [the district], you're going to hear that. You will not hear that from parents. Parents want the best teacher for their kid, which we need from them. The tension between what we want and what they want is natural and important, and we just have to recognize it.

I don't have access to the teacher evaluation data for these teachers, and the teachers in grade 4 and 5 at this school did not vary in experience, so it is not possible to verify this. However, these reported practices suggest that when principals possess a conflicting philosophy, which values using data to direct resources toward the lowest performing students, they may face challenges in equally honoring their philosophy toward creating ability balanced classrooms.

No principal in this study reported that they purposely created ability grouped classrooms and this study does not consider whether ability grouped classrooms are more or less effective at raising achievement levels. However, this finding suggests that school leaders may consider many different approaches to raising student performance, even if they may conflict with their more entrenched, dominant ideologies that value ability balanced classrooms.

Chapter Summary

In this chapter, I answered the first part of my second research question: to what extent does the *purpose* of the classroom assignment process vary across schools with different assignment outcomes? Because all participants in this study reported that the classroom assignment process served the same purpose, to create "balanced" classrooms, these findings do not align with the classroom assignment outcomes. In other words, schools that ability *group* their students do not report using the assignment process to meet a different goal than those that ability *balance* their classrooms. In all schools, educators reported that balanced classrooms satisfied their philosophical preferences for equitable and diverse learning environments, and they also provide an effective strategy for managing perception of teacher effectiveness and parental preferences.

However, among the principals interviewed, a conflicting philosophy emerged that valued placing their more effective teachers with their more high need students. While I did not probe this with them at the time, this philosophy may not be in conflict with their preference toward equitable classrooms depending upon how they define equitable. But, depending upon the extent to which they create classrooms that favor placing their most high need students with their most effective teachers, this philosophy may lead these principals to inadvertently create classrooms that are imbalanced by student ability.

Still the presence of a conflicting philosophy among principals does not explain why outcomes vary across these schools. Even if all principals hold a competing philosophy that favors placing the most high need students with the most effective teachers, they are not all creating ability *grouped* classrooms. This begs the question:

Why, if all educators say they are creating ability balanced classrooms and express similar philosophies and goals—even similar *conflicting* philosophies and goals—do assignment outcomes vary across schools? What is it about the assignment process that may contribute to these different outcomes? In the next chapter, I begin to examine the process of grouping and assigning students to classrooms to examine whether differences in processes may align with the varying assignment outcomes.

Chapter 7: The Process of Grouping and Assigning Students to Classrooms

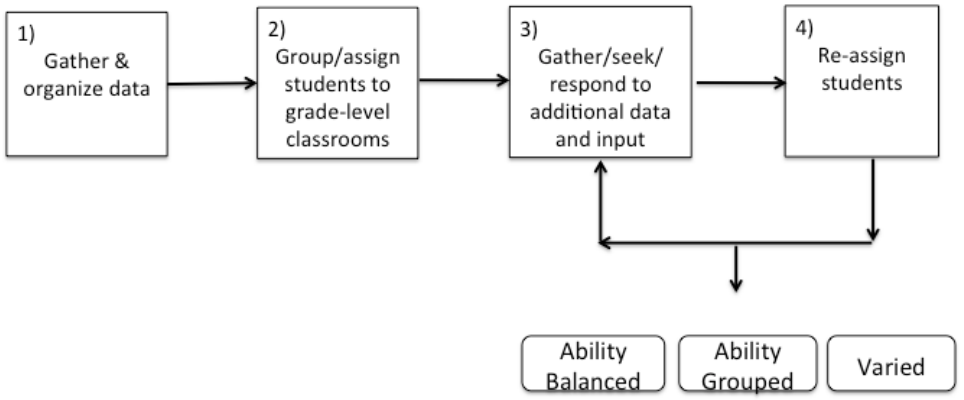
In this chapter, I report findings on the *process* by which students are grouped and assigned to classrooms. Like the previous chapter, findings come from the six case-study schools for which I have both quantitative and qualitative data.

The Process

The participants in this study reported four primary steps in the decisions about how to group and assign students to classrooms (see Figure 3). In all six schools, the first step involved the gathering and organization of data and information about student characteristics. In some cases these data included test scores and/or other measures of student achievement as well as detailed information about behavioral or special service needs. In other cases, data consisted of more basic descriptions of a student's achievement level, such as whether they were high, average, or low performing. These data and information were then documented on assignment cards, which were created for each student. Once this student information were gathered and organized, the second step was for the first decision-makers to meet to make decisions about how to group and assign students to classrooms. After the initial lists were formed, the third step involved including the input of other people in the school. The PE teacher, special education teachers and other interventionists were the most frequently cited. After this additional input and information was considered, in the fourth step re-assignments were made. Steps 3 and 4 often went through many cycles in a school, and could continue into the first weeks of the new academic year depending on the transience of the student population and whether parental requests were honored. Eventually final class lists were formed,

resulting in classroom assignments, which for the purpose of this study are differentiated by achievement.

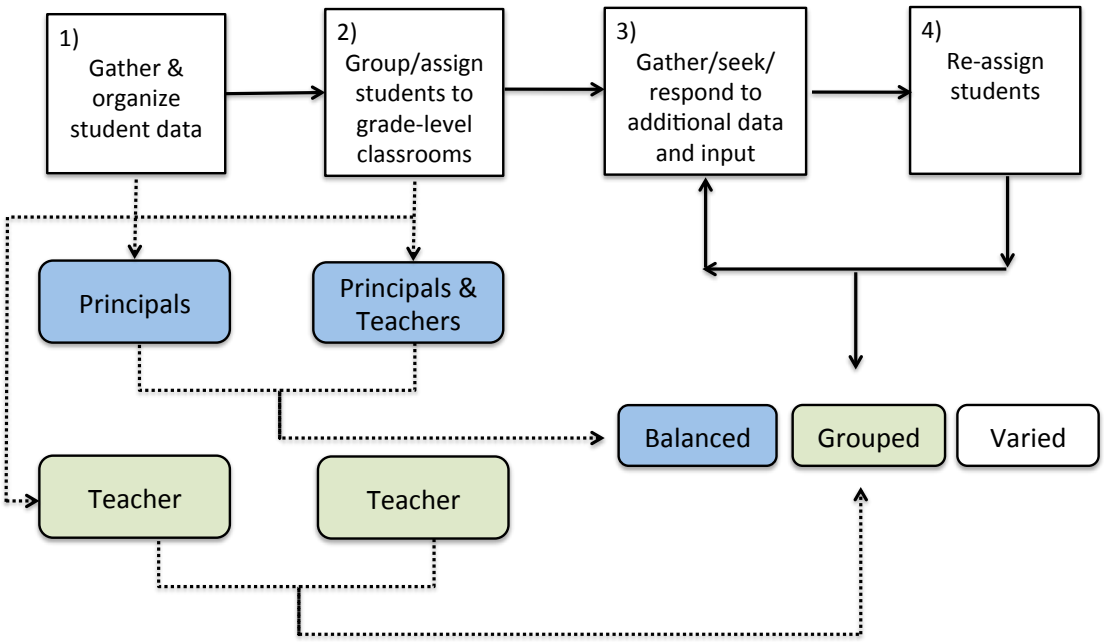
Figure 3. The Classroom Assignment Process



The Alignment of Assignment Processes and Outcomes

The classroom assignment process reported in these six schools generally involved these same four steps, however, there were some differences with regard to who was involved in the process; and these differences aligned with the assignment outcomes, or whether students were ability grouped into classrooms or not. As Figure 4 illustrates, in the schools that left steps 1 and 2 to teachers, students were ability *grouped* across grade-level classrooms. In schools where principals were actively engaged in steps 1 and 2, students were ability *balanced* across classrooms.

Figure 4. The Alignment of Assignment Processes and Outcomes: The Role of Teachers and Principals



Next, I provide a step-by-step account of how the involvement of different individuals in the classroom assignment process aligned with the classroom assignment outcomes.

Step 1. Administrators and teachers in the six case study schools all relied upon student data and information to make decisions about how to group and assign students to classrooms. While varying in degree of specificity, in every case, the first step involved gathering and organizing information so that students could be categorized by their gender, academic achievement, behavioral and temperamental characteristics, and need

for special services[9]. However, in the schools that ability *balanced* their classrooms, the principals took responsibility for this first step by creating data tools, which consisted of cards, forms, and spreadsheets. In these schools, the principals had made significant changes to the classroom assignment process to mitigate practices they believed to inequitably favor certain teachers and students. But they, and another principal from a *varied* school that had changed from ability grouping to ability balancing students during the two-year period, also introduced changes to their assignment procedures based on motivations to use detailed student data to inform these decisions.

Although every administrator in this sample reported using student achievement data to inform instruction and curriculum, these three leaders were different in that they each began to question how these data might also inform classroom assignment decisions. One principal of a low performing consistently ability *balanced* school explained how examining the achievement trajectory of her students identified important patterns related to which teacher they were assigned, and this got her thinking about how she might use these data in her classroom assignment "rubrics":

> Through the years, as data became more and more prevalent and available to principals and teachers, I started looking at student data that showed that if you had a certain kind of teacher, that some kids ended up with the same teacher year after year and their outcomes weren't necessarily positive…It started to spark an interest in me as to, is there a better way to do this?

[9] Student race and home language were also considered in some schools.

She, like the other two principals, developed tools, which consisted of cards, forms, and spreadsheets, to facilitate the use of data in these decisions. The data tools took slightly different forms, but they were similar in that they included detailed, consistent data and information for each student in the school. The high performing consistently ability *balanced* school used a longitudinal form that captured data for each student for up to six years. The form included a photo of the student along with information about their siblings and other family members, and data about each student's:

- Reading, writing, and math levels, including their state achievement test scores when available.
- Class participation
- Degree of academic and behavioral monitoring required by the teacher
- Behavioral referrals
- Additional services: math and reading
- Tutor, including name, and whether student received occupational or physical therapy
- Health accommodations
- Special education services
- Peer matches that were positive and to avoid

The data tools in the other two schools captured similar information although the *varied* high performing school also included information about students' parents because they wanted to disperse frequent volunteers but also "demanding" parents across classrooms.

This principal reported that he had recently developed new "prepopulated" placement cards with consistent data for each student at his school. He explained,

> I felt like the framework I inherited was good bones, and then I'm able to layer on any tweaks that I wanted to. I wanted to use data. For me, they use cards with benchmark data that we collect and they have consistent data across the grade level. [That] is something I brought to the school.

Although the introduction of these data cards corresponds to the time frame associated with the quantitative change in outcomes (this school moved from an ability *grouped* to an ability *balanced* school during the two year study period), it is not possible to make a causal link. There are many factors at play. Still, a teacher at this school explained how having access to these pre-printed data cards for each student helped her better differentiate students by ability when making decisions,

> Yes, it's just different between the first and second year. I mean, having more data ready on a card. Like it really catches your eye, and you look at your top readers in your class versus your lower ones. [If] they're all low, they have no role models to bring them up.

In contrast, at the lower performing school that ability *grouped* students, teachers reported gathering and organizing their own data and information about students and creating their own assignment cards. One teacher explained,

> There's nothing, no technique or anything. We were much more organized at our other school…here it is just kind of like, do it whenever you want…At [previous school], we actually had a day, and they would take that time and the groups would get together, and the cards were already made out for you.

Unlike teachers in the schools with ability *balanced* classrooms, these teachers did not report a well-defined process for gathering and organizing student data. It was not clear that teachers across grade-levels gathered and organized consistent student data or that these data were even consistent across students *within* a grade-level. Paradoxically, the principal at this school was also a big proponent of data use. However, she used these data to monitor and inform student academic progress, and left classroom assignment decisions up to her teachers. Indeed, this principal was so removed from this decision process that she did not realize her teachers were still creating their own data tools. When asked about the data tools teacher used to make decisions, this principal reported that teachers used a "Google doc." She explained that this electronic document provided teachers and interventionists each with "data for their own students." This principal reported, "We did have a card system here, and I like this a lot better." In this school, the principal reported that grade-level teams met every six weeks to evaluate the academic progress of their students and so she likely assumed that teachers also referred to these data to inform their assignment decisions. But the teachers as this school reported, "when we do the placements, we don't go by how they did on the [state achievement test]."

