INCREASING THE ACCESS AND PARTICIPATION OF MINORITY AND LOW SES STUDENTS IN AN ADVANCED PLACEMENT PROGRAM: A CASE STUDY OF ONE URBAN SCHOOL

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Abstract

The purpose of this case study was to identify the effects of the organizational changes in one urban high school leading to a transformation in the school’s Advanced Placement program, ultimately increasing the access and success for minority and low socioeconomic status students (SES). The Burke-Litwin Causal Model of Organizational Performance and Change guided the design of this study and provided a lens to analyze both the complex transformational and transactional dimensions of organizational change that took place in one urban public high school, relative to Advanced Placement program access and outcomes for minority and low SES students. Three research questions guided the case study. (1) How did a large Connecticut public high school dramatically increase minority and low socioeconomic status students’ access and participation in Advanced Placement courses? (2) How did leadership at both the district and school level contribute to the success of the change? (3) How were strategies implemented and resources used to support minority and low socioeconomic status students in the program? A single site case study approach was used to produce descriptive information which highlighted the dynamics of organizational change that occurred at the district, school, and teacher level. The findings reveal that despite political challenges, both district and school leaders adopted and communicated a new mission and vision of equity and access, and pursued outside resources to help spark a new era for all students at the school. Moreover, district and school leaders dismantled decades old structures & systems that rooted students in failure, particularly those from low SES and minority backgrounds. Further, school leaders, teachers and teacher leaders used encouragement and engaged students in incentivized support sessions outside of the normal school day. Although these resources were highly valued, they no longer exist, leaving students who lack foundational skills with few supports and mechanisms to be successful beyond
“access.” The findings of this study, along with the identification and analysis of themes, have the ability to inform school districts and boards of education as they look to create more inclusive opportunities for all students relative to Advanced Placement programming.

*Keywords*: Advanced Placement, open enrollment, minority, low socioeconomic status, academic tracking
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# Table of Contents

Chapter I: Introduction ...................................................................................................................10

The Topic ...................................................................................................................................10

Significance of Problem .............................................................................................................11

Research Questions ....................................................................................................................12

Positionality ................................................................................................................................12

Theoretical Framework ..............................................................................................................15

Causal Model of Change ............................................................................................................16

Definition of Terms and Theoretical Construct .........................................................................17

Understanding the Model ...........................................................................................................19

Chapter II: Literature Review ........................................................................................................25

The Global Need to Acquire and Have Access to Knowledge ..................................................25

Access to Knowledge: Advantage of Advanced Placement for All............................................26

Understanding and Challenging the Barriers for Economically Disadvantaged Minorities ......29

The Problem with Academic Tracking ......................................................................................31

Political Opposition to Reform .................................................................................................34

The Need to Find Strategies to Support Low SES and Minority Students Beyond Access .....36

School Leadership Implications .................................................................................................38

Open Enrollment Policy and Tools for Equity...............................................................................40

Gaps in the Literature .................................................................................................................43

Summary ....................................................................................................................................43

Chapter III: Methodology ..............................................................................................................45

Research Questions ....................................................................................................................46
Site and Participants ................................................................. 47
Data Collection ........................................................................ 48
Data Analysis Plan ................................................................... 48
Data Coding and Analysis .......................................................... 49
Trustworthiness ....................................................................... 49
Data Storage ........................................................................... 50
Protection of Human Subjects .................................................... 50

Chapter IV: Research Findings ................................................... 52
Summary of Research Site, Participants, Focus Group Organizations, and Data Collected ....52
Research Question 1: How did a large public high school dramatically increase minority and low SES access and participation in Advanced Placement courses? ........................................ 56
Research Question 2: How did leadership at both the district and the school level contribute to the success of the change? ........................................................................................................ 64
Research Question 3: How were strategies implemented and resources used to support minority and low SES students in the program? ................................................................. 71
Documents Reviewed .................................................................... 76
Summary of Findings ................................................................... 76

