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School Leaders Sense-making and Use of Equity-related Data to Disrupt Patterns of Inequality

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A dissertation submitted in partial satisfaction of the
requirements for the degree Doctor of Philosophy
in Education

by

Moses Eziukwu Chikwe

2013
ABSTRACT OF THE DISSERTATION

School Leaders Sense-making
and Use of Equity-related Data to Disrupt Patterns of Inequality

by

Moses Eziukwu Chikwe

Doctor of Philosophy in Education
University of California, Los Angeles, 2013

Professor Robert Cooper, Chair

This qualitative phenomenological study explored how school leaders in seven urban high schools in California make sense of and use equity-related data to create more equitable educational opportunity for their students. Equity-related data here refers to school data (accountability data included) that demonstrate unequal access to educational opportunity and disparity of outcomes for subgroups of students. Data has been part of the U.S. educational system increasingly since 1965. The amount of data available has accelerated even more in the last decade in the wake of the No Child Left Behind (NCLB) Act. Much of that data has been collected and used by educators for a broader category of assessment and measurement of students and school performance. Recently, however, there is an increasing interest in and research about how school leaders can use data for equity purposes.

Utilizing a qualitative phenomenological approach, this research examined how 19 school leaders, at seven urban high schools in the state of California, make sense of and use equity-related data to disrupt patterns of inequality. Through interviews, observation, shadowing, and collection of documents and paper artifacts, this study
collected data that demonstrate how these school leaders were making sense of data at their schools and using such to create more equitable opportunities for students. This study suggests that school leaders’ interpretation and use of equity-related data could lead to the transformation and equalization of educational opportunities for all students. However, school leaders do not make sense of data in a void. They come to data with some set of mindscapes or ideological frame of reference that has been shaped by social background, beliefs, values, education, etc. It is important to understand the mindset with which school leaders come to data. This study then provides understanding and perspective that is too often missing in educational research about school leaders and data-driven decisions.
The dissertation of Moses Eziukwu Chikwe is approved.

Mary K. McCullough

John S. Rogers

Tyrone C. Howard

Robert Cooper, Committee Chair

University of California, Los Angeles

2013
Dedication

This dissertation is dedicated to my late parents, Mr. Moses Nwamadi Chikwe and Mrs. Anthonia Nwaobiara Chikwe, who instilled in me the sense of justice and industry.
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Chapter 1: Statement of the problem

As Senator Edward M. Kennedy (2006) stated, “Few things are more indispensable to the United States than good schools. Today more than ever, a quality education is the gateway to achieving the American dream and the best guarantee of equal opportunity, good citizenship, and an economy capable of mastering modern global challenges” (Harvard Educational Review, pp.453-457). This statement by Senator Edward M. Kennedy captures the critical role quality education plays in the United States, a great and democratic nation. Yet every day the media present accounts of high dropout rates and widening achievement gaps between whites and students of color\(^1\). Not long ago, Education Trust published a report that shows the U.S. is lagging behind other industrialized nations in K-12 education. The U.S. has become the only industrialized country where children are less likely than their parents to earn a high school diploma (Darling-Hammond, 2007; ETS, 2007; Habash, 2008). Only about 69% of high school students in the U.S. graduated with a standard diploma in 2000, down from 77% in 1969 (Barton, 2005). Approximately 1.23 million students of the public high school class of 2008 failed to graduate with a diploma (Editorial Projects in Education Research Center, 2008). For the past five years now, one in four high school students in the U.S. dropped out, and more than one in three minority students dropped out (Habash, 2008). These dropouts most often were students of color in urban areas. The dropout rate looks even gloomier for minorities in California where approximately 87% and 91% of Whites and Asians respectively, of 2011-12 cohorts, graduate as compared to about 66% and 74% of African American and Latino students (California Department of Education, 2013).

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1 The term students of color in this study refers only to African American and Latino students.
2 Equity-related data refers to school data (accountability data included) that demonstrate unequal access to educational opportunity
This high dropout rate and underachievement for minority students has a correspondingly far-reaching effect on the number that earn a college degree. Only about 17% of African American young people between the ages of 25 and 29, and only 11% of Hispanic youth, earned a college degree in 2005, compared with 34% of White youth the same age (Darling-Hammond, 2007; U.S. Census Bureau, 2005). Evidence suggests that dropping out of high school and low school performance are correlated to negative economic outcomes. High dropout numbers have also been found to account for a disproportionately higher percentage of minorities in the nation’s prisons and on death row (NCES, 2008; Rumberger & Lim, 2008). The negative consequences of high school dropouts, underperformance and low graduation rates of a subgroup of students are immense and challenging to the social fabric of the U.S. This is even an issue of social justice, which some scholars have identified as created by unequal opportunity and access to school resources. This situation requires the sincere and consistent intervention of both government and school leaders to remove barriers to equal educational opportunity and achievement.

Nevertheless, it must be acknowledged that there is no easy solution to this unequal educational opportunity in the U.S. Evidence shows that several government policies have tried to address, but have failed to remedy this dismal situation of inequality in the U.S educational system. Since the time of the Cold War and Sputnik until now, the federal government has tried through several educational policies and measures to resolve the imbalance in the U.S. educational system. It seems, however, that there is no easy solution to this dilemma. One of the major government strategies has been to hold schools, parents, and students accountable through the enforcement of accountability
policies. This strategy increasingly makes available accountability data to the schools, parents, and the public. The accountability data when properly interpreted make more obvious the equity and access issues in the U.S. educational system and call attention to the need for improvement. This is why it is important to examine how school leaders make sense of the data and use it to disrupt patterns of inequality at their schools.

**Aim of study**

This study explored how school leaders both make sense of and use equity-related data to transform their schools and promote equity and access for all students. School leaders’ sensemaking and use of such data could lead to the transformation and equalization of educational opportunities for all students. Scholars have come to value the place of data in school improvement and closing the achievement gap (Coleman et al., 1997; Diamond & Spillane, 2004; Goldring & Berends, 2009; Muller & Schiller, 2000; Paige, 2006; Shouse, 1997; Skrla, et al., 2009).

The use of data for school improvement has been part of the American educational system increasingly since 1965. For decades, the state accountability system and increasingly the federal policy have engaged in producing school outcomes and achievement gap data. For instance, in 1999 the state of California passed the Public Schools Accountability Act (PSAA) to hold students, schools, and districts accountable for improving the performance of students. The federal education policies have added another layer of accountability and data production. In the last decade the amount of data that is available has accelerated in the wake of the No Child Left Behind (NCLB) Act.

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2Equity-related data refers to school data (accountability data included) that demonstrate unequal access to educational opportunity and disparity of outcomes for subgroups of students.
Even the present administration’s “Race to the Top,” rewards states for their commitment to improving teacher effectiveness, data systems, low-performing schools, and academic assessments. Without doubt this focus will increase emphasis on data and data usage. Both the state and federal accountability systems not only have made data abundantly more available, but also have created an accountability atmosphere where schools are sanctioned or incentivized for progress in student achievement.

Yet the simple existence of data does not produce school improvement or lead to closing the achievement gaps. “The data must be analyzed, and school decision making must be linked to the data” (Skrla, et al., 2009, p.5). The school leaders play a substantial role in the interpretation and use of the accountability data at their various school sites to improve learning outcomes for the historically underserved subgroups of students. According to the Wallace Foundation (Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2005), school leadership is second only to teacher quality among school related factors that influence student learning. Recently, there is increasing emphasis on how school leaders can use data for equity purposes. School leaders are seen as the frontline civil rights workers in a long-term struggle to increase equity and access for all students. They act as policy mediators and can use the accountability data in thoughtful and transformative ways to disrupt and change the patterns of inequality at their schools.

The focus here is on school leaders\(^3\) rather than on an individual position of leadership, e.g., office of the principal leader or principal at the school. It is to understand the personal leadership capacity distributed widely within an institution to make sense of

\(^3\) The term school leaders is used in this study to designate those who hold position of authority at the school – principals, counselors, department heads, deans of discipline, teacher leaders, etc., or make decisions that impact the school.
equity-related data. It is more about institutional leadership effectively exercised than leadership at a particular positional level. While I understand that a leadership position is important, it is really the capacity for shared leadership that is critical. It is not one’s positional authority and legitimacy, but one’s personal ability to provide vision for creating the conditions for achievement. Hence, this study understands leadership more broadly than positionality but sees it to encompass those on campus who have responsibility to make sense of and use data or be informed by data to make decisions around equity issues. These include the principal, vice principal, department heads, data analyst, counselors, dean of discipline, team leaders, etc. It is therefore important to explore the institutional culture and practice that these school leaders together have created around the interpretation and use of data. And this institutional culture, more often than not, is determined in the individual school context.

In their longitudinal study of two high performing and two low performing elementary schools in Chicago, Diamond & Spillane (2004) found that school leaders’ use of data varied depending on the probation status of the school. For school leaders at the probation schools, accountability data was used to focus attention on getting off of the probation status leading to superficial measures based on external threats. But the interpretation and use of data in the high performing schools was different. At both high-performing schools, the full range of test score data was used to inform strategies of instructional improvement. They used test scores to track student performance. “In both of the high-performing schools school leaders used data to identify macro-trends across the school and focus attention on areas of specific needs” (Diamond & Spillane, 2004, p. 1164). The interpretation and use of the data at the probation schools were less focused
on its instructional implications. There was less repackaging of the information and limited analysis of specific trends. There was less meaningful and systematic strategy for turning test results into useful information for instructional change. Schools interpret and make sense of data differently depending on their individual, cultural, political, and bureaucratic contexts. Similarly, school leaders interpret and make sense of equity-related data in differing ways depending on individual background and social justice mindscapes.

While many scholars have engaged in strong debate on the accountability policies and data, only few have focused attention on the critical role school leaders play in interpreting and making sense of the accountability data and other equity-related data at the school context (Diamond & Spillane, 2004). Even in the literature that supports school leaders’ use of data for school improvement and equity work, there is rarely any exploration of the important role school leaders play in interpreting and using data. The underlying assumption in the literature that emphasize the use of data for school reform is that school leaders are value neutral in their sense-making and use of data (Diamond & Spillane, 2004; Goldring & Berends, 2009). Contrary to this, the present study contends that school leaders, like all people, do not make sense of data in a void. They come to data with an ideological scheme or frame of reference that has been shaped by training, beliefs, values, past experience, etc. They come to data with what Sergiovanni (1993) calls the heart and head of leadership – set of beliefs and values, with mindscapes or theories of practice.

Evans (2007) drawing from Weick’s definition sees sense-making as “a cognitive act of taking in information, framing it, and using it to determine actions and behaviors in a way that manages meaning for individuals” (p. 161). Zerubavel (1997) suggests this
cognitive act is very much conditioned by our social contexts, which give us the mental optics to both see and frame reality. There is a social matrix by which we filter things and make sense of things we perceive. “In order to make sense of novel situations, we thus often try to mentally force them into such pre-existing schemas” (p. 24). These preexisting schemas help to convince us of certain beliefs and not others.

Research has shown convincingly that a belief system is, at one and the same time, the best predictor of an individual’s behavior and the hardest thing to change (Bandura, 1986; Dewey, 1933; Pajares, 1992; Rokeach, 1968). Educators’ beliefs influence their knowledge, perceptions, judgments, and practices. “Understanding the nature of beliefs, attitudes, and values is essential to understanding future administrators’ choices, decisions, and effectiveness regarding issues of race, class, gender, language, sexuality, and disability” (Brown, 2006, p. 703). What a school leader believes, values, and dreams, as well as the interior world and theories of practice of any particular school leader, matter in relation to how he or she approaches data that show achievement gaps among subgroups of students. The school leader’s frame of reference is important when he or she looks at data that demonstrate unequal access to highly qualified teachers, to gifted and talented programs, honors classes, and other opportunities. It is then beneficial to explore how school leaders are interacting with equity-related data to ensure equal access for the underserved student groups. What set of norms and ideas, what mindscapes that school leaders bring to bear on this data become very important.

Some scholars have identified belief in social justice as one of the paramount mindscapes that impacts support for school leaders to ensure equity and access for all their students (Bates, 2006; Theoharis, 2009; Zajda, et al., 2006). Gewirtz (1998)
provides the meaning of social justice, which is built around the ideas of disrupting and transforming conditions that instantiate marginalization and exclusionary processes. For Goldfarb and Grinberg (2002) social justice is “the exercise of altering these [institutional and organizational] arrangements by actively engaging in reclaiming, appropriating, sustaining, and advancing inherent human rights of equity, equality, and fairness in social, economic, educational, and personal dimensions” (p. 162). Theoharis (2007) draws from the definitions of social justice by Gewirtz (1998) and that of Goldfarb and Grinberg (2002) to inform his understanding of social justice leadership. For him social justice leadership comes into play when school leaders “make issues of race, class, gender, disability, sexual orientation, and other historically and currently marginalizing conditions in the United States central to their advocacy, leadership practice, and vision” (p. 223). This necessitates inclusive school practices for students with disabilities, English Language Learners (ELL), and other traditionally segregated groups in schools. As Sapon-Shevin (2003) notes, inclusion is not just about disability, it is essentially about social justice. Through inclusion as a model of social justice we build a world that is fit for everyone. Bates (2006) suggests, the best way to achieve social justice is to direct resources to those who have been under resourced.

Consequently, I define social justice school leaders as school leaders who are committed to breaking the patterns of inequality and eliminating the conditions and barriers that preclude students from achieving equal educational outcomes. It is important to note that social justice can only be achieved when school leaders are committed to the issues of equity and justice. This commitment to issues of equity and justice should not be left to the choice of a willing few school leaders. It should be part and parcel of the
vocation of all school leaders to initiate mechanisms that will assure equal opportunity for all children entrusted to their care. This is one of the arguments that this study is making, that all school leaders charged with the responsibility of leading the affairs of their individual schools should be committed to issues of social justice. It would be helpful then to discover how far the ideas of social justice shape the attitudes of school leaders in urban high schools as they make sense of and use data for school improvement.

The underlying hypothesis and rationale of this study is that schools which have social justice minded and committed school leaders, who are equipped to interpret and use equity-related data in meaningful ways, have a much higher possibility of closing the achievement gap. Evidence shows that depending on the school leaders’ social justice orientation, their response to these equity-related data differ greatly. Mindscapes, meaning-making schemes, concepts or perspectives about how the world works are often personally held and influence much of what leaders do. Bourdieu (1984) captures this when he says that the voir (the capacity to see) is only a function of the savoir (concept or knowledge). In other words our capacity to make sense of and use equity-related data is determined by our mindscapes. The belief system of school leaders helps create meaning and provides a basis for decisions. “What we do makes sense if it matches our mindscapes. And different mindscapes represent different realities: what makes sense with one mindscape may not make sense with another. Different realities can lead people to behave quite differently” (Sergiovanni, 1992, p. 8). Similarly, equity-related data can be interpreted and used differently by different school leaders based on their social justice mindscapes. Some people might say if this is so, then there is no objective reality.
Rory (cited in Benjamin, 1990), however would argue differently. He suggests that for the most part, the world of reality exists independent of our beliefs, but the truth about reality does not; truth for each of us is a function of the lens with which we see and describe reality. In other words our mindscapes determine what is true about any particular reality. Consequently, Sergiovanni (1992) argues that not all leadership mindscapes are equal. “Some fit the world of practice better than others. The better the fit, the more successful the practice will be” (p. 9). The traditional mindscapes that some school leaders use today to make sense of equity-related data seem worlds apart from the reality of today’s unjust social conditions in schools and the ever-changing demographics.

Consequently, the general purpose of this study was to identify and understand the unique and complex interaction that high school leaders have when they engage with data for school improvement. Ensuring both equity (fair participation and equal benefits of the educational process) and access (access to the networks, curriculum, and school experiences that ensure a high quality education) in American public education remains one of the greatest challenges of the twenty-first century. This problem is particularly acute for minority high school students from low-income urban communities. High school is a very crucial period in the life of all young people, especially in urban communities. It is at the high school that they receive a lasting impression, academic and otherwise, that will set them on the trajectory to future life success. High school helps them to become college-ready and can remedy prior bad school experience.

Therefore, school leaders in urban high schools seem to have a unique and challenging responsibility to transform their schools through the use of equity-related
data. Yet it must be acknowledged that such leadership in making sense of and using data to transform schools can be very daunting because of the many layers of inertia built into the educational system that often frustrate honest effort, by school leaders. For instance, the pressure of increased accountability for students’ performance on standardized tests has pushed many school leaders to narrow the curriculum to basic reading and math skills. Thus creating a climate where school leaders do not interpret and use equity-related data in meaningful and transformative ways (Diamond & Spillane, 2004). It has pressurred them to do things right instead of doing the right things (Sergiovanni, 1992).

The lack of data-analysis skills by school leaders, along with “antidata” cultures that might exist in schools, will inhibit any honest effort to initiate change, and will contribute to the lack of adequate time to analyze and use data, limited availability of technical and financial resources, and absence of shared vision for use of data (Goldring & Berends, 2009). These can easily stymie the efforts of any school leader with social justice mindscapes and sincere interest in removing the barriers to equal educational opportunities. It will be worthwhile to examine the political and bureaucratic environment that may or may not allow school leaders to transform conditions of inequality. It is equally important to understand how school leaders engaged in reform can use such data even in the midst of these limitations to realize equity and access for disadvantaged students. As advocates for all students, school leaders are challenged to develop an approach to address the inequalities they see at their schools that limit the potential and promise of the students, especially students of color who are traditionally underserved by the school system.
Although many schools are failing to fulfill this duty, others are meeting the challenge of serving each and every student (Oakes et al., 2000; Riester, Pursch, & Skrla, 2002). The literature on leadership for social justice identifies schools that have demonstrated tremendous success not only with white middle-class and affluent students, but also with students from varied racial, socioeconomic, linguistic, and cultural backgrounds (Scheurich, 1998; Theoharis, 2009). The seven school leaders that Theoharis interviewed enacted their social justice agenda through raising student achievement, improving school structures, recentering and enhancing staff capacity, and strengthening school culture and community. They used three of these advancements toward justice as strategies to improve student achievement, which is the core need for marginalized students. All the school leaders felt that they have a duty and a moral obligation to raise achievement for marginalized students both in state mandated tests and in locally created assessments. The school leaders improved the structures of the schools by eliminating pullout and segregated programs, detracking the math programs, and creating inclusiveness and heterogeneity in ability and background of students’ grouped instruction. The school leaders felt that the structural change was not only necessary, but the right thing to do because they believed that systems that provide separate programs maintain unequal levels of instruction, maintain marginalization of some students, and create a situation whereby some students receive inferior education.

Equally, Taysum and Gunter (2008) found that school leaders were able to understand conditions of inequality and injustice because of their past experience of a similar condition. This experience empowered the school leaders to advocate for the underprivileged group at their schools. It seems then that there are school leaders who are
ready to take on the challenge in order to break the pattern of inequality at their schools. This is what school leaders should be – social justice leaders – even under the accountability pressure and other limitations.

**Research Question**

In this era of accountability the use of data for school improvement is no longer a leadership option. It has become imperative that school leaders should continuously use data if they want to monitor progress and make required intervention plans for school improvement. The continuous use of data calls into question whether there are more or better things to do for students’ learning. It could create a sense of dissatisfaction motivating school leaders to transformative action geared to positive outcomes or it could lead to discouragement that pushes school leaders to adopt defensive postures or use data in less a thoughtful manner. The outcome depends on the way school leaders engage with the data.

Continuous use of data for school improvement is a hallmark of successful and effective educational leaders. “Today’s effective educational leaders use data extensively to guide them in decision making, setting and prioritizing goals, and monitoring progress. They use data to define needs, set goals, plan interventions, and evaluate progress” (Goldring & Berends, 2009, p. 5). School leaders play an instrumental role in the interpretation and use of data to transform and break the patterns of inequality at their various schools. It was therefore critical to explore the mindscapes with which they come to data, how they make sense of data and use it for school improvement.

As important as using data for school improvement is, the purpose gets defeated if school leaders make sense of and use data with less than social justice mindscapes. The
achievement gaps will continue to widen, while the underrepresented subgroup of students will continue to suffer from unequal educational opportunities if school leaders do not intervene to transform the barriers that preclude these students from being served by our educational system. This qualitative phenomenological study provides an insight into how school leaders are interacting with equity-related data in their effort to equalize opportunity for their students. In this research I sought to better understand the following:

a. What are the factors that influence the social justice mindscapes of school leaders in their sense-making and use of data?
   i. To what extent, if any, do social justice ideas shape these mindscapes?
   ii. How do school leaders conceptualize social justice as equity?

b. What are the school leaders’ sense-making and practices around data?
   i. What is the relationship between a leaders’ practice and their mindscape?
   ii. How do school leaders conceptualize the role of data working to advance equity and social justice?
   iii. How do the rhetorical claims of school leader’s views of equity and social justice influence their school practices?

c. How does the political and bureaucratic environment mediate the relationship between school leaders’ mindscapes and their practices in interpreting and using data?

This study utilized critical social theory and political race theory to explore the practices of school leaders and how they were both making sense of and using equity-
related data to break the patterns of inequality at their schools. Critical social theory originated from critical theory, which comprises a whole range of theories that take a critical look at society. Critical theory gives individuals who are social agents a critical perspective on the normally taken-for-granted social issues dispelling the illusions of ideology. It provides a critical guide to human action, and it is inherently emancipatory, supplying the knowledge needed for social transformation. It has at its foundation, the works of Karl Marx and Sigmund Freud (Dictionary of Critical Theory, 2001). Critical social theory drawn from the works of Freire examines critically the social issues and struggles and seeks ways of transforming social institutions. Critical social theory challenges educators to take action on social issues. As Brown (2006) noted:

Social justice activists espouse a theory of social critique, embrace a greater sense of civic duty, and willingly become active agents for political and social change. They challenge exclusion, isolation, and marginalization of the stranger; respond to oppression with courage; empower the powerless; and transform existing social inequalities and injustices. Educational leaders committed to equity understand and create opportunities for learning of all students by dealing with issues of context and achievement. (p. 711)

The larger sociopolitical issues are analyzed and connected to the daily school routines, procedures, curriculum and textbook adoption, and classroom pedagogies. School leaders as social justice activists are able to analyze, interpret, and use data generated by the accountability policy in ways that pay attention to the differential schooling and opportunities to students of color. Educational activists know the responsibility they have in teaching other people’s children. They work to provide them with the highest quality of education possible as if they were their own children.

In doing this critical social analysis it was obvious that race was implicated. Therefore, I equally employed political race theory to help me diagnose the racial politics
in this study. Guinier and Torres (2002) state that “political race illustrates how the lived experience of race in America continues to serve an important function in the construction of individual selves as well as in the construction of social policy” (p. 12). Political race, in essence, is an attempt to illuminate how race is linked to power and resource allocation. More specifically, my use of a political race framework situated the actions of school leaders in this study within the discourse of race to determine how their interpretation and use of equity-related data was informed by their internalized and unreflected beliefs regarding their students’ race. This helped to shed light on the unexamined assumptions, beliefs, and values of the school leaders around the issues of race.

A political race framework possesses three major elements: (1) it has a diagnostic function; (2) it embraces an aspirational goal; and (3) it seeks to jumpstart an activist project. As a diagnostic tool, political race is used to determine how race influences the projections and expectations of the society and how these projections and expectations are internalized and used in the construction and evaluation of students’ attitudes by the school leaders. Additionally, the framework allowed the researcher to explore the relationship between school leaders’ social justice mindscapes as manifested in their interpretation and use of equity-related data. Within this diagnosis, the racial nature of the school was discussed in regards to how school leaders understood the multiple and embedded inequality at their schools and their responsibility to transform and break the barriers that limit opportunities for some students. Political race theory, therefore, helped the researcher to explore the role of politics in and around the schools in shaping how school leaders both made sense of and used equity-related data.
This qualitative phenomenological study documents how school leaders at seven urban high schools in the State of California were attempting to create the learning conditions for increased equity and access on their school campuses through their sense-making and use of equity-related data. The qualitative phenomenological approach involved an equity audit, which was accomplished through descriptive statistical analyses. It also entailed an in-depth interviewing, observation, shadowing, collection of documents, and attendance of faculty meetings to illuminate how school leaders at these seven schools created the structures, policies, and practices to increase students’ achievement by providing a more equitable and rigorous learning environment.

The equity audit afforded me the tool to do descriptive statistical analysis on students’ achievement data, teacher quality data, and programmatic data. These three areas of focus were drawn from the equity audits developed by Linda Skrla and her colleagues (2009). Equity audits are tools school administrators can use to identify embedded and internal patterns of inequities at their schools. Linda Skrla and her colleagues argue that equity strategies should be both planned and systemic and focus on the core areas of teaching and learning process particularly curriculum, instruction, school environment and culture. It is through such equity activities, which eliminate inequities, that the possibility of realizing equal educational outcomes for each student and between diverse subgroups of students can be assured. In each school in this study, I used the equity audit to identify and understand the embedded patterns of inequities among the subgroups of students. Gathering such equity-related data through an equity audit involved the use of descriptive statistical analysis.
The resulting data from the equity audit was used in the qualitative phenomenological investigation. Merriam (2009) states that qualitative research is interested in uncovering and understanding the meaning of a phenomenon, how people construct their worlds, interpret their experiences and the meaning they ascribe to those experiences. This research was critical in exploring the phenomenon of sensemaking by school leaders of equity-related data. As a qualitative research this study aimed at the adequacy of interpretation rather than prediction and control as might be characteristic of quantitative research (Merriam, 2009). In addition, this study emphasized the recurring features of phenomenological research by capturing the phenomenon from the perspective of the local actors through a process of deep attentiveness, temporarily suspending prior beliefs and judgments regarding the phenomenon (epoché) in order to objectively collect and analyze data, phenomenological reduction, horizontalization and imaginative variation (Patton, 2002). Moustakas (1994) states that “in phenomenological studies the investigator abstains from making suppositions, focuses on a specific topic freshly and naively, constructs a question or problem to guide the study, and derives findings that will provide the basis for further research and reflection” (p. 47). A qualitative phenomenological approach was the best to explore the phenomenon of how school leaders in urban school contexts made sense of and used equity-related data to transform their schools, as it allowed me the flexibility of an in-depth exploration of this phenomenon across multiple school sites (Yin, 2009). It also offers me the best tools – interviews, participant observation, collection of artifacts and documents – to examine and find explanation for this phenomenon. It provided the opportunity to have an in-depth
interaction and dialogue with the key informants, which a quantitative approach would not have been able to facilitate.

Studying the school leaders sense-making and use of data across the seven schools contexts afforded me the opportunity to explore how these school leaders behaved, how they defined their world, what was important to them, how and why they did and said what they did, and what structural or contextual features that influenced their thoughts, behaviors, and relationships. This approach allowed greater understanding of how school leaders perceptions were formed and the significance it played in their interpretation and use of data.

Consequently, the intersection of these methods made my study more robust since it enabled me to explore the school leaders’ interpretation and use of equity-related data to increase equity and access for all students and the potential impact on students’ achievement, graduation rate, and overall satisfaction with school. Additionally, this approach helped me to triangulate data (Yin, 2006) by doing contrasting comparisons and establish converging lines of evidence to make my findings robust. Through this comprehensive data collection design, this research identified and produced practical knowledge that is useful to schools and policymakers as they seek ways to close the ever-widening achievement gap and dropout rate for minority students in the U.S.

Significance of study

Critical to this study was the look at the high school leaders’ interpretation and use of equity-related data, and more so, the mindscapes that impact this process. This was important because as Skrla, et al. (2009) observed in working with administrators and aspiring school leaders, many school leaders do not have a clear, accurate, or useful
understanding of the level of inequity at their school settings and districts. They lack an adequate social justice mindscape for understanding and analyzing the embedded and multiple patterns of inequality. Equally, administrators and teachers generally avoid the issue of race as a possible factor in the achievement gap (Pollock, 2001). They easily give reasons external to school as the cause of failure of children of color and low-income students (Haycock, 2001). “Thus, educators, school leaders in particular, need assistance in learning to recognize that there are large and persistent patterns of inequity internal to schools – patterns that are embedded in the many assumptions, beliefs, practices, procedures, and policies of schools themselves” (Skrla, et al., 2009, p. 5).

But as advocates for all students, school leaders need to develop an approach to addressing inequalities at their various schools that limit the potential of students of color. Above all they need a clear, accurate, and useful understanding of these inequities. To be able to do this, Brown (2006) suggests that school leaders should actively engage in reflection over their ontological and epistemological assumptions, values and beliefs, context and experience, and competing worldviews. They should be empowered to understand and critically analyze and grow in their ability to challenge the many forms of social oppression and inequality. This is why it was critical to explore the conceptual frame of reference with which school leaders analyzed and made sense of the unjust system of educational opportunities at their schools. This study have implications for the way school leaders are trained at the universities and how much they are engaged in issues that impact social inequalities and common sense ideologies in the U.S. society.

While there is more and more emphasis on the use of data for school improvement in the context of the accountability policy debate, few scholars have
focused attention on the critical role school leaders play in interpreting and making sense of the accountability data and other equity-related data in the school context (Diamond & Spillane, 2004). The interpretation and use of accountability and other equity-related data can hinder or help the purpose of such data. This study then contributes to the debate and focus around data and data usage for school reform. It calls attention to reality that school leaders do not come to data in a value-neutral manner. Rather they approach data with ideological schemes, sets of beliefs, values, and frame of reference that have been shaped by training, practice or political and bureaucratic environments in which they operate. This study definitely contributes to the discussion of the use of data to inform reform.

While this study did not intend to make direct correlation of school leaders sense-making and use of equity-related data with student achievement, it is easy to see how this could become a potential outcome. We cannot talk of closing the achievement gap between diverse groups of students while certain subgroups continue to be disproportionately assigned to special education, lower track programs, discipline programs, less qualified teachers, etc., and school leaders fail to work to disrupt this pattern of inequality. This study challenges such a silence and calls for action by school leaders. It underscores the important role school leaders have in realizing the promise of education for all children. It calls them to go beyond the status quo and become social justice advocates for the underprivileged and vulnerable of our society. In what follows, I will explore some of the literature surrounding the issues of social justice leadership, inequalities at school, accountability data, sense-making, and use of data.
Chapter Two: Literature Review

Equity-related Issues at School

The evidence is clear and shocking that a subgroup of the U.S. public school population experiences negative and inequitable treatment on a daily basis (Ladson-Billings, 1994; Scheurich & Laible, 1999; Valenzuela, 1999). The underachievement among African American and Latino students in conventional measures of school success is an issue that many researchers and scholars have researched. Some like Haycock (2001) have raised alarm at their findings and have called it a national crisis. Others have proffered solutions to resolve the achievement gap (Howard, 2008; Ross, 1999; Seyfried, & Ick-Joong, 2002). African American and Latino students seem to be overrepresented in least successful groups on standardized tests e.g., Measures of Literacy and Numeracy (California Dept. of Education, 2004). By these measures it seems that these students do not have the same level of academic achievement as the White and Asian students. Both the state and national standardized test scores indicate overall low performance. Additionally, many of the students do not make it to college, or they drop out of their high school programs. Therefore, there seem to be fairly well described differential patterns of achievement, with African American and Latino students as a whole, significantly falling behind the other ethnic groups (National Center for Educational Statistics, 1994, 2001, 2013; U.S. Bureau of Census, 2001; Weiss, 2003).

While we hear daily about test scores and the achievement gap of this underrepresented population, it seems those scores are not connected to the challenging conditions that these students grapple with on daily basis. Environmental and social conditions have been identified as influencing and shaping the academic achievement of African American and Latino students. Myron Orfield (2002) describes the problems
mostly associated with inner cities and at-risk suburbs as concentrated poverty, racial segregation, crime, and community disinvestment. Susan Easton (2006) paints a similar picture of the type of neighborhoods that exist in inner cities. She tells of Jeremy, a Puerto Rican boy who was exceptionally bright but lived in the ghetto of Harford Connecticut: “Jeremy lived with frequent gunshots and street slayings. He could watch daily drug dealing out his window” (p. 5). African American and Latino students daily traverse a geography of danger in order to get to school. There is severe spatial limitation. Brilliant as these students are, their environment seems to militate against their academic progress and promise.

The high dropout rate and achievement gap are perpetuated and reinforced by a myriad of interrelated and overlapping factors. Three key factors are: poverty, segregated neighborhoods and school quality. These three key factors are linked, and a vicious cycle is created by their confluence (Orfield & McArdle, 2006). The United States has the incredible distinction of having the highest poverty rate in the industrialized world despite having one of the highest average incomes (Berliner, 2006; Smeeding, Rainwater, & Burtless, 2001). From 2001 – 2003 the number of people in poverty rose from 32.9 million to 35.9 million and to 37 million in 2004 (Center on Budget and Policy Priorities, 2005). With the current global economic crises these figures will be considerably higher. Evidence shows many of those living in poverty are Blacks and Latinos who are the working poor (Anyon, 2005). Poverty entails significant daily compromises of the basic necessities of living and developing one’s potential. The lack of a proper diet, shelter, and education compromises individual development, and has negative effects on children’s cognitive development, verbal ability, early school achievement, and mental health.
(Handler & Hasenfeld, 2007; Nauer, et al., 2008). When this is combined with poor neighborhoods and less stimulating home environments, the odds for dropping out and underachievement increase. This is a socially unjust condition that has been created by unjust economic and social structures.

The poor are always the ones who live in neighborhoods of concentrated poverty, and African Americans and Latinos are the majority. Residential location determines your future. If you live in concentrated poverty then disadvantages occur in relation to teaching, school funding and opportunities for networking. Research shows that concentrated poverty is powerfully associated with the lack of both school opportunities and achievement levels (Anyon, 2005; Berliner, 2006; Fine et al., 2004). Schools in low-income areas tend to have a higher turnover of teachers and students, untreated health problems, lower involvement by parents, less experienced teachers, less challenging curriculum, relative lack of availability or complete absence of AP classes, lower per student expenditures, high dropout rates, and lower test scores (Anyon, 1997; Darling-Hammond, 2007; Dawkins & Braddock, 1994; Eaton, 2001; Frankenberg, Lee & Orfield, 2003; Oakes, 1986; Orfield & Lee, 2005; Orfield & McArdle, 2006; Orfield, et al., 2004; Schofield, 1995; Wells & Crain, 1994). There is a severe lack of resources in schools in low-income areas. Students attending these schools tend to have weaker network connections to college and jobs. Consequently, highly discriminated neighborhoods tend to produce highly deprived schools and high dropout rates. This lack of resources leads to low academic achievement, which has been consistently associated with high dropout rates (Ekstrom, et al., 1986). On the contrary, suburban schools tend to provide a more college-oriented curriculum, have experienced teachers, and offer competitive curriculum
(Orfield & McArdle, 2006). This tends to lead to higher academic performance and graduation rates at these schools.

There seems to be an unbreakable social mechanism that has perpetuated and reproduced this system of neglect and corresponding poor performance of students of color. Roscigno (2000) argues that race and class shape school attendance patterns and contribute to highly segregated school contexts. Family background shapes residential options. Where one resides, in turn, has large impact on the school one attends and consequent achievement. Social class and race are important in patterning the schools children attend. Orfield and McArdle (2006) agree that the most profound form of inequality is location-based inequality of educational opportunity. Residential location structures and shapes educational opportunity and success.

Many scholars have identified unjust social structures, policies, and practices at the school level as responsible for the underperformance of students of color, especially African Americans and Latinos. Scholars (Oakes, 1985; Rousseau & Tate, 2003) have observed that labeling literacy and the expectations of key persons at school do influence the self-perception and school outcomes of African American and Latino students. The over-assignment of students from certain groups, particularly African American males, to special education has long been recognized as a problem of gross inequity with U.S. schools (Artiles, 1998; Losen & Orfield, 2002; MacMillan & Reschy, 1998). According to Madhere (1991), some educators have over the years consistently identified African American and Latino students as culturally deprived, educationally disadvantaged, learning impaired and “at-risk.” African American and Latino students have been overrepresented in the low track classes and underrepresented in the gifted and talented
academic programs. There is even the concern that the current accountability policy push for educators to raise performance for all groups will pressure some school leaders to over-identify students for special education in order to qualify them for special testing (Texas Center for Educational Research, 2000; Townsend, 2002).

Such data interact with the fact that African American and Latino students are frequently the victims of negative attitudes and lower expectations of teachers, counselors and administrators (Fine et al., 2004; Gary, et al., 1992; Graham, 2005; Oakes, 1985; Rousseau & Tate, 2003). This type of deficit model approach has very negative consequences on how African American and Latino students perceive their academic ability. This is true because as students continue to be bombarded by these negative and discriminatory academic perceptions and labels they begin to internalize them and gradually begin to believe in that stigma of inferiority (Fischer et al., 1996) resulting in self-fulfilling prophesy. They may also start experiencing alienation in school.

Connected to this sense of alienation that students of color go through on a daily basis at school are the curriculum instructional practices. The school curriculum is a serious factor in the students’ academic achievement. It has been based historically on the European American perspective. As Sleeter & Grant (1991) noted, minority cultures have been represented in fragmented ways, such as the celebration of Black History Month or Cinco de Mayo. Textbooks, an important component of the school curriculum, also represent minority cultures and people in a limited fashion. These textbooks, they also pointed out, often limit descriptions of diverse people’s contributions and perpetuate stereotypes. The limited and fragmented representations of minority cultures may have a negative impact on minority students’ opportunities to acquire the skills needed to
succeed in mainstream society. Arguably, moving communities towards a situation where all cultures are recognized and respected, may be one way of removing barriers to social justice (Taysum & Gunter, 2008).

The lack of connection of the school curriculum to the cultural background of the minority students has been identified as responsible for the low school performance and high dropout rates of Black Americans and Hispanics. Teachers have the responsibility to critically evaluate and improve the curriculum for all students. This can be achieved by their knowledge of the students’ cultural/ethnic backgrounds. Heath (1983) typified this in her landmark ethnographic study of African American working-class students in the Trackton community. She revealed that teachers who understood their students’ cultural/ethnic backgrounds were able to engage the students by asking questions that followed the form and function of questions asked in the students’ homes and communities. And this, according to the teachers who participated in Heath’s research, enhanced their students’ academic performance.

This idea of making the curriculum responsive to the needs of all students from different cultural stratification was also central to the work of Tiedt & Tiedt (1990). Apart from enhancing students’ academic achievement, this will help every student to understand who he/she is, thereby building self-esteem and self-identity. From this knowledge base he/she will extend learning to include other cultures, hence remove the fear of others, which is the product of ignorance. Cultural diversity is recognized today as an asset rather than a liability. The various groups contribute to the national culture while maintaining their distinct identity. As a result, individuals can be proud of their cultural identity and heritage instead of being ashamed of their difference. There is need to have
highly qualified teachers, who will be both culturally sensitive and proficient, to teach students from various cultural groups.