It is not possible to make a causal connection between the use of consistent student data and ability balanced classrooms, yet it makes sense that when decision-makers have access to consistent data and information about their students, that they may be more successful in creating ability balanced classrooms. Based on a conversation with one teacher, it may be that teachers, especially those left to gather and organize their own placement tools, are sometimes overwhelmed with the magnitude of student data, and unsure about how to use multiple measures of student achievement to inform their assignment decisions. A teacher in a low performing *sorting* school reported

> I would say sometimes we have too much information now and we are not doing a very good job of actually using it in a strategic way. We are all about how many different ways can we assess that they got it or they don't have it…So I think in general, we maybe didn't have very much data at all before and now we almost have too much. So we need to kind of figure that out.

Step 2. Administrators and teachers used student data to categorize students, most frequently, by their achievement level, behavioral characteristics and need for special services. These categorizations were used to inform the second step, which involved distributing, or often "clustering", students evenly across grade-level classrooms. Educators reported that by having categorized students according to their achievement level and behavioral characteristics, it was easier to create balanced classrooms. When they needed to make changes to the assignment lists it was easier to exchange a similar student for a similar student, thereby maintaining the balance of the classroom. For

example, if while grouping students into classrooms, teachers decide that a particular student would be better off in a different classroom, because this student had already been categorized by her academic level and behavioral characteristics, it was easy to exchange her for another female student with similar characteristics. A principal from the lower performing consistently ability *balanced* school explained, "if we as a collective group feel like this may not be the best match, then we have to go to that process of changing like kid with like kid. If we can't do it, then we won't do it."

In the second step, among all six case study schools, the initial classroom assignment decisions were made by the sending and, sometimes, receiving teachers. Yet, as Figure 4 illustrates, in the schools where the principal was also involved in this step, schools ability *balanced* their classrooms. In these schools, participants also reported that the principals scheduled time specifically to make classroom assignment decisions. Principals in these schools reported either scheduling working sessions among grade-level teachers or devoting entire staff meetings to these decisions. Not only did this ease the time burden placed upon teachers to make the decisions about how to group and assign students to classrooms, but also it allowed teachers and administrators to engage in this process together.

Step 3. Classroom assignment decisions were not left solely to the classroom teachers and administrators in a school. In every school, individuals such as the PE teacher, special education teacher, and literacy specialist were also engaged in this process. The additional information was primarily related to which students needed to be separated or ideas about which student would benefit from a particular teacher. A teacher

from the high performing ability *balanced* school reported, "The previous teachers, then the incoming teachers have a little bit of say, administration for sure, the PE teacher, the dance teacher, the music teacher, the Special Ed teachers, so at least 7."

Typically input was sought from the other educators by either posting the initial lists in the staff room or, more typically among these schools, by passing the initial lists to the different decision-makers. There was one exception to this decision sequence. Instead of passing the lists to different educators after teachers made their initial decisions, the principal of the consistently ability *balanced* low performing school organized for all decision-makers be in her office together. She reported that once everyone in the room agreed to the decisions, lists were typed and locked away during the summer. She explained, "the reason why we do it as a team is so we all have a hand in it. We all have to take responsibility so no one can say, 'well, I didn't have anything to do with that.' It [classroom assignment decisions] is political and it has been political in all the schools I have ever been in." This approach was unique, however, this sentiment was not specific to this school. Nearly every participant reported that classroom assignments were political and emotional processes at their school.

With the exception of this ability *balanced* school, all teachers interviewed reported that after the other educators provided their input, the final decisions often veered far from their original lists. A teacher from a high performing consistently ability *balanced* school explained, "if you look at your class list in June, the 4th grade teachers have all had input, the PE teachers have all had input, after it goes to administration, it could look totally different…" The other teacher at this same school explained, "Our choices go to [Principal] and he makes changes. I feel like I have to let go. Our team lays

out what we are going to do and we let go. And he makes changes. The bottom line, I don't have control over it." With the one exception, all teachers interviewed in these schools reported this same outcome, some expressing frustration. A teacher in the *varied* low performing school reported, 'you know the class doesn't look the same way it looked when you left it. That is really frustrating."

Because there were no variations in this process—in all six case-study schools, additional input was sought from additional educators—there was no clear alignment between variations in this step and the assignment outcomes. But what this finding suggests is that it may not be the involvement of *teachers* per se that leads to ability grouped classrooms, since even teachers who have primary responsibility for forming the initial class lists report that the final class lists look very different from their initial assignment decisions. Instead, what this finding suggests is that the role of the *principal* is likely important in this process. When principals engage in this process by helping to gather and organize student data and set aside time to engage in this process with teachers, schools may simply be more successful at using these data to create ability *balanced* classrooms.

Step 4. It seems logical that when classroom lists go through numerous decision-sequences that involve many different people that they would end up very different from the original decisions. However, if all schools consider input from various school educators, why then are some schools able to create ability balanced classrooms while others do not? From these data, there is some evidence to suggest that when principals return to the student data when making the final decisions they may be more successful at

taking into consideration other sources of knowledge while still maintaining their goal of an ability balanced classroom. I don't have consistent data across the six case-study schools to align this finding with the assignment outcomes; however, one principal from the high performing school that had moved from an ability *grouped* to an ability *balanced* school during the two year period, explained that after incorporating all the input from the various school actors, he "brought back" the student data to insure the classrooms were balanced. He reported, "Before we posted them on the door in August, we spent thirty minutes with all the classes. We looked at them again before we went live with them." The counselor at the other *varied* school, a lower performing school that prioritized student behavioral data, reported that after the teachers and specialists make their initial decisions, the assistant principal "makes sure it is balanced" and then she "act[s] as a double checker. Going back to that social piece and looking at possible conflicts." The principal of the consistently ability *balanced* low performing schools explained that after creating the class lists, they double-check that they have indeed created ability balanced classrooms. He reported, "we also put them [student lists] in a spreadsheet so that, first you look at the names, and then you kind of look at if is really is balanced, [by using] the red, yellow and green color codes."

In contrast, the principals of the consistently ability *grouped* schools were removed from the process and did not report that student data informed their final decisions. The principal of the high performing school that ability *grouped* students reported that she made very little changes, if any, to these final lists. After giving an account of the numerous individuals involved in these decisions, she explained, "It is a long process...I can probably say they make 99 percent of the decision." The principal of

the other consistently ability *grouped* school also rarely made change to the lists created by the teachers and specialists. She reported, "I probably won't make any revisions to them myself, because I have respect for that process. But kids move, parents show up. When the numbers get funky, like that's where I'm like, 'Okay, hold on now. I need to step in here.' When she does make changes to the lists, it is typically at the beginning of the next academic year when new students arrive at the school. She explained that when the new students arrive she and the registrar, "try to distribute those guys evenly, but it's not a group of thoughtful people who know every kid very well, making good decisions about where these kids go." She reported, "We don't really look at their test scores at that point. We don't have them."

Interestingly, student transience did not align with outcomes. At least among this sample of schools, schools that reported high transient student populations were not more likely to group students by prior achievement even though the coming and going of students practically presents challenges to creating ability balanced classrooms especially since little is often known about the academic achievement levels of these students when they arrive. One teacher at a lower performing school that ability *grouped* students explained,

> Another problem that we have here is we have a really high transitory rate. I think it's twenty percent of kids moved last year. We go to all this work to do this and then in the fall you can have a completely different class and it can almost be hit and miss. We get new kids or kids drop out.

Another teacher in the *varied* lower performing school reported,

> Even with the most prepping, every year here I would never write nametags or anything because I would always get a different list. I would electronically kind of get names going and get ready and then I would wait until the first day of school and there would usually be three of four that didn't show and then a couple that did show that were in addition.

I have few hypotheses for why student transience would not align with the assignment outcomes. Practically, it seems more challenging to create ability balanced classrooms when students are coming and going and educators have little information about them. The participants who discussed transience as an issue in the classroom assignment process each reported that these students tended to have greater needs. It may be that when these students are distributed evenly across classrooms that have already been ability balanced, that this balance is easier to maintain.

Chapter Summary

Among the six case study schools, I found that educators generally described a similar process for grouping and assigning students to classrooms. However, the individuals involved in this process differed across schools and these differences aligned with the assignment outcomes. When teachers had primary responsibility for making classroom assignment decisions, students were ability grouped across grade-level classrooms. This finding may reflect the fact that these teachers were also left to create

their own data tools and find their own time to make classroom assignment decisions. When administrators facilitated the use of student data by creating structured and consistent data tools to use when forming classrooms, and scheduled time for teachers to meet to make these decisions, schools consistently or at least sometimes created ability *balanced* classrooms.

These findings likely reflect the interrelatedness of these steps. It is not possible to causally link these associations, but it makes sense that in schools like the one where the administrator left "99 percent" of classroom formation decisions to the teachers, that they would also decide which data to rely upon to make these decisions and create their own data tools. Because these schools are also the two schools that consistently ability *grouped* their students, these findings suggest that the involvement of the principal or another administrator in this process may be important if creating classrooms balanced on student achievement scores is a valued outcome.

These findings also indicate that the individuals involved in this process matters, but that the use of data matters as well. It is logical that educators are more successful in creating ability balanced classrooms when they rely upon consistent student achievement data, and when they return to these data to ensure students are balanced across classrooms when assessing the final lists. However, it may be that assignment processes in some schools are based upon long-standing practices that have historically not included the use of student level data.

These findings may highlight practices that may be useful to educators when forming classrooms by providing insight into the importance of using consistent student data in this process if forming ability balanced classrooms is a valued outcome. In the

next chapter, I examine the types of data the educators prioritized, as well as the other factors that influence this process.

Chapter 8: Organizational and Individual Factors that Influence Classroom Assignments

In the last chapter I examined the classroom assignment process, and how variations in this process aligned with whether students were ability grouped or not. In this next chapter, I report findings from the qualitative and integrated data about the various other factors these educators' reported as influencing their decisions about how to group and assign students to classrooms.

Student and Teacher Characteristics

As reported in the last chapter, while varying in specificity, all participants relied on data and information about students to make classroom assignment decisions. However, school leaders used and prioritized student data differently. As illustrated in Table 6, administrators and teachers that reported prioritizing student achievement data were from schools identified as having created ability *balanced* classrooms; whereas those school leaders reporting the prioritization of information such as student behavior or the "fit" of the student/teacher match were from schools with ability *grouped* classrooms. Given that the classroom assignment outcomes (whether schools are identified as having ability grouped, ability balanced or varied outcomes) were based upon prior student achievement, it's not surprising that data priorities would correspond with outcomes this way.[10] It was not possible to include behavioral or personal knowledge about students and teachers in the quantitative analysis and so my conception

[10] In my initial examination of these student data, I also included ELL and special education status in the regression models used to examine differences in the ways students were distributed across grade-level classrooms. However, in every school, if students were grouped by ELL and/or special education status, they were also grouped by prior achievement. Because I found educators in these schools paid increasing attention to student test scores when forming classrooms, I only report on the grouping of students by their prior year achievement on the state achievement test.

of a balanced or grouped classroom is based on student achievement on the state achievement test. However, these findings suggest that when decision-makers prioritize other data, they may inadvertently create classrooms that are imbalanced on student achievement. Next, I examine these three types of data in greater detail and explore how they align with the assignment outcomes.

Table 6: Data prioritization in grouping and assignment of students to classrooms

School	Assignment Outcome	Data prioritization
Evergreen Elementary	Balanced	Achievement data
Cascade Elementary	Balanced	Achievement data
Grandview Elementary	Grouped	Student/teacher "fit"
Harbor Heights Elementary	Grouped	Student/teacher "fit"
Baywood Elementary	Varied	Behavioral data
Pinecrest Elementary	Varied	Achievement data

Student Achievement

Whereas administrators and teachers valued information about various student characteristics when making decisions about how to group and assign students to classrooms, all participants valued creating classrooms that were balanced by student achievement. No principal or teacher reported valuing ability grouped classrooms. What served as the basis for determining "student achievement" varied across schools. In some schools, students' achievement levels were established by composite measures, or "algorithms", based upon multiples measures of student performance. In other schools, students were balanced by educators' "sense" of their students' academic ability.

Some, although not all, decision-makers valued the information students' test scores provided when forming classrooms. A teacher in a high performing school reported,

> We place them on their academic level…I think it's valuable. I think it is valuable because although a high test score does not mean a high performing child in the classroom. It doesn't. But it does say something to the fact of how quickly they learn, how fast they can absorb information.