Chapter V: Discussion of the Findings ......................................... 79
Revisiting the Problem of Practice ................................................ 79
Reviewing the Methodology ......................................................... 79
Discussion of Major Findings ....................................................... 81
Discussion of Major Findings in Relationship to the Theoretical Framework .......... 84
Transformational Factors ............................................................ 85
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transactional Factors</td>
<td>86</td>
</tr>
<tr>
<td>Individual and Personal Factors</td>
<td>87</td>
</tr>
<tr>
<td>Discussion of Major Findings Aligned to the Literature Reviews</td>
<td>89</td>
</tr>
<tr>
<td>Conclusion</td>
<td>95</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>96</td>
</tr>
<tr>
<td>Recommendations</td>
<td>97</td>
</tr>
<tr>
<td>Validity of the Study</td>
<td>102</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>103</td>
</tr>
<tr>
<td>Considerations for Future Research</td>
<td>104</td>
</tr>
<tr>
<td>Personal Comments</td>
<td>105</td>
</tr>
<tr>
<td>References</td>
<td>107</td>
</tr>
<tr>
<td>Appendix A</td>
<td>113</td>
</tr>
<tr>
<td>Appendix B</td>
<td>115</td>
</tr>
<tr>
<td>Appendix C</td>
<td>117</td>
</tr>
<tr>
<td>Appendix D</td>
<td>119</td>
</tr>
</tbody>
</table>
List of Tables

Table 1.1 Definition of Terms .......................................................................................................18
Table 4.1 Focus Group 1 ................................................................................................................54
Table 4.2 Focus Group 2 ................................................................................................................54
Table 4.3 Focus Group 3 ................................................................................................................55
Table 4.4 Focus Group 4 ................................................................................................................55
Table 4.5 Themes in Relationship to Research Question 1 ...........................................................56
Table 4.6 2013-2018 Advanced Placement Test Results: Percent of Minorities in AP ..........63
Table 4.7 Themes in Relationship to Research Question 2 ...........................................................64
Table 4.8 Themes in Relationship to Research Question 3 ...........................................................71
List of Figures

Figure 1.1 The Burke-Litwin Model of Organizational Performance and Change .......................22

Figure 1.2 The Burke-Litwin Model: Transformational Factors ..................................................23

Figure 1.3 The Burke-Litwin Model: Transactional Factors ........................................................23
Chapter I: Introduction

Low socioeconomic status students (SES) are typically underrepresented in rigorous academic programs of study, such as Advanced Placement, which have the potential to provide life-changing long-term benefits (Hallett & Venegas, 2011). The purpose of this case study is to identify the effects of the organizational changes in one urban high school leading to a transformation in the school’s Advanced Placement program, ultimately increasing the access and participation of minority and low socioeconomic status students.

Why is Advanced Placement Access Important for Low SES Students?

Advanced Placement courses are often considered the “gold standard,” of curricula, signifying a guaranteed exposure to a high degree of cognitively complex and demanding curricula (National Association for College Admission Counseling [NACAC], 2011). These courses are part of a rigorous academic program sanctioned by The College Board and are employed widely as both a hallmark of academic excellence and as a preparation tool for college readiness. This level of challenge is designed to not only simulate a college course experience, but also to gear willing students for competitive access to post-secondary colleges and universities. In addition, eligible students may earn college credits at a substantially reduced rate or even free of charge with passing scores on end of course assessments (College Board, 2012).

Research has demonstrated that student success with Advanced Placement coursework in high school is a strong predictor of future success at the college level (Kyburg, Hertberg-Davis, & Callahan, 2007). Access and success with these courses creates advantageous opportunities for students to gain entry into competitive colleges and universities, receive tuition free credit, and achieve advanced standing at the start of their college career (Dougherty, Mellor, & Jian, 2005). Given this, participation in these courses should be open to all students and appropriate
academic supports should be included to meet the needs of all learners, particularly those from economically disadvantaged backgrounds.

This study will illuminate the drivers of change relative to the transformation of one urban high school’s Advanced Placement Program that increased opportunities for minority and low SES students. The changes sparked a new organizational culture committed to supporting and sustaining students participating in Advanced Placement courses. The study will highlight the roles, successes, and challenges of the central office team, school leaders, and lead teachers who were involved in the programmatic changes that led to positive outcomes for students previously marginalized by a politically driven academic tracking system.