However, having these highly qualified teachers who are culturally proficient sometimes appears to be difficult for schools in poor neighborhoods due to the lack of sufficient funding. There is general agreement among scholars that access to high quality teachers is one of the key factors at the school level that influences student achievement. But measurement of teacher quality can be a very complex thing. Whatever the measurement, it seems students of color and students from low socioeconomic status have access to teachers with less experience, less education, less training, and without certification (Ingersoll, 1999; Lankford, Loeb, & Wyckoff, 2002; Skrla, et al., 2009). In such schools also there is evidence of facility dilapidation and the instructional materials and textbooks are severely lacking. This lack of resources and qualified faculty has been blamed for the underachievement of Black and Latino students (Fine, et al., 2004; Hammond, 2007; Oakes, 1986) who populate those schools. It is socially unjust to have these students go through schooling under such conditions.

A far greater equity concern within these schools in poor neighborhoods with the shortage of highly qualified teachers is the uneven distribution and access to these qualified teachers. There is a tendency to have highly qualified teachers clustered in the advanced grouping classes, such as gifted and talented, advanced, honor, pre-Advanced Placement (Pre-AP), Advanced Placement (AP), or International Baccalaureate (IB) classes. The argument here is not that these teachers should not teach these advanced classes but that there should be equitable distribution of the resources that these teachers bring. “All students should have equal opportunity to learn from the most highly qualified
teachers on campus” (Skrla, et al., 2009, p.34). Not all campuses will have equal number of teachers who are highly qualified. However, the pattern of distribution of the highly qualified teachers at each campus determines equitable or inequitable access by students to the resources that these teachers bring. The central question of equity in such schools is about distribution of the resources across a particular campus. Where are the experienced teachers assigned, where are the inexperienced teachers clustered, where are the teachers who are not certified or who are teaching outside the areas for which they hold certification? (Skrla, et al., 2009).

Another area of equity and social justice concern is the discipline policy at the schools. Students who are involved with the discipline system at their schools are frequently removed from the regular classroom and, thus, do not have equal access like their peers who are not regarded as discipline problems. As a result of frequent discipline referrals for African American and Latino boys, they spend much less time in the regular classrooms, and, thus, have differential opportunities to learn the curriculum (Skrla, et al., 2009). According to the authors just cited, some people might argue that these inequities are somehow produced by nature or by society and that educators can do little to change them. But the authors argue just the opposite “that these inequities are in large part produced by the systems in place in our schools. It is our attitudes, assumptions and practices that produce the data we see in these areas, and those things are all within our control and can be changed” (p. 46). The school leaders can work to turn around these unjust structures at their schools and by so doing create more equal access to educational opportunities and outcomes for all students. I shall now turn attention to how and what
reform-minded school leaders are doing to change situations of inequality at their different school sites.

**Social Justice Leadership**

With this disproportionate educational opportunity for students of color, what then, is the role of the social justice leader in underprivileged schools? We look to social justice theorists and leaders to draw some of the principles that should guide the practice of school leaders. It is evident from research that the disenfranchised student population will not be able receive the education they deserve unless intentional steps are taken to change schools on their behalf with both equity and justice consciously in mind (Theoharis, 2007). He further observes that social justice leadership goes beyond what traditionally is good leadership which has failed to challenge the status quo and has historically denied minoritized students equal access and opportunity to education. Good leadership should be what social justice leadership provides. Social justice in schools does not happen by chance; school leaders initiate it.

Social justice leaders see education as a force for liberation that helps lift the poor from their oppressed condition (Freire, 1970). But the pressure of increased accountability for student performance on standardized tests has pushed education leaders to narrow curriculum to basic reading and math skills. Bates (2006) argues against the one-size-fits-all ideology that stems from the accountability movement, as stripping schools of humanity and the complex reality of human interaction. It decontextualizes learning and so limits the chance to address individual school’s problems and needs. The

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4 Minoritized, unlike minority, emphasizes the process of minoritizing and insists that the relative prestige of cultures are constituted in social relations of power and agency (Mukherjee, et. al., 2006). Those who are minoritized are subordinated in power relations by those belonging to the dominant culture (Tettey & Puplampu, 2006).
unified, single concept of what students should know, value, and be able to do, narrows the curriculum. School leaders are challenged and often unable to accommodate the needs of a diverse population.

Government focus on equality of standards ignores the disparities that exist among people that create advantages and disadvantages for individuals. Sen (1992) in “Inequality Reexamined” argues that greater equality will require a shift from the present sole concentration on academic outcomes to a more balanced consideration of the opportunity to achieve. This focus on the opportunity or ability to achieve, rather than the achievement or outcomes alone, marks significant departure from standard utilitarian approaches to achieve equality. Our actual policy choices, Sen argues must be in line with the deprivation we see. In this sense the descriptive analysis of poverty or inequality has to precede the policy choice we make. Martha Nussbaum (2000) argues that the capabilities approach to social justice theory plays a very practical role in resolving our often complex thoughts about greater equity and justice. She maintains that children and families are human beings first and not just students and parents. Human beings need material support, without which they cannot come into full being. Children and families vary greatly in their needs for resources and in their abilities to convert resources that institutions offer into valuable opportunities (Larson & Murtahda, 2002).

Nussbaum (2000) also notes that context and circumstances affect not only people’s external options, but their choices and aspirations as well. The circumstances of people’s lives affect “what they hope for, what they love, what they fear, as well as what they are able to do” (p. 31). Many school leaders are misguided by the fact that they are not sufficiently aware of differences that limit children’s and their families’ opportunities
or abilities to achieve. The reality, however is that age-based expectations for performance have always privileged children of social and economic advantages. For historically disadvantaged groups whose life choices can be severely limited by poverty, there is an economic divide in capabilities (Payne & Biddle, 1999). Therefore, researchers have come to conclude that strong leaders in poor school communities must recognize the life world of the children and families they serve (Larson & Murtahda, 2002). School leaders who possess this understanding will be better positioned to make sense and use equity-related data at their schools, they will be more keenly aware of these limitations and more prepared to confront them.

Unfortunately, the dominant “beliefs in equality as sameness and competitive individualism impede efforts to address the deep-seated, systematic inequality between sociocultural groups in the U.S.” (North, 2008, p. 1189). Consequently, many school leaders believe that all children enter school on a level playing field and, therefore, demonstrate the same capabilities. This assumption seems to be the brainchild of the meritocratic ideology, and other common sense beliefs, such as American Dream ideology, rugged individualism, “pull yourself up by your bootstraps.” The belief that failure is the fault of the individual because we live in a land of opportunity where if you work hard you will be successful, and the subtext being that those who have not succeeded have somehow not worked hard enough. Given that these dominant ideologies and common sense beliefs are held by majority of the U.S. residents it makes sense to see those who do not succeed in school as responsible for their fate (Baker & Lynch, 2005; Tye, 2000). These types of ideologies and common sense beliefs legitimize “public policies, discourses, and daily behaviors that marginalize, exclude, and/or silence
academically unsuccessful individuals and the social groups with which they identify or are assigned (e.g., racial groups)” (North, 2008, p. 1186). Apple (2000) drawing from Gramsci’s (1971) notions of “hegemony” and “commonsense” argue that political ideologies influence our core ideas about democracy and citizenship.

Consciously or unconsciously these ideologies take hold of our minds and dominate our viewpoints shaping not only macroeconomic and educational policymaking, but also our willingness to accept policies that may not advance our best interests at present or in the future (North, 2008). As Zerubavel (1997) observes, we make our choices about what is relevant through certain norms that we have learned as being members of our optical socialization. Our society controls what we think or which thoughts even cross our minds. Tye (2000) describes how these widely held beliefs shape concrete policies and practices at the actual school context by actively seeking to maintain the status quo as the fundamental structure of schooling. The “conventional wisdom” that sustains, produces and reinforces an unacceptable condition of impoverished inner-city and rural schools, as well as the wide disparity in resources available to school districts even within just a few miles of each other, includes the hyper-individualism that frequently underlies talk about freedom and human rights (North, 2008). If these dominant ideologies and common sense beliefs are reified and left unchallenged, they further reinforce disrespect and punitive measures toward individuals and groups who cannot or choose not to play by the rules of those in the mainstream. It becomes necessary to explore the ideological mindscapes with which school leaders approach the equity-related data at their schools.
Social justice theorists have shown how inequality is maintained through ostensibly neutral systems, policies and practices. Schools have become spaces of inequality that replicate what exists in society. Equity and social justice, therefore, challenge current school leadership and the professional practice of educators. Unfortunately, “our society… seems to have become numb to growing disparities between rich and poor.” (Larson & Murtahda, 2002, p. 153). But as advocates for all students, school leaders need to develop an approach to addressing the inequalities they see at their various schools that limit the potentials of the students of color. Above all they need a clear, accurate and useful understanding of these inequities. To be able to do this, Brown (2006) suggests that school leaders should actively engage in reflection over their ontological and epistemological assumptions, values and beliefs, context and experience, and competing worldviews. They should be empowered to understand and critically analyze and grow in their ability to challenge the many forms of social oppression and inequality. As noted by Skrla, et al. (2009) many school leaders do not have a clear, accurate or useful understanding of the multiple and embedded structural inequities both at their individual schools, districts, and larger societal context. This is why it is critical to explore the conceptual frame of reference with which school leaders analyze and make sense of the unjust system of educational opportunities at their schools.

Most of the structural inequities are embedded in school policies. Such school policies generally ignore physical integrity and emotional comfort which are essential in the holistic education of the students, the education of the entire person (Larson & Murtahda, 2002). The split of the mind from the body stretches back to rationalist Rene Descartes. Unfortunately, much of modern education has fallen prey to this
epistemological reductionism that separates people’s knowing from their being and reduces knowledge to just technical rationality, a ‘know how’ for productivity. The pervading assumption is that knowledge is objective and value-free, as if it is not supposed to engage persons as persons or influence their ethic. But the ancient philosophers both Plato and Aristotle would argue that to know the good is to become good, and that knowledge shapes one’s being in the world. Within the institution of schooling, policymakers, teachers, parents and students often emphasize the intellectual development of students as the principal (or only) function of education and, thus, depict learning as an instrumental means to an end, e.g., good grades, educational certificates, full-time employment opportunities and access to higher incomes (Lynch & Baker, 2005). Education for social change requires students and teachers to actively transform social injustice and not just study about it. Education is, therefore, not limited to development of knowledge, academic or otherwise.

Education should inform and form the very being of students, to mold their identity and agency – who they are and how they live. It is not just interested in what the students know and are able to do, but also who that knowledge encourages them to become. This is why many social justice theorists argue that reducing the curriculum to basic reading and math for students from low socioeconomic homes is highly problematic. Those who are experiencing numerous injustices on a daily basis also need more from education than test preparation or access to “progressive” curricula and teaching techniques if they are to develop the skills, knowledge and commitment required to tackle those injustices (Anyon, 2005; Delpit, 1995; FairTest, 2006; Ladson-Billings, 1994; McNeil, 2000). School leaders in inner city schools are challenged to provide an
education that is more holistic and empowering to their students even under the accountability pressure.

Sergiovanni (1992) gives an example of a school superintendent who was pressured by her school board to change eleven elementary schools and three middle schools from a traditional to a year-round calendar. Because of enrollment pressures, the job had to be done within a year and a half. Even under such pressure her primary concern was to do what was best for the students. She saw the major change as an opportunity to improve students’ education, to do things differently and better for her students. Sergiovanni suggests that the value system of the superintendent was what guided her even under pressure from the school board. Similarly, faced with difficult choices and forced to deal with conflicting views on issues related to accountability, school leaders in urban communities should have a social justice value system as their guide. They should develop a theory of leadership and practice that is different from those of the mainstream that operates by the hierarchical logics which not only fails to question the established norms, but keeps impoverished and marginalized people out of any reference to the decisions. Yet, it must be acknowledged that such leadership could be very daunting because of the many layers of inertia built into the educational system that could frustrate any honest effort by school leaders.

However, as Freire (1990) proposed the purpose of our educational system is to make bold possibilities happen for the disenfranchised students. He stated that it is the work, in fact the duty, of public education to end the oppression of the poor students. Moses (Moses & Cobb, 2002) agreed, suggesting that school leaders today are actually the frontline civil rights workers in a long-term struggle to increase equity. According to
the Wallace Foundation (Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2005), school leadership is second only to teacher quality among school related factors that influence students learning. The just cited study also found that the greater the acute need for learning the greater the impact of the school leaders. This demonstrates that school leaders in low-income communities have a higher calling for social justice.

School leaders are always in a situation of dealing with external policy directions that are determined by outside bodies (federal, state, and district) and handed down to them, such as the NCLB (Goldring & Berends, 2009). However, personal vision combined with an internal system of values and educational goals of school leaders can come into play in mediating the policy (Sergiovanni, 1992; Taysum & Gunter, 2008). We are reminded by Crawford (1998) that educational reform efforts have come to admit that excellence in education cannot be attained without effective school leadership. Exemplary and effective leadership helps to point the necessary direction for change as well as lead the change initiative (Blackmore, 2002; Bogotch, 2002; Fullan, 1993; Grogan, 2002; Rapp, 2002; Reister et al., 2002; Shields, Larocque, & Oberg, 2002). It insists on changing the structure that marginalizes certain populations of the student body. It becomes paramount to have social justice school leaders that possess the requisite conceptual tool to interpret, understand and use the equity-related data to transform their schools.

Although many schools are failing to fulfill this duty, others are meeting the challenge of serving each and every student really well (Oakes et al., 2000; Riester, Pursch, & Skrla, 2002). The literature on leadership for social justice identifies schools that have demonstrated tremendous success with not only white middle-class and affluent
students but also students from varied racial, socioeconomic, linguistic and cultural backgrounds (Scheurich, 1998; Theoharis, 2009). The seven principals that Theoharis interviewed enacted their social justice agenda through raising student achievement, improving school structures, recentering and enhancing staff capacity, and strengthening school culture and community. They used three of these advancements toward justice as strategies to improve student achievement which is the core need for marginalized students. All the principals felt that they have a duty and a moral obligation to raise achievement for marginalized students in both state mandated tests and locally created assessments. The principals improved the structures of the schools by eliminating pullout and segregated programs, detracking the math programs, and creating inclusiveness and heterogeneity in ability and background of students’ grouped instruction. The principals felt that the structural change was not only necessary, but the right thing to do because they believed that systems that provided separate programs maintained unequal levels of instruction, maintained marginalization of some students, and created a situation whereby some students received inferior education.

Equally, Taysum and Gunter (2008) found that principals were able to understand conditions of inequality and injustice because of their past experience of a similar condition. This experience empowered the principals to advocate for the underprivileged group at their schools. It seems, then, that there are school leaders who are ready to make the upstream swim in order to break the pattern of inequality at their schools. This is what our school leaders should be – social justice leaders – even under the accountability pressure.
Accountability Debate

For more than two decades the accountability policy at both state and federal levels has been the largest issue in U.S. education. According to Goldring & Berends (2009) accountability entails monitoring, challenging, and rewarding educators to improve students’ learning as evidenced on standardized assessments. One of the goals of accountability policies is to ensure that all students receive high-quality instruction and reach a certain level of competence in core subject areas (Muller & Schiller, 2000).

But the issues associated with accountability, particularly standardized testing, have generated a huge amount of controversy. A particularly heated area of debate is the issue of equity effects of the accountability policies. A central question in the debate is whether the accountability policies and standardized testing are helping or harming the children the policies were designed to serve (Diamond & Spillane, 2004; Skrla, et al., 2009). Some critics claim that accountability policy at times fails to take into account that all children are different, or that it forces teachers to teach to the test and destroys the opportunity for critical thinking. The pressure of increased accountability for student performance on standardized tests has pushed education leaders to narrow curriculum to basic reading and math skills. Government focus on equality of standards ignores the disparities that exist among people and creates advantages and disadvantages for individuals. Sen (1992) in “Inequality Reexamined” argues that greater equality will require a shift from the present sole concentration on utilitarian values to a more balanced consideration of the freedom to achieve. Our analysis of poverty and the limitations it brings should precede the policies we make. Accountability policy has relied more on outcomes than provision of resources for students’ achievement and has further marginalize low-income and underperforming students (Borkowski & Sneed, 2006;
Clotfelter and Ladd, 1996; Heubert & Hauser, 1999; McDill, Natriello, & Pallas, 1986; Orfield, et al., 2004; Sunderman & Orfield, 2006). The outcome data based on the students’ performance on standardized tests do not show the level of inequality and deprivation that the schools are facing or the differential provision of resources.

However, for proponents of accountability policy these data will incentivize teachers and administrators to seek improvements in student outcomes, providing more objective information about students’ performance for school-based decision making and tracking of students progress, reducing school gate-keeping functions, and increasing academic rigor in schools especially those serving low-income and minority students (Coleman et al., 1997; Muller & Schiller, 2000; Shouse, 1997). They advocate output-driven schools that will be based on external assessment and accountability and will provide more objective information for teachers’ assessment of students and course placement decisions reducing gate-keeping functions of schools. Proponents suggest three key mechanisms: creation of new incentives, provision of objective information for school decision on course placement and increase in academic press (Diamond & Spillane, 2004).

As Skrla et al. (2009) observe, one of the prime ways educators can use accountability data is to assess the current state of the school or district and to track progress. Reformers argue that scores on these standardized tests offer evidence of the degree to which teachers, classes or schools have made progress in educating students according to the standards and benchmarks. Diamond & Spillane (2004) argue that students’ performance and outcome data as measured by tests rather than provision of resources are used by state and local governments as primary mechanisms to hold schools
accountable. In Chicago, students test scores on Iowa Test of Basic Skills (ITBS) at benchmark grades became the districts’ most important accountability measure.

Another component of most accountability policies is the creation of a system of rewards, sanctions and interventions as motivators of change. Depending on the state, these test scores are, then, used as criteria in various decisions. Tests that are used to make critical decisions about rewards and sanctions for districts, schools, students or teachers are called high-stakes tests. For example, in many states students must pass high school tests to graduate; in other states, test scores may be tied to pay raises. These are all ways of holding the schools, teachers and students accountable for their academic performance. Even the present administration’s “Race to the Top” ties the competitive federal grant of $4.35b to the ability of the state schools to meet key benchmarks for reform. The four key points are linked to some form of accountability. The accountability policy not only sanctions and rewards schools and teachers, it equally sanctions and rewards students by promoting or retaining them in a grade. This is important, because as some scholars note, teaching is co-produced by teachers and students (Cohen & Ball, 1998). Opponents argue that grade retention can have adverse consequences with negative long-term outcomes including reduction in self-esteem and increased likelihood of high school dropout rates (Roderick, 1994).

Some scholars have explored the effects of state-level testing policy on high school graduation rates in mathematics course taking. Muller and Schiller (2000) got mixed results in their study. They found that accountability policies equalized students’ academic attainment and reduced the impact of teacher and school gate-keeping through low expectations. However, they also found that when students’ performance is linked to
consequences, it leads to stratification based on SES. This is because structural processes related to family background shape students access to schools of different quality. African American and Latino students from low-income families are more likely to be found in the lowest performing schools, while white and middle income students are more likely to be found in higher performing schools. It seems then that the policy meant to help the low-income and underperforming students does not achieve that goal.

The basic wisdom behind the standards-based reform is that by aligning the key elements of the U.S. education system, such as, expectations for what students should know and be able to do, assessments of how well students know the content and are reaching the benchmark, curriculum alignment to standards, professional development for teachers, and accountability for performance, we can build a more coherent and powerful education system (Fuhrman & Elmore, 2004; Porter, 1994; Smith & O’Day, 1991; Vinovskis, 1996). However, no evidence from research has yet demonstrated the effects of alignment on students’ higher learning (Goldring & Berends, 2009). Some scholars acknowledge the impact of standards-based reform in pushing teachers to clarify goals and use range of instructional strategies to helping students of diverse backgrounds. On the other hand they also worry about the detrimental impact on teachers who have adopted pernicious techniques, such as lockstep curricula and retention or promotion decisions based on a single test, on student learning (Falk, 2002). Accountability policy alone will not be enough to support large improvement of educational practices that will be required in order to reduce and eventually eliminate achievement gaps in every school in the U.S., promote teacher quality, lower the dropout rate and encourage judicious course placement for all students.
Goldring and Berends (2009) note that accountability policy has impacted the use of data in two fundamental ways. It has made available an abundance of data for schools and their leaders to interpret, analyze and use. So there is data on students’ performance level, attendance, graduation rates, etc. Data are much more available now than in the past. Secondly, it has created an accountability atmosphere where schools are sanctioned or incentivized for students’ achievement progress. Thus, using data for school improvement is no longer a matter of leadership preference, but has become a key tool in fulfilling the accountability requirements.

But of critical importance in this accountability debate and movement is how the school leaders who are in the position of policy mediation interpret, analyze, make sense of and use the data produced by the accountability policy. While the accountability debate raged on, few scholars have considered the mindscapes with which school leaders interpret, make sense of and use the data at their various school contexts. This study underscored this important, but taken-for-granted phenomenon. The goal of this study was not to argue for or against accountability policy and the data it yields, but to focus on the ignored or taken-for-granted aspect in the debate. Because there must be some form of accountability for the investment the nation makes in the education of its children, there will always be some form of accountability policy. It is this policy that produces the data that school leaders, parents and the public use to assess the performance of both school and students. The way that school leaders make sense of and use the data for school reform is another very important matter.
**Sense-making and Use of Data**

The importance of continuous use of data for school improvement is a fact few scholars would argue (Diamond & Spillane, 2004; Goldring & Berends, 2009; Skrla, et al., 2009). Goldring & Berends (2009) note that, “Data are the fuel of reform. In short, using data separates good schools from mediocre schools. Schools that are increasing student achievement, staff productivity and collegiality and community satisfaction use data to inform and guide their decisions and actions” (p. 20). Multiple types and sources of data are used to assess the strengths and weaknesses of a school and to design plans for the improvement and monitoring of progress. The need for continuous use of data for school improvement cannot be overemphasized. The accountability mechanism has perhaps made paramount the use of data by school leaders to improve students’ outcomes.

But the accountability policy alone will not be enough to support large improvement of educational practices that will be required in order to reduce and, eventually, eliminate achievement gaps in every school in the U.S. Teacher quality, dropout rates, course placements, discipline policy etc, are as important as the achievement data (Goldring & Berends, 2009; Skrla, et al., 2009). With the increasing availability and emphasis on the use of data comes the need for educators to posses the conceptual tools to interpret, make sense of and use data for school improvement. “As educators face the growing importance and prevalence of standardized tests, it is imperative that they know how to analyze and, then, use the data resulting from these tests” (Goldring & Berends, 2009, p. 19). It is imperative then to explore whether some interpretations of data and leadership approaches encourage some school leaders to use
data in more thoughtful and effective ways, for equity purposes, than others. My focus in this study was on equity-related data, which I defined above as data that speak to some level of inequality and disparity of achievement among the different subgroups at the school.

The basic premise here is that people do not come to data in a void. For better or worse, school leaders make sense of data with some set of ‘conceptual toolkit’ or mindscapes. Evans (2007) drawing from Weick’s definition of sense-making sees it as “a cognitive act of taking in information, framing it and using it to determine actions and behaviors in a way that manages meaning for individuals” (p. 161). Zerubavel (1997) suggests this cognitive act is very much conditioned by our social contexts that give us the mental optics to see and frame reality. There is a social matrix by which we filter things and make sense of things we perceive. “In order to make sense of novel situations, we thus often try to mentally force them into such pre-existing schemas” (p. 24). And this convinces us of certain beliefs and not others. 

Research has convincingly shown that belief system is at one and the same time the best predictor of individual’s behavior and the hardest thing to change (Bandura, 1986; Dewey, 1933; Pajares, 1992; Rokeach, 1968). Educators’ beliefs influence their knowledge, perceptions, judgments, and practices. “Understanding the nature of beliefs, attitudes, and values is essential to understanding future administrators’ choices, decisions, and effectiveness regarding issues of race, class, gender, language, sexuality, and disability” (Brown, 2006, p. 703). Sergiovanni (1992) makes this even clearer when discussing what constitutes the heart and head of school leadership.
The heart of leadership has to do with what a person believes, values, dreams about, and is committed to – the person’s personal vision, to use the popular term. But it is more than vision. It is the person’s interior world, which becomes the foundation of her or his reality…. The head of leadership has to do with the mindscapes, or theories of practice, that leaders develop over time, and with their ability, in light of these theories, to reflect on the situations they face. Reflection, combined with personal vision and an internal system of values, becomes the basis of leadership strategies and actions. (p. 7)

The heart and head of leadership are important to consider when one is looking at how school leaders make sense of and use equity-related data. What a school leader believes, values and dreams, the interior world and theories of practice of any particular school leader all matter in relation to how he/she approaches data that show achievement gaps between subgroups of students, access and opportunity to highly qualified teachers, and enrollment in gifted and talented programs and honors classes, graduation rate, dropout rate, discipline policy at the school, and other issues of equity and access. Evidence shows that depending on the school leader’s social justice orientation, sense-making and response to these equity-related data differ greatly. Our mindscapes, meaning-making schemes, concepts, or perspectives about how the world works are often personally held and influence much of what we do. Bourdieu (1984) captures this when he says that the voir (the capacity to see) is only a function of the savoir (concept or knowledge). In other words our capacity to make sense of and use equity-related data is determined by our mindscapes.

As school leaders, the program we believe counts, helps create our realities and provides the basis for decisions. “What we do makes sense if it matches our mindscapes. And different mindscapes represent different realities: what makes sense with one mindscape may not make sense with another. Different realities can lead people to behave quite differently” (Sergiovanni, 1992, p. 8). Similarly, equity-related data can be
interpreted and used differently by different school leaders based on their social justice mindscapes. Some people might say if this is so, then there is no objective reality. But Rory (cited in Benjamin, 1990) would argue differently. He suggests that for the most part the world of reality exists independently of our beliefs, but the truth about reality does not; truth for each of us is a function of the lens with which we see and describe reality. In other words our mindscapes determine what is true about any particular reality. Zerubavel (1997) complicates it further when he observes that we generally pay attention more to things that fit our mental schemas than those that do not. Yet these schemas are grounded in “optical” traditions we learned as members of a cognitive socialization. Consequently, Sergiovanni (1992) argues that not all leadership mindscapes are equal. “Some fit the world of practice better than others. The better the fit, the more successful the practice will be” (p. 9). The traditional mindscapes that some school leaders use today to make sense of equity-related data seem worlds apart from the reality of today’s unjust social realities at our schools and the ever-changing demographics.

Study after study has consistently noted the lack of social justice and equity agenda in the leadership preparation programs even with the changing demographics of our schools and the increasing need for equity and social justice (Jackson, 2001; Henze et al., 2002; McCarthy, 1999; Murphy, 2001). Consequently aspiring education leaders are not equipped with the tools to analyze racial or ethnic conflict or with specific strategies for dealing with these issues (Bell et al., 2002; Brown, 2004b; Henze, et al., 2002; Lyman & Villani, 2002; Marshall, 2004; Rapp, 2002; Rusch, 2004). In their experience working with school administrators and aspiring school leaders, Skrla, et al. (2009) find that school leaders do not have a clear, accurate or useful understanding of the level of
inequity at their school settings and districts. Equally, administrators and teachers generally avoid the issue of race as a possible factor in the achievement gap (Pollock, 2001). Also educators commonly give reasons external to school as the cause of failure for children of color and low-income students (Haycook, 2001).

Many school leaders and leadership preparation program professors very seldom engage in issues related to social justice. They are more inclined towards what Scott and Hart (cited in Brown, 2006) called technical drifting – a commitment to emphasize and act on the technical components of one’s work above the moral. Technical drifters avoid any situation that would challenge or evaluate their sexist, racist, classist, or moral values connected to their leadership styles and goals. They even use their positions of authority to reaffirm formally and informally their professional choices. Following this, many scholars (Ayers, Hunt, & Quinn, 1998; Cochran-Smith, 1998; Oakes & Lipton, 1999) argue that the U.S. needs school leaders who enter into the profession not to continue business as usual, but to work for social change and social justice and challenge the status quo while continually reflecting and challenging their own assumptions and the often taken-for-granted attitude toward students of color.

We need to have school leaders who will be able to make sense of equity-related data, diagnose the social justice implications of the data and use the same to break the patterns of inequality at their schools. With the increasing availability and emphasis on the use of data comes the need for school leaders to possess the conceptual tools to interpret, make sense of and use data for school improvement. “As educators face the growing importance and prevalence of standardized tests, it is imperative that they know how to analyze and then use the data resulting from these tests” (Goldring & Berends,
2009, p. 19). Educators must be ‘data literate’ since they are best positioned to use such information to improve student learning. Not just data literacy in the ordinary sense of the word, but the ability to decode the social justice implications of such data.

In this era of accountability and standardized testing and government push to raise the achievement of every child and close achievement gap, the typical response by school leaders to this pressure is often knee-jerk decisions that support, implement and defend programs and curricula reform that create more inequality for students of color. The accountability pressure should rather heighten the need for school leaders, especially those in the disenfranchised communities, to push for changes that would create equity, access and equal opportunity for all students (Theoharis, 2009). In their longitudinal study of two high performing and two low performing elementary schools in Chicago, Diamond & Spillane (2004) found that school leaders’ use of data varied depending on the probation status of the school. For principals at the probation schools, accountability data was used to focus attention on getting off of the probation status and this led to superficial measures based on external threats. But the interpretation and use of data in the high performing schools was different. At both high-performing schools, the full range of test score data was used to inform strategies of instructional improvement. They used test scores to track students’ performance. The same strategy should have been applied by the underperforming schools, but unfortunately as the study indicated, those who were most in need of equalizing opportunity through the interpretation and use of data, were further underserved.

Therefore, despite the increasing need for use of data in school reform decision-making, adopting these new skills and attitudes is not easy, and many obstacles lie along
the way. These include lack of data-analysis skills, “anti-data” cultures that might exist in schools, lack of adequate time to analyze and use data, limited availability of technical and financial resources and absence of shared vision for use of data (Goldring & Berends, 2009). The accountability data supply sufficient information about students’ outcomes and school performance and achievement level. But they stop just at that, they don’t give sufficient information about how schools are to improve or what measures they are to take. Here then comes the need for a social justice education leader who is empowered with the appropriate social justice ‘conceptual toolkit’ or mindscapes to make sense of and use the equity-related data for school improvement. Such school leaders not only use accountability data, but allow themselves to be informed by multiple forms of data such as teacher quality, curriculum content, formative assessments, discipline policy, student’s background and parental involvement etc, to equalize opportunity for students. Examples of such leaders are not lacking.

The seven principals (three elementary and four secondary) that Theoharis (2009) researched manifested great leadership quality of equalizing opportunity for all students and increasing their academic achievement. They understood social justice at all levels, from the playing ground to math tracking, from discipline to the school office to test scores. All seven principals believed that schools have been failing many students and all knew they could do better. They were all committed to helping the students realized their highest potential. They were all committed to collaborative work with teachers, parents, and school community. They attended community meetings and invited parents for pizza in their offices. They visited and called students homes. These principals did not shy away from their school data. “In fact they talked about them; worried over the gaps in
school performance along race, class and ability lines; knew the intricacies of their schools’ statistics and spoke about them in public” (Theoharis, 2009, p. 3).

The principals were dissatisfied with the pressure on test data as the only important indicator, yet they resisted the draw to simply focus on the numbers. They kept track of other school data such as, how many students were disciplined or missing school, how many students had healthcare, how many came to school hungry, how many students were failing how many parents came to school regularly and how many seemed reticent, what were the grade patterns and what were the individual reading levels. All the principals posted significant test score results, yet they resisted skill, drill and teaching to the test that has come with the accountability mandates. The process of accountability also encouraged need to change discipline policies, moving away from suspending students and warehousing difficult-to-handle students and embracing process-oriented forms of discipline. They eliminated pull-out and self-contained rooms for students with special needs and ESL students and moved toward inclusive classrooms. They also looked at the class placement system and worked to change it to provide more access and opportunity to all categories of students. There are many more school leaders like these who not only make sense of equity-related data, but use them to improve educational opportunity for all students and realize our nation’s promise to educate each and every child. Of course these school leaders encounter resistance, but remain firm and allow themselves to be guided by their values and beliefs in equality of access and opportunity for all students.
Hypotheses

The following testable hypotheses have been drawn from the above literature review:

1. School leaders make sense of and use equity-related data with certain mindscapes that have been influenced by socially constructed, negotiated, and contested meanings.

2. School leaders who have positional leadership power will more readily influence institutional mindscape around data to a broader degree than those who are not.

3. School leader’s own history, background, values, beliefs, theory of practice, professional training and practice as well as organizational and institutional contexts around the school, feature prominently in his/her sense-making and use of data.

4. The pressure of accountability policy impacts the meaningful and thoughtful analysis of equity-related data by school leaders.

5. School leaders will have different conceptualization of social justice which will determine their response to equity-related data at their schools.

6. School leaders whose mindscapes are shaped by social justice ideas, values and beliefs, which are framed around equity and equality of opportunity, would be better positioned to interpret and use equity-related data to disrupt patterns of inequality.

7. While context is important, it is the mindscape of school leaders that determine social justice issues at the school.
The ability of school leaders to make sense of and use equity-related data to disrupt patterns of inequality is mediated by their political and bureaucratic environment.

This research tested these hypotheses to find out to what extent school leaders mindscapes are associated with their sense-making and use of equity-related data. It also explored the extent to which social justice ideas informed their mindscapes and the degree to which the political and bureaucratic environments of the school impacted their sense-making and use of equity-related data.

Chapter Three: Theoretical Framework

This study utilized critical social theory, social justice theory and political race theory to explore the practices of school leaders and how they were both making sense of and using equity-related data to break the patterns of inequality at their schools. Critical social theory originated from critical theory which comprises a whole range of theories that take critical look at society. Specifically, critical theory refers to the major branch of work by the Frankfurt School, particularly to the writings of Adorno and Horkheimer and the most important contemporary spokesman of critical theory is Habermas. Critical theory gives individuals who are social agents a critical perspective on the normally taken for granted social issues dispelling the illusions of ideology. It provides a critical guide to human action and is inherently emancipatory, supplying the knowledge needed for social transformation. It has at its foundation the works of Karl Marx and Sigmund Freud (Dictionary of Critical Theory, 2001). Critical social theory drawn from the works of Freire, examines social issues critically and seeks ways of transforming social institutions. Freire’s (1993) work gives a theoretical and practical approach to
emancipation through education. His goal is to help people to develop an ontological attitude, a theory of existence that views people as subjects, not objects, who have the ability to act on the transformation of their world so it can become a more equitable place for all to live. Freire is interested in social transformation, the demythologization of reality and awakening of critical consciousness and self-reflection whereby people perceive the social, political and economic contradictions of their time and take action against the oppressive elements. Consequently, this framework provides a veritable instrument to study how school leaders are critically conscious of the inequitable opportunities at their schools and their visions and efforts at transformation.

Freire emphasizes the importance of dialogue and openness in receiving new ideas in this process of conscientization. His process of developing conscientization means that through dialogue the learner can begin to understand himself/herself as an active agent in the transformation of an oppressive social condition. The purpose of a dialogic relationship, according to Freire (1993), is “to stimulate doubt, criticism, curiosity, questioning, a taste for risk-taking, the adventure of creating” (p. 50). Dialogue leads to action in ways that make for a just and equitable society. These Freirean interpretations of praxis, reflection and dialogue become critical when they lead to a form of social transformation and action (Brown, 2006). The Freireian stress on dialogue would help one explore to what extent school leaders see it as part of their job to share equity-related data with multiple stakeholders, parents and community leaders in order to engage them in dialogue around the issues responsible for such data. To this end, Oakes and Rogers (2006) argue that pursuing equity only through professional lines is going to be limited. There is need to have organized power on the part of constituencies that are
ill-served by schools. The fact that schools are unequal should not be surprising because there is systematic inequality in the broader society and there is a set of ideas, logics that are embedded in how most people make sense of the world in the United States that leads to the sustaining of these inequalities. So, in addition to having professionals engage in the debate for social transformation, there is need to have organized groups of parents and community members who can engage in political action to reshape those dynamics.

Hooks (1994) *Teaching to Transgress: Education as the Practice of Freedom* echoes Freire’s philosophy and highlights the importance of an educational system that interrogates the common sense ideologies and the political implications of imposed curriculum standards. Critical social theory challenges educators to take action on social issues. This social action requires critical consciousness and reflection (Freire, 1985). Activists hold the middle position between the community and power holders. They organize constituents, articulate the concerns of the community and negotiate/advocate on their behalf with stakeholders developing a repertoire of action strategies with the long-term aim of shifting power (Tilley, 1993). As Brown (2006) noted,

Social justice activists espouse a theory of social critique, embrace a greater sense of civic duty, and willingly become active agents for political and social change. They challenge exclusion, isolation, and marginalization of the stranger; respond to oppression with courage; empower the powerless; and transform existing social inequalities and injustices. Educational leaders committed to equity understand and create opportunities for learning of all students by dealing with issues of context and achievement. (p. 711)

The larger sociopolitical issues are analyzed and connected to the daily school routines, procedures, curriculum and textbook adoption, and classroom pedagogies. They are able to analyze, interpret and use data generated by the accountability policy in ways that pay attention to the differential schooling and opportunities to students of color.
Educational activists realize the responsibility they have in teaching other people’s children, they work to provide them with the highest quality of education that they would desire for their own children, and they learn to work as an ally with the community. Educational activists share power with marginalized groups, they seek out networks and they teach others to act politically and to advocate individually and collectively for themselves and other marginalized groups. This critical social theory provides the appropriate theoretical framework to explore how school leaders in this study were making sense of and using equity-related data to transform the unjust social conditions at their schools by engaging the support of the marginalized community. There is the tendency for school leaders to be unwilling to share equity-related data with parents and community stakeholders especially when they present bad news. They tend to adopt a defensive posture and conceal the data from people who could potentially be an ally in breaking the patterns of inequality. Some school leaders have created a set of culture around school data that speak to inequality and, thus, develop a socially acceptable response to parents and community leaders on such data. This framework assists with the examination of what type of culture and response school leaders might have created around equity-related data.

Additionally, this framework utilizes social justice theory as a lens in exploring the actions, non-action, words and behaviors of school leaders around equity-related data. Social justice is always both a broad and a complicated concept, not only in terms of the concept itself, but also in terms of the reality it represents. It deals with issues that have attracted widespread attention both in a general sense and in education particularly, e.g., gender equity, multiculturalism, racism, isolation, poverty and class, homelessness, etc.
(Sturman, 1997). Social justice is understood differently by different individuals and philosophies and “the importance that individuals attach to social justice is an intricate mixture of their moral and political views, their views about the capacity of education to tackle the disadvantages that students bring to school, their views of the support that parents of different backgrounds are able and willing to provide to their children and of the motivation of students” (Sturman, 1997, p. xi).

Sturman (1997) further notes that the different views individuals have about social justice may also be linked to their position on the nature-nurture debate, particularly on the innate abilities of individuals. Those who believe that people have inherent abilities determined by nature would see social justice as an idealistic dream that would not change anything, nor allow any form of compensatory program to change things. Similarly, even when this determinism is not held or not held so strongly, people may take a minimalist approach that social justice is simply about ensuring access to education and what follows merely is a matter of fair competition: “…if some students do better than others it reflects on their work ethic or on their family attitudes. In other words, students get what they deserve.” (p.xii). But if people would hold a more optimistic view of the capacity of society and education, in particular, to redress the inequalities, then they would have greater faith in supportive programs for families and in the ability of students to be motivated. They would also doubt the absoluteness of innate abilities, especially the inevitability of those abilities to rest with certain groups only. Under this optimistic mindscape emerges a ‘comprehensive planner’ or pluralist type of social justice advocate who can embrace compensatory programs, affirmative action or even complete overhaul of the educational system (Sturman, 1997). It is, therefore,
important to explore the conceptualization of social justice by school leaders to better understand where they are coming from in terms of equity-related data at their schools.