The principal in the *varied* high performing school facilitated the use of student achievement data in the classroom assignment process by using multiple measures of student performance to identify all students along five levels of achievement. Teachers then used those levels to cluster students across the classrooms. He reported,

> We have an algorithm. If you're highly capable, what does that translate to? We said that if your [state achievement test] score is, plus or minus 5%, in the ninetieth percentile, between eighty-fifth and up, even with a margin of error, and you are [advanced learning] identified, you probably have a cluster ranking of two. How do you get to be yellow? For the [state achievement test], I think if you're below the thirty-fifth percentile, I consider you at risk. Your below the sixtieth percentile, I consider you in the yellow still….Once we've defined the structure of the academic profiles we like to fit, it's then the personalities.

Teachers from the ability *grouped* schools, on the other hand, reported that they use students' test score data and other achievement measures to inform instruction and lesson planning but that these data don't feature prominently in classroom assignment

decisions. At Grandview elementary, a lower performing school that created ability *grouped* classrooms, teachers reported relying upon student performance data to monitor and inform student progress. However, they reported that they did not use these data to inform assignment decisions, but rather relied upon their personal knowledge of students, which includes achievement, but not necessarily their performance on a state test. A teacher explained,

> We don't look at test scores, but I think we know so much about the test scores. We do so much data work here that you just know right off the bat. Like you could say any kid in fifth grade and I would probably know, even though I am not their reading teacher, know close to what they are reading at….Yeah, we know where they are at, so I think that when we are doing the assignments that's probably something that is already there. We know what tier they are.

A teacher at the high performing school that consistently created ability *grouped* classrooms reported that they relied more on their understanding of their students' academic ability, rather than test scores. She reported,

> It's more knowing the kids, because any day they could do poorly or really great on a test. We know that as teachers, but nobody else seems to really know that. That's kind of frustrating. We have that latitude when we're making classes, so we tend to use that.

In both these schools, student achievement data were used regularly in team meetings to monitor student progress, yet they were not used as strategically in the decisions about classroom assignment. This finding suggests that even though teachers may be very familiar with their students' achievement so that they "know close to what" their performance levels are, if they don't actually rely upon student achievement data, but rather their own conceptions of their ability level, they may be less effective at creating ability balanced classrooms.

Student Behavioral Characteristics

Every participant discussed the need to consider student behavioral characteristics and student social interactions when forming classrooms. As a teacher in the lower performing varied school explained, "the dynamics of kids make a huge difference in the learning." A teacher in the high performing *varied* school reported, "Every year there's these two that cannot be together another year so we intentionally try to split them up. And that isn't about their academics. It's about their behavior and their social interactions with each other."

Among the schools that shared their placement cards with me, all captured information about students' behavioral characteristics and social interactions. For example, in the high performing consistently ability *balanced* school, students were identified as being independent, typical or needing frequent teacher monitoring. In the low performing *varied* school, more detailed student behavioral characteristics were collected, including the situations and time of day students' tended to be most triggered. Although behavioral characteristics were considered in every school, data and

information about students' behavior played a crucial role in the assignment decisions in this particular school.

At Bayview Elementary, a school that *varied* in outcome, a teacher reported, "Behavior is an important aspect of the assignment process at this school." The other teacher interviewed at this school confirmed, "major behaviors is what we start with…that is probably different in this school compared to other schools. Behavior makes such a difference in their learning, so we start there." Indeed, the counselor, who facilitates the classroom assignment process at this school, collects extensive and detailed information about students from every teacher each spring. A two-page questionnaire is devoted entirely to collecting information on each student regarding their behavioral problems, antecedents to these problems, interventions that have proven effective and situations and triggers to avoid with each student.

Behavioral differences among *cohorts* of students was also an important issue for some educators when making decisions about how to group and assign students to classrooms. In two schools, teachers discussed how classroom assignment practices can sometimes differ when student behavioral characteristics are perceived to differ by cohort. In the *varied* lower performing school, a teacher reported,

> It [the individuals involved in decision-making] kind of depends. So the cohort that's across the way now is an extremely high risk, very hard class, cohort. So when we were planning, we had the ELL teacher, we had several IAs, we had the special ed involved. There was like probably 12 people. The nurse was there, but normally, it's the classroom teachers and that's kind of it.

The significance of specific cohort dynamics on the decisions about how to group and assign students to classrooms was not an issue specific to this low income, low performing school. Referring to differences in achievement levels among grade-levels, a teacher in the high performing ability *balanced* school described a cohort with,

> an unusual amount of trauma in the kids' lives in that group so they didn't fit the typical kids. It was a certain cohort where at least a third to a half of the kids had some sort of trauma. Suicide, parent in jail, single parent, all kinds of things and I had at least half in my class. There were just two of us at that time, and she actually had a lot too. When you look at that, where the cohorts are really different, it's not even scientific, coming up with that number.

This consistently ability *balanced* school had a very structured process for assigning students to classrooms. Yet even with protocols for classroom assignment procedures, decision-makers in this school had to adapt to the unique characteristics of groups of students. A teacher in the consistently ability *balanced* lower performing school described a classroom as, "…what it is essentially is a microcosm of a community and every year is different." This finding illustrates the complexity of classroom assignments. Even within a school, educators may sometimes shift their priorities and established practices with regard to classroom formation. They may adhere to their practice of prioritizing student achievement data when forming classrooms in most cases, but when

considering the assignment decisions for a particularly challenging cohort of students, educators may choose to form classrooms that favor other characteristics.

The Student/Teacher "Fit"

This dissertation focuses upon the grouping and assignment of students to classrooms. However, a classroom is comprised of students and a teacher, and the decisions about how to group and assign students to a classroom often go hand in hand with the decision about which teacher to assign a classroom. Even though some schools did make student grouping decisions separately from the teacher assignment decision, at some point in the classroom formation process, a teacher will be assigned a group of students. This is the aspect of classroom assignments that becomes most political and emotional in a school. Some of student/teacher "fit" issues have to do with making decisions based on teachers' classroom management or temperament styles, however, issues of teacher effectiveness were also prevalent.

In these six schools, an interesting pattern emerged. As Table 7 illustrates, in schools where teachers were left to make decisions about which teacher colleague to assign a group of students, classrooms were imbalanced by prior student achievement, or ability *grouped*. Even if teachers initially grouped students into classrooms without a teacher in mind, teachers reported that classrooms became imbalanced once the conversation turned toward which teacher to assign the student groups. A teacher from a *varied* lower performing school reported, "last year, when we divided the kids, we divided them by the teacher, and it winded up not being successful because we weren't looking at the dynamic of the kids as much." A teacher from a high achieving school that

created ability *grouped* classrooms reported, “thinking through the idea that we all say we balance classrooms, but when we start thinking about grouping certain types of students with a particular teacher then, maybe then, it isn’t really balanced.” Another teacher at this school explained,

> We try not to sort of say, "Oh, we'll assign this kid to this teacher. This kid to this teacher." We try to just make ... for instance if there's 4 fifth grade classes, we just try to make 4 groups, and not put names on them. That doesn't last very long because we say, "Okay, with this kid, with these special needs, he needs to be with this teacher. This teacher is now teacher A in this group." It kind of turns out that way.

As these excerpts suggest, decisions about student/teacher “fit” were made to balance the temperament of students *and* teachers. The principal of the lower performing ability *balanced* school explained,

> Then another thing with the temperament of the student is the consideration of the temperament of the teacher, or sort of a style of a teacher. For instance, specialists like our special education teachers, our ELL teachers, who also join that conversation, and our classroom teachers will steer kids who are particularly sensitive to particularly calm classrooms environments or teachers with less rigid communication styles.

A teacher in the consistently ability *balanced* school reiterated this idea,

> Say that we know that a teacher is organized and really structured, we might place a student in that classroom specifically for that teacher because that student, we know, will thrive in that environment, where if we put them with a teacher who is flowy and can run things in a loosey-goosey sort of way, that student may not thrive in that situation.

Table 7. Teachers Role in Colleagues' Classroom Assignments and Decisions about Student/Teacher "Fit"

School	Assignment Outcome	Teachers choose colleagues' classroom assignments
Evergreen Elementary	Balanced	No
Cascade Elementary	Balanced	No
Grandview Elementary	Grouped	Yes
Harbor Heights Elementary	Grouped	Yes
Baywood Elementary	Varied	No
Pinecrest Elementary	Varied	Sometimes

Interestingly, although the goal was to build a balanced classroom, when decision-makers incorporated information about the grade-level teachers, educators reported that assignments sometimes differed from what was intended. Below a teacher from the consistently ability *grouped* school reflected on the process of assigning a classroom of students to a teacher, and began to wonder if the step of assigning students to a teacher may end up creating imbalanced classrooms,

> Once you set-up those four classrooms or whatever, then you think, "well, where does class 'A' go to, and class 'B' go to, class 'C' and 'D'?" You're not drawing out of a hat. You think, "Well this teacher's a little more sympathetic to kids with, that

> are really needy. This teacher's going to push them a little harder. This teacher has stronger boundaries in terms of classroom management, or something. Those kids would benefit more." What I'm saying [is], thinking through it, because if we're thinking about them being balanced, then why [do we] think that way? If each teacher gets three of those kids, or four of those kids, then, so maybe it's not quite as balanced as I'm thinking it is.

To try to mitigate this influence, the principal of the consistently ability *balanced* school explained that he tells his teachers, "'you have 4 classes, make 4 equal lists and don't attach teachers to them' and that makes it truer to getting that balance." He and another principal that sometimes allowed teachers to choose their colleagues' classrooms argued that this strategy was especially important among some grade-level teaching teams. Not all teaching teams needed this oversight, they reported, but some did. The principal of a *varied* school who sometimes asks sending teachers to choose their outgoing students' next teacher explained, "If I feel that there's favoritism or other things, I'll say, 'create three balanced classrooms,' and then I'll assign them to a class."

Principals in these schools reported that when they had confidence in their teaching teams, they gave them more latitude to make these decisions. The principal of the high performing consistently ability *grouped* school reported,

> I let them do that now because I have a strong teaching team. Years ago when I didn't have the strongest teachers, I would say 'build me three different classroom

> and I will put names on them.' But now I have such a strong teaching staff, they work well together. I think they appreciate each other for their differences. When you have a lot of faith in your colleagues it is a lot easier to create class lists.

However, her school was a consistently ability *grouped* school. This finding may indicate that even when teaching teams are strong and work well together, it may simply be more difficult to create classrooms that are balanced by student achievement when teachers are also tasked with making decisions about which of their colleagues to assign a group of students.

The Subjective Nature of Classroom Assignments

For all the student data the educators rely upon to make assignment decisions, these decisions also rely heavily upon educators' subjective understanding of students and teachers. Teachers' reliance upon their own impressions of a student's achievement level and behavioral characteristics, as well as the fit of a potential student/teacher match, demonstrates an important source of information that educators use when making classroom assignment decisions. One principal at a high performing school who had developed sophisticated "algorithms" to predict student's future performance based on their prior performance on the state achievement test reported that these models can get him "80% of the way", but that it is important that he rely on teachers' knowledge of students to make assignment decisions, "I do think you can do a lot with a computer, but I think teachers who know the kids and know their personality is as important as the academics."

These subjective data took multiple forms. Sometimes they were documented on the placement tools used to make assignment decisions, but they also often existed as personal knowledge that teachers called upon when making decisions. Frequently personal knowledge about circumstances in the home lives of students, as well as knowledge about problems between students was used to make decisions about how to group students. A teacher in a high performing school that consistently created ability *grouped* classrooms reported that conversations with other teachers were helpful for uncovering information about students that, for example, help her identify "kids with less support at home." According to this teacher, without these conversations, "you wouldn't have thought about that." A teacher in the high achieving ability *balanced* school counted at least seven people involved in these conversations at her school. She reported, "Everybody has a different lens, right? So everyone is advocating for a certain aspect that they know about."

Whereas some schools relied upon this verbal exchange of knowledge, other schools sought to systemize these data by documenting them on the placement tools. One school in the sample, the lower performing consistently ability *balanced* school, had developed a strategy for quantifying these data. Using a rubric and cubes as measurement instruments, teachers and specialists, sharing their knowledge of students, assign students up to three cubes. Describing this process as the "most subjective thing that we possibly do," the principal explained,

> If a student takes a little bit more energy then, say, the average student and that energy could be differentiating curriculum, it could be trips to the health room, it

could be lots of emails to their parents, so you see what I mean by subjective? If they have a three, that's the maximum, that's a lot of energy.