**Significance of the Problem**

Stephen Brint (2006) identified school systems as one of the first “performance-based bureaucracies” (p.9) children will be exposed to en route to adulthood (Brint, 2006, p. 9). For most school-aged students, perceptions relating to performance on common or standardized achievement tests begin an archaic process where educational decision-makers sort, group, and track unsuspecting students by academic ability. In these modern tracking systems, students are assigned to different levels of the same course for different curriculum containing more or less rigorous instruction (Lucas, 1999; Oakes, 2005). Tracking policies have long been associated with creating institutionalized academic roadblocks, limiting those placed in the lower tracks from accessing challenging work. These students are typically minorities and children from low socioeconomic backgrounds (Brint, 2006). In these cases, decisions for curriculum development, access, and the quality of implementation can hold life-changing implications for students.
While access has been gradually increased, the pervasiveness of the minority achievement gap continues to plague both public school systems and society as a whole in the United States (Oakes, 2005). This gap is further perpetuated by the lack of minority access to and enrollment in rigorous academic programs such as with Advanced Placement (AP), commonly found in high schools across the country.

**Research Questions**

The three research questions guiding this case study are as follows:

1. How did a large Connecticut public high school dramatically increase minority and low socioeconomic status students’ access and participation in Advanced Placement courses?

2. How did leadership at both the district and school level contribute to the success of the change?

3. How were strategies implemented and resources used to support minority and low socioeconomic status students in the program?

**Positionality**

For more than a decade, I served as a public school teacher and most recently as a district level curriculum administrator in the same urban school system that serves as the population for my study. During this time, I have witnessed the transformation of our curricular programs with an intense focus on creating more equity and access to rigorous instruction for all students. I have been deeply involved and personally invested with the detracking of our large high school of over 3000 students, which previously reserved access to advanced course and enrichment learning experiences for an elite group of teacher recommended students. As part of a strategic plan of action, course audits were conducted to identify student demographic distribution by
academic level. This audit identified a social and racial imbalance of students who were participating in the most challenging courses. These findings revealed that low socioeconomic status students, many who were minority students, dominated lower level course participation. Conversely, upper level honors and Advanced Placement courses were populated predominately by white students not identified as low SES.

As part of the reform efforts, my administrative position was created to specifically address the curricular implications of detracking, since course levels would be collapsed and new curricula would be needed to raise the level of expectation for all students and to prepare them for college readiness. Additionally, intense teacher training would be needed to assist teachers with differentiating instruction in more heterogeneously grouped classes. Despite this ongoing work, low SES students still experience less success in advanced courses than their peers even though participation rates have increased. My involvement and genesis for interest stems from not only my position as a curriculum administrator, but also on a personal level, as a former student who was not able to access advanced course work in high school, and was completely unaware of the benefits of such participation.

As an advocate for participation in Advanced Placement coursework, I have a favorable bias towards this topic. I recognize the advantages and benefits that such involvement can bring to a students’ educational experience. Having this knowledge as a district level administrator and also having a teenage daughter who is currently taking AP two courses, I can attest to these benefits first hand. As a scholar-practitioner, I am vested in understanding why all student groups are not experiencing the same levels of success despite our district’s open enrollment policy, and want to ensure that our school system is meeting all student need from both a programmatic and social justice standpoint.
As a former student who did well in high school and worked hard to achieve a decent academic standing, I realized that I knew very little about Advanced Placement courses, despite that these were offered in abundance at my high school. Even though I was fortunate to attend a competitive private high school, both of my parents lacked a college education themselves and were unable to guide me in my educational years in the same way a parent with experience could have. Instead, I relied solely on the information and advocacy provided to me in the form of assistance from teachers and suggestions from school counselors, none of who whom discussed the advantages associated with Advanced Placement courses. It is because of this that I am a strong supporter of our recent district reforms and vision for our advanced Placement high school program.