Social justice is equally a dynamic term that is used to denote different beliefs, practices and policies across time (Sturman, 1997). As Zajda, et al. (2006) noted, the meaning of social justice varies depending on the different definitions, perspectives and social theories. Most conceptions point to an egalitarian society that is guided by the principle of equality and solidarity which understands and values human rights and dignity. Not only is the very notion of social justice a contested one, but it seems to coexist with a range of ideas and expressions about equality, fairness and human rights (Zajda, et al, 2006). To further complicate things, Bogotch (2002) asserts that social justice is a social construction and that “there are no fixed or predictable meanings of social justice prior to actually engaging in educational leadership practices” (p. 153). The slipperiness of the terminology and its shifting meaning go back to the ancient philosophers Plato and Aristotle and to the medieval, modern and contemporary philosophers. But the term was given more prominence by the Utilitarian philosopher, John Stuart Mill (1806-1873). In his work *Utilitarianism, Liberty and Representative Government* (1960), he maintains that individuals deserve the right to equal treatment. This equality of treatment for him is justice. It is important to note that justice is by definition social because it involves the social relations of individuals in society. But the word “social” distinguishes “social justice” from the understanding of justice as applied in the law, and from more informal concepts of justice (Zajda, et al., 2006). In recent years, the concept of social justice has been associated with the works of John Rawls, especially in his *A Theory of Justice* (1971) and *Political Liberalism* (1993). For Rawls
(1971), each individual has an inviolability that rests on justice that even the welfare of the state cannot override.

Complicated as the debate on the issue of social justice is, it seems to be an integral part of the debate on education in general. If the educational system privileges a certain subgroup of students over others, then this must require that the structure of education, its pedagogical practices, its curriculum content and the relationship of each group to that curriculum be subjected to scrutiny (Sturman, 1997). Therefore, social justice theory provides a good lens to examine the inequalities that are made evident by school data and how school leaders make sense and use such data to transform their schools. While the concept of social justice remains convoluted with no fixed definition of the term, there is a common principle which helps to guide the research of school leaders’ sensemaking and use of equity-related data. The common principle guiding the different traditions and theories around social justice is the fair distribution of social resources. This includes education itself, even though there are differences as to the criteria for measuring fair distribution and the conflicts that distribution might have with other agreed or contested values or rights in society, such as liberty or property rights (Sturman, 1997). This principle of fair distribution, which connotes both equity and equality of opportunities, assists this researcher to explore how equitable are the opportunities and outcomes that students have. It is important to observe that school leaders with strong social justice conviction built around disrupting patterns of inequality at their schools are able to realize equality of school opportunity through the use of data. The desire and move to equalize educational opportunity for all students at any school is a social justice work that requires commitment to equity issues by school leaders.
Equally, political race theory provides another lens to look at the school leaders sensemaking and use of equity-related data. Guinier and Torres (2002) state that “political race illustrates how the lived experience of race in America continues to serve an important function in the construction of individual selves as well as in the construction of social policy” (p. 12). It is the contention of this study that all distribution of resources in America is racialized. According to Pastor (2007) the state of California is increasingly divided by race, class, and residential location. The demographic divergence has been matched by increasing inequality. This chasm is also conspicuous in the schools in poor and working-class neighborhoods. In such schools there is an overflowing sense of dilapidation and shortage of quality teachers. Instructional materials and textbooks are severely lacking. This lack of resources and qualified faculty has been blamed for the underachievement of students of color (Oakes, 1985) who populate these schools. According to research by Fine, et al. (2004), under-education and dropout rates of poor and working-class students are growing far more severely today than in the past. Research identifies that there is lack of available resources in Black and Latino communities compared to their white counterparts (Oakes, 1985). Considering this, the present study reechoes the questions of Laswell (1936), “Who gets what, when and how” in society today? What role does the socio-political structure of our nation play in maintaining the status quo and keeping the underprivileged members permanently subjugated? How does this socio-political structure shape and influence the school opportunities and outcomes of students of color?

This racial factor in every strata of society and the uneven distribution of resources, immensely affects the educational opportunities of students of color and, in
turn, influences their school performance. Thus, race becomes the fulcrum on which
every social and political structure spins. Race can be used to empower some and
disempower others in society (Guinier & Torres, 2002). It is simultaneously the vehicle
of oppression and the vehicle through which groups rally to combat oppression
(Duesterberg, 1999). Political race, in essence, is an attempt to illuminate how race is
linked to power and resource allocation. More specifically, the use of a political race
framework in this study situated the actions of school leaders within the discourse of race
to determine how their interpretation and use of equity-related data was informed by their
internalized and unreflected beliefs regarding their students’ race. This brings to light the
unexamined assumptions, beliefs and values of school leaders around the issues of race.

The concept framework of political race possesses three major elements: (1) it has
a diagnostic function; (2) it embraces an aspirational goal; and (3) it hopes to jumpstart
an activist project. As a diagnostic tool, political race is used to determine how race
influences the projections and expectations of the society, and how these projections and
expectations are internalized and used in the construction and evaluation of students’
attitudes by school leaders. Additionally, the framework allows one to explore the
relationship between school leaders’ social justice mindscapes as manifested in their
words, actions, non-action, behaviors and interpretation of equity-related data and their
use of such data as shown in their practices. Within this diagnosis, the racial nature of the
school is discussed in regards to how school leaders understand the multiple and
embedded inequality at their schools and their responsibility to transform and break the
barriers that limit opportunities for some students. Further, political race is used to
examine and make projections about the students’ outcomes with regard to these barriers,
particularly in terms of how they affect their school performance. A specific emphasis is placed on the accountability data and other equity-related data that demonstrate disparity of opportunity and outcomes.

The diagnostic function of political race is used in this study as a foundation for the other two tenets, which focus on understanding how changes can be implemented to improve the educational experiences of all groups of students within the school. There is need for educators to understand the larger implications of these educational barriers to the students and the entire American society and, thus, be propelled to act for the interest of the nation and the common good. As Guinier and Torres (2002) pointed out, racialization like the miner’s canary is an indication that there is a problem in the system. When the miners ignore the canary, they equally risk their lives. “Those who are racially marginalized are like the miner’s canary: their distress is the first sign of a danger that threatens us all.” (p. 11). This framework enables this researcher to examine how far these school leaders understand this danger that could be created by the various forms of inequality at their schools and their obligation to become social justice advocates. Some of the school leaders interviewed in a related study, talk of commitment to social justice, but the reality at their schools seems not to align with their talk. This framework enabled this study to make sense of such contradiction. It could be that rhetorical commitment to equity and access lacks a set of specific tools that enables it to locate the inequality or to communicate it through data sharing with parents and community stakeholders. It could also be that structural and contextual limitations at some schools militate against the honest desire and effort of the school leaders. Political race theory, therefore, help this
researcher to explore the role of politics in and around the school in shaping how school leaders both make sense of and use equity-related data.

Therefore, the combination of these three theories – critical social theory, social justice and political race – afforded this study with the needed lens to explore the actions of school leaders around equity-related data. These theories offered the freedom and flexibility to examine the mindscapes with which school leaders made sense of equity-related data and what theories of practice undergird their actions including the political and bureaucratic environment that might limit their honest interpretation and use of such data. Figure 1.1 is the diagrammatic expression of the framework guiding this study.
Critical social theory enables this researcher to critically explore the equity issues at the schools and see how these equity-related data stack up at the institutional level in order to identify the patterns of inequality at the schools. Then, this study examines how the school leaders are making sense of and using these data to disrupt the patterns of inequality at their schools and what factors inform their sensemaking and use of such data. Political race theory and social justice help in the understanding of how these school leaders are interpreting and using these data. This study argues that the mindset of school leaders about social justice and political race theory shapes the way they think about data of inequality and that, in turn, impacts the practice of school leaders.
This research model is not as simple as it looks. There is a complicated picture here when one thinks of the mediating or intervening variables between school leaders’ mindscapes and their interpretation and use of data. For instance, the school leaders may have social justice informed beliefs, values, and understanding about equity-related data, but the political and bureaucratic environment (e.g., school where use of data is not encouraged or very limited) may prevent thoughtful interpretation of data by school leaders. Equally, between the interpretation of data and school practice are mediating variables such as teachers’ resistance to change. School leaders may have good interpretation of data, but the implementation becomes problematic due to existing school conditions like lack of resources. Below is further explanation and diagrammatic expression of the research model.

**Definitions and Operationalization of Research Domains**

This research model is defined and operationalized in the following ways. The three equity frameworks (Teacher quality, Achievement, and Programmatic equity) in the independent domain, employed to explore and establish the conditions of inequity at each school, are drawn from Skrla et al. (2009) equity audits. Critical social theory provides the lens for doing the equity audit. Teacher quality equity is defined and operationalized in this study as the distribution of the resources that teachers bring across a particular school. This domain, as shown in figure 1.2 is operationalized into the four indicators or factors: (a) Teacher education (college degrees); (b) Teacher experience (years working as a teacher); (c) Teacher mobility (teachers changing campuses annually); and (d) Teacher certification (teachers assigned in or out of areas of teaching expertise). Below is the diagrammatic expression and breakdown of the teacher quality equity.
The factors: teacher education, teacher experience, teacher mobility, and teacher certification, as shown in fig. 1.2 above, are further broken down and operationalized into variables. These include the highest level of college the teacher attended post certification, the number of years they have been teaching in their content area, number of times the teacher has transferred schools and whether the teacher holds California certification and/or teaching outside of areas of content expertise.

Similarly, the achievement equity is defined and operationalized in this study as the achievement level of different sub-groups of students at each school. Sub-groups would include students of different ethnic, racial and socio-economic groups, as well as
special education and English language learners. Achievement equity is what accountability policy typically measures. Achievement equity has received the greatest amount of attention of the media, the public, policymakers, researchers and practitioners. This hyper-focus gives the illusion that achievement equity can be accomplished in the absence of teacher equity and programmatic equity. Scholars (Goldring & Berends, 2009; Sen, 1992; Skrla, et al., 2009; Sunderman & Orfield, 2006) argue that the achievement equity is influenced by teacher and programmatic equity. It would be unrealistic to think of increasing student achievement without identifying the resources needed to support students to excel. It is, therefore, important to bear in mind that achievement equity will not occur unless the teacher quality equity and programmatic equity are in place. The achievement equity, as shown in fig. 1.3 below, is broken down into four important factors: (a) State achievement tests, (b) Dropout rates, (c) High school graduation tracks, (d) SAT/ACT/AP/IB results. Although Skrla and his colleagues identified SAT/ACT/AP/IB as different indicators of achievement equity (Skrla et al., 2009), for the purposes of this study, they were combined, as many of the state achievement tests are not taken at the high school level.

Current accountability policy mandates that all 50 states publish disaggregated data on the achievement tests across the different student sub-groups. Consequently, these data give strong evidence of achievement equity even though states have a variety of ways for reporting out these data (Skrla, et al., 2009). For example, in the state of California, the following are used: standardized testing and reporting (STAR); California Standards Tests (CSTs); California Modified Assessment (CMA) for grade 3 – 8; California Alternate Performance Assessment (CAPA) and Standards-based Tests in
Spanish (STS). In this study, however, only those exams given at the high school level will be considered: California High School Exit Exam (CAHSEE); California Standards Tests (CSTs); Advanced Placement exams (AP); Scholastic Aptitude Test (SAT); International Baccalaureate (IB), and American College Test (ACT). These selected tests will form the variables for the California achievement tests. Below is the diagrammatic expression of achievement equity.

Students of color and students from low-income homes most often score lower on these tests than do white students and students from middle- and upper-income homes. Thus, it is also important to consider who participates in these exams and who does not.
Another key indicator to be considered in this achievement equity is the dropout rate or school completion rate. It is, unfortunately, typical for Students of Color (African American and Latino) to have a higher dropout rate from high school than their white counterparts (Education Trust, 2006). The consequences of non-completion of high school are well known, especially in the U.S. where there are strong correlations between a person’s education and future earning power. The dropout rates, as in fig. 1.3 above, will be compared across student subgroups at each school.

The third and final factor that is considered under the category of achievement equity is high school academic placement. It is important to analyze data in this area because all students who graduate from high school do not have the same opportunity to master equally demanding curricula or graduate with courses that are UC/CSU eligible. The central question here for an equity audit is: are student graduates across the various sub-groups UC/CSU eligible? This is important to consider because Students of Color and those from low socioeconomic status are much less likely to graduate with college eligible courses than whites and upper and middle class families (Oakes, 1985; Sizer, 1997; Wheelock, 1993).

The last domain in the equity audit frame is programmatic equity. Programmatic equity is defined and operationalized in this study as the differences in the types of programs that are available to students across the various sub-groups. Skrla, et al. (2009) point out four categories of programs to be considered in this area of inequity: (a) special education, (b) gifted and talented education, (c) bilingual education, (d) student discipline. Scholars have long researched and interrogated the over-assignment of certain groups of students, particularly African American males, to special education as
problematic and symptomatic of grave inequity with US schools (Artiles, 1998; Losen & Orfield, 2002; MacMillan & Reschy, 1998). There is even concern by scholars that the current accountability policy that requires educators to increase the academic performance of every student will pressure educators to over-identify students for special education in order to qualify them for special testing (Texas Center for Educational Research, 2000; Townsend, 2002). Students of Color are usually overrepresented in special education and underrepresented in gifted and talented classes. The equity question for this indicator is: Do the participation rates in special education for various sub-group of students correlate to the demographic distribution of these students on the campus? (Skrla, et al., 2009). Below is the diagrammatic breakdown of this equity indicator.

Figure 1.4
Programmatic Equity

Show major components of programmatic equity

Special Education
Students in Special Ed by race/ethnicity

Gifted & Talented
Students in G/T by race/ethnicity

Bilingual Education
Advanced, intermediate & beginning

Student Discipline
Expulsion, suspension, truancy & students on hold
Closely linked to this special education indicator is the gifted and talented education. In the gifted and talented programs we have the reverse of what we see in the special education program. Students of Color and students from low-income homes are underrepresented in the gifted and talented programs. The pattern of placement at the gifted and talented programs is an inequity pattern that hinders the closing of achievement gaps. Bilingual education is another factor to be considered in the area of programmatic equity. While bilingual education is seen by many scholars as a very important program in the U.S. educational system (Garcia, 2005; Tse, 2001), it has not been given proper attention in many schools. The basic equity question here is: Who are teaching the bilingual programs and how qualified are they? The final indicator for programmatic equity is school discipline. It has become a common practice by many schools to remove students who are involved with the discipline system from the regular classroom. Such actions result in certain students not having the same access to learning opportunities as their peers. Therefore, the equity audit question here is: who have more discipline referrals at a particular school and is the number of discipline referrals for a particular group proportionate to the overall population?

School Leaders Mindscapes

Another domain to operationalize in this research model (fig.1.1) is the school leaders’ mindscapes in the mediation domain. The social justice theory and political race theory will provide the lens to explore the mindscapes of school leaders in their data interpretation and usage. This domain comprises all the variables impacting school leaders’ cognitive frame. The criteria for choosing these variables are based on what the literature says about how these could impact a person’s sense-making of a phenomenon
(Bourdieu, 1984; Brown, 2006; Diamond & Spillane, 2004; Evans, 2007; Sergiovanni, 1992; Weick, 1995; Zerubavel, 1997). As mentioned earlier in chapter one, one of the arguments in this study is that if we have school leaders whose mindscapes are shaped by social justice ideas, then the possibility of disrupting the barriers that limit the potentials of Students of Color will be realized. This domain will be operationalized in the following ways: (a) Beliefs; (b) Values; (c) Social background; (d) Training and past practice. In fig.1.5, is the diagrammatic expression and breakdown of the major components of the school leaders’ mindscapes.

Figure 1.5
School Leaders Mindscapes

School Leaders Mindscapes

Beliefs
Core principles, ethical commitment, social justice, beliefs about student learning

Values
Social, Cultural & Political

Social Background
Race, family history, socio-economic status

Training & past
High school, college & grad school, technical knowledge, facility with data

Shows school leaders’ mindscapes broken down into major components
School Practices

The school practices, which is the dependent domain in the research model (fig. 1.1 above), is defined and operationalized as the practices at the school that are guided by the interpretation of equity-related data. What measures school leaders have put in place to address the inequality they see represented in the data, becomes critical if every student is to be given equal opportunity. Depending on mediating factors, such as school condition (e.g., availability of resources), teachers and parents cooperating in allowing for change, this study hypothesizes that school leaders, whose mindscapes are informed by the comprehensive or pluralist idea of social justice, are able to initiate transformative practices. The school practices domain, shown in fig. 1.6 below, is operationalized as follows: (a) De-tracking and method of course assignment; (b) Curriculum instruction; (c) Teacher distribution; and (d) Discipline policy
The factors above are by no means exhaustive. However, they are discussed in the literature review (Goldring & Berends, 2009; Skrla, et al., 2009) where changes can most effectively impact the equity and access structure at each school. This list would be expanded if in any of the seven schools, school leaders would show evidence of other aspects of school life that sense-making and use of equity-related data would have positive impact. The next chapter provides details of the data collection and analysis strategies that are carried out to adequately address the different components of the research model.
Chapter Four: Methodology

Research evidence demonstrates to school leaders the importance of using data for transforming their schools (Goldring & Berends, 2009). It has become imperative that school leaders continuously use data to monitor progress and make required intervention plans for school improvement. The continuous use of data calls to mind the question of whether there are more or better things to do for student learning. The use of data could create some sense of dissatisfaction, leading school leaders to transformative actions towards positive outcomes, or it could lead to discouragement that pushes school leaders to adopt defensive postures or less thoughtful actions. The outcome depends on the way school leaders present and engage with the data.

Continuous use of data for school improvement is the hallmark of successful and effective educational leaders. “Today’s effective educational leaders use data extensively to guide them in decision making, setting and prioritizing goals, and monitoring progress. They use data to define needs, set goals, plan interventions, and evaluate progress” (Goldring & Berends, 2009, p. 5). School leaders play an instrumental role in the interpretation and use of data to transform and break existing patterns of inequality in various schools. It is, therefore, critical to explore the ‘conceptual toolkit’ or mindscapes with which school leaders come to understand data, how they make sense of it and how they use it for school improvement.

Important as it is to use data for school improvement, the purpose gets defeated if school leaders make sense of and use data with less attention to social justice than warranted. This is because the hope of achieving equality of opportunity and the best student outcomes at U.S public schools can be realized better by school leaders who look at the equity-related data with a social justice lens (Scheurich, 1998; Theoharis, 2009).
The danger to be avoided is to widen achievement gaps while underrepresented subgroups of students continue to suffer from unequal educational opportunities. If school leaders do not intervene to transform the barriers that preclude students from being served by our educational system, social inequities in and out of education will harm society.

Thus, this research seeks to better understand the following:

a. What are the factors that influence the social justice mindscapes of school leaders in their sense-making and use of data?
   i. To what extent, if any, do social justice ideas shape their mindscapes?
   ii. How do school leaders conceptualize social justice as equity?

b. What are the school leaders’ sense-making and practices around data?
   i. What is the relationship between school leaders’ practice and their mindscape?
   ii. How do school leaders conceptualize the role of data working to advance equity and social justice?
   iii. How do the rhetorical claims of school leader’s views of equity and social justice influence their school practices?

c. How does the political and bureaucratic environment mediate the relationship between school leaders’ mindscapes and their practices in interpreting and using data?

These questions were explored through a qualitative phenomenological method in data collection and analysis. This section will explain the qualitative phenomenological approach used to explore how school leaders in seven urban high schools in the state of
California are interacting with equity-related data to achieve a social justice agenda of equalizing school opportunity and enhancing positive outcomes for all students. This chapter will lay out the study design, qualitative phenomenological method, site and participant selections, data collection and analysis, internal validity and reliability, data management, and researcher perspective and positionality.

**Research Design**

This investigation employs a qualitative phenomenological approach to explore how school leaders in seven comprehensive urban high schools in California were both making sense of and using data to disrupt patterns of inequality on their school campuses. Merriam (2009) states that qualitative research is interested in uncovering and understanding the meaning of a phenomenon, how people construct their worlds, interpret their experiences and the meaning they ascribe to those experiences. This research is critical to explore the phenomenon of sense-making by school leaders of equity-related data.

As qualitative research this study aims at adequacy of interpretation rather than prediction and control as might be characteristic of quantitative research (Merriam, 2009). In addition, this study emphasizes the recurring features of phenomenological research by capturing the phenomenon from the perspective of the local actors through a process of deep attentiveness, temporarily suspending prior beliefs and judgments regarding the phenomenon (epoché) in order to objectively collect and analyze data, phenomenological reduction, horizontalization and imaginative variation (Patton, 2002). Moustakas (1994) states that “in phenomenological studies the investigator abstains from making suppositions, focuses on a specific topic freshly and naively, constructs a question or problem to guide the study, and derives findings that will provide the basis
for further research and reflection” (p. 47). A qualitative phenomenological approach is the best way to explore the phenomenon of how school leaders in urban school contexts make sense of and use equity-related data to transform their schools. It provides me with the flexibility to explore in-depth this phenomenon across multiple school sites (Yin, 2009). It provides the opportunity to have an in-depth interaction and dialogue with key informants, which a quantitative approach would not offer. Using school leaders’ sense-making and use of data as the unit of analysis, this study investigates school leaders interpretation and use of data to transform patterns of inequality, their behaviors, actions and inactions around data that speak to unequal distribution of resources. This approach allows greater understanding of how school leaders’ perceptions are formed and the significance this plays in their interpretation and use of data.

The qualitative phenomenological investigation involves an equity audit, which is accomplished through descriptive statistical analysis. Skrla, et al. (2009) suggest that equity audits are tools school administrators can use to identify embedded and internal patterns of inequities at their schools. Skrla et al. (2009) argue that equity strategies should be both planned and systemic, and should focus on the core areas of the teaching and learning process, particularly curriculum, instruction, school environment, and culture. In each school in this study, I conducted equity audits to identify embedded patterns of inequities in the areas of achievement, teacher quality and program assignment. The analyzed equity data is then used as background information to explore how school leaders in the seven school sites are making sense of and using data in the three areas of equity audit to disrupt the patterns of inequality at their schools.
The descriptive statistical analysis is performed on teacher quality equity (assessing the distribution of resources that teachers bring), achievement equity (exploring students’ performance across the different subgroups) and programmatic equity (looking at the equitable assignment of programs). Explanation and more details of this equity audit are given in the data collection section. This equity audit is used to analyze students’ outcome data at each school and the demographic configurations of students involved with the school discipline policy system. It is helpful to determine who graduated with a high school diploma, who passed the CAHSEE, who dropped out, who completed A-G requirements, who were UC and CSU eligible, who attended a four year university. These data are collected from the California Department of Education (CDE) website and from official school records where possible. The purpose of this equity audit is to understand the extent of disproportionality of access to resources and achievement among the different subgroups of students (e.g., African American, Latino, White, Asian, Filipino, etc.) at each school and to identify the patterns of inequality.

**Qualitative Phenomenological Methodology**

The data from the equity audit is used as a backdrop for the qualitative phenomenological investigation that involves interviews with several school leaders, observation, shadowing, collection of documents and archival records. Phenomenological method is employed to gather and analyze the qualitative data. The following gives a brief explanation of this methodological approach and why it is the preferred method for studying the phenomenon.

Qualitative study is a research approach that encompasses a broad range of techniques for investigating social phenomena in a particular context. Qualitative research is used to uncover and enhance understanding of the meaning of a phenomenon,
how people construct their worlds, interpret their experiences and ascribe meaning to those experiences (Merriam, 2009). Qualitative researchers aim at the adequacy of interpretation rather than prediction and control as might be characteristic of quantitative research. “Qualitative researchers ask themselves questions about the meaning of what is happening in some field of human action. They are concerned with making sense of what seems to lack coherence…” (Greene, 1997). The qualitative researcher explores a wide array of dimensions of the social world as well as the texture and interplay of everyday life, understanding the meaning of experiences and imaginings of the research subjects. Qualitative research affords the researcher the capacity to investigate the ways that social processes, institutions, discourses or relationships work, and the significance and meaning they generate (Mason, 2002). The focus and purpose of qualitative research is to “achieve an understanding of how people make sense out of their lives, delineate the process (rather than the outcome or product) of meaning-making, and describe how people interpret what they experience.” (Merriam, 2009). Maxwell (1996) adds that qualitative research is especially fit to inquire into the “meaning” and experiences of study participants.

Because of the nature of qualitative research, the researcher becomes the primary instrument for data collection and analysis. This is not surprising since the main objective of qualitative research is understanding or making sense of the phenomenon, and the human instrument, who is able to be at once responsive and adaptive, seems ideal for data collection and analysis (Merriam, 2009). Because interviewing, observing, collecting of documents and analyzing, are central activities in qualitative research, the qualitative researcher has the ability to expand his or her understanding through verbal and
nonverbal communication with the participants. The researcher can immediately process information, clarify and summarize materials, check the accuracy of interpretation with participants and explore unusual and unanticipated responses. Nevertheless, the human instrument has shortcomings and biases that might impact the research. Instead of attempting to eliminate these biases, Merriam (2009) advises that the researcher should identify these “subjectivities” and monitor how they shape the gathering and analyzing of data. These subjectivities can at times become virtuous and add to the distinctiveness of the study.

Phenomenology is also about the lived experience and interpreting the meaning. From a philosophical standpoint, phenomenology explores how human beings “make sense of experience and transform experience into consciousness, both individually and as shared meaning” (Patton, 2002, p. 104). According to the *Cambridge Dictionary of Philosophy* (1999), phenomenology consists of “analysis and description of consciousness” (p. 665), it is the study of the essence of knowing based on subjective experience. According to Merriam (2009), the focus on the experience of the phenomenon qualifies as being a phenomenological approach to the research. In the phenomenological method, the researcher thoroughly captures and describes how people experience some phenomenon through their senses. To do this, the researcher relies on what is central to being human, that is to have the ability to symbolize experiences through language (Seidman, 2006). Consequently, the basic tool of the phenomenological approach is interviewing. The central intention of in-depth interviewing is the desire to understand the experiences of others and the meaning they make of them (Seidman, 2006). The researcher focuses attention on the uniqueness of each situation or
phenomenon. The result is a detailed description and interpretation of the phenomenon as experienced by the individual and the observer. Through in-depth interviewing, the phenomenological method explores and reports the participants lived experiences and gains insight into how individuals shape their behaviors and beliefs. The goal of a phenomenological approach is to describe things in themselves and to suspend judgment (Moustakes, 1994). The school leaders in this research are interviewed a number of times to understand and gain insight into their sense-making and use of data at their schools.

In phenomenological studies the participants have already had the experience and through reflection, they are now able to recall and make sense of their experience. Therefore, interpretation forms part of that sense-making of experience. The phenomenologist focuses on how people put together the phenomena they experienced in a way that represents their life world (Patton, 2002). To be faithful to the phenomenon, the researcher will need to suspend temporarily prior beliefs and judgments regarding the phenomenon in order to objectively collect and analyze data. This technique requires, “a radical change of attitude by which the philosopher turns from things to their meanings, from the ontic to the ontological, from the realm of the objectified meanings as found in the sciences to the realm of meaning as immediately experienced in the “life-world.”” (The Cambridge Dictionary of Philosophy, 1999, p. 665) Another technique for data reliability is imaginative variation, where the researcher looks at the object of study from several different angles, examining phenomenon from various perspectives, roles and functions, seeking meanings by varying the frames of reference, employing polarities and reversals. The main purpose is ultimately to arrive at a structural description of an experience, as well as the underlying and precipitating factors that make the experience what it is. The
use of the phenomenological method in this study is justified, because the goal is to understand and describe the interpretation and use of educational data for day-to-day decision-making by urban high school leaders. This phenomenon is explored at seven different school sites and forms the basis of analysis for this study. These combined techniques and strategies provide sufficient tools to explore how urban high school leaders both make sense of and use equity-related data for transformation of their schools.

This methodological approach gives the researcher the opportunity to explore the mindscapes of the school leaders, how they behave, how they define their work, and what structural or contextual factors influence their use of equity-related data. A qualitative phenomenological approach is the best method to explore the phenomenon of how school leaders in urban school contexts make sense of and use equity-related data, as it allows the flexibility of an in-depth exploration of this phenomenon across multiple school sites (Yin, 2009). Interviews provide an in-depth interaction and dialogue with the key informants, which a quantitative approach cannot provide. This approach to the study facilitates an in-depth examination of the patterns of inequality at each school and how the school leaders’ mindscapes help them make sense of and disrupt the patterns of inequality, thus drawing out the essence of their meaning making and interpretation of their experience with the use of data.

Through this comprehensive data collection design, this research identifies and produces practical knowledge that is useful to schools and policymakers as they seek ways to close the ever-widening achievement gap and dropout rate for minority students in the U.S. Exploration of the mindscapes with which the school leaders both make sense of and use equity-related data to guide educational reform across the various school
contexts, particularly in the urban schools where there is high need for equity-guided reform, is best accomplished by the qualitative phenomenological method.

**Site Selection**

This study looks at how school leaders in seven comprehensive urban high schools in Southern California both make sense of and use equity-related data to disrupt the patterns of inequality at their schools. The schools are located in several of the largest school districts across the state. Specifically, this study examines those school leaders in schools that have a high population of students of color\(^5\) and are experiencing equity-minded reforms. This research is informed by the desire to find solutions to high dropout rates and low school performance of this subgroup of students. Since the greater Los Angeles area is home to the largest population of students of color, four schools in the Los Angeles area have been selected along with three schools in San Diego to participate in this study. The seven schools have a demographic mix of students. Four of the schools are targeted low-income and students of color; the other three schools are economically and racially diverse. The sampling of schools on both ends of the achievement and economic continuum, i.e., program improvement and high achieving, low-income and affluent, is purposeful to discover to what degree these contexts impact how school leaders make sense of data. Below is a brief description of the schools.

**Bell Flower High\(^6\)**

Bell Flower High is a large urban comprehensive high school in Spencer Unified School District (SUSD) and located a few miles from the Pacific Ocean. It represents the complexity and diversity of its surrounding community. According to the 2011-2012

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\(^5\) Students of color in this study are limited only to African American and Latino students.

\(^6\) Pseudonyms are used to maintain the anonymity of both the schools and the participants in this study.
student population, it has 68.6% Latino, 12% White, 9.6% African American, 8.2% Asian, 1.1% mixed race, and .6% Native American. It is a WASC accredited comprehensive high school and runs on a traditional school calendar. Bell Flower High has been listed as a program improvement school since the 2010-2011 school year. The 2012 Academic Performance Index (AP) score was 725, which reflects a steady improvement over the last several years. All the students are required to complete a rigorous college preparatory curriculum that meets the requisite A-G requirements to qualify for a University of California (UC) or California State University (CSU) school. According to the UCLA IDEA 2011 California Educational Opportunity Report, for every 100 students that enrolled in 9th grade at Bell Flower High, 42 of them graduated after four years, while 21 graduated with A-G courses required for admission to UC and CSU colleges. For underrepresented students, 29 of every 100 graduated with 12 graduates having A-G required courses. Students at this school have the opportunity to take numerous Advanced Placement (AP) courses during their studies at the school.

**Morning Rose High School**

Morning Rose High is a comprehensive high school in Overcomer Unified School District (OUSD), located in an affluent neighborhood of the Greater Los Angeles area of California. It enrolls about 2,235 students with 33% Asian, 49% White, 11% Latino, 2% African American, 3% Filipino and 3% mixed race. About 8% of the students are English language learners while another 8% are enrolled in free and reduced lunch. It is a high achieving high school and according to UCLA IDEA, 2011 California Educational Opportunity Report, of every 100 students that enroll in 9th grade, 83 graduate after four years and 49 graduate with A-G required courses for admission to UC and CSU colleges.
For underrepresented student groups, 32 graduate, while 9 graduate with A-G required courses. The school has open access to advanced placement (AP) classes. In 2012, it achieved a base API score of 876.

**Trojan High School**

Trojan High is a large urban comprehensive high school in River Unified School District (RUSD), with a diverse student population of 2,146, and a demographic mix of four major ethnic categories: Whites 3.4%, African Americans 19.4%, Hispanics 27.4% and Filipinos 43.5%. 73.2% of the students are enrolled in the free reduced lunch price meal program, and the school has been under program improvement for 5 years. It has a total of 97 certified teaching staff, which includes those who hold emergency permits or waivers of credential requirement.

**Seaside High School**

Seaside High is a comprehensive high school in SUSD with a total population of 2,461 students. Seaside has a student population of 8.8% that are White, 73.4% Hispanic, 10.0% Black and 3.9% Asian, who make up the majority of the ethnic groups. 68.7% of the students are enrolled in the free and reduced lunch program. The school has 106 certified teachers who serve the entire student population. Seaside High is located in a very busy and affluent part of town. Many of the students who attend this school do not live in the neighborhood, but are bussed from outside of the school community.

**Olympus High School**

Olympus High is an urban school, in River Unified School District (RUSD), with a student population of 2,359. 25% are English learners and 77% are on the free and reduced lunch program. The school has the demographic mix of 37% African American,
54% Latino, 2% White, 5% Asian and 2% Pacific Islanders. The school has been on program improvement since the 2010-2011 school year. Olympus High is a very unique school. It is a hybrid school of four different small learning communities; center for social justice, center for math, etc. The four different centers work collaboratively with each other in core content areas of math, language arts, science and social studies. It has 105 certified staff teachers serving the entire student population.

**Mountain High School**

Mountain High is a comprehensive urban high school in the Spencer Unified School District (SUSD). It has a student enrollment of 1,808 students according to the 2011 California Educational Opportunity Report by UCLA IDEA. African Americans make up 74% of that population, while Latinos are 15%, Whites 8%, Asians 2% and Filipinos 1%. Students who are on a free and reduced lunch are 53% of the population and English learners make up 4%. Mountain High was not on program improvement in 2010-2011 school year. At this school for every 100 students that enroll in 9th grade, 48 of them graduate four years later and 19 graduate with CSU/UC required courses. Ninety nine percent of the teachers at the school are fully credentialed.

**Knot High School**

Knot High is one of the affluent and high achieving high schools in RUSD. It has a student population of 1,850. The demographic breakdown of the school shows 37% of the population to be White, while 33% are Latinos, Asians 11%, Filipinos 9% and African Americans 9%. There are 8% who are English learners and 46% on free and reduced lunch. All the teachers who teach at the school are credentialed. The school is not on program improvement status and for every 100 students who enroll in 9th grade, 73
graduate after four years while 24 pass the courses required for admission to CSU and UC (UCLA IDEA 2011 California Educational Opportunity Report).

The major criteria for selecting the schools are listed here: (a) the school is a comprehensive urban high school, (b) the school has a considerable percentage of students of color, (c) the school has an enrollment greater than 1,000, (d) the school has a principal with at least two years of experience doing some equity-minded reform. The schools and the principals were selected through a nomination process. The professors involved with the UCLA Teacher Education Program (TEP) and Principal Leadership Institute (PLI) helped to identify the potential school principals whose schools met the above criteria. I contacted the potential principals with a letter explaining the research, what it entailed and the amount of time it would require to participate in the research. The letter requested that the administrative team also participate. Once on site, I explained further the purpose of the research, answered questions and provided clarifying information. I verified that the school principal was engaged in equity-minded reform work at the school by asking whether the principal considered himself or herself a leader in social justice? If the answer was yes and the principal was interested in the research, I gave him or her a copy of the consent form, which he or she signed after reading it. I signed the consent form and made a copy for the principal. The date of my first visit was scheduled at this introductory meeting. The following tables give the demographics of the schools chosen for the study.
Table 1.1: Demographic Information of Selected Schools

<table>
<thead>
<tr>
<th>School</th>
<th>Bell Flower High</th>
<th>Morning Rose High</th>
<th>Seaside High</th>
<th>Mountain High</th>
<th>Olympus High</th>
<th>Knot High</th>
<th>Trojan High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment</td>
<td>2,771</td>
<td>2,235</td>
<td>2,668</td>
<td>1,808</td>
<td>2,359</td>
<td>1,850</td>
<td>2,456</td>
</tr>
<tr>
<td>African American</td>
<td>10%</td>
<td>2%</td>
<td>17%</td>
<td>74%</td>
<td>37%</td>
<td>9%</td>
<td>18%</td>
</tr>
<tr>
<td>Latino</td>
<td>68%</td>
<td>11%</td>
<td>54%</td>
<td>15%</td>
<td>54%</td>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>White</td>
<td>13%</td>
<td>49%</td>
<td>7%</td>
<td>8%</td>
<td>2%</td>
<td>37%</td>
<td>4%</td>
</tr>
<tr>
<td>Asian</td>
<td>7%</td>
<td>33%</td>
<td>19%</td>
<td>2%</td>
<td>5%</td>
<td>11%</td>
<td>2%</td>
</tr>
<tr>
<td>Free &amp; Reduced</td>
<td>54%</td>
<td>8%</td>
<td>73%</td>
<td>53%</td>
<td>77%</td>
<td>46%</td>
<td>65%</td>
</tr>
<tr>
<td>Lunch</td>
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<tr>
<td>Neighborhood</td>
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<tr>
<td>Unemployment rate</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2010</td>
<td>10.7%</td>
<td>4.6%</td>
<td>9.9%</td>
<td>11.3%</td>
<td>23.6%</td>
<td>2.9%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Neighborhood</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Affluence rate</td>
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<tr>
<td>(percent of</td>
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<td>families whose</td>
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<tr>
<td>income is above</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School is in</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Program improvement in 2010-2011 school year</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

7 Data from UCLA IDEA, 2011 California Educational Opportunity Report.
Selection of Participants

The principals of the seven schools served as key informants in this study, and they facilitate entry into each school. Snowball or network sampling (Merriam, 2009) was used to identify other school leaders\(^8\) at each school site who participated in the study. Each principal was asked to identify other school leaders, who were engaged in the use of data for equity-minded reform at the school. The school leaders identified by the school principal were asked to identify other school leaders who hold administrative position and are involved with data. Also, in my interaction with school leaders at their leadership team meetings and professional development, I identified some school leaders who met criteria and were interested to participate in the study. Through the participation of some of the administrative team members, including the principal, I was able to capture institutional mindscapes around the use of data at the schools. The same process used to select the principals was also used to choose the other school leaders.

The selected school leader had to have: (a) official responsibility around data and data driven decisions and practice; (b) spent at least two years at the school. Ideally, the sample of participants at each school site included at least three administrators and two teacher leaders. This distribution of participants ensured a broad understanding, from multiple perspectives, how school leaders make data-driven decisions at each of the

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\(^8\) The term school leaders is used broadly in this study to designate those who hold position of authority at the school – principals, counselors, department heads, deans of discipline, teacher leaders, etc., - or make decisions that impact the school. All the teachers in this study hold administrative position and are also referred to as school leaders.
schools. The selected school leaders and the principal each was engaged in an in-depth interview that lasted more than 1 hr. About 83% of the school leaders I contacted participated in the study. A total of 23 persons were contacted, and 19 successfully completed participation in the study. The table below presents the demographic of participants in this study.