Once the cubes are tallied for each student, they are included in a student's overall score, and the principal explained, "You have to have these kinds of demonstrable and measurable behaviors or scores to get that certain number."

When examining the use of subjective data across the six case study schools, I found that schools whose administrators sought to systematize subjective knowledge were among those that either consistently or sometimes ability *balanced* classrooms. The degree to which these data were systematized differed across these four schools. However, what set them aside from the schools that ability *grouped* students was that each of these schools attempted to consistently catalogue these subjective data for each student.

Table 8. The Systematization of Subjective Data

School	Assignment Outcome	Systematize subjective data
Evergreen Elementary	Balanced	Yes
Cascade Elementary	Balanced	Yes
Grandview Elementary	Grouped	No
Harbor Heights Elementary	Grouped	No
Baywood Elementary	Varied	Yes
Pinecrest Elementary	Varied	Yes

Perceptions of Teacher Effectiveness

Although this dissertation focuses upon the grouping and assignment of students to classrooms, issues related to teacher effectiveness played an important role in these decisions. In this dissertation, I do not include measures of teacher effectiveness based upon student test scores. Rather I rely upon educators' reported perceptions of teacher effectiveness as they relate to classroom assignments.

As discussed earlier, the assignment of a teacher to a group of students is the aspect of the classroom assignment process that is most political and emotional within a school. One principal explained, "teachers take a lot of ownership in May over their kids. They've mothered or fathered them all the way through the year and so they feel really strongly about where they end up." This is also the point in which issues of teacher effectiveness arise.

In an attempt to mitigate political and emotional responses to this process, a principal at a lower performing consistently ability *balanced* school does not allow teachers to create classrooms with the knowledge of the assigned teacher. She attempts to randomize this process by placing the names of the grade-level teachers on a card, which, after student groups are created, is turned over on the top of a large table used to make these decisions. Students are grouped into classrooms based upon their student achievement and other characteristics, but she explains,

> Then from there, we turn over the cards to the teacher name. That's the part that I'm most uncomfortable with because I think that's when teachers start to go like

> this [gesture of uncertainty]. Teachers are not very honest about "would I really put my child in that classroom?" And what we do is, [we ask] does the make-up of this classroom, with this group, a good fit? Not for the teacher but for the collective group? …They won't speak to the elephant in the room. They will just say, 'you know, I just don't know if that is a good match.' What they are really saying is 'I don't trust this colleague will do a good job.' That is really hard to deal with.

Administrators and teachers reported that issues related to variations in perceived teacher effectiveness at a grade level were among the most challenging aspects of this process in all the schools. A teacher at the high performing consistently ability *grouped* school reported,

> That's hard. That's one of the hardest things about teaching, knowing that the kids are going to go in a classroom they won't thrive in. Definitely one of the hardest things. You just try to think about maybe, which of the kids are the most resilient, the ones that are going to have some support from home. In the same argument you could say, "Well this teacher could make the whole difference." Or you could say, "Well one year isn't going to make the whole difference, and they'll survive it." I think it's hard. It's hard to do. You think, "Would I let my kid go into that classroom?" If the answer's no, then how could you let any kid? It's the worst thing.

Various factors influenced the perceptions of teacher effectiveness. As previously reported, when students are ability grouped into classrooms teachers assigned the highest performing classrooms are often perceived to be the most effective teachers at a grade-level. A teacher of a *varied* high performing school that had recently made changes to their assignment strategy so that advanced learning students were "clustered" across grade levels reported,

> They think that you're a better teacher if you're a[n] [advanced learning] teacher. I look at the teachers who have taught [advanced learning program] for years and you feel what the community feels about them, that they believe that they're the better teacher.

Teachers did not have access to other teachers' value-added and student growth measure percentiles, however, student data did influence some principals' perceptions of teacher effectiveness. By examining the trajectory of her students' academic performance and tying these students to their teachers, the principal in the consistently ability *balanced* lower performing school reported that she saw patterns of teacher assignments that worried her. Yet she was also concerned that these data may bias her perception of teachers. She explained,

> There's this bias then that I created in myself. Wow, I knew that they had this teacher and then that teacher, they cannot have that teacher next year. I'm desperately thinking, "What do I do to get that kid out of that class? Can we do a

> switch?" There's some of my own bias there and that might have affected that teacher.

This was not the only principal that reported being influenced by student test scores in their perceptions of teachers' effectiveness. A principal of a lower performing consistently ability *grouped* school reported,

> I have a second grade teacher here. I go into his classroom and he's doing stuff that I'm like, "Why are you doing that? Like, really, with the frigging packets and the … Why are we coloring? What's going on?" Then I look at his data, and his kids are growing faster than anybody else's, because he's been doing it for 35 years, and he knows how to get kids to learn how to read.

The principals in my sample varied with regard to how they valued the state standardized test score data, some questioning the useful of these data on both practical and philosophical grounds. Still, these findings suggest that, at least among some principals, student test score data played a role in their perceptions of teacher effectiveness. They also sometimes informed principals' decisions about grade-level assignments. A principal of the consistently ability balanced lower performing school reported that she has moved teachers out of tested grade levels who could not demonstrate that they could move students' achievement forward. She explained,

> I have a fourth grade teacher and I moved them…I mean, two years of being a low growth teacher should have been enough of a clue and I just said, "I can't

> have you there." That is the one piece that principals still have. Principals in most collective bargaining agreements still have the power to be able to move a teacher to another grade level.

Other principals explained how they used the classroom assignment process to manage variations in teacher effectiveness at a grade-level, sometimes using classroom assignments to encourage teachers to retire or leave the profession. A teacher in the *varied* high performing school reported,

> The first thing I try to do is create good teacher teams. Every principal probably does. My goal would be that I have three strong teachers. I start with, how do I create teams that parents aren't going to be lobbying, "I want this teacher," or, "I want that teacher."

But when that doesn't happen across all grade levels, this principal reported purposefully assigning his least effective teacher to a classroom with an advanced learning cluster of students so that, "they will feel pressure from parents that they haven't felt before. That can be a leverage point for me to work with that teacher to say, 'Look, I've got parents that expect more, that's a reasonable expectation. How can I help you with that?' Or, 'How can I help you find your calling?'"

A principal of the consistently ability *balanced* lower performing school explained that she has switched the grade-level assignments of teachers she had wanted to "push out" of her school. She explained,

> For a lot of teachers, once they've been in a school, they've left being a provisional teacher and they have a continuing contract, they're lifers. I mean it's tough to move a teacher out. I mean I've done it and it takes a lot of work and so principals are thinking about that too. Last year I moved a teacher that's going to retire this year. And she's retiring, I mean, because it's time to go. And some of the teachers that are on plans, you know, that's the route they're going and it felt like the reason why I moved them to a different grade level was because I wanted to push them out.

But principals do not only use the classroom assignment process to encourage teachers they perceived to be less effective to leave their school or the profession. The principal of the *varied* high performing schools also reported using the classroom assignment process to help develop and offer greater support to teachers he thinks need it. He explained how he uses his inclusion teacher to support teachers he believes to be less effective,

> In the placement of special ed students, I have a really wonderful inclusion teacher. If you have a [special education] student that's in your class, she'll often team with you and come in and support you. I think, "who's class is she going to be supporting this year, or the next year, or the next year? How will that help the student, but also, how will that help the teacher if they see her modeling?" I think a lot about that actually.

These findings suggest that balancing students across classrooms may be an important strategy when teachers are perceived to vary by effectiveness across a grade-level. Doing so may help mitigate the inequities that arise when the most disadvantaged students are assigned the least experienced and effective teachers. The principal of the consistently ability *balanced* lower performing school reported,

> There is enough data to be able to say who those kids are. Even the kids that are now in fourth and fifth grade that didn't start with me as kindergarteners. I know who their teachers are and they're still here, and you can see that pattern. A lot of those kids unfortunately are kids that don't have a lot of parent advocates or they're quiet kids, or they're kids that people have said that they're not going to learn, and that happens.

As this principal explained, "Balanced classrooms are probably more important for teachers that are okay. Balanced classrooms don't matter when teachers are really exemplary."

The Role of Parental Preferences

Managing parental preferences was an important aspect of the classroom assignment process. Although principals, especially those in the higher performing schools, reported that having a clearly articulated assignment "process" allowed them to better manage parental preferences, some also suggested that parental preferences and

demands, while challenging and not always accommodated, helped drive education and teacher quality.

Although only one principal in this sample reported honoring parental requests, a number of the principals and teachers shared stories from prior experiences at their current school or from their time at different schools. These reports can't be linked to their current circumstances nor the assignment outcomes at their school, but they provide valuable insights into the role parental preferences can have in this process. Considering these reports is also worthwhile because it is likely that social desirability bias may have influenced the degree to which principals admitted this practice to me. As one of the teachers in my sample reported, "It's funny because the principal of every school I've ever been to always sends out a letter saying, 'Please do not ask for a certain teacher. Tell us what learning styles you want.' [But] I've never known a principal who hasn't honored a parent request."

To manage the perception that principals honor parental requests, the principal of the ability *balanced* low achieving school resorted to hiring someone outside the school for the specific task of typing the final lists. These class lists were locked in a filing cabinet over the summer to assure everyone involved in making the classroom assignment decisions that no changes had been made. In her experience, changes were made to benefit students and sometimes teachers, but they were also made for the benefit of parents. This principal reported, "I have also heard teachers say they have a great relationship with a child's parent who will get upset with the teacher if this student ended up in this particular teacher's classroom. That is part of the reason we typed up the list that evening. We have someone come in and do that."

The principal at the higher performing *varied* school also experienced teachers moving placement cards for families. In this school, the principal expressed concern for practices that he believes favors some students over others. He explained, "I feel like some people, maybe even me, go, 'Well, that family is not going to say anything. I've got two more spots in this class. If I put this family here, they're going to make it really hard on that teacher. They aren't going to put up with mediocrity.' That's a terrible thing to sit with as well." He continued, "I don't know if I've always stood resolute, but I have challenged that. I've felt the conflict of, "What battles do I fight?"

When honored, parental input is a type of information that can create achievement imbalances among classrooms. The only principal that acknowledged honoring parental requests explained how these requests resulted in four imbalanced classrooms in kindergarten that year. She reported,

> We have two classrooms where the kids are incredibly high needs and incredibly low skilled, and two classrooms where the kids came in with higher skills, and it's a little bit about parent requests. [Kindergarten] That's the place where I get the most parent requests…. But, actually, those teachers who had the requests have the higher kids. They do. It did turn out that way.

As previous discussed, no other principals acknowledged honoring parent requests and so when considering the six case study schools, the affirmed honoring of parental request does not align with the outcomes. Yet each principal in the three high performing schools reported that managing parental requests was an important aspect of the classroom assignment process. Each spring, these principals sent home letters to

parents specifically asking them not to request teachers in the upcoming classroom assignment decisions. Still, a principal of a high performing *varied* school reported,

> Ever year, in a community like ours, and probably in most communities, my in-box fills up with parents who would like something different. Sometimes it's the teacher. Sometimes its friendship groups that are there. Those are the two main variations. This year we had, I think, five complaints. Out of four hundred fifty, we're like, 'yes, we'll take it.' Other years we've had thirty or forty.

Decision-makers in lower performing schools also reported receiving parent requests, however, they explained that these requests were typically few in number. These administrators and teachers also did not report that parental requests were something that they felt they needed to "manage." As previously discussed, administrators and teachers in the high performing schools reported that they sought to balance classrooms, in part, to manage parental expectations and anticipated reactions. Even though the principals in these schools may not officially honor parental requests, decision-makers, especially in the high performing schools, still reported making decisions with the preferences of parents in mind.

Even though only the one principal acknowledged honoring parental request, many of these educators had a previous experience to share with me. The principal of the high performing ability *balanced* school reported "My predecessor took parent requests and recorded them in an Excel spreadsheet and recorded whether or not they've been

fulfilled and he fulfilled most of them." When he arrived at the school, he initially kept the existing system in place but became troubled with what he observed. He reported,

> What I noticed also that first year was that kids had traveled together. Kids were telling me in fifth grade that they had been in class with so and so ever since kindergarten or I've never been in class with so and so. That seemed really fueled by parent identification.

The principal at the other consistently ability *balanced* school faced a similar situation when she arrived as a new principal at her school explaining,

> When I first came here, there was not a process for assigning students. It was basically, the process was that teachers were 'this kid should go to this teacher and this kid should go to that teacher.' Changes were made consistently and constantly from the time, late spring, until the beginning of the school year. They'd come in the door. The principal would listen to the parents and make the moves as they could. I know that one of the factors in my being hired to the school was that they had asked me the question about the student placement process. I briefly explained what the process I had used was, and I think that was part of the reason why [she was hired].