At times, my strong advocacy and support for disadvantaged groups may influence my judgment and actions. To that end, I must be extremely conscious of my bias and actions, so while I may not be able to remove my personal perspective, I can work to control its influence over my study (Machi & McEvoy, 2009). Moreover, I am conscious that my actual experiences cannot be used as an accurate description or way of fully understanding the other, meaning the low SES students referenced in my study (Briscoe, 2005). In fact, some of my experiences with exclusion relative to this topic create a deeper level of bias than most researchers engaging in this study would likely have.

While I may be a staunch supporter for creating opportunities for all students to participate in Advanced Placement courses, I realize that conditions and circumstances beyond the school systems control will likely factor into the success rates of our diverse student body.

Further, I also need to recognize my personal position and lens exclusive of my administrative role and how my own negative experiences potentially affect my decision making
as an administrator in a position of authority as well as a researcher. It will be difficult to separate and negotiate my three distinct perspectives as former “excluded” student, as an administrator, and as a mother of a teenager currently taking advanced level courses, however, remaining highly conscious of these biases will aid in my ability to remain fair and neutral throughout the research process (Machi & McEvoy, 2009).

My personal history, experience and biases have made me a strong advocate for increased student participation in Advanced Placement courses. My positionalities, while reinforced through a growing number of research and advocacy organizations, remain tainted and must be accounted for thoroughly at every step of my research investigation so that the findings are viewed as legitimate and worthy of future study, hopefully resulting in increased positive outcomes for low SES students.

**Theoretical Framework**

The heart of student success and failure in any given school system can often be attributed to the state of quality curricular programming, implementation, and access (Oakes, 2005). To this end, educational leaders are responsible for influencing organizational systems and creating conditions for schools to adequately prepare students for post-secondary opportunities. This study will use The Burke-Litwin Causal Model of Organizational Performance and Change as a lens to analyze both the complex transformational and transactional dimensions of organizational change that took place in one urban public high school, relative to Advanced Placement program access and outcomes for minority and low SES students.

Burke (2011) defines a significant organizational change as one that can redesign or redirect a system or organization and change the culture and manner in which things are done.
Further, a redesign of the organization focuses on new decisions and accountability structures that provide stakeholders with a new focus and outlook. To this end, changes in an organization require an intense focus on many complex processes that root a system in its current state. Burke contends, “deep organizational change, especially when attempting to change the culture of an organization, is very difficult” (p.11).

Changing the mission and strategy of an organization means “culture must be modified if the success of the overall change effort is to be realized” (p.24). Burke (2011) describes culture as “the way we do things around here”, and these are rooted in “deeply held beliefs, attitudes and values” (p.24). Organizational change requires systems to change adult behaviors as the route to changing beliefs and ultimately, culture.

With this, organizational change has both content and process components, whereas the content is the “what” that needs to be changed, which is usually a redesign of the organization’s overall vision, mission and direction for new change. The process or the “how” deals with the actualization and actions needed to implement, monitor and sustain the vision of the new plan (Burke, p.27).

**Causal model of change.** Organizational climate research conducted by George Litwin in the 1960s helped to lay the foundation for the current framework as it exists today. Litwin was influenced by the early research work of John Atkinson (1958) and David McClelland (1961), with the latter theorist asserting that “human need can be aroused by manipulating the environment” (p.210). Litwin found application for this theory as an overlay framework for the needs of organizations and the role that different types of leadership play in the outcome of change. To further this work, Litwin, along with researchers Humpfrey and Wilson developed an organizational model that highlighted the role that climate, psychology and the collective
perception of the organization’s members played on levels of performance and overall job satisfaction. This connection made between organizational and psychological components in the workplace, in addition to the influence of Weisord (1976), Porras and Robertson (1986), Nadler and Tushman (1977), and Tichey (1977) models, helped to form the ideas and organizational linkages found in the current Burke-Litwin model. (p.214)

The Burke Litwin Model for Organizational Performance and Change contains twelve components that are interlinked and have varying degrees of influence over one another. The model is best understood by examining the top half of the model in relation to the bottom half; these being the difference between transformational dimensions versus transactional dimensions of organizational change. With this, transformational categories include the external environment, mission, strategy, leadership and culture. “Changes in these categories are likely to be influenced by “direct interaction with external environment forces and will, as a consequence, require significantly new behavior from organizational members” (Burke, p.216). To achieve meaningful changes in an organization, visionary leadership is required. In contrast, the transactional dimension, or lower half of the model, illustrates the day to day workplace “transaction” that takes place to help an organization to run efficiently. Whereas transformational actions are viewed as leadership, transactional actions are viewed as managerial in nature.