Table 1.2: Profile of the 19 Participants

<table>
<thead>
<tr>
<th>Name of the school leader</th>
<th>Name of the High School</th>
<th>Principal</th>
<th>Assistant principal</th>
<th>Departmental head</th>
<th>Teacher</th>
<th>Dean of discipline</th>
<th>Number of years at the school</th>
<th>Years of experience in school</th>
<th>Black</th>
<th>White</th>
<th>Hispanic</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Johnson</td>
<td>Bell Flower</td>
<td></td>
<td>X</td>
<td>5</td>
<td>8</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Hernandez</td>
<td>Bell Flower</td>
<td></td>
<td>X</td>
<td>3</td>
<td>10</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Rodriguez</td>
<td>Bell Flower</td>
<td></td>
<td>X</td>
<td>10</td>
<td>16</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Vincent</td>
<td>Bell Flower</td>
<td></td>
<td>X</td>
<td>X</td>
<td>7</td>
<td>12</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. William</td>
<td>Morning Rose</td>
<td></td>
<td>X</td>
<td>7</td>
<td>14</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Samson</td>
<td>Morning Rose</td>
<td></td>
<td>X</td>
<td>X</td>
<td>11</td>
<td>11</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Jackson</td>
<td>Morning Rose</td>
<td></td>
<td>X</td>
<td>7</td>
<td>10</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Robinson</td>
<td>Morning Rose</td>
<td></td>
<td>X</td>
<td>X</td>
<td>15</td>
<td>20</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Evans</td>
<td>Seaside</td>
<td></td>
<td>X</td>
<td>10</td>
<td>15</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Burnett</td>
<td>Seaside</td>
<td></td>
<td>X</td>
<td>X</td>
<td>7</td>
<td>17</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Ortiz</td>
<td>Seaside</td>
<td></td>
<td>X</td>
<td>X</td>
<td>14</td>
<td>33</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

9 The term school leaders is used broadly in this study to designate those who hold position of authority at the school – principals, counselors, department heads, deans of discipline, teacher leaders, etc… - or make decisions that impact the school. All the teachers in this study hold administrative position and are also referred to as school leaders.
12. Water  Trojan  X  X  10  13  X  X
13. Benson  Trojan  X  9  14  X  X
14. Clarence  Mountain  X  2  12  X  X
15. Wright  Mountain  X  X  8  14  X  X
16. Kayla  Olympus  X  3  10  X  X
17. Sandra  Olympus  X  X  22  22  X  X
18. Ruttenberg  Knot  X  X  5  7  X  X
19. Coleman  Knot  X  2  24  X  X

Below are brief descriptions of some of the school leaders, from each of the school districts.

**Brief Profile of Some of the Participants**

**Mr. Benson from Trojan High**

Mr. Benson has been the principal at Trojan High School for three years and was vice principal for seven years prior to assuming the role of the principal. Mr. Benson is an African American, originally from the east coast and came to his current position with a good amount of experience. He has two siblings, one older brother and a younger sister. His parents did not complete high school; they were dropouts in the tenth- or eleventh-grade. His sister completed high school but his brother did not. He attributes his success to the surroundings and the particular school he attended. “It was more from being around the right people, the right associations, the expectation. And, you know, the kids at my school were going on, you know, to college. And so then it became, ‘Hey, I can do this’.” Part of his success is attributed to his love for schooling as he loved to be a
student, and didn’t want to work at McDonalds as many kids of his time. He pursued his education and took it very seriously. He has been in education for quite a while, including “Little League with my kids, teaching kids sports activities. I was a Science teacher. And so education is very, very important. And then becoming, you know, a school leader as a department chair, athletic director, and those things.” He knows the school and the community very well. He identifies himself as a social justice advocate and says this stemmed from his personal experience as a minority. He knows personally the value of it for his students.

Ms. Hernandez from Bell Flower High

Ms. Hernandez has been the principal of Bell Flower High for 3 years. Prior to this she was the principal of a continuation school for 3 years. Then she was the assistant principal of a comprehensive high school for another 3 years. She received her doctorate in education from the University of Southern California (USC). Her parents were immigrants from Mexico, and she went through LA Unified and always liked school: “I always liked school, and I knew that through education I can have more opportunities in life, and it took one teacher to tell me I was college material, to really believe it. Because somebody told me, ‘hey you are going to go to college one day’ and that changed my life. Because I lived near USC, I lived in south central, and that was the only university close to me…. ” Her father dropped out in second grade and her mother finished middle school in Mexico. She is the middle child, she has an older brother and younger sister and all of them have college degrees. She was the first in the family to earn a college degree. Her motivation for education came from her love of learning and her parents encouragement, “My parents, I saw them work very hard, long hours, and hard labor. My mother was a
seamstress in a factory and my father was a plant repairman, and they always instilled in me that I needed to go to school so that I can have a better life. So I think that and optimism.” She claimed to be a social justice advocate, and this was inspired by her experience growing up in south central Los Angeles seeing how unfair the educational system can sometimes be for the students of color or “people like me” as she puts it. She has put in place many initiatives to demonstrate her love for learning and equal educational opportunity for all her students.

**Mr. William from Morning Rose High**

Mr. William has been the principal of Morning Rose High for 10 years. He grew up in Orange County and both his parents were teachers. His mother became a high school principal before she retired. “Good student, played sports in high school and college, graduated from UCLA with math degree and I’m married with two elementary school-age girls,” was the way he described himself. His intention was not to teach, but got attracted to it through the UCLA intern program that gave a teaching credential for an extra year and paid a $5,000 stipend during his senior year. He took the opportunity and became interested in teaching and got a teaching job. His first job was at a Catholic high school where he was also the athletic director, and from there he worked his way up to the principal position in the public high school. He has a strong belief in the importance of education for the youth so that they can have college opportunities and better careers. He perceives himself as a social justice advocate based on the type of job he was doing in equalizing opportunities for all the students.

**Rationale for Site and Participant Selection**

Given that one of the core goals of this study is to find out how school leaders who are social justice minded interpret and use data for equity purposes to improve the
future of different subgroups of students (racial, class, gender and otherwise), it not only makes sense but becomes imperative to choose school leaders who are social justice leaders and doing data work for equity purposes at their schools. Because of the high turnover rate among school principals and to ensure some level of continuity in the data-driven transformations at the schools, the researcher chose school leaders who were at least two years in the position of authority and demonstrated capacity to make data-driven decisions at their schools.

It is important to reiterate that the choice of urban high schools is informed by the critical role high school plays in the life of all young people especially those living in urban communities. It is at high school where students receive a lasting impression, academic and otherwise, that will set them on a trajectory for future life success. High school makes students college-ready and can remedy previous negative educational experiences. Equally, the persistence of underachievement and high dropout rates of students at the urban high schools in California and other states is a matter of grave concern. Approximately 1.23 million students in the public high school class of 2008 nationwide failed to graduate with a diploma. (Editorial Projects in Education Research Center, 2008) In school year 2009-10, approximately 3.1 million public high school students in the U.S graduated, while 514,238 dropped out (National Center for Education Statistics, 2013). For at least five years now, one in four high school students in the U.S. drop out and more than one in three minority students drop out (Habash, 2008). These dropouts are most often students of color in urban areas. Evidence suggests that dropping out of high school and low school performance are correlated to negative economic outcomes and unhealthy democracy. High school dropouts have also been found to
account for a disproportionately higher percentage of minorities in the nation’s prisons and death row inmates. (NCES, 2008; Rumberger & Lim, 2008) On every measure, the minority and low-income students fare worse than their peers and the problems are particularly devastating.

While there is generally low performance and high dropout rates in California compared to other states, it is even gloomier for minorities in urban high schools. Almost always the minority students are the ones who attend schools in these urban high schools and the majority of them are African Americans and Latinos - students of color. It is no longer anything new that many students of color are underachieving and the achievement gap between these subgroup of students and whites continues to widen. Sometimes it seems the U.S., as a nation, has accepted as normal these youth underperforming and dropping out of high school. For instance, in California, almost 200,000 high school students of the class of 2008 did not graduate. And students of color (African American and Latino) make up the majority of this figure. In 2006-07 school year, approximately 90% of Asians and 80% of Whites graduated from high school in California, while 60% of African Americans and 60% of Latinos graduated. The gap did not change much in 2009-10 school year, where 93.5% Asians, 83% White students, 71.4% Hispanics and 66.1% African Americans graduated (National Center for Education Statistics, 2013). This researcher believes that school leaders in urban high schools have a distinct responsibility to help transform these dismal statistics by using equity-related data with a social justice informed mindscape.

The choice of at least one urban high school that is 90 - 100% students of color and another high school that is less than 50% students of color is justified by the goal of
the study to explore the differences between school leaders sense-making and use of data in schools where students of color are the majority and in schools where they are not. This demographic diversity of the seven schools helps to better understand the impact of race among school leaders.

While there are many subgroups of students categorized as students of color (African Americans, Latinos, Native Americans, Pacific Islanders, Asians, Filipinos, etc.), this researcher is interested in Blacks and Latinos because of the persistent achievement gap and high dropout rate between this subgroup of students and their White peers. Also for practical purposes these two groups are a lot more manageable because the data are easily available. In the end, the ultimate goal of this study is to develop ways school leaders can use data to transform patterns of inequality and, subsequently, close the achievement gap and high dropout rate for these students of color.

**Data Collection**

As previously stated, this study utilizes a qualitative phenomenological approach for data collection and analyses. The major data collection strategy for phenomenological research is through interviews. However, this approach is combined with other qualitative methods. Consequently, the data collection process occurs through a wide variety of multiple and overlapping sources throughout the school year. These consist of equity audits, shadowing, participant observation, interviews, and collection of paper artifacts. There is a series of site visits to each school. Each site visit lasts for half a day and is guided by a set of protocol questions generated from my research questions and theoretical model. In what follows, I will give a detailed description of the different types of data that are collected and how they are analyzed.
Equity Audits  
Upon receiving consent from the participants and prior to the first visit to each school, an equity audit was initiated and equity data were collected from the California Department of Education (CDE) public access website. When possible, the data were supplemented by official school records at each school site. Equity audit tools were used to obtain equity-related data. Equity audits are tools school administrators typically use to identify embedded and internal patterns of inequities at their schools. Skrla et al. (2009) argue that equity strategies should be planned and systemic and should focus on the core areas of the teaching and learning process particularly curriculum, instruction, school environment, and culture. In each school in this study, equity audits were used to identify embedded patterns of inequities. The analyzed equity data were then used as background information to explore how school leaders in the seven school sites were making sense of and using data in the three areas of the equity audit to disrupt the patterns of inequality at their schools.

Gathering such equity-related data through equity audits involved the use of descriptive statistical analysis. These equity-related data were indirectly linked to the research questions that guided this investigation as they highlighted the embedded and complex patterns of inequality at each school. The equity data built the context that helped to better understand the schools and the issues at each school site. The three major areas or domains identified by Skrla et al. (2009) in their equity audits are: teacher quality equity, programmatic equity and achievement equity.

Achievement Equity: Enrollment records from the CDE website of the seven high schools from school year 2001-02 to 2008-09 were retrieved. These data helped to
measure the graduation and dropout rates for the five year period. Data were
disaggregated across student sub-groups to identify patterns and trends related to those
enrolled and graduated at each institution. This approach facilitated identification of any
trends that have occurred over the five-year period and offered a much more
comprehensive picture of who enrolled and who graduated from each school. Even
though matching the enrollment year with the graduation year did not yield accurate data
on dropout rates, it did paint a larger picture. Dropout rates over the 5-year period
identified reform initiatives initiated by the school leaders and the impact of those
initiatives on the school.

Similarly, data were collected from the seven high schools to count students who
graduated with University of California and California State University (UC/CSU)
eligible courses. These data were disaggregated across student sub-groups. Again the five
year period from 2004-05 to 2008-09 was sufficient to identify consistencies in the
pattern of performance at each high school. It is a well-known fact that even though
some students graduate, they do not graduate with the eligible college courses, thereby
limiting their potential to attend a more competitive four-year college or university. Data
on the California High School Exit Exams (CAHSEE) were also collected. Standardized
test data were collected, such as: Advanced Placement (AP) exams, Scholastic Aptitude
Test (SAT) and American College Test (ACT). These were gathered for all the grades
that took the exams within the school for each year under review. The California
Standardized Testing (CST) for 9th, 10th and 11th grades for each of the high schools were
extracted from the CDE website through data quest application. Data were for the same
five school years and were disaggregated by ethnicity and gender. These helped to
measure with some degree of confidence which students were taking these tests and how they performed. Some educators may say that “the inequities revealed by this category are due to innate differences, societal factors, or individual decisions by students and/or their families. All these things are beyond the control of educators” (Skrla, et al., 2009, p.54). It is true that some of these external factors may influence the equity audit data; however, research shows that there is much to be done to improve the equity situation, which is within an educator’s control (Edmonds, 1979; Skrla, et al., 2009). Some school leaders fail to analyze patterns of inequality meaningfully and how they play out at different schools.

Descriptive statistics were employed to analyze the above data. Frequency tables, pie charts and histograms were used to analyze and illustrate achievement inequities at each high school. Through the use of SPSS software, the enrollment and graduation data for each school was plotted into frequency tables to calculate dropout rates for students across sub-groups. Additionally, these data, charts and graphs were used as a catalyst for conversation in the interviews with school leaders to find out how they were making sense of such achievement data and what they were doing or envisioned doing to transform the situation.

Table 1.2: Enrollment, Graduation, Dropout, and Standardized Testing Results ¹⁰

<table>
<thead>
<tr>
<th>School</th>
<th>Bell Flower High</th>
<th>Morning Rose High</th>
<th>Seaside High</th>
<th>Mountain High</th>
<th>Olympus High</th>
<th>Knot High</th>
<th>Trojan High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment 2004-05 (9&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>1,129 442</td>
<td>550 492</td>
<td>976 470</td>
<td>1,143 371</td>
<td>-- 251</td>
<td>511 378</td>
<td>479 447</td>
</tr>
<tr>
<td>Graduation 2008-09 (12&lt;sup&gt;th&lt;/sup&gt;)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduation with UC/CSU&lt;sup&gt;11&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹⁰ Data derived from CDE website (www.cde.ca.gov)
### African American, Latino, Asian, White

<table>
<thead>
<tr>
<th></th>
<th>9th Grade Graduates</th>
<th>11th Grade Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>25: 12, 283: 120</td>
<td>13: 6, 41: 15, 172: 139</td>
</tr>
<tr>
<td>Asian</td>
<td>74: 51, 356: 14</td>
<td>274: 93, 47: 26, 5: 4</td>
</tr>
<tr>
<td>White</td>
<td></td>
<td>126: 19, 98: 15, 15: 6</td>
</tr>
</tbody>
</table>

### Enrollment and Dropout

<table>
<thead>
<tr>
<th></th>
<th>12th Grade Enrollment</th>
<th>12th Grade Dropout</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>265/20, 1,880/132</td>
<td>37/0, 239/1, 1,086/1</td>
</tr>
<tr>
<td>Latino</td>
<td>187/3, 732/1</td>
<td>1,343/109, 263/24</td>
</tr>
<tr>
<td>Asian</td>
<td>356/14, 1,057/1</td>
<td>861/54, 1,273/136</td>
</tr>
<tr>
<td>White</td>
<td></td>
<td>164/1, 607/15, 45/5</td>
</tr>
</tbody>
</table>

### CAHSEE 2008-09

<table>
<thead>
<tr>
<th></th>
<th>Number tested</th>
<th>Number passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA</td>
<td>973, 583</td>
<td>598, 544</td>
</tr>
<tr>
<td></td>
<td>581, 395</td>
<td>1,173, 565</td>
</tr>
<tr>
<td></td>
<td>690, 544</td>
<td>1,173, 565</td>
</tr>
<tr>
<td></td>
<td>598, 544</td>
<td>1,173, 565</td>
</tr>
</tbody>
</table>

### Enrollment 12th Grade/SAT Exam Takers

<table>
<thead>
<tr>
<th></th>
<th>2008-09</th>
<th>2008-09</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th Grade</td>
<td>492, 232</td>
<td>492, 102</td>
</tr>
<tr>
<td>11th Grade</td>
<td>557, 333</td>
<td>472, 138</td>
</tr>
<tr>
<td>12th Grade</td>
<td>472, 215</td>
<td>363, 48</td>
</tr>
</tbody>
</table>

### Enrollment 12th Grade/ACT Exam Takers

<table>
<thead>
<tr>
<th></th>
<th>2008-09</th>
<th>2008-09</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th Grade</td>
<td>492, 232</td>
<td>492, 102</td>
</tr>
<tr>
<td>11th Grade</td>
<td>557, 333</td>
<td>472, 138</td>
</tr>
<tr>
<td>12th Grade</td>
<td>472, 215</td>
<td>363, 48</td>
</tr>
</tbody>
</table>

**Teacher Quality Equity:** Data on the quality of teachers at each school were collected from the CDE data quest from school year 2004-05 to 2008-09 and supplemented with school data where necessary. This gave a complete five-year data set on teacher quality at each school. The data were broken down into total number of teachers, gender, ethnicity, highest level of college degree (Doctorate, Master’s, Bachelor’s & Less than Bachelor’s), number of years teaching (1-2 yrs. & 3 yrs. and above), number of years teaching at the

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11 Gives total number of graduates and graduates with UC/CSU courses 2008-09. In each racial group, the first number refers to total graduates and second refers to those with UC/CSU required courses.

12 Enrollment and Dropout 2008-09 (9 – 12th grade). In each racial group, the first number refers to enrollment while the other refers to the dropout of the school year.
school (1-2 yrs. & 3 yrs. and above), teacher credential (full, university intern, district
teachers assigned to each school. Another set of data indicated the classes that
and distribution of teachers
English language learners, special education students, or basic-level mathematics were
students in advanced mathematics. There is a tendency to have ‘highly qualified’
teachers cluster in the advanced grouping classes (e.g., gifted and talented, advanced,
honor, pre-Advanced Placement (Pre-AP), Advanced Placement (AP), or International
Baccalaureate (IB) classes). The argument here is not that these teachers should not
teach these advanced classes, but that there should be equitable distribution of the
resources that these teachers bring. “All students should have equal opportunity to learn
from the most highly qualified teachers on campus” (Skrla, et al., 2009, p. 34). Not all
campuses will have equal numbers of teachers who are highly qualified, but the pattern of
distribution of the highly qualified teachers at each campus determines equitable or
inequitable access by students to the resources that these teachers bring. The central
question of an equity audit is about distribution of the resources across a particular
campus and an education district. Where are the experienced teachers assigned? Where
are teachers new to the school clustered? Where are the teachers located who are not
certified or who are teaching outside the areas for which they hold certification?

Descriptive statistics were used to analyze the above variables in this domain of
teacher quality equity. The statistical software SPSS was used to draw up frequency
tables, pie charts and histograms with the variables under this domain. This gave visual
potency to see the level of inequity in the distribution of resources teachers bring to each
school. As some scholars argue, it would be unrealistic to expect large improvement in
students’ performance and narrowing achievement gaps if certain groups of students are
assigned and taught persistently by the least qualified teachers (Skrla, et al., 2009).

Table 1.3: Demographic of Teachers at each School, 2008-09 School year

<table>
<thead>
<tr>
<th>School</th>
<th>African American</th>
<th>Latino</th>
<th>Asian</th>
<th>White</th>
<th>Full Credential</th>
<th>Emergency Credential</th>
<th>District Intern</th>
<th>University Intern</th>
<th>Total Number of Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bell Flower</td>
<td>8</td>
<td>18</td>
<td>19</td>
<td>74</td>
<td>119</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>122</td>
</tr>
<tr>
<td>Morning Rose</td>
<td>0</td>
<td>3</td>
<td>9</td>
<td>77</td>
<td>93</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>96</td>
</tr>
<tr>
<td>Seaside</td>
<td>15</td>
<td>14</td>
<td>11</td>
<td>73</td>
<td>113</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>116</td>
</tr>
<tr>
<td>Mountain</td>
<td>23</td>
<td>5</td>
<td>4</td>
<td>49</td>
<td>81</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>81</td>
</tr>
<tr>
<td>Olympus</td>
<td>21</td>
<td>12</td>
<td>9</td>
<td>62</td>
<td>106</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>114</td>
</tr>
<tr>
<td>Knot</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>65</td>
<td>75</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>79</td>
</tr>
<tr>
<td>Trojan</td>
<td>15</td>
<td>16</td>
<td>3</td>
<td>68</td>
<td>111</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>113</td>
</tr>
</tbody>
</table>

13 These data were for 2008-09 school year and were culled from Ed. Data (www.ed-data.k12.ca.us)
Programmatic equity: The next round of data collection focused on the quality of programs at each of the seven high schools to which students have access. At each of the schools, data were collected on current special education offerings to help better understand who was in the program. This set of data was collected from individual school records rather than from the CDE website. This was because the data on special education was not by school, but by district at the CDE. Like the other sets of data, the data spanned a five-year school period 2004-05 to 2008-09. These data were disaggregated according to the racial or ethnic groups at each of the high schools and overlapped with the entire school demographic. Data on the gifted and talented education (GATE) program were collected from the California Basic Educational Data System (CBEDS). This was gleaned by using the school codes of the seven high schools to identify each school from the large data file. The data were for five school years (2004-05 thru 2008-09). The data were disaggregated by ethnicity and gender. The quality of bilingual education at each of the high schools was measured by the data from the California English Language Development Test (CELDT) results. This test is taken annually by students whose primary languages are not English. Even though the exam results did not exactly express the quality of bilingual education at each school, it helped to provide some idea of how the students were doing in the program and how the school leaders made sense of such data. Two major languages other than English at each school were selected. The data were collected for all the grades (9th thru 12th) through the CDE data quest application. Data were gathered for five-year period (2004-05 school year through 2008-09) and classified into advanced, intermediate and beginning. The last set of data for programmatic equity focused on school discipline. Data were gathered for the
five-year school period (2004-05 thru 2008-09) on expulsion, suspension and truancy, through the CDE data quest application. Because the data on the CDE website were not classified by ethnicity and gender, they were supplemented with data from each school’s records. Information was also collected on the type of instruction given to students while they were on disciplinary hold, and compared with what they missed in the regular classes; this was collected on the current school year. This gave ample data to illustrate any pattern of inequality influencing referrals for disciplinary action.

The resulting data were copied into the SPSS software and descriptive statistics were run on them to generate frequency tables, histograms and pie charts. The data and analyses from each school were used as background information to engage in conversation with the school leaders to find out how they made sense of teacher quality, teacher assignments, students achievement and program assignments at their schools. What information did they draw upon and what issues did they identify around these three equity areas? Where did they create space for teachers to make sense of these areas of concern and what actions were being taken or being envisioned in order to transform these barriers to equal educational opportunities at their schools? The remaining part of the data collection provides details and steps for collecting data at each of the schools through interviews, observation, shadowing and collection of paper artifacts.

**Knowing the site and participants**

During the first school visits I began to know and build relationships with the potential key informants (principals, vice principals, department heads, teachers, administrative assistant, data analyst, math and literacy coaches, union representatives, site council, coordinators, counselor, etc.). This first visit lasted half the school day. It
consisted of a brief meeting with each principal and each member of the administrative
team (vice principal, coordinator, site council, math and literacy coaches, and counselor).
In this meeting the purpose of the study was explained again and each school leader was
asked to nominate and introduce me to other school leaders involved with data-driven
decision-making at the school. There was some overlap in the nomination, but I made
sure these school leaders (department heads, administrative assistant, data analyst, union
representatives, dean of discipline, etc.) were included on my list. This was to make sure
I had the key persons who might be involved with data at each school. I scheduled time to
meet each of these school leaders to get to know them and the extent of their involvement
with data. Whoever agreed to participate was asked to sign the consent form.

Additionally, I did a campus tour with a tour guide. During the tour I did an
ethnographic mapping of the entire school setting. As Schensul et al. (1999) noted,
ethnographic mapping involves laying out the physical landscape of a study context. This
provided a good sense of the geography of the school space and how to navigate my way
around it. Before the conclusion of this first visit, I requested the principal to show me a
room where I could stay to do work or keep my belongings while on campus.

**Semi-structured and In-depth Interviews**

In order to capture the voice of the school leaders, I used semi-structured
interviews, which helped interrogate how school leaders were making sense of and using
data at their schools. Semi-structured interviews were valuable in this setting as opposed
to scripted interviews because semi-structured interviews are conversation-based, which
lends the interview a relaxed and sincere atmosphere. In contrast, structured interviews
tend to guide the conversation on a rigid course with little freedom to diverge onto other
topics. In order to create a space in which the school leaders’ voices could be fully
expressed, the school leaders needed to be able to comfortably discuss the topics and ideas that they felt were important to them concerning their sense-making and use of data at their schools. Weller (1998) suggests that open-ended, semi-structured formats facilitate the collection of new information, providing the flexibility to explore different topics in-depth with different informants. The semi-structured interviews afforded the participants and me the flexibility and openness necessary for honest conversation around the topic of interest while retaining the integrity of the process. Whereas I had the responsibility of creating a series of interview questions most capable of yielding informative responses, the school leaders had such a wide range of perceptions of the phenomenon that the methodology needed to be comprehensive enough to capture such responses, but also structured to give the school leaders the necessary organization to feel comfortable and safe in the interviewing space.

There were two rounds of semi-structured interviews. The first set of interviews began December 2010 and focused on capturing the institutional mindscape around data and data usage at each school. This involved interviews with the principals, some members of the administrative team and all the other leaders that were nominated. Each of the interviews lasted about 1 hour to 1 hour 30 minutes with each school leader. A total of 19 school leaders were interviewed in this first round of interviews. The questions were drawn from the equity audits in the research model: teacher quality, student achievement and programmatic equity. (See Appendix, p. 247) Although I did not follow a fixed sequence, I specifically focused on the general sense around data and what type of data they had and used regarding teacher quality, student achievement and program assignment. How were they making sense of and using these data to transform their
schools and what ideas or norms were informing this process of sense-making and using
data at the school? While I had specific questions around equity-related data, I let the
school leaders have the freedom to respond however they liked and engaged them more
on their responses through probes.

The second round of interviews was semi-structured and in-depth with all the
school leaders including the principals. The school leaders were chosen following the
criteria for participant selection. The selected school leaders including the principal were
engaged in an individual in-depth interview about their sense-making and use of equity-
related data. Apart from these selected school leaders, I was also open and engaged in an
ongoing conversation with other school leaders who were open and offered valuable
information around data decision and usage at their schools. However, the selected school
leaders constituted the major focus of the data collection at each school.

The interviews this time were focused on the factors that influence their
mindscapes and how their practices were associated with their mindscapes and the
bureaucratic and environmental factors at each school. (See Appendix, p. 248 – 249) The
school leaders’ personal, professional, organizational and institutional contexts were
explored. This helped to understand the leaders own history and background, beliefs,
work history, role identities, and group affiliations that figured prominently in their
framing and interpretation of issues and events particularly around data that speak of
inequality of opportunities among students. The many organizational and institutional
contexts surrounding schools provide school leaders with ideological, social, and political
cues that signify patterns or norms that help them filter information and experiences, and
guide their actions and behaviors (Evans, 2007). Each school leader was asked to name
two major policy decisions the school has made in the past two years and how those
decisions were reached. I paid special attention to how data played into those decisions
and how data were interpreted and disaggregated. I collected supporting documents (e.g.,
memos to faculty, students and parents) related to such decisions to validate how concrete
action was taken. School leaders were equally asked to name two to three data driven
decisions, in at least the past two years, that have impacted practice and resulted in
positive student outcomes. Supporting documents of such decisions and outcomes were
collected as well. Some of the school leaders took me to the sites of the new initiatives.
For instance, the principal of Morning Rose took me to observe the “Late Start” program
he established for teachers, and I conducted a half hour observation at each of the
departments and took field notes. I talked to some of the teachers involved in the process
to see how the initiatives were working.

The interviews also focused on the factors that impact meaningful sense-making
and thoughtful use of data at the school. The interviews included questions on the
specific impact of accountability data and the type of atmosphere that existed around
such data. Each interview lasted 1 hr. to 2 hrs. and they were audio recorded and
transcribed verbatim as soon as possible, titled and saved in file documents. Field notes
were typed and saved as well. During each of the interviews I did an immediate member
check by reflecting back to the participants what I heard them say to make sure I recorded
exactly what they said or meant to say. After I finished transcription I also checked with
the participants to clarify certain statements or words that I had uncertainty about their
meaning.
Shadowing and Observing the Principals and Other School Leaders

There were a series of shadowing and observing of some of the principals and school leaders throughout the study. Like the other data collection strategies, I used a set of protocols and plans in conducting them. I selected seven school leaders, one from each school, and shadowed and observed each of them for half the school day. I took field notes of what they did and where they focused most of their attention at the school. This gave me an idea of the day-to-day activities of each school leader and how many times issues around data or data-driven decisions came up and how he or she handled them. This was a bit challenging and uncomfortable both for school leaders and me. But I encouraged them to just run their day-to-day business and do not let my presence interrupt them. In this part of data collection, I looked for evidence of what guided the school leader’s decision-making process. I paid particular attention to what Evans (2007) calls ‘artifacts’ of sense-making, which are the words, actions, non-actions, behaviors and decisions of school leaders around data. During this shadowing I engaged each school leader in a follow up conversation around the places and activities they engaged their time to further understand what beliefs, values or theories of practice were driving their interests. The questions were in the form of an open-ended and unstructured interview. The conversation was recorded and transcribed.

The unstructured observations done through shadowing of the school leaders gave me some idea of where and how each school leader spent most of their time each day. I then selected two places and two events that ranked highest in the category of events and places that the school leader spent their time. I also sought the assistance of the administrative assistant at each school to map out for me where and in what activities the principal and the selected school leaders spent most of their time. For those who did not
have access to the school leaders’ calendar, I directly requested the calendar from the school leader. After I identified the places and events I requested each school leader to allow me to shadow them on those days that the events were scheduled. The priorities of school leaders fell into one of these categories: staff meeting, classroom observation, professional development, inspecting some projects at the school, and doing paperwork in the office. I took time to observe, document, and seek to understand their reasons for committing time to any of the activities. This helped me understand where and what the school leader considered a priority and why, how and what he/she did that reflected his/her beliefs and values on equal educational opportunity. As Dr. McCullough (2010) observed, “Where people put their time, money and personnel is where they put their values.” Field notes were taken and follow up questions were recorded and transcribed and saved in a file document.

**Faculty Meeting and Professional Development**

At each school I requested permission of the principal to attend faculty meetings, professional development and/or any other events that may involve school leaders as well as decision making on issues that have school-wide impact. I also requested the principal to inform the faculty of my presence and my purpose at those meetings/events. I conducted nonparticipant observation. The purpose of this was to observe how and what data played a role in school decisions. How was the data interpreted and used? I also focused on the type of agendas used at the meetings and what kind of focus, talk, action, non-action, and other behavior the school communities exhibit around data. How was business conducted in the school and how did data play a role? As the Latin adage says, *agere sequitur esse – action follows being.* This observation enabled me to draw further physical evidence to support the rhetorical claims of school leaders in order to triangulate
my data. I focused my observation on the school leaders who consented to participate in the study and recorded their engagement with data at the meetings/events. For school leaders who had not consented to participate, I limited my observation to the process and content of the meetings/events without reference to specific individuals. Useful and supporting documents were collected from such gatherings. The field notes from the observations were routinely typed, titled, and entered into a file document as soon as I returned home.

After each observation at the faculty meeting and professional development, I had a follow up conversation with the principal or any other school leader that played a significant part in the meeting in order to further understand how they made sense of some key issues that came up in the meeting or were not addressed that related to data and data usage at the school. This conversation was both spontaneous and focused on the particular issue on data. The conversation was audio recorded and transcribed. Upon completion of the interviews, I immediately created field notes on my initial reaction to the data presented by the participants. This concluded the data collection process.

**Data Analyses**

Because this research employs a qualitative phenomenological approach to data collection, the analyses involved a combination of both Moustakas’ (1994) four main phenomenological data analysis and other qualitative interpretation approach to make for a robust approach. This section describes my data analyses strategies.

Data analysis in qualitative research begins and continues during the natural unfolding process of the inquiry. “Ideas for making sense of the data that emerge while still in the field constitute the beginning of analysis; they are part of the record of field
notes. Recording and tracking analytical insights that occur during data collection are part of fieldwork and the beginning of qualitative analysis” (Patton, 2002, p. 436). Data analysis begins and is done simultaneously with the data collection and helps to shape the research as it progresses (Glesne, 2006). I started some of my analysis as I went along and noted some key points and themes, which I later pursued in the setting. I transcribed a total of 32 interviews not including follow up interviews after shadowing and observations. Each interview of 1 hour length took about 5 to 7 hours to transcribe and check for accuracy. Patton (2002) suggests that transcribing offers, “…a point of transition between data collection and analysis as part of data management and preparation. Doing all or some of your own [the researcher’s] interview transcriptions (instead of having them done by a transcriber)… provides an opportunity to get immersed in the data, an experience that usually generates emergent insights” (p. 441). I did most of my transcriptions and outsourced some to a professional transcriber, who signed a confidentiality agreement in order to protect the confidentiality of the participants. I checked these for accuracy by reading through them and listening to the audiotapes.

Once I completed the transcription and cross-checked for accuracy, I began to organize and reduce the data so that ideas, themes, units, patterns, and structures within them started to emerge (LeCompte & Schensul, 1999). I then began to make a list of codes based on the research model, operationalization of domains and the research questions. These were concepts and categories such as beliefs, values, education, family background, interpretation of data, use of data, social justice, teacher quality, standardized test, achievement, discipline policy, inequity, ethnic group difference, equal
opportunity, etc. I uploaded into qualitative software program, atlas ti, the reorganized and rewritten texts of interviews, field notes and observations.

After this I started the formal process of analysis that entailed some form of coding and categorization of data. The analysis and categorization were done through the lens of my theoretical framework, namely critical social theory and political race theory. I read through my interview transcripts and field notes several times and began assigning numeric or alphabetic codes to sentences or paragraphs, which would represent concepts, categories, or themes. I performed the coding both by a top down approach (i.e., deductively) and bottom up (i.e., inductively) approach. My top down approach was accomplished by using my chosen set of concepts to sort through the data to find where the concepts fit best. My bottom up approach was done, “by examining the data first to see into what kinds of chunks they seem to fall naturally and then choosing a set of concepts that helps to explain why the data fell that way” (LeCompte & Schensul, 1999; p. 46).

When coding was completed I began item level analysis, which involved isolating and identifying specific items or elements in the data that were related to my research question (ibid, 1999). The pulling apart of the relevant information from my interviews, field notes, observations, maps and collectibles helped to categorize my data into meaningful information that formed strong evidence to support the emerging themes and the storyline of each interview. The identified items were assembled into patterns and structures. This is similar to my vertical modeling in the operationalization of domains in chapter four, where I stepped down from domain to factors and factors to items. The frequency of any one item, events, responses or themes helped me to identify a pattern
easily. While doing this I was doing a constant comparison (Glaser & Strauss, 1967, quoted in LeCompte & Schensul, 1999) by exploring the differences and similarities in behaviors, settings, actors, and other dimensions of cultural life and making inferences about these differences. While doing this I was simultaneously applying Moustakas (1994) four main procedures of phenomenological data analyses. The four steps are described below.

**Epoché**

Epoché is a Greek word meaning “to refrain from judgment, to abstain from or stay away from the everyday, ordinary way of perceiving things” (Moustakas, 1994, p. 33). Through the process of *epoché*, I refrained from making any quick judgments and conclusions but allowed the data to speak to me (Moustakas, 1994). The process of *epoché* was accomplished by the process of reflective meditation (Moustakas, 1994), which involved clearing the mind in such a way as to allow for transparency and an objective view of the phenomenon to create new ideas, feelings, understanding and awareness. Secondly, using a quiet location was vital to the process of *epoché* (Moustakas, 1994). The quiet location of the library afforded me a meditative and less distractive ambience to focus my attention on the data, context and participants.

**Phenomenological Reduction**

The second step in analyzing phenomenological data according to Moustakas (1994) is phenomenological reduction. Here the researcher focuses on exploring the “what” of the individual’s perceptual experiences or the *noema* (Moustakas, 1994). The *noema* refers to the appearance of an object from the point of view of the one experiencing it (Moustakas, 1994). Moustakas states, “Phenomenological reduction is not only a way of seeing but a way of listening with conscious and deliberate intention of
opening ourselves to phenomena as phenomena, in their own right, with their own
textures and meaning” (p. 92).

The phenomenological reduction as illustrated by Moustakas (1994) includes six
key steps. The first step is bracketing. I bracketed or temporarily suspended my
prejudices and assumptions in order to see the phenomenon as it was. I made an
intentional effort to identify my biases and then set them aside, “continually returning to
the essence of the experience to derive the inner structure or meaning in and of itself”
(Merriam, 2009, p. 26). The second step is horizontalization. This entails that all the
aspect of the data be treated with equal value (Moustakas, 1994). It is “the process of
laying out all the data for examination and treating the data as having equal weight; that
is, all pieces of data have equal value at the initial data analysis stage” (Merriam, 2009, p.
26). Later, statements and questions that are irrelevant, repetitive, and/or overlapping are
deleted leaving only the textural meanings and invariant constituents of the phenomenon,
referred to as the Horizons (Moustakas, 1994). Every bit of my data was considered in
the process of the initial analyses and later as I sought deeper into the data, I began to sort
through the data and organize them into relevant themes and patterns. During the third
step, I looked for delimited horizons or meanings (Moustakas, 1994). This focused on
horizons that stood out as invariant qualities of experience (ibid, 1994).

The fourth step involved the process of actively searching for themes (Moustakas,
1994). At this stage I focused on and intentionally searched for invariant constituents and
clustered them into themes or units of meaning. Invariant themes are non-repetitive, non-
overlapping elements (Patton, 2002). I separated and saved themes that were overlapping
to a different Word document. The fifth step involved writing an individual textural
description for each school leader’s experience with data (Moustakas, 1994). This process entailed a descriptive integration of textural constituents and themes previously clustered in the fourth step.

The final step consisted of integration of all the individual textural descriptions into a composite textural description of the phenomenon of sense-making and use of data by school leaders. (Moustakas, 1994) The focus here was to zero in to the deeper and common meanings of the phenomenon of sense-making and use of data for all school leaders. It involved a more universal description of their interpretation and use of data for equity purposes at their various schools.

**Imaginative Variation**

The third step of analysis is imaginative variation (Moustakas, 1994). This is the process of viewing the data from multiple perspectives, “as if one were walking around a modern sculpture, seeing different things from different angles” (Merriam, 2009, p. 26). The main focus in this stage is the noesis of the experience (ibid, 1994). Moustakas further described the noesis as a description of meaning that one makes from the appearance of the object. This procedure helped me to focus on how the school leaders were conceptualizing their experience with the data at their schools. Therefore, this required paying attention to the school contexts in which the school leaders were making sense of and using data for social justice.