This principal and another reported particularly challenging situations with the parents in the teacher associations at their school. The same principal, from the lower performing consistently ability *balanced* school explained,"

> I heard parents say that if you were a member of the PTA you got what you wanted. I actually saw that. The PTA president came in and said, "Look, my kid's going to have this teacher and I'm the PTA president," and I said, "I'm sorry." I definitely burnt that bridge right off the bat.

The principal of the *varied* high performing school also experienced challenges due to the expectations among some members of the PTA. Despite valuing and appreciating the involvement of the parents in this affluent school, he also reported, "Philosophically I'm opposed when I have a major donor come and say, 'I'm really concerned about this'." He explained that these requests put him in an uncomfortable position, reporting, "I have been challenged, at times, of, 'What am I going to say now?'" And so, even though he was generally happy with the system he had inherited, like the other principal, he also felt that parental expectations toward classroom assignments needed to be adjusted. He reported, "The relationship with the PTA has reset to where we can have a productive relationship". Once parental expectations had been adjusted at his school, he reported, "This year I'm able to focus more on kids, which I like. It felt like the first two years were really around the adults in the system more than the kids in the system."

Even with readjustments in expectations and the adoption of well-established classroom assignment processes, some principals still reported that parental requests

presented challenges especially when relationships were formed with parents. The principal of the lower performing ability *balanced* school reported that she had worked hard to implement a classroom assignment process that she thought was fair but that this process was easier to adhere to when she was new to the school. Once relationships were formed with families, she reported that it became more difficult for her to not consider the preferences of families. She explained, "It was easier for me to do it because I didn't know who they were…Now I do and now they feel like, okay, we've talked, I brought you a latte, or whatever and we have this relationship."

However, she reported that even though it was sometimes difficult to not consider these parents' requests, "I also know that there are kids whose parents would never cross that line. They know this is the process and I've said this to parents at my principal coffees. I've said it to teachers that they know this is the process and they're expecting me, us, to follow it, and if we don't then we've really diluted our whole process." Still she reported, "It gets harder and harder actually…that stamina and so I've never stayed in a position more than five years and it's not just because of that. It's part of that. It's a whole heck of a lot easier to say at the very beginning, 'No'."

The only principal that acknowledged honoring parental requests reported a similar quandary when parents made requests that she found reasonable. The principal in the lower performing consistently ability *balanced* school explained,

> Then there's parents who have privileged backgrounds who are in here saying, 'you know' … and they're usually really polite and really like, 'I know. I never have requested before. I never thought I would do this,' blah blah… 'I know it's

> usually the policy not to … Would you consider? Is there space? If you're moving kids, could you …' It's hard to say no to that, because it's just so darn reasonable. Parents are advocating for their kids. You know? They are looking for the very best possible placement for their personal child. That's what they're supposed to do.

Another principal agreed that parents are simply advocating for their child, yet he was reluctant to honor these requests. He reported,

> They have to advocate for their child, that doesn't mean you should move the kid. You have to [say], "Okay, you're an involved parent. You're saying this isn't the best teacher. You're right. It's not the best teacher." The best teacher might need to teach another kid. That is hard to say.

There was some disagreement among the principals in this sample regarding whether parents were correct in their assessment of which teachers were most effective. The principal in the lower performing ability *grouped* school argued that parents may know the temperament that may be most effective for their child, but that they were often wrong when it came to the teacher that was most effective instructionally. She reported,

> Parents have a conception in their mind of what a good teacher looks like, and often the teacher they prefer has some cultural feature that they find comforting and that they feel like their student will find comforting, but objectively looking at

> the data of those teachers and how they perform, parents are pretty much wrong about who's going to teach your kid the most.

However, the principals in the higher performing ability *balanced* and *varied* schools reported that the parents in their school were typically correct about the teachers they also perceived to be most effective at their school. The principal in the *varied* school explained, "I think the teachers that parents are going after here, that they would like to be in that class, they are my best teachers."

An interesting theme emerged from the data that related to the role that parental preferences may play in driving improvements in education and teacher quality. A teacher in the consistently ability *balanced* lower performing school reported that her previous principal had been an ineffective leader. Besides being tasked with writing their own performance evaluations, the previous principal at her school permitted teachers to use their accumulated sick leave to take 3 week vacations, which required that entire classrooms be merged when substitute teachers could not be found. While certainly problematic, what I found compelling about these reported practices was that this teacher associated some of these problems to the fact that parents in her school did not complain about these practices. She reported, "See, this would never apply in suburban school districts ever, ever. Those parents are on it."

Two other principals shared this sentiment. The principal from the lower performing ability *grouped* school explained, "We need them to do that. We need every parent to do that because the pressure from the parents to have strong teachers is important. It's important to teachers. It's important to moving the system toward

effectiveness." Likewise, the principal who had reported moving his least effective teachers to the classrooms with clusters of advanced learning students so that they would feel pressure from these parents, explained, "They are advocating for their kids and that's okay. That's okay. It's not like you'd think badly of these parents for wanting what's best for their kids. We're all on the same team."

The Role of Teacher Preferences

Much of the literature on the distribution of teachers to students focuses upon the preferences of teachers. In this section, I report on teacher preferences as they relate to classroom assignments and the students assigned to their classrooms. Issues related to teacher status and power, but also securing lower pressure teaching assignments emerged from the data. But interestingly, overall, themes related to teacher preferences were not abundant in these data.

Among the educators reporting issues relating to teacher preferences, issues of status and power emerged. A teacher in the lower performing ability *balanced* school reported that, "I do think there is a pecking order. If you have a principal that's weak, teachers, they just use their power." According to these educators, teachers used their power to secure teaching assignments that provided them, "cache" but also easier teaching assignments. A teacher in the lower performing ability *grouped* school explained that some teachers in her school would "lobby for certain kids." She reported that some teachers would seek teaching assignments with higher achieving students because, "They're easier kids. Let's cut to the chase. They're easier kids to have."

A principal in the ability *balanced* high performing school had radically changed the classroom assignment process a year after arriving at his current school and no longer allowed teachers to choose their own classrooms. Many teachers were happy with these changes, yet some were not, and he and the teachers I interviewed reported that a number of teachers left the school after these changes were implemented. The principal reported that the teachers "felt like my taking control of this in this way was micromanaging something that was very significant in their own work life. They had a lot of control, especially the ones who were effective at controlling it. They had a lot of control over who was in their class."

Below he explains how the classrooms were created with the preferences of teachers in mind,

> It was something that we became very deliberate about because of the issues that I faced coming in. You might have seen one class [that] had all the special education students and the other one was free. The principal had this arrangement with teachers that they would load students and they would flip each year. You could have a year on and a year off. It really, it was all around the teachers. It was all around what they, what was going to make things easier for them.

Two principals in two of the high performing schools reported that some teachers would try to attract the attention of parents with the specific intention of garnering parental requests. The teacher of the high performing ability *grouped* school called these teachers,

"parent pleasers." The principal in the high performing ability *balanced* school reported that,

> The most charismatic and unabashed of them would actively recruit students. He would go to families in the hallway and say, "Hey." He was really friendly and [would] strike conversations. He would go drinking with the dads. He said, "You have got to request me for Joey next year," and that sort of thing.

He also reported the case of a first grade teacher who would inform the kindergarten teachers of the students he wanted assigned to his class the following year. The principal explained, "in that case, he is no longer here, he had a very weak instructional program." This principal believed that by seeking out his preferred students, that "he actively shaped what his experience would be." In the case of this teacher, the principal believed that he also lobbied for the siblings of his former students because doing so,

> Took a lot of pressure off of him because the idea was that they [parents] knew what they were getting so they wouldn't complain. I never got a single complaint. I think there are other reasons why I didn't get complains about him but I think parents … I think that the idea in his own mind was that they wouldn't really know any better.

Indeed, this principal, as well as the principal of another high performing school reported that the teachers that lobbied for certain students were sometimes the teachers with the "weakest practice." Still, the principal at this school explained that these requests were

validating for teachers at his school and that the status of a teacher was elevated by the number of parental requests they received. He explained,

> Teachers were aware of the requests. I had one of these teachers, in fact, tell me one year, he said, "It took me several years before I got as many requests as Susan did." There was a kind of a validating empowering thing and those validations were few and far between in education and so when it happened, it was nice for those people who got validation and it wasn't very nice for those who didn't.

A teacher who had been at this same school during the period with the previous principal corroborated this. She said, "I cannot deny it feels good to have families wanting you as their child's teacher. It feels good. I would say we all want that. I don't think that's a reason to have certain kids in your class necessarily but, who wouldn't want that?"

Scheduling Issues

Scheduling of services, especially in schools that have large proportions of students receiving special education and ELL services, require that some classroom assignment decisions take into consideration information about the delivery of services to students. The counselor at the lower performing *varied* school reported, "we really rely on that schedule and we feel that the ELL and Special Ed staff do a great job. The services come with the schedule, and so we must follow the schedule to deliver services."

The movement toward departmentalization and teacher specialization may also influence the decisions about how students are grouped and assigned to classrooms. No

less than four of the schools in this sample had recently implemented departmentalization in at least some of their grade-levels. In these cases, participants reported that students were assigned a "home room" but they received their math and/or reading instruction from one teacher designated to teach their ability level. This meant that although students might be balanced by achievement in their homerooms, they were ability grouped to receive their math or reading instruction. A principal of a *varied* high performing school explained,

> We've added one more complicating factor this year. We have two grade levels doing teacher specialization. All teachers see all kids. It really doesn't matter what homeroom you're in. If you're in second grade, you're going to see your homeroom teacher for two blocks of the day, but you're going to see Miss Lane, Miss Dalton, and Miss Sherr every day for at least one hour of the time. There, we end up being more pragmatic around, we 'Walk to Math' [model for delivering math instruction where students move in groups based on their ability]. [We ask ourselves] which kids need to walk to math at the same time? If we have two groups of twelve in a class, how do we keep those twelve together so that they can walk together? It's a pretty complicated process.

I don't have consistent data across the six case study schools, however, the findings suggest that as schools move toward departmentalization and teacher specialization, tensions associated with the teacher assignment portion of the classroom assignment process may lessen. When I asked a teacher at the *varied* low achieving school whether teacher characteristics were considered in the grouping and assignment of students to

classrooms she explained, “In the past, yes, but we just started doing departmentalizing.” In contrast to last year, where they had focused more on the matching of students and teachers, by implementing departmentalization, she reported that “it didn’t matter because they were seeing all three teachers. Going in this last year, so for the kids across the hall now, we looked at just the kids and did not look at the teachers.”

Administrators and teachers in three other schools that had implemented departmentalization also explained how this focused their attention to the dynamics of students, as opposed to the fit of a student/teacher match. It also allowed them to better manage parental requests for certain teachers. A teacher of a high performing ability *grouped* school explained,

> If we exchange classes, then the parents realize that, ‘oh, well’, let's say that Mrs. X is the good teacher in fourth grade, ‘I want my student to be in her class. I'm going to be really unhappy if it isn't.’ If all the teachers are exchanging classes, then that students going to get that teacher no matter what. So it diffuses a lot of, the whole issue of parent requests.

A principal from a higher performing *varied* school explained that clustering their advanced learning students across classrooms as opposed to placing them in one classroom and moving toward teacher specialization, allowed them to “try to ameliorate that effect. I get that every parents going to advocate for their child. I think the best way we could do it is by making every classroom rigorous with high expectations. When you do that, I think class placements becomes much, much less an issue.”

Chapter Summary

In this chapter, I explored other organizational and individual factors that influence classroom assignment decisions in elementary schools. Among the six-case study schools, I found that when educators prioritized achievement data students were ability *balanced*. In contrast, students were either consistently or sometimes ability *grouped* in the schools that had prioritized other information such as behavioral data or perceptions about which teacher would be a better "fit" for students. These findings are not surprising given that the outcome variable is student achievement, however, these varying prioritizations may give us a window into the ideas educators hold about how best to make classroom assignment decisions and the issues they think matter most when creating classrooms. They may also reflect the important contextual differences that exist among schools, which include the characteristics of students and teachers but also the established practices and "logics" about classroom assignments that exist in schools.