**Definitions of terms and theoretical construct.** Table 1.1 provides a list of definitions of the model components:
### Table 1.1

**Definitions of terms**

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
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<tr>
<td><strong>Leadership</strong></td>
<td>The execution of providing organizational direction or influence and persuasion.</td>
</tr>
<tr>
<td><strong>Organization Culture</strong></td>
<td>These are the rules we follow and the manner in which daily tasks are accomplished. These include the rules that may be explicit or implicit that becomes the norms for operating within an organization.</td>
</tr>
<tr>
<td><strong>Mission and Strategy</strong></td>
<td>The mission defines what an organization’s purpose is and why it exists, whereas, the strategies are the mechanisms for implementation en route to achieving the organization’s goals.</td>
</tr>
<tr>
<td><strong>External Environment</strong></td>
<td>These are the factors, variables, or forces that push and pull on an organization such as economics, politics, government regulation and changing customer behavior.</td>
</tr>
<tr>
<td><strong>Individual and Organizational Performance</strong></td>
<td>These are the workplace outcomes for both individual workers within a group as well as the group unit itself.</td>
</tr>
<tr>
<td><strong>Management Practices</strong></td>
<td>These are the tasks and practices that managers complete each day to carry out the strategies identified by an organization.</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>These are identified as the intentional positioning or organizing of functions, workplace relationships and lines of communication that are designed to achieve its mission and goals.</td>
</tr>
<tr>
<td><strong>Systems</strong></td>
<td>These are the policies and procedures that are in place to support work members, both individual and group, with achieving their job responsibilities.</td>
</tr>
<tr>
<td><strong>Work Unit Climate</strong></td>
<td>These are the collective perceptions about how well members feel they are managed, how they feel their performance is valued, the level of clarity in their role and responsibilities, as well as how members feel supported, challenged, and invested.</td>
</tr>
<tr>
<td><strong>Motivation</strong></td>
<td>These are the needs of individuals to achieve, affiliate with others, and to have a certain level of control in their workplace.</td>
</tr>
<tr>
<td><strong>Individual Needs &amp; Values</strong></td>
<td>As an influencing factor in achieving motivation, these are internal factors that can indicate the level of job satisfaction derived from individual work.</td>
</tr>
<tr>
<td><strong>Task Requirements and Individual Skill/Abilities</strong></td>
<td>These are the alignment between the requirements of one’s job responsibility and their actual skill set, competence, and abilities needed to be effective.</td>
</tr>
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</table>
**Understanding the model.** While not specifically designed for educational institutions, the Burke-Litwin Model offers a detailed lens for school leaders to better understand the complex nature and relationships between the many present parts of their organizational system.

The model represents twelve elements or variables that can be helpful with predicting and explaining the behavior or the effectiveness of an organization. Figure 1.1 demonstrates which elements belong to each group and how they interact with one another signifying the hierarchy of change within an organizational structure. The boxes within the model indicate primary variables affecting organizational performance with the arrows indicating critical linkages. Any change in one variable will ultimately affect every other variable in some way, with higher level variables having greater weight in affecting organizational change.