Moustakas (1994) described eight important steps that are involved in this process. The first step is to vary structural meanings. This step was accomplished by distinguishing between the different structures and meanings of each school leader’s experience (Moustakas, 1994). The next step consisted of varying perspectives of the
phenomenon. I accomplished this step by viewing the phenomenon of school leaders sense-making and use of data from different angles and perspectives, looking at all the possible explanations available (Moustakas, 1994). The third step is *free fantasy variation*. This step was fulfilled by considering all the possible structural dynamics that evoked the textural qualities (Moustakas, 1994). These three steps were part of a reflective phase that gave “body, detail, and descriptive fullness to the search for essences” (Moustakas, 1994, p. 99). The goal was to consider as many possibilities as the researcher can imagine and contemplate.

The fourth step of analysis described by Moustakas (1994) is to list structural qualities of the described phenomenon. During this stage of analysis I listed the structural qualities that I identified within the previous step. The structural qualities provided the benefits of evoking the feelings, beliefs, and thoughts related to the experience of school leaders in making sense and use of data for transformation of their schools. The fifth step in the process is the *clustering of the structural qualities*. This step was realized by developing and clustering the structural qualities into themes so that a structural description of the phenomenon emerged (Moustakas, 1994). I began to organize and reduce the data so that ideas, themes, units, patterns and structures within them started to emerge (LeCompte & Schensul, 1999). The sixth step involved defining universal structures. During this stage my focus was to use the universal structures as themes. The organization and reduction of data included reorganization and rewriting of the text data from the interviews to give a comprehensive and meaningful narrative by identifying time and place, people involved, what happened, how it turned out, and then an evaluation or interpretation (Mishler, 1986 quoted in LeCompte and Schensul, 1999).
This reflection on the universal structures allowed me to understand the various conditions that contributed to the experience of the phenomenon. The seventh step according to Moustakas (1994) is to develop the *individual structural descriptions*. This step was achieved by integrating the structural qualities and themes for each participant into individual structural descriptions. The focus was that these individual structural descriptions assisted me in understanding the “underlying structures that account for an experience being what it is” (Moustakas, 1994, p. 137). These underlying structures were the themes and qualities that illumined how the thoughts, beliefs and feelings of school leaders were connected with their experience of making sense of and using data for equity purposes (Moustakas, 1994).

The last step within the imaginative variation process according to Moustakas (1994) is to create *composite structural descriptions*. This process focuses on understanding how the participants as a group experienced the phenomenon being studied (Moustakas, 1994). I accomplished this process by integrating the individual structural descriptions into one composite group and identified common themes, patterns, and meanings from the perspectives of the school leaders. In the end this rigorous process was aimed at capturing and describing accurately the essence of the phenomenon of sense-making and use of data among school leaders in urban high schools.

**Synthesis**

The final step in the process of analysis was the synthesis of my composite textural descriptions with my composite structural descriptions of the experience. During this process, I plumbed deep into the essence of the experience of school leaders in making sense and use of data to transform patterns of inequality. Moustakas (1994) stated that in order to arrive at the essence of a phenomenon, the *noema* (textural) and the *noesis*
(structural) must be integrated. In other words, I had to combine how the school leaders were making sense of and using data with what factors that influenced their mindscapes and conditions at their schools limiting their use of the data in thoughtful and transformative ways. This helped for a clear and cohesive description of the school leaders experience with data.

Table 1.4: Outline Summary of Moustakas (1994) Phenomenological Analysis Model (pp. 180-181)

<table>
<thead>
<tr>
<th>A. Epoché</th>
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<tbody>
<tr>
<td>B. Phenomenological Reduction</td>
</tr>
<tr>
<td>1. Bracketing the Topic or Question</td>
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<tr>
<td>2. Horizontalization</td>
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<tr>
<td>3. Delimited Horizons or Meanings</td>
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<tr>
<td>4. Invariant Qualities and Themes</td>
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<tr>
<td>5. Individual Textural Descriptions</td>
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<tr>
<td>6. Composite Textural Descriptions</td>
</tr>
<tr>
<td>C. Imaginative Variation</td>
</tr>
<tr>
<td>1. Vary Possible Meanings</td>
</tr>
<tr>
<td>2. Vary Perspectives of the Phenomenon</td>
</tr>
<tr>
<td>3. Free Fantasy Variations</td>
</tr>
<tr>
<td>4. Construct a List of Structural Qualities of the Experience</td>
</tr>
<tr>
<td>5. Develop Structural Themes</td>
</tr>
<tr>
<td>6. Employ Universal Structures as Themes</td>
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<tr>
<td>7. Individual Structural Descriptions</td>
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<tr>
<td>8. Composite Structural Description</td>
</tr>
<tr>
<td>D. Synthesis</td>
</tr>
<tr>
<td>1. Synthesis of Composite Textural and Composite Structural Descriptions</td>
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</table>

**Internal Validity and Reliability**

Internal validity and reliability in qualitative research does not carry the same connotation as in quantitative research. Internal validity and reliability in qualitative research is perceived as a way of determining the accuracy of the findings and making sure that the findings are congruent with reality from the standpoint of the researcher,
participants and the readers of the account (Creswell, 2003; Merriam, 2009). It entails conducting research in an ethical manner. Merriam (2009) recommended eight strategies for promoting validity and reliability. In my data collection and analysis I made use of these strategies. The strategies are described below.

1. *Triangulation:* “Using multiple investigators, sources of data, or data collection methods to confirm emerging findings” (Merriam, 2009, p. 229). Triangulation is a technique that compares and cross-references various sources of data with each other (Jick, 1979; Yin, 2006). Triangulation was used to establish construct validity of the major themes. Triangulation was accomplished through the examination and comparison of data from interviews, field notes, observations, data from the California Department of Education (CDE) website, and artifacts collected from the various schools. Data were cross-referenced with the information provided by the school leaders. Data were analyzed on three different levels (Miles & Huberman, 1994). At the first level of analysis, the data were categorized according to the constructs identified in the sense-making literature, in addition to social justice leadership, and data-driven decision-making. At the second analytic level, chunks of data were compiled to identify emergent themes by groups (e.g., by principals, counselors, coaches, departmental heads, head teachers, etc.). This involved the use of constant comparison methods (Strauss & Corbin, 1990) in an iterative process, assigning codes to the different sets of data. Finally, at the third level of analysis, a cross-case analysis was conducted. This third level of analysis zoomed in closer to the data to get a better understanding of the actions and their purpose with the lens of critical social theory and political race theory. Matrices were developed to help visualize the data and draw substantive comparisons (Miles & Huberman, 1994). Additionally, I employed
a cross-case comparison approach to identify common themes across the seven schools and capture the essence of the phenomenon of sense-making and use of data by school leaders.

2. **Member checks:** “Taking data and tentative interpretations back to the people from whom they were derived and asking if they are plausible” (Merriam, 2009, p. 229).

Member checking involved the participants as collaborators in telling the story. Member checking was accomplished right at the time of data collection and after data analysis. During the interviews and observations I occasionally reflected back to the participants what I heard them say to make sure that what I heard and understood was what they meant to say. Additionally, after my analysis of the data I contacted the participants with my interpretation of the data to make that it was not far from reality as they themselves experienced it.

3. **Adequate engagement in data collection:** “Adequate time spent collecting data such that the data become “saturated”; this may involve seeking discrepant or negative cases” (p. 229). During the course of data collection, I spent two years collecting data at the seven sites, visiting each school several times and returning to the school leaders and collecting various types of evidence that manifest the phenomenon under study.

4. **Researcher’s position or reflexivity:** “Critical self-reflection by the researcher regarding assumptions, worldview, biases, theoretical orientation, and relationship to the study that may affect the investigation”(p. 229). In qualitative inquiry, the researcher is the major instrument of data collection and analysis so qualitative research is unavoidably a human experience. Through the phenomenological process of *epoché* I suspended judgment and put aside my biases while collecting and analyzing data. I was consciously
aware of these biases and their overlay in my interpretation of the data, and I was open to making them known to the readers so that they could confirm authenticity.

5. Peer review/examination: “Discussion with colleagues regarding the process of study, the congruency of emerging findings with the raw data and tentative interpretations” (p. 229). I was checking frequently with my dissertation committee chair and academic advisor, during data collection and analysis to make sure I was on the right track and using the right tools to capture the phenomenon. We had discussions and talks about emerging themes and potential interpretations.

6. Audit trail: “A detailed account of the methods, procedures, and decision points in carrying out the study” (p. 229). I kept a log of my day-to-day activities as I was collecting data, my reflections at the end of the day and some of the prominent events that occurred at the research site and my interpretation of them. Both during data collection and during the analysis, I kept a memo of some of the thoughts that came to me while at the same time suspending judgment following my phenomenological approach.

7. Rich, thick description: “Providing enough description to contextualize the study such that readers will be able to determine the extent to which their situations match the research context, and, hence, whether findings can be transferred” (p. 229). The use of rich, thick description was accomplished during the process of data analysis and interpretation. The rich, thick description provides detail and clarity to the data in the form of analysis and researcher reflection. The collaboration between participants and researcher added depth to the description of the essence of the phenomenon.

8. Maximum variation: “Purposefully seeking variation or diversity in sample selection to allow for a greater range of application of the findings by consumer of research” (p. 229).
This was accomplished by selection of seven sites and interviewing different school leaders including teachers in order to gain multiple perspectives on the phenomenon. Additionally, through the phenomenological process of imaginative variation, I interrogated the phenomenon from various angles and different interpretations.

Data Management
All data were labeled and stored away in a secured file cabinet. Each of the electronic qualitative data was titled, dated and saved both as word documents and secured in my external hard drive that was secured in a locked cabinet accessible only to myself. The files were backed up to safeguard from loss. Each of the interviews was converted to a mp3 file, titled, dated, and saved. The physical documents, artifacts and collectibles were labeled and secured in my file cabinet. In short, I followed the following step-by-step data management process itemized by LeCompte and Schensul (1999, p. 43):

- Make copies
- Put the field notes in order
- Create an instrument management system
- Catalog all documents and artifacts
- Label and store all data
- Create a table of contents for stored data
- Put copies of data in a safe, separate storage place
- Store signed consents in a folder separate from the data to protect privacy and confidentiality
- Check for missing data
- Start reading through and reviewing the data
Limitations of the Research and Researcher’s Positionality

It is critical to be open and acknowledge my perspective and positionality as a researcher because of the potential bias this may have brought to the data collection, coding, analysis, and interpretation in this investigation. This is particularly important, but more so for the fact that in a qualitative study, the researcher is the primary instrument of data collection. From the onset I must acknowledge that my enthusiasm to advocate for the underprivileged and most vulnerable of our society especially at the schools could pose a problem to doing an unbiased study. Schooled at UCLA, which has a preferential option for the less privileged and marginalized of society and special interest in the fight for social justice, I know that consciously or unconsciously I have imbied the same attitude of standing up for those at the margins of society. But my constant self-reflection and continuous effort not to cast my assumptions and beliefs into the field of study and doing the phenomenological epoché, were intended to help remedy this potential bias.

As an outsider to these schools I was at once positioned to gather data without bias and also limited in what I could see. Looking from an outsider’s perspective I could see what the insiders may not notice; I could discover systemic weaknesses that a person who is an insider to the system may not observe. But again my positionality can impact what I observe or not observe. Jan Nespor (2006) points out that we are inevitably selective, our social and theoretical perspectives seem to guide our understanding of reality. Also, since I was an outsider I may just have seen the periphery and not the core issues. The school leaders may have also given me the idealized impression of things.

Though I triangulated what the school leaders told me with what I observed and what I gathered from other sources, yet I am not oblivious that all my participants could
have just given me socially acceptable responses. Yin (2006) observes that triangulating may not always yield reliable data. For instance, when you interview different school leaders, they may all appear to be giving confirmatory evidence about how their school operates. However, they may be “echoing the same institutional mantra developed over time for speaking with outsiders, [like] parents and researchers” (p. 117). This collective mantra may not necessarily represent the school’s actual operations. Equally, since I prescheduled my interviews, shadowing, and classroom observations, the principals and teachers may have modified their behavior and classroom instructional practices just for the visit. So getting the actual action may not be easy. But as Anderson-Levitt (2006) suggests, “ethnography is not the same as spying” (p. 283), the lies and idealized performance have their own story to tell as well. This quote marks the limitations of qualitative phenomenological research.

Chapter Five: Findings

I started this study by meeting with the principals of seven large comprehensive urban high schools in southern California. These schools are located in several of the largest school districts across the state. The focus of these initial meetings was to begin to identify the myriad of issues confronting urban school leaders in changing the educational process for their students. Over a two-year period, I revisited these schools at least five times to conduct focus groups, individual interviews, classroom observations, school observations, and shadowing of the school leaders. Data collected as part of this investigation brought to light some of the major issues that leaders in comprehensive urban high schools confront. The focus of these discussions was similar, yet the responses were nuanced. The focus of this investigation was to exam how educational
leaders made data-driven decisions, what data they used and how they made sense of the data. Specifically, the researcher sought to better understand how educators who have a social justice mindscapes make sense of and use equity-related data. This chapter organizes and presents the data from this research study. The data is from interviews, focus groups, observations, shadowing, professional development, and paper artifacts. This chapter is arranged according to the research questions around the school leaders social justice mindscapes, multiple types and uses of data, sensemaking and use of data and finally the bureaucratic and environmental challenges. The Table 1.5 organizes the three major research questions with the findings.

**Table 1.5**

<table>
<thead>
<tr>
<th>Research Question 1:</th>
<th>Finding #1.</th>
</tr>
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<tbody>
<tr>
<td>What are the factors that influence the social justice mindscapes of school leaders in their sense-making and use of data?</td>
<td>Social Justice Mindscapes of urban school leaders</td>
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<table>
<thead>
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<th>Research Question 2:</th>
<th>Finding #2:</th>
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<tbody>
<tr>
<td>What are the school leaders’ sense-making and practices around data?</td>
<td>Multiple Types, Purposes and Use of Data in the Fight for Social Justice</td>
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<tr>
<th>Research Question 3:</th>
<th>Finding #3:</th>
</tr>
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<tbody>
<tr>
<td>How does the political and bureaucratic environment mediate the relationship between school leaders’ mindscapes and their practices in interpreting and using data?</td>
<td>Five Different Ways of Making Sense of Data by School Leaders</td>
</tr>
</tbody>
</table>

**Finding #4: Navigating the Bureaucratic Labyrinth in School Leadership**

**Finding #1: Social Justice Mindscapes of Urban School Leaders**

This finding came as a response to the first research question, which focused on
the factors influencing the mindscapes of school leaders, how school leaders conceptualize social justice in equity, and if their mindscapes are impacted by social justice ideas. The study began with clarifying and teasing out how educators thought about the issues of social justice. Through this approach the research attempted at mapping the school leaders mindscapes with regard to social justice. Consequently, every interview started with “what’s your definition of social justice and are you a social justice leader?” Qualified participants for this study were those school leaders who self-identified as social justice leaders. Although all the study participants identified as social justice leaders, there were a multiplicity of ways that school leaders conceptualized social justice, particularly in relation to the use of data. The majority of the school leaders understood social justice as fairness and equal opportunity to every one of their students regardless of racial, economic and social background. Mr. Johnson, a school leader at Bell Flower High, defined it this way: “My definition of social justice? It is very basic, that everybody gets treated fairly regardless of where they come from; their sexual orientation, their religious background, and they should be afforded every right that every other student has on this campus.” Mr. Johnson believes students should not be diminished due to color, sexual orientation, religion or any other discriminatory category. This school leader further expanded and claimed that social justice is about equity rather than equality:

So as far as social justice is concerned I look at that as an equity situation and never an equality situation, if I have a $100 and you have $5 and we get the same amount, you are still worse off, because I got an extra 50 bucks and I have a 150, you got 55, that doesn’t make us equal it never does.

Social justice understood as a matter of equity demands that individuals be served according to their needs. Some people need more and will get more than others because
the others do not need it. So every student is provided for according to his needs and this is what equity and social justice means. Ms. Hernandez, the school principal of Bell Flower High, understood social justice in line with civil rights. Society should make sure that every person has access to the same resources, and attention should be given to those groups that historically have been discriminated against or misplaced in education. She was making an effort at her school to create equity and access to honors and AP classes and developing PLCs in order to equalize the curriculum. She sees data as helping her to build the reason and justification for social justice initiatives. Data helped her identify the particular area of social justice needed at the school.

Other school leaders have a similar notion of social justice. Mr. Samson believes that every student should be given the opportunity to learn, as well as the same tools to learn. The principal of Morning Rose High, Mr. William, sees social justice as providing equal opportunity to both rich and poor students:

Well, social justice to me is, you know, make sure the poor kid has the same opportunity as the rich kid. That’s to me what social justice is. Social justice is, oh, it is like open access. You don’t have to be the A student with the letter of recommendation to go to take AP US history, you know….

He uses data for his social justice work informing him of the achievement gap and areas of need. Through the data, he is able to identify the students who need the most help.

Another school leader of the same high school, Mr. Samson, sees social justice as making sure that everyone has the same opportunity to learn, making sure that students are not grouped unfairly or looked at unfairly due to a lot of different factors, whether it be culture or where they live. “But social justice is to me, you know, the idea that every kid can learn. You know, that’s the biggest thing that I take from social justice, and
there’s a lot of things that go along with that, but that’s the biggest thing I look at with it.” As a classroom teacher, social justice for Mr. Samson means making sure he reaches every student in his classroom, making sure that those who are struggling receive adequate help. This type of understanding of social justice was also espoused by another school leader, Mr. Jim, who phrased it this way: “I mean, I think for me it’s just more of getting to the fact that every kid can learn, that we have to believe that, and that we can find the resources to make it happen.” This is an ontological belief that describes an attribute of all human beings. Similarly, Mr. Burnett, school leader from Seaside High, conceptualizes social justice in the terms of equal opportunity for every one of his students to learn:

   Every student that ends up in my class should have the same opportunity to be successful. I’m a teacher I’m not an administrator, I don’t organize how the students get here, I don’t organize what type of students get here. But when they are here, I would like to think that each student feels that they have been treated equally and given the same opportunity to be successful.

All the definitions seem to be consistent with the understanding of social justice by many scholars. But there was also a more or less new description of social justice by one of the school leaders. Mr. Wright, from Mountain High, defined social justice as a moral rule, as respecting others. In his own words he frames it this way: “You know it’s really very simple, it’s the golden rule. Do unto others as you have them do unto you. Everyone deserves to be treated with respect and dignity at all times.” It is about respecting the students even if they commit an offense, their action does not take away their human dignity. In sum, majority of the school leaders in this study understood and defined social justice both as equal opportunity and equality as well as equity and fairness. They
believed that collaboration among teachers to equalize the quality of curriculum was a part of social justice.

**Collaboration critical to equalization of learning opportunities**

Another way the school leaders manifested their social justice mindscapes was through the fight for equal learning opportunities. The school leaders all shared the same value and belief that students should be treated equally in terms of the curriculum offerings and instructional rigor. One of the ways of bringing this equality is by having the teachers collaborate and share lesson plans, instructional strategies, and assessment rubrics. Many of the school leaders seem to be in agreement regarding teachers’ collaboration in order to achieve the best result. Building collaboration among teachers seems to have been given priority among school leaders. They believe that this will help correct a lot of inconsistencies both in the delivery and assessment of students’ performance. Many of the school leaders pointed to the fact that some teachers do their own thing and that can shortchange students. But when teachers know and see what others are doing, they will be challenged to ask questions and seek ways of improving. All seven schools in this study have begun this collaboration to some extent and are experiencing positive outcomes. The vast majority of school leaders who participated in this study see this effort as promoting and teaching social justice. They feel that it will help to provide equal opportunity for all students. When the teachers collaborate, the students benefit.

Through the professional learning communities (PLCs) the teachers in the same subject areas share knowledge to align curriculum and assessment and equally enhance each other’s knowledge. This is not possible if teachers operate in silos and maintain a
one-person track. But not all the teachers agree to the idea of collaboration, especially the veteran teachers, who fear that their long-term practice will be challenged. The school leaders seem to understand the rationale behind the resistance of some teachers. Apart from losing their long-term practice, they have learned from experience that collaborative effort has not always worked. Some teachers end up being ridiculed by other teachers in the process. Many think it is an unproductive way of spending their time, while others think it will not resolve the issue of providing equal opportunity for all students through quality teaching. It does not address system problems and an inability to access, manipulate and interpret data.

Mr. William, the principal of Morning Rose, said establishing collaboration among the teachers was one of his proud accomplishments and this was motivated by his core belief in teaching and learning of students, in other words curriculum and instruction. Seven years ago when he came to the school, the departmental chair meetings were used as times for “bitching” about everything wrong about the infrastructure, ranging from leaky faucets to broken doors. They devoted the time to everything else but curriculum and instruction of students. At his first attendance at departmental chair meetings, he stopped the wrong use of the time and told them that the time must be used for discussion around teaching and learning, that he will keep his office open for them to come and complain about the lack of some infrastructure, but the departmental chair meeting must be devoted to curriculum and instruction. As departmental chairs, they are leaders of instruction and are charged with the responsibility of making instructional decisions. This was a big shock to them because they never had been empowered before to take on this responsibility. He then asked them what they needed to make this happen
and their chorus response was “we need time together, we don’t have any collaboration time.” So he looked at the bell schedule and found that they could schedule five or six late starts, delaying starting school till about 10:00 am. So five times in a year they would have two and half hours of late starts where they will be in their departments collaborating on curriculum and instruction. This collaboration evolved over time with more structure, goals and plans. They started looking at data and sharing lesson and testing materials but this did not come easy at the beginning. Mr. William described the initial resistance this way:

So we’re now in this cycle of structured collaboration and really this is, I used to publish CST results, we used to break it down by teacher, they didn’t always appreciate that, some wanted to hide it, they didn’t want to share it, they didn’t want to share materials, they will say, “Oh that’s my test I wrote it 11yrs ago, I’m not giving you a copy of it.” And so a lot of that has kind of broken down and has changed that kind of stuff. They want to discount data, because they don’t like what the data says. If you don’t like what the data says maybe the data is wrong.

Similar responses were echoed at Trojan High where everybody was doing their own thing and no one was collaborating with the other. But Mr. Benson thinks that through collaboration during professional development, teachers are given the time for helping each other on how to meet the needs of students. This, according to him, requires openness on the part of teachers and the ability to be vulnerable by being humble to learn, what they do not know, from others as well as being generous to share their expertise.

But, then you have to try to have some kind of professional development…and by establishing a structure that they feel comfortable about sharing their vulnerabilities and weak spots because if you’re a math teacher and I’m a math teacher, and I’m afraid to let you know that I don’t know inequalities then how might you help me? So we have to be open and work with each other, you help me with inequalities and I help you with indices.
Mr. Clarence has this to say with regard to the need for collaboration to help resolve the issue of lack of quality and rigor in classroom instructions:

… so the key to that for me is the professional development and a lot of collaboration that teachers need be given opportunities to work with one another, to experience what’s going on in more successful classrooms. And to learn from those teachers who are successful at holding students accountable to meeting higher expectations.

The principal of Bell Flower High, Ms. Hernandez, sees it as a civil rights issue to provide equal quality of instruction for all students:

So I see it as a civil rights issue and the things that I do here at the school is to try to make the playing field leveled for all our kids. So I’m a big pusher of PLCs, you know I’m pushing the PLCs here because I think there has to be a uniformity of what the teachers teach across the board and every kid getting the same education.

This collaboration among teachers to align their curriculum and assessment is a very critical practice for teacher quality improvement. When teachers gather together to compare notes and work together to create evidence-based practice, this enhances their skills and invariably improves the academic performance of students. They all agreed that data was critical to helping them to identify areas of need for social justice reform.

**Finding #2: Multiple Types, Purposes and Use of Data in the Fight for Social Justice**

This second finding was in response to the second research question, which was about the school leaders practices around data. The sub-questions dealt with the relationship between the school leaders’ practices and their mindscapes, how they conceptualize the role of data in their fight for social justice and equity, and how their rhetorical claims about social justice match their school practices. Scholars have come to value the place of data in school improvement and closing the achievement gap (Coleman et al., 1997; Diamond & Spillane, 2004; Goldring & Berends, 2009; Muller & Schiller, 2009).
School leaders’ sense-making and use of data could lead to the transformation and equalization of educational opportunities for all students. Goldring & Berends (2009) note that, “Data are the fuel of reform. In short, using data separates good schools from mediocre schools. Schools that increase student achievement, staff productivity and collegiality and community satisfaction use data to inform and guide their decisions and actions” (p.20). Multiple types and sources of data are used to assess the strengths and weaknesses of a school and to design plans for the improvement and monitoring of progress. The need for continuous use of data for school improvement cannot be overemphasized. The accountability mechanism, established by district, state and federal government, has perhaps made paramount the use of data by school leaders to improve students’ outcomes.

**Types and Uses of Data**

The school leaders in this study use a variety of data for measurement of progress and school improvement. Among the data they use are the CSTs, API, AYP, district assessment, district benchmark, periodic assessment, common assessment, formative assessment, AGT scores, CAHSEE results, CELDT results, A-G enrollment, AP and honors enrollment, dropout rate, graduation rate, discipline records, family background, etc. Apart from these traditional standardized data points, the school leaders also make use of other types of data, for instance subjective and observational data. These types of data are very subjective and were used more often in place of the standardized types of data. The table below lists the two types of data.
<table>
<thead>
<tr>
<th>Objective/Scientific Data</th>
<th>Subjective Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSTs, API, AYP, CAHSEE, CELDT, STAR Test Results, SAT, ACT, AP results</td>
<td>Subjective</td>
</tr>
<tr>
<td>Annual Growth over Time scores (AGT)</td>
<td>Observational</td>
</tr>
<tr>
<td>A-G enrollment</td>
<td>Family Background/Personal Story of a student</td>
</tr>
<tr>
<td>AP and honors enrollment</td>
<td>Reflection on historical events or personal and professional experience</td>
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<tr>
<td>WASC Report</td>
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<tr>
<td>District Assessment, District Benchmark</td>
<td></td>
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<tr>
<td>Periodic Assessment, Common Assessment, Formative Assessment</td>
<td></td>
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<tr>
<td>Enrollment, Dropout rate, Graduation rate, Special Education</td>
<td></td>
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<tr>
<td>Discipline records: Expulsion, Suspension, Absenteeism, Truancy</td>
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<tr>
<td>Program Improvement</td>
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The findings of this study are that there are two types or groups of data that school leaders use in making decisions at their schools, namely, objective data, which refers to the standardized forms of data and the subjective data that pertains to the ideological and observational data. The subjective data are very personal and private and therefore subtle and not always obvious or easy to decode. The use of this form of data showed up in a variety of ways in this inquiry. For instance, some school leaders who were against A-G policy based their argument on their subjective belief. They were so convinced that some of the students do not possess the ability to deal with the rigor of A-G courses and therefore it will be counterproductive to mandate the policy for all students. The assistant principal of Trojan High, Ms. Water, frames it this way:
My perception is that as the requirements become stricter to graduate, I mean these kids have to do everything in the world to graduate, they make it harder for the students. Not because I’m here, I think even if I was in another school, I do not believe that college is meant for every single kid, I think some kids need to go to trade schools and learn a trade and go into the military and do other things. So to say that every kid should have the A-G requirements to graduate from high school I think is really being ignorant to the students that we have in San Diego.

She believes that the A-G courses should not be required of every student because some are not meant to go to college and will not be able to deal with the demands of the courses. She blames the high dropout rate at the school and other schools in the district on the rigorous academic requirements for all students. Another school leader was even more vehement with his position informed by his subjective view of data about the students and their capability.

Not everybody is university bound. I think A-G is a waste, I really do, I think that’s just a waste. You’re setting up kids to fail, that No Child Left Behind, it’s setting up kids to fail, it’s setting up schools to fail. I think there’s got to be other avenues of education, okay. My dad, he has been a plumber for over 50yrs, if I put an algebra or a geometry book in front of him, he’s not gonna know what the hell that means, he’s not gonna know. But if you tell him, “hey we need to fit x-number of pipe in here and bla bla bla”. He can do that. It’s the same as algebra, the same as geometry, except now you’re putting it in terms he understands, and so the same thing. It’s the same exact thing, phrased in differently. And I think that’s what we have gotten away with, you know with the district and everybody forcing us, you know, to comply to this A-G, you know. And I think we need to go back to…

The above quote is from Mr. Rodriguez, one of the school leaders at Bell Flower High. In his opinion, it was a big mistake to require students to graduate with A-G courses. The district should go back to providing vocational schools rather than require rigorous courses for students. A-G as he believes is closing opportunities for students. But the principal at this same school thinks differently. In contrast, Ms. Hernandez would like every student to be offered the opportunity to go to college. A-G requirement is a welcome development and she believes that when students are challenged they always...
live up to the expectation.

You know the district has a big push for A-G and a lot of people don’t agree with it because a lot of people think all people are not meant to go to college. And to me it’s not about that it’s preparing the kids when they make that decision and old enough to make that decision to say, ok, you don’t have to go to college, but we are going to prepare you so if you decide to go, you can go and if you don’t, then you choose a different career. That’s the expectation I have for my own child so that’s the same expectation I have for all my students. What I want as a parent, I want as a principal for my students.

This is a big controversy that is swirling around the district as A-G courses are made part of high school graduation requirements. Some of the school leaders are strongly opposed to it, providing evidence from their subjective and observational data of the group of students they have on their campus. What they see is what they believe. They rely more on subjective data and feel more comfortable with it than objective data. Another area where the school leaders employ the subjective and observational data is in the evaluation of teachers. Most of the school leaders, for good reason, believe in and use their observation of the teacher interaction with the students more than any other data. In my conversation with Ms. Water from Trojan High, about what data she uses to measure a good teacher, she indicated that observation was the most important form of data for her.

I would say I think by observing practices is the most important to me but even that there are some people who could put on a show and look like they are doing stuff well, but may be they are really bad with keeping in touch with parents. Or maybe they are, you know, disorganized in other aspects. So it’s very complex what makes a good teacher.

Another school principal, Ms. Hernandez, corroborates this use of observational data as a way to measure a good teacher.

But really right now it falls on classroom observations. Just from visiting the classrooms, and feedback, informal feedback from students and teachers and other administrators, is how I can assess and at the same time looking at, right now we
are not allowed to use any students’ data to evaluate the teachers because of the contract.

There are other forms of data but the most common is the observational data for the measurement of good teaching.

**Availability versus Use of Data**

Another significant distinction that emerged in this study is the difference between the usefulness of objective data for school leaders as compared to the teachers. The school leaders pointed out that each of their districts have data software (MyData, SchoolCity, and DataDirector) for use by teachers and school leaders to measure progress and improve students’ performance. Some school leaders claim that teachers have been trained to access the district software and use the data for their lesson planning and curriculum change. Others point out that the software is cumbersome to navigate and much of the data is not disaggregated and made useful for classroom teachers. Some of the teachers have resisted using the software or do not know how to use it. The teachers are expected to use data and demonstrate responsive and responsible appreciation for what the data is pointing at and use it to help individual students. But they cannot do that if the data is given to them in less meaningful and useful forms. School leaders, who have a whole different purpose for the data, seem to have what they need. They get their large chunk of data, for example, 20% of the students are proficient, 90% are below basic, 750 API, AYP, etc. So this form of data gives the overall global outlook of the students’ performance but it doesn’t really pinpoint the needed areas of improvement. The principal of Seaside High, Mr. Evans, indicated this in one of my conversations with him.

And like I said the data that we’re providing our teachers, the depth of it. Because if you just say to the teachers, 50% of all your kids are not proficient, what’s that mean to them? Whereas if you said here’s this student, here’s this student, here’s
this student, and you said for instance here are all the questions on the CSTs that dealt with comprehension, now 20% in your class got this many right on number one, 50% got this, 90% got this question right.

Objective data, as it is provided to the schools, satisfies only the need of the school leaders who look at the overall performance of the school. The teachers need a disaggregated form of data and many are not trained to disaggregate the data for their use. But even if the teachers were skilled at pulling the data off the software and analyzing it, they still would have different uses for the data than the school leaders. Therefore, there are two uses of data at the schools: the type used by school leaders and the one by classroom teachers. Data seems to be available at the schools but is not useful for teachers in the classroom for lesson planning and curriculum change. There seems to be a disconnect between availability and use of data for social justice. From the school leaders’ perspective data is available, “You’ve got the data here everybody. We are going to teach you how to access the data. Use this software. Pull it up and use it.” So the school leader thinks that because the data is available, the teachers should be able to use it. But that’s not true because it takes a lot more skill to disaggregate the data, which is what the teachers need to do to use it.

**Finding #3: Five Different Ways of Making Sense of Data by School Leaders**

Guiding this inquiry was the use of data by school leaders to make decisions. This third finding emerged as a result of the second research question that looked at school leaders practices around data and how they make sense of it and use it to transform their schools. How they conceptualize the role of data in the fight for equity and social justice, and how their rhetorical claims about social justice map on to their school practices. I received a variety of answers to these questions, which suggest, unsurprisingly, that there are a multiplicity of ways school leaders perceive and make sense of data. This
sensemaking of data has been informed by the school leaders mindscapes or mental optics of looking at phenomenon. My data analysis yielded five important themes as they relate to how school leaders make sense of data:

- Data as a diagnostic tool
- Data as a reference point for crucial conversation
- Data as a critical roadmap
- Data as an instrument of accountability
- Data as a number game

The following will give details of these themes and why they are significant in the K-12 educational pipeline.

**Data as a diagnostic tool**

Data for many of the school leaders was used as a diagnostic tool to identify issues that needed to be addressed in order to create a better educational environment for the students. Data used as a diagnostic tool meant that school leaders were able to identify persistent problems that created barriers to the learning process for students. Equally important, data were also used to identify structural, organizational and personnel issues for the faculty. In the course of the interview with Ms. Hernandez, the school principal of Bell Flower High, she pointed at this diagnostic use of data.

Well, data really is the guide, they can provide opportunity for advancements, for intervention, for attention, for resources, you know you use that data to build your reason. I always make the comparison between data and lab results. You know if I go to the doctor and they make me give blood so that they can check my blood sugar, or my cholesterol or my [...] you know, they give me the medicine that I will need if I have a condition.

Just as medical doctors use medical equipment to diagnose medical problems, in the same
way, data was perceived as a diagnostic tool the school leaders used to identify problems in the educational process and to develop appropriate and effective solutions to address these problems. This perception of data uses a medical model to understand data as an indicator of potential problems within the system. Data as a diagnostic tool points to something larger, which sometimes may not be entirely articulated in words. Lani Guinier and Gerald Torres (2002), in the Miner’s Canary, used the powerful imagery of a canary as a diagnostic tool. The canary was used as a diagnostic tool to signal to the workers in the coalmines that the air they were breathing was toxic. Using a similar metaphor, data for many of the school leaders signals that the system is toxic. Many of the school leaders talked about how their use of data was diagnostic in the sense that it allowed them to systematically begin to identify the causes of student failures in the educational enterprise, particularly for students of color. Talking with Mr. Samson, one of the teacher leaders at Morning Rose, he pointed out the critical role of data was to help identify students and groups that might need more support.

…the way we derive data is through surveys, polls, and assessment and that assessment when broken down in specific ways can identify ethnic groups we are not addressing correctly, language groups, ELD groups that we are not addressing correctly. That data has the capacity to help affect male versus female. I mean breaking down the data in certain specific ways will allow you to identify groups within the campus that could then be addressed specifically that might not otherwise have been seen.

The school leaders were aware of the diagnostic ability of data and many of them use it very frequently. They believe that data is able to give them a better understanding of their students and their abilities and, therefore, puts them in a better position of responding more efficiently to the student needs.
Data as a diagnostic tool compelling socially just action

The diagnostic capacity of data also impacts both classroom curriculum as well as teacher pedagogy. For many classroom educators, access to data provides the details necessary to appropriately assess where the students are. For example, Mr. Evans from Seaside High said that one important source of data for classroom teachers is information regarding the California Standards Tests (CST). It is customary that this data is disaggregated at the classroom level, allowing teachers to obtain detailed information regarding specific sections of the exam. For example, educators are able to identify that on a reading comprehension test, 20% of students in a particular class got question one correct, and 80% had an incorrect response. The teacher is then able to say, they are strong here, but weak on question one.

The principal of Bell Flower High, Ms. Hernandez, used data as a diagnostic tool to discover the disparity in the AP and honors class enrollments. Looking at the data, she discovered that while the school was over 67% Hispanic, less than 10% of the Hispanic students were enrolled in the advanced classes. Enrollment data facilitated for Ms. Hernandez recognition that there was an imbalance in the school demographic and enrollment in AP and honors classes. Her investigation into this situation revealed the many restrictions and requirements which made it difficult for certain students to enroll in the AP and honors classes. Here’s what she said in terms of using data as a diagnostic tool:

So in the big picture of social justice data does play a part. How do you help a kid if you don’t know what their issue is? I think in the past there have been a lot of educators who know they need to help the kid but they just don’t know where, where do I help them. They really have sincere interest in helping the kids but in the past you kind of rely on your own test, I think now the district has provided a lot more assessments to be able to say ok, I know as the social studies teacher my
students didn’t get this standard, so I may have to re-teach or retest them. So I can be sure I cover the standards, so they do learn the content and do well in their CST.

Similarly, Mr. William, the principal of Morning Rose High, used data as a diagnostic tool to discover the achievement gaps between the different subgroups at the school. Looking at the data, he became aware of the wide gap between the highest and the lowest performing groups at the school. The lowest performing groups are the African American and Hispanic students and the highest performing groups are the Asians while the Whites fall in the middle. They have two gaps, which for him was very out of the ordinary. According to Mr. William, if you pick any urban high school, the whites and Asians are equally high and then the African Americans and Hispanics are equally low. But their data revealed the white-student population, which makes up 40% of the total school population is underperforming in the middle. They had these two gaps to deal with, the underperforming white group and the typically underperforming minority groups. In the opinion of Mr. William data requires you to care about what to do, you cannot look at data and not feel concerned and look for a solution. He considered it a matter of social justice to take action in line with what the data indicates.

Ok, so now, so you can’t look at the data and not recognize the gaps between groups of people, that’s why you have to disaggregate the data. …and so when you look at the data it compels you to focus on the students not doing as well as other students, that is social justice. So, you know, when you are talking about this achievement gap and what you could do to close the achievement gap, that whole language, that whole concept, is based on this idea that all people should be learning at a comparable level if you are succeeding. That’s probably your definition of social justice. So data leads you right to it.

This discovery of the achievement gaps between the subgroups at the school compelled Mr. William to begin to address the issue and he started with open access, removing the restrictions that barred many students from taking the AP and honors classes. Without
data to find these problems they would have gone unnoticed. Data served as an important
diagnostic tool that helped these school leaders identify problems that would create better
school experiences for students.