Yet, the finding that cohorts of students can sometimes differ in ways that influence the information that educators prioritize when forming classrooms illustrates how educators may adhere to their practice of prioritizing student achievement data when forming classrooms in most cases, but when considering the assignment decisions for a particularly challenging cohort of students, educators may choose to form classrooms that favor other characteristics. Using ideas associated with Inhabited Institutions theory, these adaptions demonstrate the ways that educators' may sometimes depart from more entrenched logics about classroom assignments at their schools as they seek alternative solutions to new problems.

In this chapter, I also found that schools appeared to be more successful in creating ability *balanced* schools when they relied upon student test score data and other measures of student achievement, as opposed to their "sense" of students' academic achievement. This finding suggests that even if teachers are very familiar with their students' achievement so that they "know close to what" their performance levels are, if they don't actually rely upon student achievement data, but rather their own conceptions of their ability level, they may be less effective at creating ability balanced classrooms.

However, even though educators can rely upon test score data and other measures of student performance to assess student achievement, there are some characteristics for which no consistent data exist. This is where more subjective information about students is incorporated. Information about, for example, student behaviors and social interactions and the student/teacher "fit" were considered vitally important sources of information among all participants in this study and schools that sought to systematically catalogue subjective data about students were the same schools that consistently or sometimes *balanced* students by prior achievement.

Interestingly, although the goal was to build a balanced classroom, when decision-makers incorporated information about the grade-level teachers, educators reported that assignments sometimes differed from what was intended. These findings indicate that even when teaching teams collaborate well together, it may simply be more difficult to create classrooms that are balanced by student achievement when teachers are also tasked with making decisions about which of their colleagues to assign a group of students.

It may also be that issues related to teacher effectiveness complicate these decisions. Administrators and teachers reported that concerns about variations in perceived teacher effectiveness at a grade level were among the most challenging aspects of this process, and that these issues influenced how students were grouped and assigned to classrooms. Sometimes decisions were made to ensure that students who had previously been taught by a teacher perceived to be less effective were in the following year assigned a very effective teacher. In other cases, parental pressures, or lack thereof, played a role in which students were assigned to the more or less effective teachers. I also found that student achievement data sometimes influenced principals perceptions of teacher effectiveness, and that some principals used classroom assignments to offer less effective teachers additional support through access to more effective teachers, or by using classroom assignments to encourage ineffective teachers to retire or leave the profession.

Managing parental preferences was an important aspect of the classroom assignment process in some schools. Interestingly, a few principals suggested that parental preferences and demands, while challenging and not always accommodated, had a positive component. They argued that parental demands helped drive education and teacher quality by placing pressure upon principals and individual teachers to provide their children with the best possible education. Finally, problems related to teacher status and power, but also securing lower pressure teaching assignments existed in some schools. Scheduling of special services was also a practical consideration that influenced classroom assignment decisions. I also found that the move toward departmentalization may lessen issues related to the student/teacher “fit” since students receive their math and

reading instruction from other teachers at the grade-level. However, this also resulted in students being grouped by ability to receive their math and English instruction, which may contradict notions of balanced, equitable classrooms at least during part of the day. This may illustrate how logics associated with classroom assignments may be adapted when other pressures, such as those associated with accountability policies, encourage educators to seek alternative solutions to raising test scores, which I explore in the next chapter.

Chapter 9: The Role of Accountability Pressures Upon Educator Preferences in the Assignment of Students to Classrooms

In this chapter, I examine how accountability pressures associated with the district's school segmentation policy and new teacher evaluation policy influence this process across and within schools. These findings are not focused on how accountability pressures *align* with the outcomes like the last two chapters, but rather how perceived accountability pressures *influence* the classroom assignment process, specifically the preferences of educators.

Organizational and Individual Characteristics as Buffers

Although I can't separate teachers' worries about the districts' new evaluation policy from broader, multi-layered state and national policy contexts, teachers' expressed concern for the district policy seemed to be influenced by their individual beliefs and experiences, but also those held by their principal. As table 9 illustrates, in the two schools whose principal reported being opposed to the district's new teacher evaluation policy, teachers did not express concern for the new evaluations. Both principals disagreed with the new policy, one stating he was "philosophically opposed" to the concept of measuring teacher performance via student test scores. Although they were not the only participants to question the reliability of the state achievement test, they both also cited this as another reason they opposed the new policy. One of these principal's opposition was so great that he instructed his teachers to assign all grade-level students to their rosters so that they would each be evaluated on the test scores of every student at the grade-level. A teacher at this school explained, " [Principal] has asked us that we assign

the entire 5th grade to us, so my scores will be based on the entire 5th grade, not just my class."

Table 9: Accountability Pressures Across School Contexts

School	Assignment Outcome	Principal reports of opposition to district evaluation policy	Teacher reports of pressure related to district evaluation policy
Evergreen Elementary	Balanced	No	Yes
Cascade Elementary	Balanced	Yes	No
Grandview Elementary	Sorted	No	No/Yes
Harbor Heights Elementary	Sorted	Yes	No
Baywood Elementary	Varied	No	Yes
Pinecrest Elementary	Varied	No	Yes

Note: Schools have been given pseudonyms. Shaded rows indicate level 2-3 schools (lower performing). Schools with no shading are at level 4-5 (high performing).

Not one teacher interviewed in these two schools expressed personal concern for the new policy, each attributing this to the overall school level achievement of their schools. A teacher from the ability *balanced* high performing school reported, "I think a lot of us are under the assumption because we're a high-achieving school that it's not going to affect us as much, so we have not talked a lot about it". When asked how he felt about the use of student growth measures in his evaluation, the teacher of the high performing *grouped* school said, "We have the luxury of kind of ignoring that."

These teachers reported little personal concern for the policy, yet every one of them discussed how these new evaluation criteria may influence the decisions of teachers in lower performing schools. A teacher from the ability *balanced* high performing school reported,

> Teachers aren't going to want to teach in schools where you have low-performing kids. Because if you're going to tie my job to a certain group of kids' test scores, everybody's going to want to work in high-performing schools and it's not because they don't care about kids that need more. It's because people don't want to lose their jobs.

However, not all teachers in the high performing schools in this sample felt immune to the impacts of the new policy. The teachers in the third high performing school were very concerned about how their students' test scores could impact their evaluations. Even though this school had the highest performance among all schools in the sample, and ranked among the top three K-12 schools in the district, the two teachers in this school reported paying increased attention toward their students' achievement data. One teacher explained,

> This is the first year I've actually noticed the data. Then I was, "Oh, my God, I have all these reds on my list from the [state accountability] testing, the state testing. It's the lowest....It made me feel vulnerable. But the highs make me feel vulnerable too.

This teacher reported that now that teachers are held accountable for their student's growth percentiles on the state achievement test, she and colleagues at her school have discussed which students they would prefer assigned to their classrooms. She

reported, “What we’ve talked about, that this grade team has discussed, is that the kids you really want are the middle kids because it’s easy to bring them up.” She elaborated,

> If their scores are anywhere from like say 40 to 80, those are the kids, and their behavior is fine? Those are good kids to have. Those 97 and above, those are scary to have. The low ones that are in the single digits, those are scary to have. If you take those into account when you’re placing that would be really good, but the middle ones, yes.

In contrast to the other teachers in the high performing schools, this teacher did not feel buffered from the impact of the new evaluation policy simply because her students’ were generally high performing. She explained where she believed the pressure came from,

> I would say I think it depends on your principal, whether you worry about it or not. They cannot be worried about it and be doing fine. We’re doing fine but our principal wants to go higher …I feel that pressure, I feel that pressure. That’s why I panicked when I looked at the list, not because I don’t think I can do a decent job but because I wonder if I can do a good enough job to make my growth measurement big enough.

Indeed, the principal at her school described the accountability pressures at the school as low,

> We're a [advanced learning designated] school. We have a privileged population. We have 10% free and reduced lunch. If you look at the growth and achievement, [the school] sits right here on the curve. There's three other schools that are here. There's a few more that have higher achievement, but we have both high growth and achievement. Unlike schools that are sitting here on the curve of growth and achievement, these schools feel tons of pressure, tons of, "You must do this. You have to have less recess, or more recess, or more reading, or less reading, or grant funding." People are visiting your school. Nobody visits ... The reality is, "Hey, you guys are doing good work. Keep it up.

Yet despite a lack of external pressure from the district, this principal reported "create[ing] our own internal ones" and being driven to use data to meet his "first goal" of becoming a "level five school." As a high performing school, to reach a level 5, this principal would need to maintain a high absolute score across all students, but also show achievement growth among his most high need students. Here this principal reports using an algorithm he had created to predict students' growth percentiles, targeting the performance of those at the lowest level of achievement, "we did some analysis around - we did some very detailed analysis, much more techie than this - of if you entered at the bottom quartile, so you're in the bottom 25% of the nation, where do you end up? How much do you grow?"

This finding illustrates how school leaders use student data to meet their goals, but it also offers further evidence that accountability pressures are not simply an issue for

lower achieving schools. While the majority of participants interviewed in the lower performing schools did, in fact, report feeling accountability pressures, the teachers in this school, which was among the very highest performing in the district, were not immune. As a result of the pressure they felt from their principal, the teachers interviewed reported paying greater attention to the prior achievement data for the students assigned to their classrooms, contemplating the data profiles of students most likely to "grow", and reporting preferences for the students they would most like assigned to their classrooms.

Divergences in the "Locus of Pressure" within Schools

The previous findings indicate that teachers' responses to accountability pressures largely reflect the attitudes of their principals. However, findings from this study also reveal that responses to pressures may, in fact, differ among teachers and administrators within the same school. In the two schools where principals were opposed to the new teacher evaluation policy, the teacher's attitudes toward the policy were generally aligned. They weren't worried. However, in the remaining four schools, teachers reported far more concern over this policy than did their principals. For example, the principal of the ability *balanced* lower performing school was supportive of the new teacher evaluation policy reporting, "I love it. I told the people that, you know, wrote the bill etc. I've written memos, letters and said 'Look! You've made my job actually easier because it's all, it's far more measurable.' However, a teacher at her school reported, "The student growth thing is like a looming thunder cloud over your head all the time and you just wait for the lightning to strike you."

The principal at this school was generally supportive of the policy, yet she did worry about how it might influence the way her teachers felt about their jobs and the students assigned to their classrooms. She reported that although her school went to great lengths to balance students across classrooms by achievement level, last year they didn't pay attention to the balancing of "subgroup" students. She explained that when she looked at the subgroup scores of her most high-need students, a large majority were in one teacher's class, "somehow or another, when we looked at students' group measures, the kids who were most needy, once it came out as a subset…when we looked at this year's data it was like 'How did all of those kids end up in that class?'" Describing this teacher as one of the best "in all the years that I've been a principal", she expressed a philosophical struggle: "Now, do I think that that's wrong? No because if I had a choice, I would place all of my most needy kids in the strongest teacher classroom." But she worried,

> The kids are definitely going to benefit but then, am I putting an undue stressor on her that could, down the road, affect her to either leave the profession or leave not just our school but the district, go somewhere else? …That's my fear, is that some of those people that are really good are looking at this, you know, 'I know I got some struggling students, more than my fair share, and guess what? Now I'm being affected by the student growth measures.'

With this principal committed to creating ability balanced classrooms, and armed with the experience of having imbalanced classrooms by "subgroup" students, she reported, "well, I'm hoping that I will be able to take that information and use that against that

[placement] rubric". Like the teacher who was now thinking about the types of students she wants in her class based on their prior test score data, this principal is thinking about how she might use these data to balance the *most* high need students among classrooms. As the principal of the *varied* high performing school reported, "the system's in place to support the kids in the system, but I think the leverage points have changed."

Conflicted priorities are also observed when administrators and teachers think about how to prepare for the arrival of new students at the start of the new academic year. The principal of the *varied* high performing school reported assigning fewer students to the class of the teacher perceived to be most effective at a grade level. He explained, "I actually want to leave my best teacher's enrollment lower, of course, so I can give them the new kids that are more transient that come in." Based on his experience, "those [students] tended to be not from a stable family. They were higher risk kids." Yet the teacher of the *varied* lower performing school reported a different tactic,

> I would say now that I know the system here, especially for any low income school, you want to be almost full towards the beginning of the year if possible because what really messes things up in the classroom, is you get a lot of kids that have been kicked out of other schools or have moved or their parents did not want their IEP, so they keep moving schools.