According to Burke and Litwin’s model, most organizational change is driven by environmental factors beginning with the external environment. This factor represents any forces, conditions or pressures outside of the organization that will affect its processes and internal behavior. For example this could be consumer behavior, marketplace conditions, or in an educational setting, it may be federal or state mandates, parental pressures, or the availability of qualified staff. The ability to affect meaningful and sustainable improvement is best understood through the distinction made between the transformational and transactional components, or the upper and lower portion of the model. As such, the most influential drivers of change are transformational in nature and are positioned at the top of the model, with the lesser influential transactional drivers situated at the bottom. However, given that all the model components are situated in an open system, each has the ability to influence the others in some way (Burke & Litwin, 1992).
The transformational factors are deeply embedded characteristics of an organization that have the ability to influence and create substantial consequences for the rest of the organization. These include leadership, mission and strategy, and organizational culture. These three areas are represented hierarchically at the top of Burke's model and have the most influence over change. Similarly, the organization's mission and strategy describes its purpose of the organization and also the processes for how the organization will achieve its goals. The leadership in an organization provides the direction through the development and communication of its mission and strategy and is responsible for motivating the rest of the organization to achieve it. The manner and level of effectiveness that leaders exert in operationalizing the mission and strategies can determine the organizational culture, or the norms for operating in the organization.

While not as influential as transformational factors, transactional factors are required to make an organization run smoothly and effectively in optimum conditions. These factors are represented in the lower portion of the model and include the elements of management practices, structures, systems and policies, and work unit climate. Management practices are the tasks and practices that managers complete each day to carry out the strategies identified by an organization, while the structure is the intentional positioning or organizing of functions, workplace relationships, and lines of communication that are designed to achieve its mission and goals. Also influential, the systems comprise the policies and procedures that are in place to support work members, both individual and group, with fulfilling their job responsibilities. Further, while the work unit climate represents the collective perceptions about how well members feel they are managed, how they feel their performance is valued, the level of clarity in their role and responsibilities, as well as how members feel supported, challenged, and invested.
The structures of the organization and the systems, policies, and procedures that an organization values have a strong influence over the work unit climate and the motivation of organizational members to support the strategy and mission set forth by leadership. Within this context it must be recognized that there are individual needs and values with which employees will expect and certain demands such as pay, life work balance, job satisfaction, and clarity of responsibilities and roles. Some of this job satisfaction and the success of individuals to complete their tasks require matching job descriptions with the expertise of employees and providing the appropriate training to adapt to new skills and requirements demanded by change. As such, changes in strategy can lead to changes in how a group or work unit is structured, which can impact areas of responsibilities, work roles, and relationships. Moreover, change in one area, often originating from leadership exerted at the top of the organization, can affect the climate of an organization and evoke emotional or political changes from its members. This can also cause or necessitate change in the task requirements and individual skills needed to achieve alignment with new strategies or organizational goals (Burke & Litwin, 1992).

Lastly, the individual and organizational performance is an element that represents the overall output or effectiveness of the organization. This can be represented in many ways such as by describing levels of productivity, customer satisfaction, or in the case of educational systems, the quality of education, student learning, and outcomes.

To achieve meaningful redirection, Burke’s model identifies the need to affect each of the primary levels of change, which consist of individual, group, and the total system. At every level of change, effective leadership is required. Leaders can be anyone in an organization who actively plays an important role in the vision, development or implementation; however, large scale transformation requires executive level leadership to drive changes that require significant
shifts in organizational mission and overall cultural change. These can be school superintendents, principals, and other district leaders (Burke & Litwin, 1992, Darling-Hammond, 2005).

This study will examine the drivers of change and inherent leadership moves exerted on a public school system in order to achieve the desired outcome of increased access to Advanced Placement courses for low SES students. The Burke-Litwin Model of Organizational Change will provide a multifaceted lens with which to conduct the study, looking closely at the transformational and transactional leadership dimensions of the work and its potential to affect change in other school districts.

*Figure 1.1. The Burke-Litwin Model of Organizational Performance and Change*
Socioeconomic Status (SES): “Socioeconomic status (SES) is often measured as a combination of education, income, and occupation. It is commonly conceptualized as the social
standing or class of an individual or group. When viewed through a social class lens, privilege, power, and control are emphasized. Furthermore, an examination of SES as a gradient or continuous variable reveals inequities in access to and distribution of resources. SES is relevant to all realms of behavioral and social science, including research, practice, education, and advocacy.” (American Psychological Association, 2014, p.1)