**Data as a diagnostic tool important to classroom teachers**

Data as a diagnostic tool is as important for school leaders as it is for classroom
teachers. The classroom teachers use data as a diagnostic tool to find out the individual
needs of students in the classroom. Data for classroom teachers is deeper and
disaggregated to help teachers address the needs of individual or groups of students in the
classroom. Mr. Robinson, an English teacher at Morning Rose High, pointed to the
importance of data in helping him to identify areas to which he might need to pay more
attention. He makes the necessary adjustments that will result in a better test result. Data
helps him to sharpen his practice. When he sees in the test scores that certain students are
doing better than before, he knows that he is doing something right.

For a long time I will see my word standard is very low and then I start to see a
pattern and I start to change my practice. And now I spend more time with word
analysis and development and bingo! The scores are high. Now I can say that I
was doing something different. I know why, the numbers tell me. But I’m kind of
alone in that.

He feels alone in the use of data in his department. Many of the other teachers do not like
to use the data because they feel the test scores do not tell the whole story and they do not
want to be judged by the results of the CSTs. For him, the test scores are all they have at
this time to measure progress and identify areas of improvement. At the other schools the
teachers also used data as diagnostic tools to identify students who might need additional
help. Mr. Vincent, a teacher leader at Bell Flower High hinted at this:
You know data definitely is critical, if you have a student from kindergarten all the way to high school, he’s way below basic all the time, he’s never passed a class, that’s indicating something huge obviously, then you got kids up and down, that to me is indicating something else.

Data used as a diagnostic tool helps the school leaders to identify issues of disparity at the schools and challenges them to change their practice. Mr. Evans, from Seaside High, pointed at the similarity between how doctors use lab results and how school leaders use data. He noted that just as the lab results inform doctors of the type of health condition the patient is having, so also data points out the areas of need for school systems, classroom practices, individual students. The more lab results the doctors have, the more knowledge they have to treat the condition. Similarly, the more data the school leaders have about a particular issue, the more they are able to address it. Data as a diagnostic tool signifies that there is problem; it could be problem of underperformance, unequal opportunity, discipline issues, etc. It becomes the responsibility of school leaders to find solutions to the problem, and this could happen by way of policy change, change in the method of teaching or areas of emphasis.

**Data as a diagnostic tool used for curriculum and pedagogy reforms**

The data from this study suggest that the practices of the school leaders are impacted by the data results as they address the issues identified by the data. Without a doubt many of the school leaders demonstrated the impact of data usage in their school practices and policies to address social justice. One area where this was found is in curriculum reform. Curriculum has been a very important part of the schooling process. At these high schools curriculum was taken seriously. How they teach and what they teach at these schools was an important element of students learning and academic success. Curriculum in these schools was impacted and shaped by many factors. The
school leaders in their various ways identified some of the influences that have undermined curriculum and the best interest of students. One such impact was represented by the teachers’ attitude about delivering instruction in the classroom. The assistant principal of Trojan High, Ms. Water stated:

I believe they [students] can learn but we are not teaching them right. They can learn it’s how we present the information. If you stood in the classroom with the teacher that just stands and delivers everyday, I don’t know about you but I would have my cell phone on and I will be texting and I would be writing letters to people and I don’t pay attention. Because I am not going to listen to you all 60 minutes it’s all good about nothing. So I understand these kids, I get it.

The presentation of the information to the students was a matter of great concern to the school leaders and they worried that students are being shortchanged by giving them a watered down curriculum and underperforming teachers. The ability of the teacher to have personal knowledge of their students in order to connect with the students and make the curriculum relevant to them was emphasized. Mr. Benson felt that teachers should know their students at the personal level in order to relate the curriculum to the real life experiences of the students.

So I have to find a way to get the kids who are disinterested in what I have to say. And the only way you can do that, in my opinion, is to find something in that person’s history that they can relate to and transition that knowledge and make it applicable. The other thing that is successful in a good teacher or star teacher is that, I would say, is they’re able to make it relevant. They tell kids the “why,” why do you need to know algebra? Kids don’t, you know…if I don’t know why, why should I do it?

Mr. Benson wanted teachers to be able to differentiate instructions for different levels of students in the classroom. Therefore, at his school they used professional development to engage teachers on this new approach to teaching and learning. They invited experts from outside to give them workshops on how teachers could differentiate instruction in the
classroom. But this idea of differentiating instruction in order to make the curriculum relevant to the students sounds very idealistic for Ms. Kayla. She doubts the ability of one teacher to have different entry levels for the many students in the classroom who are at different learning levels.

…all of those things sound really nice but when you talk about it logistically, what does that mean for me as a teacher? Our teachers have a range of readiness in their classes, sometimes, you know, they will have from third grade reading level to college reading level. And you know another one of the buzz words in education is differentiation of instruction, well differentiating for a span of 10 grade levels, it’s just not realistic for our teachers.

The above principal seems frustrated. Teachers are aware of the problems of student failure as the data has indicated, but they are not able to proffer any solutions. They feel overwhelmed by the problems. Mr. Clarence, the principal of Mountain High, approaches this issue of curriculum and instruction from a different point of view. He thinks that the expectations of teachers matter a lot in terms of the quality of instruction and level of rigor in a particular course. This issue, for him, is even more problematic in schools such as theirs where there is a high population of historically underprivileged racial groups who have had the history of lower expectations by teachers.

…unfortunately, in public education it has a very long history of raising or lowering expectations based on what the teacher perceives to be the skill level and potential of the individual students, that gets into all sorts of socio-economic factors where people will make judgments based on factors other than the student’s actual potential.

When he arrived at the school as the new principal, Mr. Clarence discovered that the formative assessment, called secondary periodic assessment from the district, was not implemented at the school with consistency. He then directed all their teachers to implement all the district assessments on the district timeline until such a time the
teachers within their departments come up with alternative assessment that they can show to be better than the district assessment. The problem the school had in the past, which he thinks was not unique to their school, was that people were encouraged to innovate and think differently. Often innovation becomes an excuse for simply not doing the standard and saying I’m doing something different when actually different never improved the student data. That’s what happened at their school. People stopped implementing those periodic assessments with consistency because they were given permission to do something innovative and all they did was get rid of the old and never developed the new. He changed that practice by letting everybody know that they are expected to fully implement the district assessment unless they’re able to present an alternative that gets approved by the principal and by their governance council. This was an upstream task for him being a new principal and breaking up a traditional system that has been there for some time. He stood by his decision based on the conviction that students should be treated equally with rigorous curriculum in all classrooms.

**Data as a diagnostic tool presents a challenge**

Depending on school leaders’ sense-making of data, data as a diagnostic tool not only can push school leaders to seek solutions to a problem, but also can pressure them to seek wrong solutions. One point of issue is the reality brought upon the system by the CSTs and the teaching standards. With the pressure from these, the teachers barely had time to take the proper steps in changing the curriculum to meet the needs of students. Because they had to keep moving from standard to standard, there was no time to collaborate or make the proper adjustments. Mr. Evans the principal of Seaside High had this to say:
And then as I said there is this other thing like the standards, how can we, even if we’re diagnosing in a deeper way, we are not able to then treat accordingly because we have to move on, because we have to cover all the standards. And the CSTs drive that, because the CSTs say better to cover all the standards at let’s say 70% proficiency than a 100% you only cover half.

He believes this created a certain culture among teachers, the culture of doing just the minimum requirement in order to satisfy those in charge because they did not want to be fired from their jobs. The teachers were no longer focusing on doing a good job of instructing the students. Their main concern was centered on covering the standards.

Because some of the schools I visited were under “program improvement status,” which is the formal designation for Title I-funded schools and local educational agencies (LEAs) that fail to make AYP for two consecutive years, this pressure to cover the standards and get the students up to the CST requirements was the first priority. Schools in that position had to use their energy and resources to attend to student groups that fell far below basic to raise their scores in the CSTs and get out of the program improvement status and avoid further sanctions. The principals strategically focused their attention and resources on the students who would move up in order to show improvement while the rest of the students were left behind. Mr. Benson captured this in this statement when speaking of students who were underperforming:

And then they give them a notebook of who those kids are and they work specifically with a strategic number of kids because certain areas of kids, unfortunately, are assigned points and so the lower performing kids, if you move them up, you get more points for your school than you would for a person who is proficient.

Another school leader, Ms. Kayla, in one of the conversations also hinted at their strategic approach in focusing on a certain group of students in order to satisfy their program improvement criteria.
So, we have tried to be strategic and not jump into something 100% not knowing if it is going to work and what is the feasibility long term. So, like this year for example we are focusing on our 10th graders, because the 10th graders take the high school exit exams and that’s where your AYP is factored in. So our intervention coordinator identified 100 10th graders that were focused 10th graders. But the kids we targeted for that were the kids in the middle because we know the ones on the bottom need more than just six weeks. They need like…some of them to know how to read.

This approach has proved to be effective in demonstrating yearly improvement but it has many unintended consequences on the schools: (1) by not allowing them to have continuity and create sustainable plan for improving all students’ academic performance; (2) by channeling majority of their limited resources to this effort and ignoring other areas of needs; (3) by not addressing the needs of other students because attention is mainly focused on raising the scores of the selected students. The school leaders are aware of these negative consequences but consider them unfortunate because that’s what they need to do in order to survive the sanctions. Data as a diagnostic tool identifies the problems in the education system. However, how the school leaders respond and the roadblocks they encounter are a whole different set of issues. As a diagnostic tool the test scores can put the emphasis on some solution that does not address social justice but rather political correctness for survival. Following the diagnostic capacity of data is its power to aid the school leaders to have crucial conversations.

**Data as a reference point for crucial conversation**

It is often a challenge for school leaders to bring up the difficult issue of underperformance of underprivileged students groups. It is equally hard for them to deal with issues that will bring about discomfort to some of the teachers, especially the veteran teachers. Change always brings some amount of stress and discomfort, but by using the data, the school leaders are able to have crucial conversations that will bring
about some transformation in the system. Data appears to present some level of
objectivity, and people are more likely to pay attention when data is used to substantiate
the facts. The school leaders at the schools in this study pointed to some moments when
they thought data played a critical role in helping them to have those crucial
conversations at their schools. The principal of Knot High, Mr. Coleman, purposefully
uses data when having a talk with either his teachers or the parents. For instance in one of
the “Principal Coffee” sessions, a term he used to describe the monthly meeting he has
with the parents, he wanted to convince the parents of the need to change the bell
schedule. They were considering going to an hour lunch and providing supports within
the day rather than asking kids to come to tutoring after school, which necessitated
shaving off minutes from every class. Parents of high achieving students, who noticed
that their kids, instead of getting AP class for 58 minutes will now have 53 minutes,
began to argue, “Why would you want to hurt my kid and not have as much instruction
for my kid who’s got to take this test?” This pressured the principal to put some data in
front of the parents to engage in such a difficult conversation and to justify the need for
the bell schedule change.

So that stakeholder group got specific data to be able to justify any consideration
of why we remove or do something different that would impact their kids, so it’s
not a willy-nilly decision, but there’s some real reason and rationale behind why
we do that.

The principal also used data to engage in a crucial conversation with another
stakeholder group. This time it was with the Instructional Council. The school had Top
Scholars Award Night, the first one the school ever had, where they recognize all 4.0
students. The principal was shocked to find out that over 500 students had a 4.0 or higher,
which is almost a third of the students. Whereas in his former school, they had 2,700
students and only about 250 to 260 students had a perfect 4.0, but their academic performance was higher than that of Knot High on state and national standards. The principal felt that something must be seriously wrong.

So I purposefully used that data at the Instructional Council, and it was a tough conversation because in the same conversation, you know, you don’t want to beat them up saying grades are inflated, but basically that’s the message they got as a result of saying, ‘Is there a disconnect here?’ Because coupled with my own observation of classrooms, I’m not seeing the academic intensity that I saw in the grades.

Similarly, Ms. Water, the assistant principal of Trojan High used data to have tough conversations with teachers. An example was when a larger number of students were not academically successful with a particular teacher. She used data to begin a conversation with the teacher about what to do in order to make the appropriate changes in their teaching style. Below is what she said about a particular teacher with regard to this issue.

I pull all the teachers, the numbers of Ds and Fs they give during the grading period. And the teachers that are high in numbers, I go to them and I’m like, “How can we fix this? What’s the issue? How can I help you?” So that’s what I do, I use the data to help them become better teachers. Because if they can teach better, test scores will go up, kids will stay in school. It solves everything if they can teach better.

Data was a good reference point for her to start the conversation with teachers around issues of student performance. This is not always an easy dialogue but the data becomes a tool to facilitate dialogue. It is very easy for teachers to feel unfairly targeted but the use of data helps to mitigate negative feelings. It also has become the common practice for deans of discipline to use data to have crucial conversations with students and parents. The dean of discipline at Morning Rose High, Mr. Jackson explains that they have a cumulative file for discipline issues on all the students going back to their middle school.
If a student commits any offense he will go to this file and pull up past data. This data will help him trace back and see if there is a pattern. After informing himself with this data record, he will have a conversation with the student and put this data before him/her. It will be hard for the student to argue against the data. This has also worked for him during parent conferences, especially the ones leading to possible student expulsion. It is not always an easy conversation to have, but with the cumulative data of discipline issues he is able to engage the parents.

So having data enables us to know did this person have this transgression prior to today? For example, someone was brought to me today, I looked in the file and I can go not just through their high school background but their middle school, and earlier years in the school system to see if they have a pattern, whether it be fighting, drug use and so on. In that sense it’s very obvious that data is important.

Similar to other deans of disciplines at other schools, data were used to keep track and have crucial conversations with both students and parents. The deans of discipline also use data to have crucial conversations with teachers. The dean of discipline at Bell Flower High, Mr. Johnson, described how he keeps track of referrals by teachers. If a particular teacher gives many referrals to a particular student or group of the students in the class, the dean usually has a conversation with the teacher to find out what the problem is and if he/she needs help with managing the classroom. This is usually a difficult conversation both for the dean and the teacher, but with the data there is common ground to begin the dialogue. The underlying assumption in the use of data for crucial conversation is that data is data, it is neutral and objective, but a pattern in the data may illustrate a problem that can be addressed. Nevertheless, it has proved to be a good start for difficult conversations. The next step after such a conversation is finding a solution. Data provides the roadmap to leadership decisions.
Data as a critical roadmap for leadership decision-making

Common to all the school leaders\(^{14}\) was the perception of data as providing a critical roadmap to their decision-making process. This was not too surprising because four of the schools were program improvement schools and the school leaders, for better or worse, had to confront the raw data of students’ performance and graduation rate. They know data and how much the district and state use it to measure their progress and success each year. Consequently, they feel compelled to look at their school data and find ways to improve. The school leaders valued the role of data as providing them the roadmap to know and understand where to plow in money and resources, the programs to offer students and which students needed the most help. Like every roadmap, data provides the direction in dealing with student needs. Data becomes a tool to help decide where to place students who are not doing well in some core subject areas. For instance, some of the students might be struggling in math or language arts and the school leaders gain knowledge of this by looking at the data and deciding which intervention programs will better serve the needs of the students. Data helps the teachers to know the students and guide teachers toward making decisions about which lessons plans to design that would address particular needs. For instance, Mr. Robinson, a veteran teacher of English language at Morning Rose High, said he uses data to guide his lesson planning. He looks at the test results when they come out, and finds the particular areas in which his students were deficient, and planned to re-teach those areas. He went back into the students’ past records to know how the students performed in their previous classes and that guided him to include those core areas that either they did not take or where they performed poorly.

\(^{14}\) The term school leaders is used broadly in this study to designate those who hold position of authority at the school – principals, counselors, department heads, deans of discipline, teacher leaders, etc... - or make decisions that impact the school. All the teachers in this study hold administrative position and are also referred to as school leaders.
Similarly, Mr. Benson uses data to guide his decision making at Trojan High. Data provides him the direction to go in terms of distribution of the available resources. Below is a quote from him with regard to the role of data as a roadmap for decision-making at his school.

Well, you know, it’s important to use data because data is like a roadmap. If you don’t know where you’re going, how are you going to get there? So it gives me an opportunity to look at information and make sound judgments based on the information that’s provided to me.

In one of my talks with Ms. Hernandez from Bell Flower High, she also indicated the role of data in providing direction for action.

Well, data really is the guide, they can provide opportunity for advancements, for intervention, for attention, for resources, you know you use that data to build your reason…it’s like a snapshot, we are taking a snapshot of kids, where are they…do they need intervention or are they advancing and proficient, do they need enrichment so that they don’t get bored and disengaged? So that data piece is really critical to be able to help the student, either with enrichment or intervention.

Mr. Benson and Ms. Hernandez use a lot of data to track students’ performance records and how to distribute available resources to support students. Consistent with the views of other leaders, these school leaders draw upon various forms of data, like the CSTs, CAHSEE, benchmark data from the district, end of unit and end of semester exams, exams from the teachers, etc., to inform their decisions at the school. Apart from these formal data points, they use informal data like students’ family background to tailor support to the needs of students. Among these leaders, the value and emphasis they place on data is striking. They share the data with the teachers and other administrators at the school. They use it at their professional development and training sessions with teachers on the topic of how to access and use different data points to measure students’ progress.
**Roadblocks to data as a critical roadmap**

Even though the school leaders perceive data as a critical roadmap to decision-making and utilize the various data points provided to guide this process, they also feel that data has not always been delivered in a meaningful and timely manner. Each school district has their own way of delivering data to their respective schools. The most common method is through the district website. Each district has data software and student records are accessible to both teachers and administrators through this data software. For instance, Spencer Unified has MyData, and River Unified has Data Director. According to SUSD description, MyData is a web-based tool that will increase the availability and usability of student data for SUSD educators in order to improve teaching and learning. MyData reports student information such as state test scores, student grades, attendance, A-G coursework, periodic assessments, English Language Learner data, and more. Greater access to student data will allow educators to focus their instruction on the specific learning needs of each student and, as a district, create a culture of data based decision-making. Consequently, each teacher is required to be familiar with the software in order to use it. The school leaders reported that they have trained the teachers during professional development on how to use the software, but very few teachers either know how to use it or use it at all. Almost all the school leaders thought it is a very cumbersome and complicated tool to use and the teachers do not have time to wade through a forest of data. For instance during my meeting with Mr. Johnson, the dean of discipline at Bell Flower High, he attempted to pull up one of their discipline records grouped by racial groups as an example of how their discipline data are stored and accessed. He cued in the proper search terms for the records to be uploaded, but for the last 45 minutes the system was still browsing and never loaded while I was with him.
He appeared very frustrated and disappointed, but that gives a sense of why teachers and school leaders complain. There seems to be commonality in the outcry of the school leaders regarding teachers’ pushback against the idea of using the district software. The teachers’ complaints were mainly based on the lack of sufficient disaggregation of data, lack of time to analyze and use the data, and the nonuser-friendly nature of the software.

Below is a quote from the principal of Seaside High School. His thoughts about data, captures the views of other school leaders:

The problem of schools is not the what; the problem in schools is the how. And so where we’re really struggling with the use of data in schools is first of all putting data together in a way that’s meaningful to classroom teachers, not only meaningful but also timely. That’s our big problem right now, because we are not delivering to teachers data that influences how they create the lessons to address the concerns they see from the data…not only deep data but there is mechanism, like giving them the time to look at that data, for instance, is not built into their schedule to have the time to look at data and certainly not to look at data together. Their time meaning their contract hours, because you can’t necessarily expect a person to do something after their contract hours, that’s not the way we do business.

The preceding quote underscores the struggle of school leaders around the use of data. Though school leaders have provided training, as was observed earlier, they still face a big hurdle of getting the teachers to use the data consistently, systematically, and collectively. The lack of time and the contract hours of teachers are critical issues. The two school districts have strong teacher unions and they protect the contract hours of teachers. Except on a voluntary basis, principals cannot compel compliance to training outside of teachers’ contract hours. Because of this the principals are not able to get enough teachers to participate in training/professional development sessions beyond their contract hours even if teachers are compensated for their time. This lack of time for training has helped neither the administrators nor the teachers. Some of the teachers,
especially the veteran teachers, lack the requisite knowledge to navigate the district software and generate a meaningful and beneficial understanding of the data. This in no small measure has hurt the monitoring and improvement of students’ academic performance. Even those who have knowledge of data and are able to retrieve the data and be informed by it feel they are not able to implement any changes because of time constraints and lack of resources to make the necessary changes in the curriculum instruction. Below is what the principal of Olympus High, in River Unified School District, said with regard to this challenge:

There is a lot of data out there. I mean the first 50 pages of this report (WASC) are just data. The difficult thing is what we do with it. We know our kids are failing their A-G classes at alarming rates. We know if we disaggregate them by language that our English language learners are performing at a very low rate, our passing classes may be 20% less than their English-speaking counterparts, so we know that. The hard thing is, what do we do about that, how do we address all those needs because they are so many. And that’s again where it becomes challenging because we have so many requirements for the kids that we all know that their needs are great. It’s how do we marshal our limited resources to address all those needs.

What to do with the data is the big question and a very difficult one to address.

Many of the school leaders have data informing them of the students’ poor performance but unfortunately they are unable to do anything because of limited resources. Though the school leaders perceive data as a critical roadmap to making decisions that would positively impact the academic performance of their students, they feel handicapped by the various issues surrounding the data management, interpretation, translation in the classroom, and curriculum.

**Data still a critical roadmap**

Notwithstanding these limitations, data is still a valuable instrument in the hands of school leaders to guide and effect change in the educational system. Data guided the
school leaders to make changes within the organization and structure of their schools. The school leaders in this study were engaged in some form of restructuring of their schools in order to ensure maximum and equal benefits to all the students. The issue of unequal access to educational opportunity was one of the issues at these schools. Students who would have like to enroll in the advanced placement (AP) classes were denied the chance because their teachers had not recommended them. To be eligible for enrollment in any of the AP classes, the student needed to have the teacher’s recommendation among other requirements. Some scholars regard this type of practice as gatekeeping. But AP classes have become so critical for students who want to be eligible and competitive in entering any of the four-year universities.

The school leaders are conscious of this unequal access and have started putting some mechanisms in place to transform this system of inequality. One of the measures they have taken to guarantee equal schooling opportunity was open access to AP and honors classes. Mr. William, the Principal of Morning Rose High, shared how he made this happen at his school. Apart from the mandate from the district to make the change, he looked at the data and discovered that only a select few students were enrolling in the AP and honors classes due to the severe restrictions, namely; grades, teacher recommendations, letters, deadlines, etc. He called up another principal in the district and shared the idea of implementing open access at his school. The other principal was in complete agreement to do the same. Both introduced it at their schools and there was an uproar coming from parents, the district, and teachers. Here is how he described the resistance that came against the idea:
As soon as we start doing it, “Hey timeout, what are you doing?” she and I even went to a parent meeting, what I was told by a parent and then told by a board member, well the parent called, the parent said, “We don’t want our kid in classes with your riffraff’s.” And then the board member at the time, who is not a board member anymore, said “yes” she is advising me “you don’t want to mix your good kids with those kids.” So we have this crazy uphill battle, kind of thing on our hands.

But they stayed with the decision and it became a district wide policy to have open enrollment. The students are no longer required to be recommended by their teachers before enrolling in the AP or honors classes. Every student who feels they are able to take the advanced courses should enroll. The measure also attracted the criticism of many teachers who perceived the change as not helping, but hurting the students who would ordinarily benefit from the change. The teachers saw the change as creating a chaotic atmosphere in the classroom where they were not able to reach all students and support them to grow academically. The teachers did not see any gain in lumping all the students, both “qualified” and “unqualified” into one classroom where the students who are “unqualified” become a distraction to the rest and are not able to make any progress themselves. The teachers saw the practice as defeating the purpose of AP classes where traditionally you have all the bright kids in one class and they were able to take on the challenge of a more rigorous curriculum.

But from the perspective of the principals, every one of the students has the ability to handle rigorous curriculum and should be given the chance. They perceive the former system as a segregationist method of denying some students equal opportunity. Mr. William said that apart from looking at the data and the mandate from the district, his decision was motivated by his educational philosophy and belief in instruction and learning for all students at the school.
Well, I mean to me, it seems obvious that schools exist to teach kids and that’s our job to have them learn, determine what has to be learned and get them out and have them be successful, whether it’s for college or not, you know. And if you don’t ever lose sight of that, it does make everything else very simple, you know.

With this type of understanding he fights for every student and makes sure they have equal opportunity. The concept of equal opportunity in education has had a long history in the American educational system. Many have argued the fact that underprivileged students are not given equal opportunity as the students from affluent families. Social justice advocates have strongly maintained that an education that separates individual students and tracks them based on their abilities and socioeconomic status is discriminatory at best. The principals I spoke with seem to understand the need for students to be offered equal opportunity and access to the AP courses, but many of the teachers do not seem to share this understanding. However, a school leader from Olympus High feels it is important not to place any limitations on the type of courses that students may take. She expresses her thoughts on the AP access this way:

We do not want to limit course offerings for our kids. So kids in social justice, even though I believe it’s not aligned with the theory of our center of social justice, some of our kids wanted to take AP European history, so they can take AP European history — some of our kids — all of the AP classes are open to everybody. And that’s not the case at other small schools.

Contrary to this belief in the removal of limitations to AP and honors enrollment are the dissenting voices from some teachers who worry about the herculean task of instructing kids who are not ready for such advanced classes. Ms. Hernandez, the principal of Bell Flower High, summarized the comments of those teachers at her school in this way:

Well, you know, a lot of the teachers don’t like the fact that you can just admit anybody because they are not prepared. They don’t have the skills that the teacher thinks maybe they will need. You know, in some cases it’s very true, you know,
but my belief is that you take the students that you got and you move them forward.

For this school leader, these students should be given the same chance to be in AP class just as everyone else. The teachers have the responsibility to challenge the students to demonstrate proficiency in the classes. This school leader believes in the ability of these students to perform once they are given the appropriate instruction. Apart from being guided by the data, she was also motivated by her philosophy of education and her experience growing up as a Latina. She grew up in the Watts area of LA and had parents who were immigrants from Mexico. Her father dropped out of second grade and her mother finished middle school in Mexico, but they valued education and told her that it would give her better opportunities in life. This conviction carried her up the ladder of success, and she believes that education will do the same for her students. She sees it as a matter of civil rights to give the students equal opportunity.

I see it as a civil right issue. I think that all our students deserve the same rigorous instructional program and if they don’t receive it we are doing an injustice to them because the realities they face in the real world are horrific without an education. And I think that leads them to other things to have to do to make a decent living. It could be crime, it could be…you know. Just other options that are not good for our kids.

She believes that by not providing all students equal opportunity to go to college through equal rigorous instructions, they are pushing the students to pursue less than noble goals and careers for money making. Although the complaints of the teachers are understandable, the administrator’s policy is to provide every student an opportunity to go to college. Conversely, Mr. Clarence, the principal of Mountain High raises the concern that a class may be titled AP class but in reality it is less than desirable because
of the poor quality of instruction provided by the teacher. There are AP classes that do not measure up to the rigor required of such classes.

Yeah, and unfortunately, rigorous is not always aligned to the title of the class, you know there are AP classes that I have seen that have extremely low level of rigor and you know there are intervention classes that are higher levels of rigor. I think a lot of it comes down to the individual teacher, unfortunately.

Consequently, even if students are placed in the AP classes, they may not be receiving an AP level of instruction. This challenges the idea that AP classes always do offer the required level of advancement. Such was the case at Mountain High where the school leader expressed readiness to confront this issue and to redesign the system. This could be the unfortunate downside of open access, where every student is allowed to enroll, and the teachers give up the enthusiasm and water down the curriculum.

**Data as Instrument of Accountability**

The school leaders also perceive data as an instrument of accountability. They see data as something the state board of education and district use to hold the schools accountable. The CSTs, CAHSEE, API, AYP, the district benchmark assessments, and other standardized tests are measures the state school board and districts use to monitor schools’ performance and thus hold them accountable. In turn, the school leaders also use these data points as grounds to talk tough to the teachers and students. But not only this, they use these and similar data points to make a case before teachers and parents to support their leadership agenda. Here is what Mr. Coleman, from Knot High, said with regard to this use:

So, for instance, one stakeholder group is parents…once a month we have what’s known as a Principal’s Coffee, and I’ll get about 50 parents there, mostly all women… I don't know if they’re working… I think they’re all from up here… they’re all Caucasian, almost… but it’s kind of a question/answer thing, but it’s
my forum to be able to share stuff going on with the school. But I'll purposefully put data in front of them that necessitates why we’re considering doing different things with our resources.

Similarly, when the school leaders receive these different data points on their school’s performance it gives them a strong ground to make their case and hold teachers accountable. At their professional development, instructional council meetings and similar gatherings, they use the school’s performance data as evidence for the need to change and improve. Equally, the school leaders perceive data as an instrument the district uses to talk tough to them with regard to improving their schools’ performance. They see their jobs as dependent on making the needed improvement. The school principal of Trojan High, Mr. Benson captures this pressure brought about by poor students’ performance in this statement:

So there is a sense, I don’t think the teachers feel this as much as people like me because a principal or an administrator or a superintendent, their livelihoods are based on it. So I feel it everyday, I feel it every night. What can I do tomorrow that’s going to positively affect students, teachers, and stakeholders in a way that’s going to increase the academic performance? I’m always thinking, “What is it that I can do better? Or have them do? How do I do this? What do I do?” It’s too much. So you always have that pressure.

Consequently, negative data causes a great amount of distress and worry for the school leaders and, in turn, they use it to arouse interest and get the momentum going around initiatives for change. It sounds like the school leaders take accountability seriously and use data and work hard to make changes. I wonder what it means when school leaders see their job dependent on the data. Even some of the school leaders think that data will need to be made personal for it to bring impactful change among teachers and students. When data are disaggregated to the individual teacher and compared with the results of other
teachers, it then takes on a personal tone, taken more seriously and tends to create a sense of urgency. Here is what Mr. Coleman says with regard to making data personal:

But what you do when you give them their data to compare with one another, it’s not… it is to create a little sense of urgency about results, but… it is to create dialogue between them about what they’re doing in their classes relative to how they’re instructing, but it has to be personal, in my opinion, to create that urgency.

Although the school leaders discount value-added data as an approach to teacher evaluation, they still consider the use of data to hold the teachers accountable and to make strong arguments for instructional change and performance improvement. The school leaders use this tactic to challenge the classroom teachers as well as the students when they compare their school performance with similar schools.

**Discipline data as a way of accountability**

Apart from the standardized data, the state and district also use the discipline data in holding schools accountable. They look at the number of suspensions, tardiness, absenteeism, teacher referrals, etc., and call to question the school leaders. In turn, this data is used at schools to hold both students and teachers accountable. The school leaders in this inquiry believe strongly in the connection of discipline and students’ academic performance. The data on discipline and the school leaders’ beliefs on the connection of academic performance and discipline have been the motivation for the school leaders’ interest to engage teachers. Discipline in schools is a very serious aspect of school life.

The students are expected to follow certain rules and regulations both at the district and the individual schools. Some of the schools I visited are located in gang-infested zones of the city. There are rules and dress codes that prohibit any actions or fashions that signify membership in any gang group. The exploration of this aspect of school life took a different twist when some of the school leaders suggested that teachers used discipline as
a shield when they were not able to deliver, when they were not able to engage the
students. The teachers use discipline referrals as a tool to evade their inability to provide
engaging instruction. Some of the teachers take the entire class period to respond to every
bit of distraction in the classroom, even as far as minor infractions like not wearing ID
badges. Some of the school leaders insist that discipline issues hinge on the perception of
the teachers about the students. In my conversation with Ms. Water, the vice principal of
Trojan High, she pointed out the type of classroom environment that might warrant
students’ lack of engagement and consequent teacher perception of students as discipline
problems:

But the teacher who is so boring, who has not changed his lesson plans since
1929, is going to have discipline problems because I will be a discipline problem,
I am bored in your class. See, so do we have a discipline problem on this campus,
no. And I can tell you that because I’m the vice principal, I’m the one that
suspends them, I’m the one that sees to all the discipline problems, no! Do we
have a perception problem? Yes, yes!

For her and some other school leaders it is all about the perception held by teachers or
school leaders. For example, one action is deemed a serious discipline concern in one
school, but entirely inconsequential in another school. Even coming late was contested by
some of the school leaders because of the inaccuracy of the system. Only the people
whose names are inputted in the computer system are counted as late and penalized.
Others, who were missed, either because the teachers or deans were busy with other
things or other factors, go free and unpunished. Because of this bias, Ms. Kayla, the
principal of Olympus High, said that they rarely look at their discipline data.

…we don’t look at our discipline data too often because it’s so subjective to input,
so you only get data on discipline if someone sits and puts it into the computer
and how they interpret it and there’s a lot of things that don’t get put into the
computer because we are so overwhelmed with things that are not necessarily very relevant.

Furthermore, some school leaders reported that they did not look at the demographic breakdown of the discipline data by racial groups. They claimed that it would bias their judgment if they disaggregated the discipline data according to racial groups. They would like to be race neutral in terms of discipline data. Below is how Mr. Jackson, the dean of discipline at Morning Rose High responded to the question regarding demographic breakdown of discipline data. “Well, actually to me it runs a gamut, and that’s one aspect of data I don’t keep in the forefront of my mind. I think if you do that you will have the self-fulfilling prophecy approach. You will suspect a certain demographic of the students.” At Bell Flower High, the dean of discipline, Mr. Johnson has a similar response:

But we try to look at each case individually and not by subgroup. Oddly, that’s more of emotional statistics than it’s academic or intellectual statistics, more political than prescriptive or intellectual and academic. But unfortunately some people do tend to get into that.

Some school leaders contend that discipline matters depend on each teacher definition of what is punishable and what is not. But not all the school leaders agree that it is all about a teacher’s perception. Some admit that students who were not prepared for the class, did not do their assignments, or were tardy intentionally become discipline problems so that the teacher will kick them out of class. Mr. Benson the principal of Trojan High School frames it this way:

If I’m not in class and I miss information, when I come to class, what am I going to do? I’m going to act out because I don’t have the knowledge. I haven’t been there. So I’m going to give you a reason to get me out of there so I can save face. They’re not prepared so they find ways not to get there and then you kick me out, you’re the reason that I’m not there. They don’t take responsibility.
According to the school leader, this happens more with the ninth graders. They don’t want to take responsibility for their failures; they would rather blame them on another person. He also pointed out that these students with discipline problems are the ones who also perform poorly in their courses, thereby underscoring the link between discipline and academic achievement. Other leaders agree that tardiness and absenteeism are major issues that affect the performance of students as is the case when students are not in class they miss the instruction and find it hard to make up the lapses. Even the deans of disciplines at the schools also agree to this connection of discipline and academic performance. Some of the thoughts and convictions of the deans regarding this necessary link is represented by Mr. Jackson at Morning Rose High.

Well, I think it’s certainly at the core of achievement because if you create an environment of discipline that would mean you have helped more students’ progress and more self-discipline and that means there’s less distractions. If discipline environment is raucous, there are so many distractions, it’s very hard to concentrate, it’s very hard to feel at ease and as a result, the learning process is going to be truncated. That’s certainly not healthy.

Another school leader, Mr. Johnson from Bell Flower High corroborates what Mr. Jackson said.

Almost definitely, almost definitely. You know kids who have problems with attendance have problems with grades. You have to be in the seat to get the information, or to be there to demonstrate information. If you are not there to demonstrate your ability and skill you shouldn’t get the grade that comes from that. Either you be in the seat and now demonstrate proficiency and students who are not, whose attendance are problematic, their grades are problematic. There is a direct line between the two.

They have designed ways of capturing and addressing this problem. Mr. Clarence, the principal of Mountain High, talks of an electronic system, PlascoTrac, they have employed to keep track of students’ behaviors. He describes it as a data system that gives
them flexibility to monitor all kinds of students’ behavior and to automatically print out the consequences for the students, whether positive or negative, of what they were observed doing.

… we are focusing a lot on behavior this year and collecting behavior data for our students. So we actually use a data tracking system called “Plasco Trac”, what that does essentially is a barcode scanner, allows us to scan students ID cards whenever they perform any behavior that we want to keep track of. And so we’re constantly collecting data on that and trying to align our intervention to that data.

The other school leaders also have their own way of keeping track of discipline issues at their schools. At Bell Flower High, the principal beefed up monitoring of students’ behavior by hiring another dean of discipline position. But even with what they have done already in checking poor behavior, she still thinks they are missing something. She would like to have a school-wide effort at recognizing good behavior through incentives and by modeling good behavior that other students could see and learn. This is exactly what Mr. Clarence has accomplished with the behavior tracking system, which rewards or punishes students. He talks of how the system of tracking students’ behavior has helped to motivate the students to modify their behavior around tardiness.

It’s been dramatic, particularly regarding tardiness. We have seen about 80% decrease first period tardiness since we started doing this. I think that speaks to the power of data in that really, when the students know that we’re keeping track of what they are doing, it makes a difference in their behavior.

The school leaders all agree to the need of discipline for the enhancement of students’ academic performance. This understanding aligns with their belief that discipline plays a critical role in students’ academic performance. This understanding and belief have made the deans of disciplines at the schools look up the academic record of any student brought to their office for disciplinary issues. This is the common practice at all the schools. They
map students’ discipline record with their academic record. In summary, the school leaders use both standardized data and discipline data to hold students and teachers accountable, and by so doing, promote academic achievement. Related to this perception of data as an instrument of accountability is the school leaders’ perception of data as a numbers game.

**Data as a Numbers Game**

Another perception of data by some of the school leaders is regarding it as a numbers game. They see data as numbers that are prone to manipulation and inaccuracy. As one of them jocosely puts it: “figures can lie and liars can figure.” They believe that API, AYP, CAHSEE, CSTs and other exams may not tell the entire story of what is going on at any particular school. Even the graduation and dropout rate may not be a good representation of the true situation at the schools. However, they recognize that they are judged by these numbers, no matter how inaccurate each leader thinks the numbers might be. The students’ academic performance was a serious challenge to many of the school leaders and for some it has become an administrative nightmare. Therefore, they are constantly searching for solutions to solve this. The school leader of Olympus High, states the problem in this way:

…what’s challenging is we have many of the kids that come to us not at grade level and we have told ourselves that we will maintain high expectations for them which sounds really good and that’s what you are supposed to say but the reality is that our kids come in at ninth grade the average reading level is sixth grade level. The math is probably like at fifth grade level.

The poor academic level of their students worries the school leaders. They worry not just for the sake of the students, but also for their own sake. They are evaluated on the
performance of their students. Here Mr. Benson describes the type of pressure and tension they constantly feel as a program improvement school.

And you have to be at this time because I’m being evaluated on this. My job depends on when we meet with my superintendent, they know where I am, where we are as a school, the demographics from graduation, dropout rates from attendance to suspensions, you name it. From the career and technical education component, how many kids are going to college, how many have scholarships, what is your mobility rate. And then I am evaluated on where I move those, you know, statistically.

Addressing this issue of underperformance poses a difficult challenge to the school leaders. Because the numbers of students who perform poorly are overwhelmingly bigger than those who are performing at a proficient level, the teachers feel overstretched. This was the common lament of the school leaders. Even though they do not always trust the data, they have to find a way to make their numbers look good so that they will not get penalized or closed down by the government.