Faced with diverging accountability goals, these administrators and teachers face different motivations, and report relying upon test score data and what they know about students to inform their different strategies. As discussed earlier in these findings, nearly

all the principals in this sample expressed a conflict between creating ability *balanced* classrooms and assigning their most effective teachers to their lowest performing students. Yet teachers in this district, held individually accountable for the performance of the students in their classrooms, may face an analogous conflict. When asked how this new evaluation policy influences how she thinks about who is assigned to her classrooms, a teacher in a lower performing school, who had previously reported her history and preference for working with "high poverty" students explained, "Oh yeah, you want it fair for sure. Absolutely, more and more." The other teacher at this school reported,

> I think people, teachers, are now advocating more for themselves because of all that stuff. Before it was like 'that's fine, I am really good at teaching low readers', but now you are like, 'well yeah, but that low reader, no matter how good I teach, is still going to be below grade level by the end of the year because we are starting at three grade levels below', so regardless, maybe I don't want six of those, maybe I would rather have some kids that are a lot easier to bring up.

Lastly, although these findings indicate that administrators and teachers within the same school may respond differently to accountability policies, other evidence suggests that teachers within schools may also face different degrees of pressure. While I only interviewed teachers assigned to the high-stakes "tested" grades, these teachers reported feeling more pressure than their colleagues in non-tested grades. In some cases, this pressure encouraged teachers to seek reassignment away from the tested grades. A teacher in an ability *balanced* low performing schools explained that her colleagues in

non-tested grades are "not nervous because they're not in the 5th grade. If they were, they would be. I'm a little disappointed about it." She reported, "Nobody wants to teach 5th grade, it's really hard. In fact, [principal] had to beg me to teach it."

Reports of greater pressure among teachers in high-stakes "tested" grades can be attributed to the features of the accountability policy, yet another finding suggests that individual beliefs and experiences also have the potential to influence teacher responses. Even though they taught in a lower performing school with a principal very driven to use data to inform improvements in school level achievement, teachers in the ability *grouped* lower performing school, both veterans with over 20 years of experience, reported that they did not personally worry about the district's teacher evaluation policy. Acknowledging that he was about to retire, one teacher explained, "We try and get our kids to do as well as we can on the tests and things like that, but we're not going to be fired over it…. I think it's age and wisdom. I'm not worried."

Yet both veteran teachers also reported that their younger colleagues were indeed feeling the pressures. The other teacher explained, "I know some teachers are feeling that pressure...A lot of the new teachers, it's a lot of stress. Young teachers, it's going to be tough. I see some of our young teachers here that are just working hard, and I feel bad for them. I keep telling them, 'It's going to be okay.'"

Chapter Summary

In this chapter, I examined how accountability pressures associated with the district's school segmentation policy and new teacher evaluation policy influenced classroom assignment decisions across and within schools. I found that perceived

pressures stemming from the district's accountability systems did not directly align with whether a school was high or lower performing. Factors such as the principal's attitude toward the teacher evaluation policy and individual teacher experience seemed to mitigate the effects of these policies in some schools and among some individuals. Individuals reporting greater pressure from the district's accountability policies also reported paying greater attention to student achievement data and described using these data to assess their personal accountability pressures when they received their classroom assignment lists.

As reported in chapter 7, some principals facilitated the use of student achievement data by creating data tools for teachers to use when forming classrooms. Interestingly, not all of these principals were proponents of the new teacher evaluation policy. For example, at Cascade Elementary, the ability *balanced* high performing school, even though teachers did not report feeling individual accountability pressure, teachers still used achievement data to form classrooms because these data were made available to them on the classroom assignment placement tools. In contrast, at Grandview Elementary, the ability *grouped* lower performing school, the teachers I interviewed also did not feel pressure from the district's accountability policies because they were about to retire. Even though they had access to student achievement data, however, they did not use these data to form classrooms.

These findings suggest that perceived accountability pressures may influence the attention that educators pay toward student test score data and the anxiety they feel when they receive their class lists, but that such pressures alone do not focus educators on test score data when forming classrooms. When these data are made available, teachers

use them regardless of the pressures they feel. This reiterates the important role principals play in setting the tone with regard to test score data, but also how principals, even those that oppose the district's accountability policies, may still encourage teachers to use these data when forming classrooms because they find them valuable for creating ability balanced classrooms.

Chapter 10: Summary and Implications

Although only slightly more than one-third of elementary schools across this district consistently created classrooms that balanced students by academic achievement, all administrators and teachers in the six-case study schools valued and worked toward this goal for philosophical and practical reasons. The favoring of balanced classrooms among educators echoes the findings from Burns and Mason's (1998) study of combination classroom assignments, and leaves us wondering, if only some schools are actually successful in creating ability balanced classrooms, are these genuine intentions or simply aspirations that may be overridden when other priorities emerge? As these findings suggest, across and within schools, administrators and teachers face conflicting pressures with regard to student assignment. While the goal of balanced classrooms might serve as the backdrop to classroom assignment decisions, the emergence of education policies that hold individual educators accountable for the achievement of their students may change the story.

Individual accountability policies are based primarily upon student scores on state achievement tests. Yet these policies are new, and we know little about how educators use these data to meet their accountability goals. Similar to the research on teacher distribution, studies examining data use practices tend to focus upon outcomes, leaving us to make assumptions about *how* data informed decisions. Few studies make connections between data use processes and their outcomes (Turner & Coburn, 2012). This study cannot determine causal relationships between data use and the different classroom assignment outcomes, yet it does find that some variations in data use practices align with different outcomes. It isn't surprising that when teachers are provided with data tools and

structured time to make classroom assignments that they also report more consistent and structured approaches to data use in these decisions. But it is interesting to find that these different data use practices align with the different assignment outcomes, revealing important information about the essential role administrators play in this process if creating classrooms balanced on student achievement scores is a valued outcome.

This study does not examine the comparative virtues of balanced or ability grouped classrooms. But the variations in outcomes and the reported conflicts in philosophy about how best to distribute students to teachers and classrooms illuminates the internal struggle educators' face when forming classrooms. How do they create classrooms that honor their individual and organization values that may prioritize social justice and the equitable distribution of education inputs and their concerns about meeting their individual accountability goals? Inhabited institutions theory provides a helpful lens for examining these classrooms assignment decisions in the face of competing logics. Even though a school may have established procedures for assigning students to classrooms and an entrenched logic that favors balanced classrooms, the theory recognizes that individuals have agency and, when making decisions, respond to personal interests as well as professional commitments. Entrenched logics provide the frames of reference that guide individual sense making and vocabularies in schools, which may explain why all educators interviewed reported that they valued balanced classrooms. However, logics evolve and multiple logics may co-exist, which might explained why educators reported sometimes creating classrooms to direct the most effective teachers toward the most high need students, which allowed educators to honor a separate logic.

The finding on the divergences of accountability pressures within schools may be another example of the unintended consequences of some performance based accountability policies. This finding suggests that administrators and teachers within the same schools, facing divergent accountability goals as a result of overlapping policies, may begin to value different classroom assignment outcomes. Although balanced classrooms may, indeed, be the favored outcome, competing accountability priorities may create tensions within schools and result in data informed responses that produce different outcomes for different people. For instance, a principal may favor ability grouped classrooms, targeting their most valuable resources (effective teachers) toward those in greatest need (low performing students), yet teachers may favor ability balanced classrooms, or in the case of more distortive responses, classrooms comprised of students they believe they can best "grow". No teacher reported using achievement data to their own benefit when forming classrooms, although many teachers did describe their preferences for certain student data profiles.

That the attitudes toward accountability policies differ among teachers and administrators *within* schools provides evidence that even the same accountability policy, depending upon how it is designed, may shift practices and priorities among educators within the same school. Currently the majority of outcomes based teacher evaluation policy designs hold teachers accountable for the students assigned to their classrooms. Yet as schools move toward departmentalization, many teachers find themselves accountable for students they don't teach in the tested math and reading subjects. A principal in this study responded to this problem by assigning all grade-level students to all grade-level teachers. The teachers understood his motive, yet they had mixed feelings

about his response, and both expressed concern about being held accountable for large groups of students they would never instruct. Future performance based policy designs need to thoughtfully consider how they focus accountability within schools to avoid creating conflicting priorities within schools which may, in turn, lead to tensions among colleagues, more distortive uses of data and unintended assignment outcomes. These policies also need to account for the fact that educators often respond to multiple accountability systems and that the "locus of pressure" may differ in these policies.

Until policies hold all teachers in a school equally accountable for student achievement, future research would benefit from examining how data use practices may differ in the non-tested grades. Results from this study support Cohen-Vogel's (2011) finding that administrators use student performance data to inform teachers' grade-level assignment, often favoring effective teachers placement in "tested" grades. Future research might examine whether student grouping decisions differ in the non-tested grades, especially if teacher effectiveness is found to vary among grade-levels. Finally, in some ways, examining how accountability pressures may influence responses to classroom assignments may be premature in this district. This is the first year that administrators and teachers received growth percentiles for each student in their schools and classrooms. No administrator expressed apprehension toward their own performance based evaluations, however, many teachers expressed concern for this policy, and contemplated how it may influence their future priorities when forming classrooms. It will be important to examine whether classroom assignment outcomes begin to change across the district once administrators and teachers really begin to feel the impact of these polices.

By shining the light on student assignments to classrooms, this research has the potential to help educators reflect on their practices, and perhaps a re-think the ways students and teachers are assigned to classrooms. Principals discussed using student achievement data and their knowledge of teachers' effectiveness to distribute students fairly across more or less effective teachers. If students are assigned to classrooms in ways that limit their systematic exposure to more or less effective teachers, then perhaps we will also see a lessening of the student achievement gaps among different groups of students.[11]

For researchers and policy-makers, this work has the capacity to help us reconceive the teacher distribution problem and the factors we consider important. These findings help to uncover the factors that influence classroom assignment decisions that are well understood by educators, but not captured in the data currently available to researchers. Exposing these may help researchers consider the limitations of what can be known from the data at hand, consider new methods for collecting important data, as well as broaden our conception of the inequitable distribution of teachers at the classroom level.

[11] This does not solve the problem of identifying more or less effective teachers, but until that debate is resolved, more equitable student assignment practices may be a step toward alleviating within-school inequities.

References

Abernathy, T., Forsyth, A., & Mitchell, J. (2001). The bridge from student to teacher: What principals, teacher education faculty and students value in a teaching applicant. *Teacher Education Quarterly*, *28*(4), 109–119.

Agasisti, T, Ieva, F. & Falzetti A.M (2013). Heterogeneity, school-effects and achievement gaps across Italian regions: further evidence from statistical modeling. Presented at the 39th annual conference of the Association for Education Finance and Policy. San Antonio, TX. Retrieved from http://www.aefpweb.org/sites/default/files/webform/39th/MOX%20Agasisti%20et%20al%202014.pdf

Ballou D. (2012). *Review of The long-term impacts of teachers*: Teacher value-added and student outcomes in adulthood. Boulder, CO: National Education Policy Center.

Ballou, D. (2000). *Contractual constraints on school management: Principals' perspectives on teacher contracts*. In D. Ravitch & J. Viteritti (Eds.), City schools: Lessons from New York. (pp. 89-116). Baltimore: Johns Hopkins University Press.

Betts, J.R., Rueben, K.S. & Danenberg, A. (2000). *Equal resources, equal outcomes? The distribution of school resources and student achievement in California*. San Francisco: Public Policy Institute of California.

Binder, A. (2007). For Love and Money: Organizations' Creative Responses to Multiple Environmental Logics. *Theory and Society, 36,* 547–71.

Booher-Jennings, J. (2005). Below the bubble: "Educational triage" and the Texas account- ability system. *American Educational Research Journal, 42*, 231–268.

Brown, A. B. & Clift, J.W. (2010). The unequal effect of adequate yearly progress: Evidence from school visits. *American Educational Research Journal*, 47(*4*), 774-798.

Boyd, D., Lankford, H., Loeb, S. & Wyckoff, J. (2004). Placing the preparation and recruitment of teachers into a labor market framework. In F. Hess, A. Rotherham, & K. Walsh (Eds.), A qualified teacher in every classroom: Apprising old answer and new ideas (p. 149-172). Cambridge, MA: Harvard Education Press.

Boyd, D., Lankford, H., Loeb, S., Ronfeldt, M., & Wyckoff, J. (2011). The role of teacher quality in retention and hiring: Using applications to transfer to uncover preferences of teachers and schools. *Journal of Policy Analysis and Management, 30(1),* 88-110.