Consequently, they make effort to change the numbers. Here’s what Mr. Benson said regarding this perception of data: “And it’s not just me, with this data driven stuff, everybody in our district…the numbers, the numbers, it’s a numbers game now.” For this principal and other school leaders, they work strategically to raise the numbers. They focus attention on those students where they will have more points if they move them up academically. For Trojan High, they are implementing a pullout program where a resource teacher is provided through a Title 1 grant to support the teachers to work at moving up the underperforming students. The school leaders feel a lot of pressure to change this negative data. Under this type of pressure, school leaders feel they are unable to make sense of and use data in a meaningful and thoughtful manner.
While the school leaders worry about these numbers and what they tell about their schools, some of the teachers are less concerned, particularly about the CSTs, and feel that they do not tell the true story of their students’ performance. Some of them go as far as discouraging the students from putting in their best effort on the exams. Ms. Hernandez, the principal of Bell Flower High, narrated how one of the teachers was telling the students that the CSTs do not count and neither do they impact their academic records. So during CSTs she, as the principal, makes an extra effort of posting on the school’s website and calling the parents and informing them how important the CSTs are and why they need to remind their children to take the exams seriously. In my conversation with a teacher at Morning Rose High, he confirmed this negative perception of teachers regarding the CST data. “People are very quick to say that CST’s don’t matter, that they’re not important. And I’ve, I’ve prided myself on trying to increase my students scores on CST. I don’t look at it as my scores. I try to increase every kid’s score.” This represents a common impression of some teachers at the schools in this study.

Equally, the graduation and dropout rates are another set of numbers that many of the school leaders do not see as representative of the reality on the ground. This issue seems to cut across all seven schools in this study. This piece of data can be very unnerving for schools since their success and failure in educating the students most often are measured by the number of students that graduate and those who drop out. But the school leaders point out some inaccuracies regarding the current system of measurement for graduation and dropout rates. They point out that students are considered a dropout if he/she did not graduate with their cohort, even when they are still in school. Some
students are not able to get enough credits to graduate on time or fall back a class behind their cohort and consequently are considered dropouts. Some other students changed schools due to family relocation and these too are regarded as dropouts. Mr. Vincent, the vice principal of Bell Flower High, comments on this controversy:

… the true dropout rate, I really don’t know. The formula used; students scheduled to come as ninth graders minus dropouts. There is very complex formula on CDE that computes the dropout. Part of our dropout every year we are scheduled to receive students from various schools, say … Middle school, families move out of the area, they are now dropouts. They never attended Bell Flower High to be considered Bell Flower High dropout.

In 1987, Aaron Pallas conducted a review of three national sources of data on dropout rates (the Bureau of the Census’ Current Population Survey; the Center for Statistics’ Common Core of Data; and the Center for Statistics’ High School and Beyond study). The results of the review revealed that calculating high school dropout rates was difficult due to definitional and data issues. Because there are no standard definitions of who is a dropout and how to calculate the rate of dropout, most schools, districts, and states have their own unique ways of measurements. Due to this variation, it is difficult to compare dropout rates across states, districts, or schools. He observed that even the data produced by federal agencies on dropouts does not directly pertain to dropout rates, but to other related concepts like the graduation rate. The graduation rate captures the number of students who are able to graduate on time based on their ninth grade cohort.

Consequently, a dropout can be conceived as “someone whose progress toward a high school diploma has been interrupted by a period of non-enrollment in school” (Aaron, 1987). If this is the understanding of dropouts then some students who stay in the educational system and receive their diploma through alternative education or even through a different high school outside of their districts are counted as dropouts. This is a
complex issue that has no easy solution. The school leaders underscored this complexity in my discussion with them on their graduation and dropout rates. They perceived it as unfair to be judged with this flawed system of calculation. Some even observed that depending on who you talk to and the point you want to make, numbers can be manipulated for that purpose. Here is what Mr. Benson says about the concern of school leaders with regard to the data on graduation and dropout rates:

Graduation and drop out rates...that’s a difficult one because, first of all, the state has been inconsistent in what they consider a dropout. So we get different information from them in reference to the formula for a drop out. It’s difficult for us to kind of grasp that because a kid comes in as a 9th grader, our mobility rate is about 35, 40 percent. So where do those kids go? And if I can’t track where Johnny goes, then guess what? I’m evaluated on that. That’s seen as a drop out.

The issue of graduation and dropout rates in high schools is a very critical one especially at the urban high schools. The school leaders seem to be at a loss on this question, and the district and state are not coming up with any solutions. Unfortunately, the school leaders are forced to use this data because they are measured by it and yet they do not trust it’s accuracy because of all the factors named above. According to the school leaders this type of data has grave impact on their school’s image. Because the data is public knowledge, parents are slow to send their children to a school that has low graduation and high dropout rates. The school leaders at these schools seem to be under intense pressure to change this type of data.

While the school leaders point out the inaccuracy of the graduation and dropout rates they also acknowledged the fact that some of their students are not graduating on time and some others are dropping out. They provide explanation for what they feel is the cause of the trend they observe among their students, especially African American and Latino students. They feel that one of the reasons pertain to the fact that some of the
parents are not involved, and when students do not see that interest in their parents, the likelihood of dropping out is elevated. They also think that family poverty is part of what makes parents uninvolved and a huge part of dropping out. Many of the students at these schools come from low-income families and some of the students drop out because they take a job in order to help with the family income. The low-income families are prone to be very mobile, looking for a more affordable place to live. It is very expensive to live either in Los Angeles or San Diego. Another explanation that the school leaders provide for the dropout rate at their schools is that of transition between middle school and high school. According to them the ninth grade is a critical period in the school life of students and most of them come in without the set of skills to make the necessary transition. Because of this most of the students drop out in their ninth or tenth grade. Consequently, the school leaders suggest that finding an adult on campus that will be a role model for these students to trust and make that transition is important. The school leaders at these schools expressed that their goal was to create a school environment where students will have the sense of belonging and feel they are a part of the institution. This, for them, will help to curb the students’ disengagement and dropout. The school leaders believe that if the students get connected on campus, they will remain to finish school, but if they don’t have that connection, they will feel like no one cares about them and dropping out becomes easier.

Similarly, they all believe motivation of students could play a great role in curbing the high dropout and low graduation rate at their schools, getting the students engaged enhance academic performance. Many of the school leaders in this inquiry understand motivation as a critical element in students’ engagement and learning.
Motivation is a psychological term that refers to the desire to do things, the process that initiates, guides and maintains goal-oriented behavior. The school leaders observed that it was the responsibility of the teacher to both arouse and sustain the interest of the students in the subject matter. They suggested that some of the teachers are not motivated themselves, and so would be incapable of motivating their students. Lack of motivation is seen as the reason why some of the students are disruptive in the classroom and not performing at the optimal level. The school leaders believe that the reason why students are not achieving is not because they are lazy but because they are not motivated. So the standards are not enough, they have to use innovative, creative, and experiential lesson plans.

The school leaders observed that there is growing decline in academic motivation among some students. The students lack the zeal and passion for academic pursuit and this, in turn, leads to failure and consistent failure. Repeat of classes eventually leads to dropping out. Some of the school leaders see this as a result of the lack of responsibility and accountability of students. The parents do not seem to follow up with their children to make sure that they bring back homework and that they do their homework. Some of the students claim they were not given any homework and parents do not care to verify this with the school. When students are not held accountable, they lack the sense of responsibility and consequently lack the drive to do their academic work. Motivation for some of the school leaders includes holding students accountable just as the teachers are held accountable in order to get them do what they are supposed to do. When there are serious consequences to certain behaviors, the students seem not to get involved in such a behavior. Similarly, when there are certain rewards attached to a particular behavior,
students appear to make an effort to meet that expectation. Ms. Ann shares what she tells parents regarding how to motivate students by holding them accountable.

So I have a parent conference and I say to them, “Does he have a TV in his room?” “Oh yeah.” And I go, “Take it out. Did he buy it, did you buy it, take it out it’s yours. He’s not handling his business at school, why are you rewarding him at home?” Oh they think that’s rocket science.

Mr. Benson has a similar perception of holding students accountable by taking away some privileges and consequently motivating them to change behavior.

When I was growing up, you worked, you earned stuff, you didn’t get stuff. These kids have cell phones and that’s a reoccurring bill, they don’t have a job. How do they get it? Tie it into their academic success. Make them earn it.

Apart from blaming the students for this lack of responsibility and academic motivation some school leaders noted that students seem to be engaged in classes that they feel are interesting to them. The school leaders observed that the present generation of students learn differently and their attention span is becoming shorter and shorter, therefore the teachers have to develop innovative ways and strategies to make the lesson interesting for the students. To this end one of the school principals, Mr. Evans of Seaside High, said his school had a professional development on brain theory. This was to enable the teachers to understand how the brain works—especially that of teenagers and how best to engage them. Other school leaders through professional development have engaged teachers in collaborative work so that those who are encountering challenges motivating and engaging the students might learn from others who are successful.

But not just the students, the school leaders realize that the teachers need motivation to do their job well. Ms. Ann shared how she motivates her teachers. She plays the role of a coach to them, encouraging them and using a positive and constructive
approach in talking with them on certain issues that need correction. She is always using positive reinforcement when talking with teachers about changes that they need to make.

   My philosophy as an administrator, and if I ever become a principal, is to be the best coach and the best leader possible. And I really believe that coaching teachers is better than demoralizing them and beating them over the head and telling them how terrible they are, because I have done it before.

   It is always good to have something positive about the teacher and use that as a way to encourage them to reach greater heights. This approach works well with both teachers and students. Building up a good and healthy relationship with the teachers forms a very important aspect to this coaching and motivation both for the teachers and students. This seems to be echoed across the seven schools.

   However, the school leaders also pointed out that sometimes motivation of students leads only to set them up for failure. This was echoed in the low-income schools where the students come to ninth grade at a sixth or seventh grade reading level. The teachers motivate these students by making them believe in themselves that they can do it. No matter how these students are motivated or made to believe that they can do it and have positive perception about themselves, they ended up not doing so well because they did not come in with the required skill-set. Ms. Kayla, the principal of Olympus High, shared a story of a student from her school who was admitted to do his pre-med at Stanford with full scholarship. The mother of this student e-mailed the principal recently that the student was struggling academically. This student was a very bright student, their very best, a “genius” as she described him. But he didn’t get the same level of preparation his peers got coming from much more affluent schools. Even though he received all kinds of support with people believing in him and the entire community surrounding him with
support, when he arrived at Stanford, that did not give him the needed tools. This school leader felt that in motivating the student they gave false hope, which landed him in a highly competitive environment where he was not prepared to succeed.

**Finding #4: Navigating the Bureaucratic Labyrinth in School Leadership**

This finding came in response to the third research question that guided this investigation and focused on the leadership challenges that school leaders faced in using data to fight for social justice at their schools. Apart from the challenges highlighted within the three preceding findings, school leaders faced additional challenges stemming from district leadership. Research suggests that school leaders with social justice mindscape face a tremendous amount of difficulty as they challenge the status quo and work to equalize educational opportunity for all students (Theoharis, 2007). Needless to say, the majority of the school leaders in this study faced many challenges and pushbacks both from within and outside of their schools. For what follows, I will lay out the additional challenges that school leaders in this study had to confront.

**Lack of Support and Stable Leadership**

Another leadership challenge faced by the school leaders is the lack of stability of the superintendents and hiring assistant principals. Ms. Kayla shared with great frustration the level of dysfunction there is at the district. She believes that she was not getting the support and collaboration she needed from the district superintendent. The superintendent does not understand what they are doing at the school and is not interested in understanding them. At this time she wants to close down some of the programs that they have at the school. Ms. Kayla has established an open access to advanced classes, an initiative she developed by looking at the students achievement data. She has also structured their curriculum in such a way that students are engaged in critical thinking
and are encouraged to critique the social structure both at school and society at large.

Unfortunately, the superintendent is not a fan of such approach to teaching and learning. This situation is making Ms. Kayla restless. She feels unsupported by the superintendent and worries about her job and that of other teachers. Below is how she perceives the situation and the new superintendent:

We’ve got a new area superintendent, with whom I have a very conflicting philosophy. She is what I will call old school, kind of, very authoritative and not of very much support, she doesn’t understand the work that we are doing. And she’s made it pretty clear to people that she is not happy with what we are doing, I mean it’s got as far as she is talking about replacing the leadership of the school which is very scary to the teachers.

With this type of situation, the above school leader is having some unrest and not able to plan and execute a well thought out program because of the lack of support she was experiencing from the district.

Contrary to her experience is that of the school leader from Spencer Unified School District (SUSD) in Los Angeles, who seemed to enjoy a lot of support from her superintendent. She handled her challenges at the school quite well due to the backing of her superintendent. When Ms. Hernandez, the school leader at Bell Flower High, discovered through data that only honors biology was offered at the ninth grade, and only the students identified as gifted were allowed to take it, she needed to make changes in the bell schedule to accommodate the introduction of regular biology. She received so much pushback from some of the teachers that she almost gave up the idea. Here is how she expressed it:

This year I made the changes that allowed us to offer regular biology to 9th graders, and then we are able to offer them marine biology in 10th, so that they get not only two years, one year of lab science but two, because the marine biology
gives them another year of a science class that the university will look at. As small as that sounds, the marine biology, I got a lot of pushback from the department, a lot of pushback and the pushback was ‘well the kids are not ready to take biology in 9th, they don’t have the skills, they are not prepared’

But with the support from the district superintendent who was in-sync with the idea, she succeeded in implementing the changes. She enjoyed the ease of remaining with her vision and goals at the school because of the support she received from the district, whereas it was a different story in the other district.

This notwithstanding, the school leaders faced additional challenges of having to deal with high turnover of superintendents and assistant principals. This created a serious lack of continuity and follow-through with some of the projects. The school leaders in River School District perceive the situation as getting out of hand and undermining their honest effort to move their schools forward. Mr. Benson from Trojan High in River School District expressed it this way:

Well, some of the setbacks are when you have different leaders as superintendents. For instance, we’ve had, I think, three of four superintendents in five years. So each person, just like a politician, they come in with their own agenda and their own people and that changes the direction. And we know that it takes time to systemically change what’s happening with education. Education is already a slow process.

From the same school district, is Ms. Kayla of Olympus High who also expressed concern with the high turnover of superintendents:

It’s really hard to work in that environment. So a lot of good people have left River. And I have only been here four years; we are now on our third superintendent in four years. I came in with the superintendent that we had, Dr. Noco, I had worked with him in Long Beach, yeah we are now on our third one. The two school leaders represented the general impression in the district regarding the high turnover of superintendents. The situation is bad and the school leaders are
frustrated that it has not been resolved. This type of instability of leadership at the district has stymied the support the school leaders needed to pursue their data-driven decision that are informed by their social justice mindscape. Mr. Evans, the school leader from Seaside High in SUSD, has complained several times regarding the tardiness of the district software but has received no remedy. The district office keeps telling him: “We know, we are working on it, we are trying to make it faster.” This type of situation has created certain level of frustration among school leaders who wanted to use data to inform their decisions at their schools.

Additionally the school leaders face the challenge of high turnover in the appointment of assistant principals. Mr. William of Morning Rose High addressed this issue when talking of some of the major setbacks he faced at the school. He told his story of constant change of assistant principals. For the first five years at the school he had nine assistant principals. It was only after six years that they have had two stable assistant principals who have lasted more than one year. In the midst of the high turnover of assistant principals there was no meaningful exploration and interpretation of data, no concrete thought-out change at the school, there was no targeted intervention, they were forever coping with changing leadership, always in survival mode. He felt like he was always picking up the slack and doing the job of the assistant principal:

And so this year is the very, very first year, that we had the same administrative team from one year to the next. It’s also the very first year where we’re getting into some really quality, in-depth, teacher observations and evaluations. Because now, both Jim and Evelyn have a couple of years under their belt, they are observing, working with, and evaluating the same teachers. When teachers have a new evaluator every single year, you’re starting over every single year, so the bad teaching never really got addressed.
Mr. William was not alone in expressing this lack of stability in the administrative team at the schools. The other school leaders had a similar complaint and identified it as one of their greatest challenges in using data to transform their schools.

The school leaders in this study were making conscientious efforts to transform their schools following their interpretation and use of data with social justice mindscapes, but they faced uphill challenges that seemed to militate against their honest efforts. Some of the challenges seemed to be beyond their circle of influence while others were able to be resolved due to their personal conviction and value system and the support they enjoyed from their superiors. Consequently, even with a social justice mindscape in the interpretation and use of data, school leaders’ efforts to transform their schools can be strengthened or undermined by challenges created by the bureaucratic and cultural climate at the schools. These issues will be discussed further in the next chapter.

**Chapter Six: Analysis**

From the onset, this study set out to explore how school leaders\(^\text{15}\) in urban high schools were making sense of and using data to transform patterns of inequality. In chapter five I did an exposé of the school leaders perspectives as they interpreted and used data for equity purposes, the different kinds of data that were both available and utilized by school leaders, how they conceptualized social justice and how that perception was weaved into their data practices. I also highlighted the challenges that school leaders faced in their interpretation and use of data for equity reform. Furthermore, the data gathered from the school leaders, through interviews, observations, focus groups,

\(^{15}\) The term school leaders is used broadly in this study to designate those who hold position of authority at the school – principals, counselors, department heads, deans of discipline, teacher leaders, etc... - or make decisions that impact the school. All the teachers in this study hold administrative position and are also referred to as school leaders.
shadowing, and collections of documents, were presented in four thematic findings that provide evidence for the discussion.

The findings illuminate the complexity and the nuanced ways in which the school leaders in large urban high schools both made sense of and used data to make important educational decisions. Data was critical in guiding the school leaders to make decisions that were transformative at their various campuses. The school leaders used different data points, both the objective and subjective to guide their decisions and use of resources. Their social justice mindscape or mental optics was the leading factor that influenced their use of data for equity purposes. While data indicated the gaps, their social justice mindscape motivated them into action using data as a roadmap. The themes in chapter five provide insight on the intricacies of data decision-making for the school leaders. I identified not only some of the important ways data was used, but also some of the challenges. Even though I outlined challenges as they related to these themes, there were also additional challenges that the school leaders encountered in making decisions with data. Some of the challenges included (a) the disconnect between the school leaders understanding of social justice and equal opportunity policies, (b) misalignment between school leaders subjective beliefs and objective data, (c) lack of time for data analysis and implementation, (d) resistance to the use of data, and (e) reliance on subjective data rather than objective/scientific data.

Apart from these challenges there were also other challenges that were not directly related to the themes but also serve to challenge the ways leaders use data, namely, lack of trust and being new to the school community. The challenges may begin to shed light on the third question that guided this research on how the political and
bureaucratic environment mediate the relationship of school leaders mindscape and their use of data. The challenges allowed me to look at the link between the bureaucratic environment and the mindscape of the school leaders. It is in their approach to these challenges that I was able to identify the relationship between the environment and their mindscape. In other words the challenges give me insight to the political and bureaucratic environment that the school leaders work in; their approach to meeting the challenges give me a window into their mindscape and their practices of using data around these challenges. My goal in this chapter is to bring together and collectively analyze the findings presented in this study for the purpose of more succinctly responding to the research questions. In undertaking this task, I provide insight into the central and recurring themes that present themselves throughout the study, using my conceptual framework.

**Understanding of social justice in the context of equal opportunity policy**

Consistent with the literature on social justice there was a multiplicity of understanding of social justice by school leaders. Social justice is always both a broad and complicated concept, not only in terms of the concept, but also of the reality it represents. It deals with issues that have attracted widespread attention both in a general sense and in education particularly. Social justice is understood differently by different individuals and philosophies and the importance of social justice to individuals is “an intricate mixture of their moral and political views” (Sturman, 1997, p. xi). Social justice as defined by the school leaders conflated the understanding of fairness, equity, respect, equality, and sameness.
Using the critical social lens provided by Sturman (1997), I examined the definitions of social justice by school leaders under these three categories: deterministic, minimalistic, and optimistic views. According to Sturman, the deterministic view of social justice are held by people who believe that individuals have inherent abilities determined by nature and see social justice as an idealistic dream that would not change anything, no form of compensatory program is going to change things. None of the definitions of social justice by school leaders fall under this category, none was deterministic. The minimalist approach views social justice as simply about ensuring access to education and what follows merely is a matter of fair competition, “if some students do better than others it reflects on their work ethic or on their family attitudes. In other words, students get what they deserve” (p. xii). This minimalistic understanding of social justice seems to encompass the definition of social justice by majority of the school leaders.

Some of the school leaders understood social justice as fairness. Social justice as fairness means that students will be given whatever they are entitled to, that there will be a fair distribution of the resources among the students. When school leaders perceive social justice this way it means that they believe that the structure is such that it allows this fair distribution or they would be able to reshape the organization to allow for such fair distribution. Either way it is a difficult ideal to realize, for it is commonly understood by many scholars that schools are structured in such a way that they favor certain groups of students and disadvantage others (Cooper & Chikwe, 2012; Ladson-Billings, 1994; Scheurich & Laible, 1999; Valenzuela, 1999). Justice as fairness as considered by Rawls (1971) means that individuals enter into contract on equal terms and are not able to
design principles of distribution of advantages and disadvantages that will favor their particular condition over the others. But even Rawls who was one of the early proponents of this idea pointed out that this idea is lacking since individuals are placed in particular positions in society by circumstances of birth without their choice and “the nature of this position materially affects his life prospects” (p. 13). Consequently, when the school leaders conceptualize social justice as fairness, it seems that they were perceiving an ideal that was unachievable. It is not uncommon for leaders in underprivileged schools to sometimes focus on an ideal that is far removed from reality. This is reflected in the ways that some of the school leaders who defined social justice as fairness reacted to the issue of A-G requirements. Some of them vehemently opposed the idea in reference to some students whom they think are fit for vocational training rather than the possibility of going to college. It seemed ironic that they would claim to be social justice leaders, define it as fairness and yet think some students do not deserve the chance to go to college.

Connected to this thinking is the idea of social justice as equity, providing to everyone according to his/her needs. This definition and understanding of social justice by school leaders is bifurcated. Some of them understood equity as meaning that not every student needs the same things, some students need more while others need less. The students who are disadvantaged and less academically privileged will need more resources and attention than smart students who will only need minimal support to motivate and engage them. The others understood equity as meaning that students who are gifted should have the best of qualified and experienced teachers while the less gifted students will do well with lesser qualified and experienced teachers. This perception is
similar to the economic logic of feeling justified to allocate more money to those who have a higher standard of living because they definitely need more money to maintain their expensive lifestyle, while thinking that those in the lower rung of the economic ladder need only a small amount to sustain themselves. This type of ideology is at the root of the argument by some of the school leaders that some students are not college bound and so do not need A-G courses; they should be provided vocational training. Further analysis into this revealed that the students who were denied the opportunity to go to college were mostly from poor parents who did not go to college themselves and now their children are down to the same fate. It is ironic that those who needed the opportunity the most are being denied of it and justified on the ground of equity. However, the school leaders who understood equity as meaning giving more to those who have less did make changes in the school structure and course offerings. The school leaders insisted that every student should fulfill the A-G course requirements as well as given the opportunity to take the rigorous courses.

The school leaders also understood social justice as equality or sameness. This was the most common term that majority of school leaders used to define social justice. Following Sturman’s (1997) classification this definition falls under the optimistic view of social justice. If people hold the optimistic view that society and education in particular have the capacity to redress the inequalities, then they will have greater faith in supportive programs for families and the ability of students to be motivated. They will also doubt the absoluteness of innate abilities, especially the inevitability of those abilities to rest with certain groups only. Under this optimistic mindscape will emerge a ‘comprehensive planner’ or pluralist type of social justice advocate who will embrace
compensatory programs, affirmative action or even complete overhaul of the educational system.

In defining social justice as equality, the school leaders implied that all students should be treated equally, no preferential treatment. This is a very plausible definition in the sense that equality seems the mantra of most social activists. If the fundamental creed that all humans are equal has been well established, it is only reasonable to regard equality as good way of conceptualizing social justice. At school every student should be treated equally and afforded equal opportunity. This seems to be a politically correct and socially acceptable understanding of social justice.

However, in the school context it is important to problematize this concept of equal opportunity. Is it equal opportunity to what? This question simmered in my mind as I reflected on the school leaders’ talk of social justice in terms of equality. There is an underlying ideology in this definition that schools are a level playing field, that the curriculum serves equally the needs of every student, that all children enter school on an equal footing and, therefore, demonstrate the same capabilities. As Ms. Hernandez and other school leaders noted, they were working to level the playing field. This understanding is the foundational premise for the accountability movement and similar theories on equality of opportunity. But social justice theorists argue against the one-size-fits-all ideology that seems to decontextualize schools, making them neutral systems that respond to the needs of every student (Bates, 2006; Sen, 1992). This type of understanding ignores the disparities that exist among people that create advantages and disadvantages. Some students come to school already disadvantaged by the social system outside of school and to believe that equal opportunity has been provided them by serving
them with the mainstream curriculum would rather achieve a contrary outcome. The understanding of social justice as equal opportunity will not allow the school leaders to understand and address the deep-seated systemic inequality between sociocultural groups.

The implication of the belief that equal opportunity has been provided for students is that failure is easily blamed on the lack of effort by the individual students, that they have not worked hard enough or taken advantage of the opportunity. Mr. Vincent, a school leader at Mountain High pointed out to me that they have provided every opportunity to the students and that it was up to the students to take advantage of the opportunities given them. This type of belief resonated with some of the school leaders in the other schools. They claimed that students have been given equal opportunity and students have only to take advantage of the opportunities.

Nevertheless, taking a deeper look into the data gathered through interviews and juxtaposing them with the actions of school leaders, it revealed that most of the school leaders who defined social justice as equalization of opportunity have done a great work in initiating and implementing programs that benefit the underprivileged groups. For instance Mr. William from Morning Rose High, Mr. Benson from Trojan High, and Ms. Hernandez from Bell Flower and others have initiated and implemented open access to advanced classes, removing the restrictions that inhibited subgroups of students from participating in those academic programs. They have demonstrated both in words and action their position and social justice advocacy for the disenfranchised. The above named school leaders have also implemented professional learning communities (PLC) among their teachers. The goal was to bring about collaboration among the teachers and equalize curriculum. Many of the teachers worked in silos and shortchanged some
students in curriculum offering. But when the teachers collaborated, teachers in the same subject area were able to share knowledge and align their curriculum so students will receive the same quality and rigor in the courses. This effort and others were all part of their social justice agenda to provide equal educational opportunity for all their students. Equalizing educational opportunities was a serious social justice issue for the school leaders. They wanted every student to have equal opportunity at education because they knew what it meant for students’ success in life. The origin of this interest came from their experience growing up and their philosophy of education. The conviction and belief they have regarding the ability of every student to learn if given the opportunity.

Sensemaking and Use of Data for School Transformation

Data as already stated is a powerful tool in the hands of school leaders to transform patterns of inequality and bring about change at their various schools. This study identified two different kinds of data – objective and subjective – that school leaders used. Also the study identified five different ways that school leaders made sense of and used data for transformation of their schools. The analysis of these findings will be dealt with in this section, which is organized in the form of challenges that school leaders encountered while making sense of and using data at their various schools.

Challenge #1: Misalignment between School Leaders Subjective Beliefs and Policy

In using the different kinds of data, school leaders encountered a variety of challenges. First there is the misalignment between policy and practice. The A-G policy was mandated from the districts as part of high school requirements for graduation. A majority of the teachers at the schools in this study saw it as unrealistic and a measure that will rather limit opportunity for students who would choose a vocational career. A-G refers to the high school courses required for entrance to the university of California and
the California state university systems. They are called A-G because there are seven
general subject areas labeled “A” through “G.” These courses are different from the
courses required by the state of California or individual school districts for high school
graduation, in some subjects, requirements are less and greater in others. The California
State University (CSU) system requires a minimum of a “C” grade in all A-G courses
while the University of California (UC) system requires a 3.0 Grade Point Average in the
A-G courses meaning that a “C” grade can be balanced by an “A” grade in another class.

It should be noted that both the number of A-G courses required and the grade
standards are the minimum requirements to apply. Very few “C” average students will be
admitted to a CSU school and almost no 3.0 students will get into a UC campus.
Likewise, taking the recommended number of math and science requirements almost
doubles a student’s chances of admission to a UC school compared with just taking the
minimum number of courses. In 2008/2009 school year about 34% of California high
school graduates had taken an A-G course sequence and met the minimum CSU Grade
requirement of a “C” in each course. There were variations between the different ethnic
subgroups: 59% of Asian, 23% of Hispanic, 22% of African-American, and 40% of
White graduates meeting the minimum A-G requirement.

Recently, Spencer Unified School District (SUSD) and some other districts have
made A-G courses the high school graduation requirements beginning with class of 2016.
Since a “D” grade in any course is sufficient for passing a course, districts that have done
so are only requiring that students “take and pass” an A-G course sequence, but not meet
the CSU or UC minimum grade requirements. Other districts like SUSD are looking
toward making A-G the “default” graduation requirements. This means that all students
are expected to take the A-G sequence with the student/parent able to opt-out at some point (usually the junior year). The rationale for both of these proposals is that by setting higher expectations, students will rise to the occasion and meet the requirements. The SUSD superintendent puts it this way in an interview with *Los Angeles Times* (2012):

Students “will rise to the challenge as they always do. Gone must be the days when some youth get orange juice and some get orange drink.” Another reason often cited is that if students are not guided by the graduation requirements into the A-G curriculum, they may miss the opportunity to qualify for higher education.

With this reasoning some of the school leaders\(^\text{16}\) saw and understood the need for the A-G requirement while some of the frontline staff (the teacher leaders) struggled with making sense of the whole idea. They argued that some students were not college bound and requiring them to take college prep courses appears unrealistic and a waste of the time these students should have invested in learning vocational skills. The school leaders lamented that almost all their vocational classes were being scrapped due to the current focus on A-G courses. The school leaders saw the value in the vocational education for the students who were not college-bound. But what they failed to see was the preponderance of students of color among the students they were recommending for vocational program. It was disturbing to see that this was not part of the discussion: how these students ended up becoming the students who will benefit most from vocational education rather than the college prep classes.

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\(^{16}\) The term school leaders is used broadly in this study to designate those who hold position of authority at the school – principals, counselors, department heads, deans of discipline, teacher leaders, etc. – or make decisions that impact the school. All the teachers in this study hold administrative position and are also referred to as school leaders.
Because the A-G policy was based on equal opportunity ideology, one would think that school leaders who self-identified as social justice educators and defined the same as equality of opportunity would readily accept the policy. But the school leaders were relying on their subjective data to make judgment on the students and refused that the policy was good for some students. They see these students in the classrooms, perceive them as having poor social skills, disruptive in the classroom, failing to do their homework and the lacking proper support. Therefore, what the school leaders see and perceive is what they believe. So a constellation of observations that might say, “Well this person’s ability to go out and be successful in the university isn’t there, so we should steer him in this direction.” They were making assumptions and value judgments using their subjective beliefs and their mindscapes about what is meaningful and best for a student with the characteristics they have observed. Therefore, the teachers in the classroom who deal, on a daily basis, with the emotional and cognitive abilities and challenges of the students have a different perspective from the other school leaders (principals). Consequently, while objective data was supplied to the school leaders (teacher leaders) they relied more on their subjective data, their subjective beliefs and observations. They used this type of data more than the scientific data and it held stronger moral force. Research has shown convincingly that a belief system is, at one and the same time, the best predictor of an individual’s behavior and the hardest thing to change (Bandura, 1986; Dewey, 1933; Pajares, 1992; Rokeach, 1968). Educators’ beliefs influence their knowledge, perceptions, judgments, and practices. What a school leader believes, values, and dreams, as well as the interior world and theories of practice of any particular school leader, matter in relation to how he or she approaches issues of social
justice and equal opportunity. The school leader’s frame of reference is important when he or she looks at data that demonstrate unequal access to highly qualified teachers, to gifted and talented programs, honors classes, A-G enrollment, and other opportunities.

However, it might well be that the observation of the school leaders is limited to past understanding and not about current or future understanding of what society is or how it might be in future. Because there is something about this whole notion of the fact that there are certain phenomena that are happening as young people grow up today that were not the same as the time when the school leaders grew up. A good contrast will be growing up in a war-torn country and a non-war-torn country. The social context and the social structures and the culture and the technology that a child lives with on a daily basis because it is available and it’s part of everyday life is very different and would lead to different motivations and aspirations of different kinds and dreams. And if you are in a war-torn country and thinking about survival on daily basis or if you are in a country and you have a whole missing generation of people because they died of AIDS at a very early age, that’s a whole different social structure. Somehow it is necessary, for school leaders to understand what the present social context is, in order to provide the best opportunity for students. The school leaders have a mindscape that fits a particular time and social history but they don’t understand that the students who are young people live in their own time and social history. And that it has certain factors that impact their opportunity, their outcome, their ability to accomplish their human potentials and their dreams. The school leaders were still filtering their own observational data through what they know and believe as equality of potentials or individual potential. Like Mr. Wright, from Mountain High, who compared his time with that of his students as a reference point for his
position that A-G requirements and the current push for students to be college ready has killed career and vocational training opportunities:

Yeah, I mean a lot of our career and technical education programs in the old days were removed. Personally I was in graphic arts in high school for three years. My high school was 10th through 12th. So all three years of high school I was in graphic arts and we have printing press and all of that and I was still in my college prep classes. We’ve got very few programs here at this high school that affords students those opportunities but with the advent of A-G requirements the schedules are completely failed or even students who want to pursue that area, it’s almost impossible to have two or three good solid years in a subject matter or career area, very difficult.

Even though the school leaders might think they have the best values and beliefs about their observational data and how to get the best student outcomes, what they may be missing is the understanding of the context in which students live today. College degree is the gateway into the 21st century economy (Darling-Hammond, 2007; ETS, 2007; Habash, 2008). The late Senator Edward M. Kennedy (2006) stated, “Today more than ever, a quality education is the gateway to achieving the American dream and the best guarantee of equal opportunity, good citizenship, and an economy capable of mastering modern global challenges” (Harvard Educational Review, pp. 453-457). If what research has demonstrated is true of good education, what opportunity are these school leaders providing for the students who they thought vocational education will benefit more. But these school leaders had a good definition of social justice as providing equal opportunity for all students. One wonders what is the meaning of that understanding of social justice vis-à-vis their position that not all students are college-bound? It appears that their rhetorical claim of being social justice advocates is not in-sync with their practice.
Conversely, there were some school leaders who were convinced that every student should have an opportunity to go to college, and so they were working hard to make realistic the district’s A-G policy and provide every student a chance to go to college. They believed in their understanding of social justice as providing equal opportunity to all the students, they were guided by their social justice mindscape. What these school leaders have done was to begin open enrollment to AP and honors classes. They removed the restrictions that prevented certain students from enrolling. They considered it a civil rights issue to offer every student the opportunity to those classes required for college. Ms. Hernandez from Bell Flower High puts it this way: “So I see it as a civil rights issue and the things that I do here at the school is to try to make the playing field leveled for all our kids.” Therefore, she and other school leaders have implemented open enrollment at their schools. They looked at the data record of AP and honors classes and found the wide gap between subgroups of students and they decided to transform it.

Data was both the problem and the solution. It created both conflict and confluence in the schools. The equal opportunity policy, based on the data of students’ graduation and college-going rate, on the one hand required that every student be college ready (A-G requirement) but the observational and subjective data of school leaders indicated that some of the students were not ready to take on such courses. The open access policy, based on what the data on enrollment to AP and honors classes indicated, enforced in some schools, allowed every student who can to enroll in AP and honors classes but the teachers subjective and observational data indicated that some students
were not qualified to engage in such rigorous classes, that enrolling every student will amount to chaos in the classroom.

Both the A-G and open enrollment to AP and honors classes made the schools and the school leaders look good to the district and the public. The judgment and decision of the school leaders were based on the enrollment record, the graduation rate, number of students that go to college, CSTs and CAHSEE passing rate - all objective form of data. But the teachers based their opposition on subjective data. They see the students everyday, some of the students are talented and some are not, some have emotional issues to deal with, some have poverty, domestic violence, these are all part of the subjective nature of the individuals who come to the classroom. The objective data does not deal with this; it is interested in certain benchmarks and numbers that aggregate the students as a whole rather than as individuals. The teacher’s job is to look at the students as individuals as well as somehow reach the goals that are mapped out as national objective. So those at the national office, the state, district and the school leaders are looking at the objective data while the teachers are more interested in their subjective beliefs and measurements, assumptions and observations that may or may not be true. It is a different kind of data from that used by the school leaders. There are differences between these two groups in the meaning of data, the uses, motivations and end result. For instance, the school leaders might have beautiful scores at the regional level but the teachers are not happy because the individual student needs have not been met. The school leaders might have a good report to present to the district regarding fulfillment of A-G requirement, which makes the school and school leaders look good but that does not make the classroom teachers happy because it does not solve any problems, rather it has created
chaos. This is the conflict that has come with the interpretation and use of data at the different schools.

However, the school leaders insisted on the open enrollment policy because it will provide equal opportunity to all students. But the consequence of this enforcement was that the AP and honors teachers were no longer enthusiastic as they used to be in teaching the students leading to the watering down of the curriculum. So there was a conflict between the executive mandate and what was happening in the classrooms. There was this flat or top down regulation that every student who thinks he can take AP and honors classes should enroll, whereas at the frontline the teachers were saying that the students were not prepared to face the rigors of such classes and that there will be more chaos in the classrooms. Or perhaps the teachers did not have the cultural confidence to handle this group or mix of students. But whatever their reasons, they were resisting. Consequently, the curriculum was watered down and the students were deprived of quality and rigorous instruction. The same scenario was playing out with the A-G requirement from the district. There was resistance at the practice level to the policy from the school district. Perhaps things could have been different if there was a more constructive approach to getting the teachers buy-in. As scholars suggest, a top-down approach to change initiatives will most certainly fail (Bolman & Deal, 1997; Fullan, 2001). There is need to convince the teachers and carry them along this process of change. Probably, they might have a paradigm shift and their values and beliefs will map on to the policy.

But the most unfortunate part of this whole conflict is that the schools where this equalization of opportunity was needed most were the ones who were resisting the most.
This is quite a contradiction and counterintuitive. One would rather think that the teachers in the poor schools would be more open and welcoming of the idea than the affluent schools where they have almost 100% achievement. Further analysis of the data revealed that the schools under program improvement status were the schools where students of color were the majority and where the teachers resisted. The low socioeconomic status of the schools and lack of parental involvement may play a huge role. Because it is much easier for teachers at schools like this to say that A-G requirements are not favoring the students, all students are not college-bound. Whereas at the affluent schools where parents are involved and everybody is going to college, A-G is common and has the support of all because the students need it for college. The different contexts present different ways of making sense of the data. If I have a group of students that are headed to college, then my expectation for them is that they all need A-G courses. Therefore, I am not going to argue that it disadvantaged a group of students on my campus. But if I am at a low-income school and I have a group of students that are English Learners, who are not doing well in school, I am saying, “Well the only way that this group of students might benefit out of high school would be to get a job.” Then with all good intention, I might be arguing that they need vocational training.

This is where the injustice becomes even unconscionable with the school leaders who refuse to provide the opportunity for the students. The resistance may be explained by the fact that the teachers in the poor schools already have a certain low perception and belief about the students who were not in the AP and honors program, whereas those in the affluent schools have entirely different beliefs about the students capabilities. Teachers’ perceptions of the students matter a lot in provision of educational
opportunities. Some school leaders have over the years consistently identified students of color as culturally deprived, educationally disadvantaged, learning impaired and “at-risk” (Madhere, 1991). Students of color have been overrepresented in the low track classes and underrepresented in the gifted and talented academic programs. This type of deficit model approach to measurement of students’ ability has had detrimental impact on the educational opportunities of some students (Oakes, 1985; Rousseau & Tate, 2003). Other challenges were created by the interpretation and use of data by school leaders.

**Challenge #2: Data Useful and Problematic**

The A-G and open enrollment controversy is only one out of the many challenges that social justice school leaders, who might have very good ideas of transforming their schools, face as they work to change patterns of inequality at their schools. The other challenges are wrapped around the five themes under the school leaders interpretation and use of data. While we have a better and clear picture of how data is used there are still lots of challenges. The following will highlight some of those challenges.

One of the interpretations and uses of data by school leaders was as a diagnostic tool that helped them to identify issues that needed to be addressed in order to create a better learning opportunity for students. This was a very significant understanding of the place of data in their leadership practice. In many ways the school leaders used data to discover the many areas of need at their schools. The teachers as well made use of data to identify learning gaps and to lesson plan to cover the areas of need. Just as doctors would use lab results to diagnose what is going on with a patient, so school leaders would use data to diagnose the problems with the school system and students learning. Data as a diagnostic tool identifies the problems in the education system but how the school leaders
respond and the roadblocks they encounter is a whole different issue. As a diagnostic tool the test scores can put the emphasis on some solution that does not address social justice but rather political correctness for survival.

Data was also perceived and used by school leaders as a reference point for crucial conversation. It was not always easy for school leaders to engage both the stakeholders and other key players at the school in difficult conversations on changing an existing tradition or practice. Data presented some level of objectivity and people are more likely to pay attention when data is used to substantiate the facts. Consequently the school leaders made use of data to fulfill the role of softening the grounds and bringing credibility to the issues they were addressing. The school leaders perceived data to play a neutral and unbiased role especially when making difficult decisions.

Following this was the perception and use of data as a roadmap to accomplish the set objectives. The school leaders saw data as providing them the necessary guide to reach the targeted goal. Without the data they will not be able to know what and where the issues were and if they have been able to address them. The schools operated under very tight budget and data became necessary to direct them on how to distribute the limited resources and achieve maximum benefit. Data was a sure guide to reaching their objectives and a good measurement to guarantee satisfaction of the set objectives.

Additionally, data provided a system of accountability. This was another perception and use of data by the school leaders. They saw data as a way that the district holds them accountable and conversely they used data as a way of holding both the teachers and students accountable. This is the most commonly known perception and use
of data among school leaders and teachers. It is both dreaded and happily welcomed depending on which end of the spectrum one finds himself. This use of data creates much tension among school leaders and makes teachers to doubt the validity of data.

This then leads to the perception and use of data as a number game. Here both the school leaders and teachers began to question the veracity of data, that it could be manipulated and used in favor of any set goals or objectives. Some school leaders believed that data could be massaged and used for the wrong reasons. This has caused some school leaders to develop antidata perception and distrust of objective data while relying strongly on their subjective and observational data. They were more convinced of their beliefs and observation rather than what the scientific data tell them. These were the five ways that school leaders both made sense of and used data at their schools.

But these ways of perceiving and using data have concomitant challenges. First was the problem of time. The school leaders complained of the lack of time to have a studied look at the data in order to analyze it and find out what it was pointing at. The teachers were required to keep covering standards after standards, there was no time allotted for them to look at the data and use it to find out the areas of need. This pressure of covering the standards and increased accountability for students’ performance on standardized tests has pushed many school leaders\(^\text{17}\) to narrow the curriculum to basic reading and math skills, thus creating a climate where school leaders do not interpret and use data in meaningful and transformative ways (Diamond & Spillane, 2004). A majority of the schools in this study were under program improvement and the pressure was

\(^{17}\) The term school leaders is used broadly in this study to designate those who hold position of authority at the school – principals, counselors, department heads, deans of discipline, teacher leaders, etc... - or make decisions that impact the school. All the teachers in this study hold administrative position and are also referred to as school leaders.
heightened due to their status. The schools were pressured to do things right instead of doing the right things (Sergiovanni, 1992). They just wanted to fulfill the basic minimum requirements. The school leaders saw their job dependent on how well the numbers looked, the API, AYP, CSTs, CAHSEE, etc. They were focused on making certain emergency adjustments in order to increase their numbers and demonstrate yearly improvement and get out of the program improvement status. It was simply a numbers game as Mr. Benson of Trojan High noted. They focused on raising the scores of selected group of students because that’s what they needed to do in order to survive being sanctioned. There was no consistency and continuity because it was only a reaction to the pressure. Therefore, there was no time to do proper diagnosis with the data and make long term planning to transform their schools.

Even if they were able to use data to diagnose students’ needs they did not have time to change the curriculum in order to address the affected areas. But this is only an assumption that the teachers and school leaders have good knowledge of interpreting the data, because the data did not come in a way that was meaningful and useful to the classroom teachers. In my conversation with Mr. Evans, the school leader of Seaside High, he complained about this:

The problem of schools is not the what, the problem in schools is the how. And so where we’re really struggling with the use of data in schools is first of all putting data together in a way that’s meaningful to classroom teachers, not only meaningful, but timely. That’s our big problem right now, because we are not delivering to teachers data that influences how they create the lessons to address the concerns they see from the data…not only deep data but there is mechanism, like giving them the time to look at that data, for instance, is not built into their schedule to have the time to look at data and certainly not to look at data together. Their time meaning their contract hours, because you can’t necessarily expect a person to do something after their contract hours, that’s not the way we do business.
Data was delivered to teachers in a way that was not meaningful and useful to them. Therefore, even if the teachers and school leaders have time to look at the data they did not have the skills to interpret what the data was saying. The reality is that majority of the teachers and school leaders did not have the statistical analytical skills to break down the data to meaningful and useful piece. A majority of the teachers did not know how to navigate through the district website and software to extract the right data. In my interaction with one of the school leaders he told me he was uncomfortable with using the computer and he was soon going to retire because everything seemed to be going digital and he cannot see himself beginning to learn and toggle with the computer. Some of the school leaders and teachers were in the same boat, and dealing with the software created a lot of anxiety. There was much frustration among the school leaders and teachers due to the tardiness of the software system, which was overloaded with data and navigating through the forest of data was anything but easy. The school leaders claimed that training has been provided to teachers through professional development, but the teachers did not seem to have acquired the data skills. Data seemed to have been abundantly available but not meaningful and useful to teachers.

This raises the question of availability and use of data. Data might well be available but did not serve the need of teachers. Data, as it was delivered, seemed to serve the interest of the school leaders who were more interested in the overall percentages of students’ performance. The school leaders have a whole different use of data. They got their large chunk of data, for example, 20% below basic, 90% graduation rate, 800 API, AYP, etc. So the data gave the overall global outlook of the students’ performance but it did not really pinpoint the needed areas of improvement. The school leaders were using
the data to meet their targets in order to maintain their status, their success, their position, fulfilling their roles and responsibilities. The data made them look good to society. But the teachers did not have that same privilege to achieve that because it was not necessarily the type of data they needed. The teachers in the classroom needed detailed and disaggregated data to be able to know how to adjust the lesson plan to meet the students’ needs. The school leaders have done what they were supposed to do, report the data that demonstrate that teaching was good at the school. They were reporting both at the regional and national level, reaching certain benchmarks in relation to other schools, whereas the teachers have different goals: they were about individual student and individual parent and particularly providing equal opportunity for the students who were not doing as well as they could. The teachers were on the ground and went to classroom everyday and were held accountable for whatever happened in the classroom but they were not given the right data and the mechanism to bring about the process of curriculum change. Below is an example of such presentation of data that served the need of the school leaders but did not help the teachers. This was at one of the faculty meetings, I attended at Bell Flower High, where the principal was giving a presentation to the faculty on Academic Growth Over Time (AGT). Academic Growth over Time is a statistical method used to identify the individual impact of a school (or teacher) on student learning. AGT compares the performance of each student to other similar students. Spencer Unified School District (SUSD) incorporated the following into its AGT Model: EL status, special education status, socio-economically disadvantaged, homelessness, ethnicity, and gender. The district average AGT score is calculated and the results are placed on a scale of 1 to 5 with 3 equaling students meeting predicted growth. Scores of 1
or 2 indicates that students are performing lower than predicted and a score of 4 or 5 indicates that students are performing higher than predicted. The data gave an overall picture but does not help the classroom teacher to know what to do and how to adjust lessons to address the low performance.

Table 1

+ AGT: School-Level Results 2008-11
3 Year Average

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<th></th>
<th># of Students</th>
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<th>3</th>
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3. What are some trends or patterns that surfaced in the data?

This lack of meaningful and useful data has generated resistance from a majority of teachers and school leaders. Not only this, some of the teachers were afraid that data was being used to evaluate them, reward or punish them, and so they did not have a positive attitude about data. They felt that data was just numbers that did not tell the true

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18 Table culled from a presentation by the principal of Bell Flower High on AGT at the faculty meeting of Sept. 2011
story of the struggles that the students were going through on a daily basis. They believed data did not paint a comprehensive and accurate picture of their students’ performance and could be gerrymandered and used by politicians to advance their interests. Some of the school leaders and teachers were suspicious of data for this and a variety of other reasons including the fact that they didn’t understand the data. Some people are naturally terrified of data, they do not understand it, and they do not like the tables because they cannot just read them. This is understandable because many statistics are involved and not many people are comfortable with that. Therefore, there was an antidata culture existing in the schools. This is consistent with the literature that the lack of data-analysis skills by school leaders, along with “antidata” cultures that might exist in schools, limited availability of technical and financial resources, and absence of shared vision for use of data, will inhibit any honest effort to initiate change, and will contribute to the lack of adequate time to analyze and use data (Goldring & Berends, 2009). These can easily stymie the efforts of any school leader with social justice mindscapes and sincere interest in removing the barriers to equal educational opportunities.

Sometimes what to do with the data and how to use the data becomes more challenging and difficult issue to address than the data itself. Many of the school leaders have data informing them of the students’ poor performance but unfortunately they are unable to do anything because of limited resources. Though the school leaders perceived data as a critical roadmap to making decisions that would positively impact the academic performance of their students, they feel handicapped by the various issues surrounding the data management, interpretation, translation in the classroom and curriculum.
However, these challenges may begin to shed light on the third question that guided this research on how does the political and bureaucratic environment mediate the relationship of leaders mindscape and their use of data. This question is critical because as this study reveals: the school leaders have good ideals based on the data they have but their good intentions are truncated by the political environment in which they function. Consequently, it matters that school leaders have social justice mindscapes in their sensemaking and use of data but it is even more important that the political landscape is favorable for such a mindscape.

**Challenge #3: Political and Bureaucratic Climate**

The school leaders encountered challenges both within and without the school environment. The political and bureaucratic environment impacted the ability of the school leaders to be successful in their use of data. But the school leaders conviction of their social justice beliefs and values, and the support they enjoyed from their superiors, made them successful in the midst of the challenges. Ms. Hernandez arrived as the principal of Bell Flower High in her late 30s. Bell Flower was a school with long history and tradition of doing certain things and when she wanted to change the bell schedule, in order to accommodate some classes, it was a tug of war. The veteran teachers resisted with their last ounce of energy. She felt that her age and newness to the school was responsible for the pushback. But she remained undaunted and convinced of her plan and did not give up. She became successful because of the support of the superintendent. Mr. William had similar experience when he assumed the leadership of Morning Rose High. He was only 35 at the time and believed that his age and newness to the school caused the veteran teachers to reject some of his proposals. When he fired the football coach, who
has been at the school for 15 years and has had a successful career, there was great uproar from the teachers and the parents. But he did not budge and remained with his decision because he felt it was the right thing to do. The coach was sleeping on his duty and the kids were drinking and using controlled substance and got into trouble with the police. It was clear that such a coach should be fired, but because of the length of service and endearment to the school community, no one would dream of that. But this young and new school leader fired the coach. People wondered what gave him the nerve to just come in and fire a coach that has been at the school a long time. The school leader was in constant contact with the superintendent who supported his decision.

Additionally, the decision of the school leaders to initiate an open enrollment to AP and honors classes was something that created a lot of upheaval and resistance at their schools. The school leaders social justice mindscape and conviction helped them to implement that policy. They saw the injustice in the system and worked hard to address it despite the opposition that they received from the teachers and other members of the administrative team. Furthermore, the collaboration among teachers was perceived by these school leaders as a social justice issue, as a way to bring equalization of curriculum. As Mr. Benson explained, some teachers were operating in silos and doing their own thing and shortchanging the students. The introduction of PLC and collaboration in the schools made the veteran teachers uneasy and resistant, but the school leaders stayed with the decision, convinced that it was one of the ways to ensure equal opportunity for their students.

Though these and other difficult decisions by the school leaders created a lot of tension and trouble for them, they also helped to earn them trust and confidence in the
school community. Some of them made these decisions when they were new to their position and apparently young. But these incidents helped to establish them and gave them much confidence in their leadership role. Also, it generated faith in the leaders that after all they knew what they were doing, that though they may be young and new to the school, they were capable leaders. In the case of many of the school leaders in this study, their age and newness to the school community was a big challenge to their gaining credibility and trust of the school community.

Each of the school leaders gave their own narrative of how they had to work hard in order to earn the trust and confidence of the school community by doing what they were convinced was right. Earning the trust of the school community was necessary to making the school leaders successful. Trust remains basic to a meaningful progress in any organization. It is the confidence and faith that the people have in their leader. They believe that he/she will seek their welfare and that of the organization. They are in no doubt that the leader will in all fairness work toward the fulfillment of the values and goals of the organization. Because of the trust and confidence the members of the school community have in the school leaders they were willing to give their cooperation to the success of the administration.

Another strategy that the school leaders in this study used to earn the trust and confidence of the teachers and other members of the school community was through building good relationships and demonstrating their ability to do the job. Relationship based approach, as this study found is critical to earning people’s trust. The school leaders demonstrated to the teachers that they cared and they valued the teachers by having a personal knowledge and showing true compassion and concern even when they
were addressing issues with the teachers. As Ms. Kayla of Olympus High pointed out: “And I feel like part of my job is to have them to see that we are a team and that we are together, we struggle together and when things are difficult we are all in it.” This type of strategy of connecting with the teachers and assuring them that the school leader cared about their struggles built up good rapport and personal connection and the repose of trust in the school leaders.

While school leaders have social justice vision and initiatives for their schools it was also important for them to have the soft skills of building good relationships with the school community in order to have their social justice agenda implemented. Mr. Evans pointed out that it was all about relationship and that was what made him successful for 10 years as the school leader. He shared the story of how he has maintained personal connection with his teachers and always asked about their families and how things were going for them. This practice has placed things in their proper perspective and helped him to understand a teacher who was having a hard time on a given day. Mr. Benson said that he has encouraged the same attitude in his teachers with regard to their students. He has asked them to know their students and make personal connection with them and demonstrate that they cared about the students. This care and relationship will in turn help the students to care about what the teacher was teaching. Mr. Wright admitted that as a counselor, while using data to monitor students progress and class placement, he has never removed the human factor, he has always understood the students as human beings first before ever applying what data said. Thus, even though the school leaders had oppositions to their social justice initiatives, the trust and confidence they earned from the
teachers and school community, through their conviction and relationship of care approach, made them successful.

However, things were not entirely rosy for the school leaders in this study. Apart from the oppositions they encountered within the school, they faced another layer of challenge from the school district. This time it pertained to instability of leadership at the district level. For instance, River Unified School District (RUSD) has had three school superintendents in five years. Each of the superintendents has come with their own agenda and this has impeded the thoughtful and meaningful interpretation and use of data and the realization of the administrative of the school leaders. Similar situation was occurring in the other districts as well. Additional to this instability at the district was the instability of vice principals at the different schools. There was high turnover of vice principals at the schools in this study. The principals ended up doing their own work and that of the vice principals. Mr. William narrated his experience with this high turnover of vice principals. In the first five years of his administration, he had nine assistant principals. Some of them came mid-year and some left at the same period of time. This did not help with consistency and proper teacher evaluation. He was constantly instructing a new assistant principal and before he would be knowledgeable about what to do, he would be transferred to another school. Though he had good vision for the school based on his social justice mindscape, he was unable to actualized it due to the instability in his administrative team. With the foregoing, it seems school leaders in urban high schools have a unique and challenging responsibility as they seek to transform their schools through the use of equity-related data. What does this all mean for policy and training of school leaders?
Chapter 7: Implications for Policy and Practice

The analysis of the findings challenges us to find solutions to the difficulties that school leaders encountered in their sensemaking and use of data to transform their schools. The specific aim and goal of this study was to explore the school leaders’ sensemaking and use of equity-related data to transform patterns of inequality. This is because the researcher believes, based on research evidence, that when school leaders make proper sense of data and use it in their decision-making they will be able to create better educational opportunities for historically underprivileged groups in our nation schools (Coleman et al., 1997; Diamond & Spillane, 2004; Goldring & Berends, 2009; Muller & Schiller, 2000; Paige, 2006; Shouse, 1997; Skrla, et al., 2009). Having social justice mindscapes and using such mindscapes in the interpretation and use of data could equalize educational opportunities for students of color who have been disenfranchised for far too long in our educational enterprise. This will also help to close the ever-widening achievement gap between African American and Latino students and their White and Asian peers. According to the findings, school leaders in this study were making sense of data and using the same in a variety of ways to transform their schools. But they encountered challenges, internal and external, cognitive and otherwise, in the course of doing that. This chapter applies the results of the research findings to suggest some recommendations for policy and practice. The recommendations emerge out of the perceptions, experiences, and narratives of the school leaders in this study and they go to confirm the importance of data driven decision-making in schools.

Even though the school leaders valued and used data, there were serious conflicts and limitations. Conflicts and limitations that came from preferential use of one form of
data over another; lack of familiarity by the teachers with the software; the tardiness of the software; lack of time for teachers to wade through the forest of data; many of the teachers not having the adequate statistical skills to understand the complicated data tables; and some people suspicious of data for variety of reasons, including the fear that data could be used against them. Consequently, there was resistance to the use of scientific form of data. Even though data was important in leadership decision-making, these limitations prevented the meaningful use of data. Even though the school leaders acknowledged the importance and centrality of data in their decision-making they felt handicapped by the limitations. The recommendations in this chapter are organized under the following themes: sensemaking of data, availability and use of data, and the final thoughts.

**Sensemaking of Data**

School leaders in this study were self-identified social justice leaders. Each of them felt that in some way they approached issues at their schools with social justice mindscap. They believed in equality of opportunity for every one of their students. The school leaders’ understanding of social justice impacted their interpretation and use of data at their schools. Their beliefs and social justice mindscapes affected the way they made sense of data. According to the findings, the school leaders’ convictions about the ability of the students made a profound impact on their acceptance and implementation of A-G and open access policies.

This was not surprising because research has shown convincingly that a belief system is, at one and the same time, the best predictor of an individual’s behavior and the hardest thing to change (Bandura, 1986; Dewey, 1933; Pajares, 1992; Rokeach, 1968).
Educators’ beliefs influence their knowledge, perceptions, judgments, and practices. “Understanding the nature of beliefs, attitudes, and values is essential to understanding future administrators’ choices, decisions, and effectiveness regarding issues of race, class, gender, language, sexuality, and disability” (Brown, 2006, p. 703). What a school leader believes, values, and dreams, as well as the interior world and theories of practice of any particular school leader, matter in relation to how he or she approaches issues of social justice and equal opportunity. The school leader’s frame of reference is important when he or she looks at data that demonstrate unequal access to highly qualified teachers, to gifted and talented programs, honors classes, and other opportunities.

As the data has demonstrated, school leaders defined social justice in similar ways but it was entirely different when they operationalized it in practice. It is then critical for school leaders to have a better reflection of how much their beliefs and values are impacting the decisions and choices they are making for students. The set of norms and ideas, the mindscapes that school leaders bring to bear in making sense of, and using data become very important. Therefore, there is the need for principal leadership programs to include a strong emphasis on the proper understanding of social justice in the curriculum of future school leaders. There needs to be some intentionality, on the part of the districts, to provide professional development around such issues as social justice and equity, in order to help shape the mindscape of school leaders.

Many school leaders are misguided by the fact that they are not sufficiently aware of differences that limit students’ and their families’ opportunities or abilities to achieve. The reality, however, is that age-based expectations for performance have always privileged children of social and economic advantages. For historically disadvantaged
groups whose life choices can be severely limited by poverty, there is an economic divide in capabilities (Payne & Biddle, 1999). Therefore, researchers have come to conclude that strong leaders in poor school communities must recognize the life world of the children and families they serve (Larson & Murtahda, 2002). The dominant belief by school leaders that social justice implies leveling the playing field will not allow the school leaders to understand and address the deep-seated systemic inequality between socio-cultural groups.

Consequently, many school leaders believe that all children enter school on an equal footing, and therefore demonstrate the same capabilities. This assumption seems to be the brainchild of the meritocratic ideology, and other common sense beliefs, such as American Dream ideology, rugged individualism, “pull yourself up by your bootstraps”. The implication of the belief that equal opportunity has been provided for students is that failure is easily blamed on the lack of effort by the individual students, that they have not worked hard enough or taken advantage of the opportunity. Given that these dominant ideologies and common sense beliefs are held by a majority of U.S. residents, it makes sense to see those who don’t succeed in school as responsible for their fate (Baker & Lynch, 2005; Tye, 2000). These types of ideologies and common sense beliefs legitimize “public policies, discourses, and daily behaviors that marginalize, exclude, and/or silence academically unsuccessful individuals and the social groups with which they identify or are assigned (e.g., racial groups)” (North, 2008, p.1186). Social justice theorists have shown how inequality is maintained through ostensibly neutral systems, policies and practices. Schools have become spaces of inequality that replicate what exists in society. Equity and social justice, therefore, challenge current school leadership and the
professional practice of educators. School leaders ought to actively engage in reflection over their ontological and epistemological assumptions, values and beliefs, context and experience, and competing worldviews. They should be empowered to understand, critically analyze, and grow in their ability to challenge the many forms of social oppression and inequality (Brown, 2006). The principal leadership programs should help to empower school leaders to acquire this self-critique and reflection over their beliefs and actions.

Based on their subjective and observational data, some of the school leaders held their grounds in opposition to A-G and open enrollment policies. They perceived the students as unqualified and undeserving of the programs. School leaders’ perceptions of the students of color matter a lot in provision of educational opportunities. Many scholars have identified unjust social structures, policies and practices at the school level as responsible for the underperformance of students of color. Scholars (Oakes, 1985; Rousseau & Tate, 2003) have observed that labeling literacy and the expectations of key persons at school do influence the self-perception and school outcomes of African American and Latino students. The over-assignment of students from certain groups, particularly African American males, to special education has long been recognized as a problem of gross inequity with U.S. schools (Artiles, 1998; Losen & Orfield, 2002; MacMillan & Reschy, 1998). According to Madhere (1991), some educators have over the years consistently identified African American and Latino students as culturally deprived, educationally disadvantaged, learning impaired, and “at-risk.” African American and Latino students have been overrepresented in the low track classes and underrepresented in the gifted and talented academic programs. With the push by the
accountability policy for educators to raise student performance there is the concern that
the pressure will push some school leaders to over-identify students for special education
in order to qualify them for special testing (Texas Center for Educational Research, 2000;
Townsend, 2002). Such data interface the fact that African American and Latino students
are frequently the victims of negative attitudes and lower expectations of teachers,
counselors, and administrators (Fine et al., 2004; Gary, et al., 1992; Graham, 2005;
Oakes, 1985; Rousseau & Tate, 2003). This type of deficit model approach has very
negative consequences on how the students of color perceive their academic ability. This
is true because as students continue to be bombarded by these negative and
discriminatory academic perceptions and labels, they begin to internalize them and
gradually begin to believe in that stigma of inferiority (Fischer et al., 1996) resulting in
self-fulfilling prophesy. They may also start experiencing alienation in school and hence,
dropout.

Unfortunately, the school leaders believed that they were doing a great favor to
the students by recommending that the students take vocational training instead of college
prep classes. Enrolling the students in A-G, AP, and honors classes, in the mind of the
school leaders, will be tantamount to wasting the students time and doing them a
disservice. Thus the school leaders’ subjective and observational data remained a
hindrance to the sensemaking and use of the equity-related scientific data that
demonstrated clearly that certain subgroups of students were underserved by the
educational system. The school leaders were not doing this out of any malice against the
students, but their values and beliefs have led them to the conviction that they were doing
the right thing for the students. Data then is both a problem and a solution. How can the
school leaders be helped to see things differently, or make the scientific data match the school leaders’ subjective and observational data? How can we create a confluence between the school leaders’ subjective and observational data with the scientific data?

This is a challenging task but not impossible. For instance, if a teacher saw a student always coming late, not doing his homework, disruptive in the classroom, these markers probably fit the teacher’s perception and understanding of a problem-student. This concept might be important in the mind of the teacher because his observation matches his belief. The question then is: why would the teacher not consider this data a positive thing to help him to have a better and more in-depth understanding about what he was seeing in the student. The teacher might go to the student’s record and gather scientific data to better inform him about how the student was doing. The teacher might further go to educational literature and put in a search term “troubled student” and get many scientific and scholarly perspectives regarding such a student and how to help the student. The subjective and observational data can be a stepping-stone for teachers to get more scientific information that could be useful to them. The subjective and scientific data do not need to be in conflict with each other, but rather should complement each other; should be able to bring better illumination of each other. The teachers should be helped through professional development to see this confluence and complementariness of the two forms of data, how they could put the observational and subjective data together with the scientific data in order to emerge a new understanding. They need help in fashioning the data so that it matches their values and beliefs about making it better for this generation of students.
Additionally, there is need for the principal training programs, where the school leaders receive the major epistemological training that shape their mind frame, to help them better understand the impact their beliefs and values have on their interpretation and use of data. Some of the school leaders have the mindscape that fits the society and times of centuries past. There is need for the training programs to both engage and help the potential school leaders to perceive reality with the 21st century mindscape, to make a paradigm shift in their perception of phenomenon. Our students live in different social and cultural contexts than the time of many school leaders and this calls for an aggiornamento on the part of school leaders. This change will not come easily because there is the tendency for school leaders to argue that because the approach has always worked, it will work now. In using data, both subjective and scientific, the school leaders need to keep an open mind to the possibilities of the present age. The two forms of data are both needed to make decisions that will transform our schools and create equal opportunity for all students.

Use and Availability of Data

Data as mentioned above is important and readily available for use by school leaders. The school leaders valued the role of data in their leadership practices. We also saw the limitations that made data not to be particularly accessible and useful to some school leaders and classroom teachers. Data was delivered to them in the manner that was not entirely useful to school leaders. The data came in statistical aggregate chunks that did not help the classroom teachers in identifying the needs of students, planning lessons, and pedagogy. The teachers were not able to make sense of the data and use it to tailor instruction to the needs of their students. They lacked the required statistical skills
to extract and interpret the data. Even if the teachers had the statistical skills of extracting and interpreting the data, they did not have the time to do it. Furthermore, the teachers were suspicious of data for variety of reasons including, but not limited to the fact that data does not paint comprehensive picture of their students performance, and that it might be used against them. Therefore, even though data was available, school leaders were not able to extract, interpret, and use it for change in their various classrooms. Because of this available but non-useful scientific data, the school leaders relied more on the subjective data. This preferential use of the subjective data led to the anti-data culture in the schools.

Some of the school leaders (teacher leaders) perceived the scientific data as simply numbers that do not tell the whole truth. But that’s not an uncommon way for people to argue against change, a person might make a claim such as, “There is no reason for me to change my diet because the scientists keep reporting contradictory things,” or “I’m not necessarily going to get lung cancer because my grand father was 109 years old and he smoked all his life.” For such people, that is data and the only data they want to believe. Therefore, for such people to make a behavioral and attitudinal change, which changes their competency, knowledge, attitude, and skills, you have to move them along the trajectory of not only understanding and using the data, but also having a more positive attitude towards it. If teachers feel that data was collected and used to evaluate them, they may not have a positive attitude about data. It might be those three pieces that come into their subjective knowledge: data can be inaccurate; data can be used to evaluate me and to reward me or punish me; and data is what I can observe in my students. Therefore they have three perspectives of data that served to convince them against scientific data. Thus, what they believe is what they know. How can we then
make scientific data useful and relevant to classroom teachers so as to use it and value it as helpful tool for pedagogy?

This study recommends that each school should provide professional development that would specifically focus on training teachers on how to navigate and extract the right data. There is need to give teachers time to explore data together and analyze it in order to use it to inform their practice. Part of what the professional development should do is to help teachers know the right questions to ask of data. For instance, if the students have low math scores, does that mean that the students are not interested in math, lacked motivation to do math, or do not think math will be useful in their future career? Answering such questions will help to map a clear direction for the teacher to adjust his or her pedagogical practice.

Also district offices should ensure that school level people have access to easily understandable and usable data. Ensuring access to meaningful data will imply cutting down on the overwhelming amount of data that is currently case. Some people might think more data is better data. But it’s not always the case, because sometimes you have data overload and teachers do not know which data is necessary and which is not. There is also need to have a professional development in which the fears of teachers, as regards data potentially used against them, are addressed. This will mean creating a culture and climate that will support such trust among teachers and leaders, where the teachers will feel safe and not threatened by data. With this type of support, the school leaders and classroom teachers will make meaningful use of data. The school leaders already understand and appreciate the place of data in their work; what they need is to make proper sense of data and meaningfully use it to transform their schools.
Final Thoughts

The idea of data-driven decision-making in school leadership is not a new concept. The use of data for school improvement has been part of the American educational system increasingly since 1965. For decades, the state accountability system and increasingly, the federal policy have engaged in producing school outcomes and achievement-gap data. Without doubt there is data and myriads of data available everywhere, both those accessible to the public and those kept only for the privileged use of school leaders. Yet the simple existence of data does not produce school improvement or lead to closing the achievement gaps. “The data must be analyzed, and school decision-making must be linked to the data” (Skrla, et al., 2009, p.5). The school leaders play a substantial role in the interpretation and use of data at their various school sites to improve learning outcomes for the historically underserved subgroups of students. Hence, it is commonly accepted, and the findings in this study suggest that school leaders value data and use it in their decision-making and measurement of students. They use both the subjective and scientific forms of data. In making use of both forms of data the school leaders needed a social justice mindscape in order to make decisions that are equitable and provide equal educational opportunity for all their students. Following their social justice beliefs and values brought them into conflict with established traditions and sharp opposition from some of the teachers. The political and bureaucratic environment was not entirely favorable. Consequently, the school leaders had to seek ways of winning the teachers’ buy-in and trust in order to collaborate in realizing their social justice agenda.

Earning the trust of the school community was necessary to make the school leaders successful. The school leader usually generates this trust in his/her relationship
with the people. Trust remains basic to a meaningful progress in any organization. It is the confidence and faith that the people have in their leader. They believe that he/she will seek their welfare and that of the organization. There is no doubt that the leader will in all fairness work toward the fulfillment of the values and goals of the organization. Because of the trust and confidence the members of the school community have in the school leader, they willingly give their cooperation to the success of the administration (Evans, 2000). The school leaders had to achieve this in their daily relationship with the teachers and other members of the school community. They had to demonstrate in both words and actions that they “have the back” of the teachers and this made a difference in the school community who no longer perceived the school leader as an enemy but a partner in progress. This is an important lesson for current and future school leaders and in deed leadership preparation programs to cultivate in future school leaders, good relationship skills. Therefore, when they make sense of data with social justice mindscapes, they will be able to implement policies that would transform their schools and create better educational opportunity for all students without the resistance that could stymie such initiatives.

In exploring the sensemaking and use of data by school leaders, this study has revealed the importance of data in the transformation of our schools and provision of equal educational opportunity for all our students. It has also made it clear that the sensemaking and use of data depends heavily on the mindscape of the individual school leaders. The human person with all the biases must be acknowledged as we emphasize the role of data decision-making in schools. Data does not exist in a void. Suggestions have also been provided, on how the leadership programs can help our present and future
school leaders, to recognize their epistemological and ontological assumptions as well as make a paradigm shift and adopt a social justice approach in their interpretation and use of data. While this study has covered a broad spectrum of ideas around the interpretation and use of data by school leaders, it is in no way conclusive. There are still much to be interrogated around the issue of sensemaking and use of data by school leaders. There is the need to do further exploration of what type of data would be most useful for classroom teachers. This will need an intensive focus on many classroom teachers at various schools in order to get better understanding of their perspective on sensemaking and use of data. Furthermore, a quantitative study can be conducted with a large sample size of school leaders to get a broader perspective on this issue. Therefore, this study is only a beginning into a crucial aspect of data-driven decision-making at our schools.
Appendices

Interview Protocol
First Interview: semi-structured and in-depth (Used for participant screening as well)

1. How long have you been at this high school?

2. Today there is growing sense of the importance of data for equitable school leadership. How do you use data to inform decision/practice at your school? Where do you get the data from?

3. What are the characteristics of a good teacher? What sort of information do you draw upon to make this assessment? (principals only)

4. How does the school get the faculty engaged about teacher quality? (principals only)

5. What do you think of the graduation and dropout rates at your school? Where do you get information regarding graduation and dropout rates?

6. What do you think of the discipline policy at your school? Where do you get information regarding your discipline policy?

7. What do you think of students’ achievement at your school? Where do you get information regarding your students’ achievement?

8. How does your school address issues of underperformance?

9. What are the bureaucratic setbacks against these initiatives

10. What can the school do differently to implement some of those initiatives?

11. The accountability data have always posed challenges to many schools and administrators. What types of challenges have you encountered with the accountability data?
12. Describe type of atmosphere that exists around the accountability data at your school.

**Second interview: Semi-structured and in-depth for principals**

1. Tell me about yourself: Family background, education and why you chose to be a principal or school leader at this school?
2. How long have you been a principal or school leader? What are your previous work experiences?
3. Tell me about your perception of education in general and youth learning in particular?
4. What is your educational philosophy?
5. How do you define social justice? How do social justice ideas influence your leadership practices at the school?
6. Do you consider yourself a social justice advocate? Why and why not?
7. How do you conceptualize the role of data work in advancing equity and social justice?
8. Think back to the time that you assumed the principalship of this school or became a school leader. What were your initial priorities as a school leader?
9. What motivated you to attend to these areas or engage in this work at that point in time?
10. Can you identify two or more major schoolwide decisions you made as a school community in the last two years?
11. How did data play a role in those decisions? What type of data was used?
12. What were the outcomes of those decisions? Did they make a difference for all students?

Second interview: Semi-structured and in-depth for other school leaders

1. Tell me about yourself: Family background, education and why you chose to be a school leader at this school?

2. How long have you been a school leader? What are your previous work experiences?

3. Tell me about your perception of education in general and youth learning in particular?

4. What is your educational philosophy?

5. How do you define social justice? How do social justice ideas influence your leadership practices at the school?

6. Do you consider yourself a social justice advocate? Why and why not?

7. How do you conceptualize the role of data work in advancing equity and social justice?

8. Think back to the time that you first became a school leader. What were your initial priorities as a school leader?

9. What motivated you to attend to these areas or engage in this work at that point in time?

10. Can you identify two or more major schoolwide decisions you made as a school community in the last two years?

11. How did data play a role in those decisions? What type of data was used?
12. What were the outcomes of those decisions? Did they make a difference for all students?

**Consent Form**
University of California, Los Angeles

**ADULT CONSENT TO PARTICIPATE IN RESEARCH**

School Leaders Sensemaking and Use of Data

You are asked to participate in a research study conducted by Moses Chikwe, a graduate student researcher, from the Graduate School of Education & Information Studies at the University of California, Los Angeles (UCLA). You were selected as a possible participant in this study because you are a school principal, teacher, or a staff member at your high school. Your participation in this research study is voluntary. You do not have to participate in the research study and no one at your high school will be upset with you if you do not wish to participate. Your decision will not affect your relationship with the school in any way.

**PURPOSE OF THE STUDY**

The purpose of this study is to learn more about your experiences in the interpretation and use of data at your school. The goal is to know how school leaders (principals, site coaches, counselors, departmental heads, teachers, etc) make sense of data and use them for equity purposes. The study will explore the frame of reference with which school leaders come to data and what limitations they have in using the data for school transformation.

**PROCEDURES**

If you volunteer to participate in this study, I will observe, shadow, talk, and listen to you while you are in your office, classroom or at professional development. I will interview you once, but if you are one of the five people selected after the first in-depth interview, you will be asked to participate in a second in-depth interview. Each of the interviews will last at least forty minutes, and be held at a time and place where you feel most comfortable. In the interview I will ask you to discuss your ideas, involvement, and experiences in the interpretation and use of data at your school. I will also request some
documented evidence of your use of data at your school. If you agree, I will record the interview on an audio recorder and take handwritten notes during the interview. I will use the handwritten notes to keep track of important topics that you raise so we can discuss them in more detail.

**POTENTIAL RISKS AND DISCOMFORTS**

I anticipate that you will experience minimal risks and discomforts from your participation in this study. You will participate in the activities you typically participate in your office, classroom or school. I will not talk to other staff members about anything you say to me without your permission.

**POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

You may potentially benefit from your participation in the research by becoming more aware of unreflected assumptions and how to better use data for equity purposes. Equally, the results of the research may benefit the entire school community in making data-driven decisions and improve the overall academic performance of minority students. It may also benefit other school leaders in their interpretation and use of data. It will also help the researcher to grow in his career in doing research.

**PAYMENT FOR PARTICIPATION**

You will receive no payment for your participation.

**CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of pseudonyms (fake names). Moses Chikwe, will keep all of the original documents and audiotapes connected with this research study in a locked office at UCLA. Only he will have access to these data. I may share some of the audiotapes I record during the interviews when I share this research study with other educators. If I do, your participation remains confidential.

**PARTICIPATION AND WITHDRAWAL**

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind.

**IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about the research, please feel free to contact Moses Chikwe, at (310) 922-6529 or Dr. Robert Cooper at (310) 267-2494.
RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal rights because of your participation in this research study. If you wish to ask questions about your rights as a research participant or if you wish to voice any problems or concerns you may have about the study to someone other than the researchers, please call the Office of the Human Research Protection Program at (310) 825-7122 or write to Office of the Human Research Protection Program, UCLA, 11000 Kinross Avenue, Suite 102, Box 951694, Los Angeles, CA 90095-1694.

SIGNATURE OF RESEARCH PARTICIPANT

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

_______________________________________________________________________
Name of participant

_______________________________________________________________________
Signature of participant

Date

SIGNATURE OF INVESTIGATOR OR DESIGNEE

In my judgment, the subject is voluntarily and knowingly giving informed consent and possesses the legal capacity to give informed consent to participate in this research study.

_______________________________________________________________________
Name of Investigator or Desigee

_______________________________________________________________________
Signature of Investigator or Desigee

Date
References