Braun H. I. (2005). *Using student progress to evaluate teachers: A primer on value-added models*. Princeton, NJ: Educational Testing Service (ETS).

Briggs D., Domingue B. (2011). *Due diligence and the evaluation of teachers*. Boulder, CO: National Education Policy Center.

Burns, R.B. & Mason, D.A. (1998). Class formation and composition in elementary schools. *American Educational Research Journal, 35(4),* 739-772.

Cain-Caston, M. (1999). A survey of opinions of North Carolina school administra- tors regarding factors considered most important in hiring teachers for their first teaching positions. *Journal of Instructional Psychology, 26*(2), 69–73.

Center on Education Policy. (2007). *Choices, changes, and challenges: Curriculum and instruction in the NCLB era.* Retrieved from http://www.cep-dc.org.

Clotfelter, C.T., Ladd, H.F. & Vigdor, J.L. (2005). Who teaches whom? Race and the distribution of novice teachers. *Economics of Education Review, 24(4),* 377–92.

Clotfelter, C.T., Ladd, H.F. & Vigdor, J.L. (2007). Teacher-student matching and the assessment of teacher effectiveness. *Journal of Human Resources, 41,* 778-820.

Cohen-Vogel, L. & Osborne-Lampkin, L. (2007). Allocating quality: Collective bargaining agreements and administrative discretion over teacher assignment. *Education Administration Quarterly*, 43, 433-461.

Cohen-Vogel L. (2011). "Staffing to the test": Are today's school personnel practices evidence based? *Educational Evaluation and Policy Analysis, 33(4),* 483-505.

Coleman, J. (1966). Equality of educational opportunity, Government Printing Office, Washington, DC.

Collins, C. & Gan, L. (2013). Does Sorting Students Improving Scores? An Analysis of Class Composition. National Bureau of Economic Research Working Paper Series, 18848. Retrieved from http://www.nber.org/papers/w18848

Creswell & Clark (2007). Designing and Conducting Mixed Methods Research. Thousand Oaks, CA: Sage Publications, Inc.

Creswell, J. & Clark, P. (2011). *Designing and conducting mixed methods research, 2nd edition.* Thousand Oaks, CA: Sage Publications, Inc.

Creswell (2013). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. Thousand Oaks, CA: Sage Publications, Inc.

Dieterle, S.G., Guarino C.M., Reckase, M.D., Wooldridge, J.M. (2012). How do principals group and assign students to teachers? Finding evidence in

administrative data and the implications for value-added." Presented at the 37th annual conference of the Association for Education Finance and Policy. Boston, MA.

Donaldson, M. L. & Johnson, S. (2010). The price of misassignment: The role of teaching assignment in Teach for America teachers' exit from low-income schools and the teaching profession. *Educational Evaluation and Policy Analysis 32(2),* 299-323.

Ehlert M., Koedel C., Parsons E., Podgursky M. (2012). *Selecting growth measures for school and teacher evaluations*. Washington, DC: National Center for Analysis of Longitudinal Data in Education Research (CALDER).

Elfers, A. M., Plecki, M. L., & Knapp, M. S. (2006). Teacher mobility: Looking more closely at "the movers" within a state system. *Peabody Journal of Education, 81(3),* 94-127.

Everitt, J. G. (2012). Teacher Careers and Inhabited Institutions: Sense-Making and Arsenals of Teaching Practice in Educational Institutions. *Symbolic Interaction*, *35(2),* 203-220.

Feng, L. (2010). "Hire today, gone tomorrow: New teacher classroom assignments and teacher mobility." *Education Finance and Policy, 5,* 278- 316.

Finley, M.K. (1984). Teachers and tracking in a comprehensive high school. *Sociology of Education*, 57(4), 233–43.

Glazerman S. M., Potamites L. (2011). *False performance gains: A critique of successive cohort indicators*. Princeton, NJ: Mathematica Policy Research.

Goldhaber, D. (2002). The mystery of good teaching, *Education Next*, 2 (2) (2002), pp. 50–55.

Goldhaber D., Theobald R. (2012). *Do different value-added models tell us the same things?* Palo Alto, CA: Carnegie Knowledge Network.

Hanushek, E. (1986). The economics of schooling, *Journal of Economic Literature,* 24(3),1141–1177.

Hanushek, E.A. (1992). The trade-off between child quantity and quality. *Journal of Political Economy*, *100(1),* 84-117.

Hanushek, E.A., Kain, J.F. & Rivkin, S.G. (2004). Why public schools lose teachers. *Journal of Human Resources* 39, 326-354.

Harris D. N., Anderson A. (2013). *Does value-added work better in elementary than in secondary grades?* Palo Alto, CA: Carnegie Knowledge Network.

Harris, D.N. & Sass. T. (2007). Teaching training, teacher quality, and student achievement. CALDER Working Paper No. 3.

Harris, D.N., Rutledge, S.A., Ingle, W.K. & Thompson, C.T. (2010). Mix and match; What principals really look for when hiring teachers. *Education Finance and Policy*, 5(2), 228-246.

Horoi & Ost (2014). Disruptive Peers and the Estimation of Teacher Value-Added. Presented at the 39th annual conference of the Association for Education Finance and Policy. San Antonio, TX. Retrieved from http://www.aefpweb.org/annualconference/download-39th

Jennings, J. (2012). The effects of accountability system designs on teachers' use of test score data. *Teachers College Record*, 114(*11304*), 1-23.

Johnson, S. M., & Donaldson, M. L. (2006). The effects of collective bargaining on teacher quality. In J. Hannaway & A. Rotherham (Eds.), Collective bargaining in education: Negotiating change in today's school (pp. 111-140). Cambridge, MA: Harvard Education Press.

Kalogrides, D., Loeb, S., & Beteille, T. (2011). Power play? Teacher characteristics and class assignments. CALDER Working Paper No. 59. Retrieved from http://www.urban.org/uploadedpdf/1001530-Teacher-Characteristics-and-Class-Assignments.pdf.

Lankford, H., Loeb, S., Wyckoff, J. (2002). Teacher sorting and the plight of urban schools: A descriptive analysis. *Educational Evaluation and Policy Analysis*, (*24)1*, 37-62.

Luekens, M.T., Lyter, D.M., Fox. E.E., & Chandler, K. (2004). Teacher attrition and mobility: Results from the teacher follow-up survey, 2000-01. Washington, DC: National Center for Education Statistics.

Loeb, S., Kalogrides, D., & Beteille, T. (2011). Effective Schools: Teacher hiring, assignment, and retention. National Bureau of Economic Research Working Paper Series, 17177. Retrieved from http://www.nber.org/papers/w17177.pdf.

Loeb, S. & Reininger, M. (2004). Public policy and teacher labor markets: What we know and why it matters. East Lansing: The Education Policy Center at Michigan State University.

Maier, A. & Youngs, P. (2009). Teacher preparation programs—and teacher labor markets: How social capital may help explain teachers' career choices. *Journal of Teacher Education,* 60, 393-407.

Marsh, J. A., Pane, J. F., & Hamilton, L. S. (2006). *Making sense of data-driven decision makingin education: Evidence from recent RAND research* (No. OP-170). Santa Monica, CA: RAND.

Merriam, S.B. (2009). Qualitative research: A guide to design and implementation—Revised and expanded from Qualitative research and case study applications in education, 2nd Edition (1998). San Francisco: Jossey-Bass.

Meyer R. H., Dokumaci E. (2010). *Value-added models and the next generation of assessments*. Princeton, NJ: Center for K–12 Assessment & Performance Management.

Miles M. B., Huberman A. M. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage

Miles, M.B., Huberman A.M, & Saldana J. (2014). Qualitative Data Analysis: A Methods Sourcebook. Thousand Oaks, CA: Sage Publications, Inc.

Monk, D.H. (1987). Assigning Elementary Pupils to Their Teachers. *The Elementary School Journal* 88(2), 166–87.

National Education Association. (1990). Academic tracking (Report of the NEA Executive Committee Subcommittee on Academic Tracking). Washington, DC.

Nunn, M. L. (2014). *Defining Student Success. The Role of School and Culture*. Rutgers, NJ: Rutgers University Press.

Oakes, J. (1985). *Keeping track: How schools structure inequality*. New Haven, CT: Yale University Press.

Oakes, J., Gamoran, A., & Page, R. N. (1992). *Curriculum differentiation: Opportunities, outcomes, and meanings.* In P.W. Jackson (Ed.), Handbook of Research on Curriculum (pp. 570-608). Washington, DC: American Educational Research Association.

Oakes, J. (1990). *Multiplying inequalities: The effects of race, social class, and tracking on opportunities to learn mathematics and science*. Santa Monica: RAND.

Page, R. N. (1991). *Lower track classrooms: A curricular and cultural perspective*. New York: Teachers College Press.

Paufler N.A. & Amrein-Beardsley, A. (2014). The Random Assignment of Students Into Elementary Classrooms: Implications for Value-Added Analyses and Interpretations. *American Education Research Journal*. 51(2), 328-362.

Pedulla, J. J., Abrams, L. M., Madaus, G. F., Russell, M. K., Ramos, M. A., & Miao, J. (2003).*Perceived effects of state-mandated testing programs on teaching and learning: Findings from a national survey of teachers*. Chestnut Hill, MA: National Board on Educational Testing and Public Policy.

Pivovarova (2013) Peer Effects in the Classroom: Evidence from New Peers. Presented at the 39th annual conference of the Association for Education Finance and Policy. San Antonio, TX. Retrieved from http://www.aefpweb.org/sites/default/files/webform/39th/peers13.pdf

Rivkin, S.G., Hanushek, E.A. & Kain, J.F. (2005). Teachers, schools, and academic achievement. *Econometrica*, *73(2),* 417–58.

Rivkin S. G., Ishii J. (2008). *Impediments to the estimation of teacher value added*. *Paper presented at the National Conference on Value-Added Modeling*. Sponsored by the Wisconsin Center for Education Research (WCER), Madison, WI.

Rockoff, J.E. (2004). The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data. *American Economic Review,* 94(2), 247–252.

Rothstein J. (2007). Do Value-Added Models Add Value? Tracking, Fixed Effects and Causal Inference. CEPS Working Paper, No. 159. Retrieved from http://www.princeton.edu/~ceps/workingpapers/159rothstein.pdf

Rothstein J. (2009). *Student sorting and bias in value-added estimation: Selection on observables and unobservables*. Cambridge, MA: The National Bureau of Economic Research.

Rothstein J. (2010). Teacher quality in educational production: Tracking, decay, and student achievement. *Quarterly Journal of Economics*, 125(1), 175–214. doi:10.1162/qjec.2010.125.1.175

Rosenbaum, J. E. (1976). Making inequality: The hidden curriculum of high school tracking. New York: Wiley.

Rutledge, S.A., Harris, D.N., Thompson, C.T. & Ingle, W.K. (2008). Certify, blink, hire: An examination of the process and tools of teacher screening and selection. *Leadership and Policy in Schools*, *7(3),* 237-263.

Sanders, W., & Rivers, J. (1996). *Research project report: Cumulative and residual effects of teachers on future student academic achievement*. University of Tennessee, Value-Added Research and Assessment Center.

Stecher, B. (2004). Consequences of large-scale high-stakes testing on school and classroom practice. In L. Hamilton, B. M. Stecher, & S. Klein (Eds.), *Making sense of test-based account-ability in education* (pp. 79–100). Santa Monica, CA:

RAND.

Stinebrickner, T. (2001). A dynamic model of teacher labor supply. Journal of Labor Economics, 19, 196-230.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Boston: Pearson/Allyn & Bacon.

Theel, R. K., & Tallerico, M. (2004). Using portfolios for teacher hiring: Insights from principals. *Action in Teacher Education*, *26*(1), 26–33.

Thornton, P.H. & Ocasio, W. (2008). *Institutional Logics*. Sage Handbook of Organizational Institutionalism. Retrieved from http://www.patriciathornton.com/files/9781412931236-Ch03.pdf

Thornton, P.H., Ocasio, W. & Lounsbury, M. (2012). *The Institutional Logics Perspective: A New Approach to Culture, Structure, and Process.* Oxford, UK: Oxford University Press.

Wilson, B. J., & Schmits, D. W. (1978). What's new in ability grouping? *Phi Delta Kappan*,59, 535-536.

Zimmer, R. (2003). A new twist in the educational tracking debate. *Economics of Education Review*, 22, 307-315.