*College Board:* The College Board is a not-for-profit organization whose mission is to increase college success and opportunity. Since 1900, the organization has helped students through programs such as the SAT and Advanced Placement Programs, which serve as indicators of college readiness. (College Board, 2014)
Chapter II: Literature Review

This study will provide insight and deeper understanding of the factors that lead to the increased participation and success of economically disadvantaged students who participate in Advanced Placement programs. Accordingly, this literature review will explore the foundational underpinnings of the problems regarding equitable access and discuss the advantages of a rigorous preparation, such as completing Advanced Placement courses, as well as, identify barriers such as academic tracking policies that impede minority and low socioeconomic status (SES) students from obtaining access to high quality experiences. Inherent in the study will be a focus on both transformational and distributed leadership styles as well as the organizational leverages that drive and sustain meaningful change.

This study ultimately serves to understand how one urban high school managed sweeping changes to the way it catered to the needs of their underserved student populations, particularly with that of low socioeconomic status students taking Advanced Placement courses. This chapter will conclude by describing the informational gaps in the existing literature pertaining to specific strategies used by districts and school leaders and how this study serves to fill those gaps.

The Global Need to Acquire and Have Access to Knowledge

The impact of globalization has had a profound effect on developing countries around the world including the United States. Parents, education leaders, and community members worldwide realize that success in today’s global marketplace depends largely on an individual’s education and preparation (Suarez-Orozco & Qin-Hillard, 2004). As such, governments and local educational agencies are in the process of modernizing and restructuring school districts in an attempt to keep pace with the ever-changing demands of both local and national work force needs. Fortunately, far more children have access to education and even more will have the
ability to seek global opportunities and employment as adults given the recent surge in available technology, communication, and collaborative efforts to improve the literacy rates in many countries (Suarez-Orozco & Qin-Hillard). Despite this, successful “integration into world economy today implies not only mastery of traditional knowledge, but also the capacity to acquire the new skills required by a knowledge society” (Bakhtiari, 2006, p. 97). It is therefore imperative that students not only acquire the basic knowledge and skill sets to be competitive, but they must also gain access to rigorous curricula, training, and post-secondary credentials, which will ultimately lead to higher paying jobs, financial security, and overall happiness (U.S. Census Bureau, 2009, table 232).

While school districts across the country have made strides to increase educational opportunities for its students, a closer look reveals a considerable lack of equitable educational access and support, which is inclusive of the needs of all students, in particular minority students and those who come from low socioeconomic backgrounds (Oakes, 2005).

**Access to Knowledge: The Advantage of Advanced Placement for All**

Most high schools across the United States offer a range of course work at each grade level that varies in both complexity and content. Typically, course offerings include qualified labels denoting the expected degree of difficulty such as basic, general, college preparatory, honors, and Advanced Placement levels. From among these, Advanced Placement courses are often considered the “gold standard,” signifying a guaranteed exposure to a high degree of cognitively complex and demanding curricula (National Association for College Admission Counseling [NACAC], 2011). These courses are part of rigorous academic program sanctioned by The College Board and are employed widely as both a hallmark of academic excellence and as a preparation tool for college readiness. This level of challenge is designed to not only
simulate a college course experience, but also to gear willing students for competitive access to post-secondary colleges and universities. In addition, eligible students may earn college credit at a substantially reduced rate or even free of charge with passing scores on end of course assessments (College Board, 2012).

Many colleges and universities use student participation in Advanced Placement courses as an indicator for the potential to succeed at the college level (Kyburg, Hertberg-Davis, & Callahan, 2007). Research derived from longitudinal studies conducted by the National Center for Educational Accountability indicate that student performance scores of three or higher on the AP test as one of the strongest predictors of student ability to complete a bachelor's degree (Dougherty, Mellor, & Jian, 2005). As a result, college admission teams look for Advanced Placement courses on student transcripts as an indicator of a strong academic preparation and they will typically award preferential status when making acceptance decisions.

Although there are many factors such as parent education level and socioeconomic status that have been identified as playing a strong role in student ability to achieve, the most compelling evidence shows a direct link between college completion rates and those students who were exposed to a rigorous academic experience (National Association for College Admission Counseling [NACAC], 2011). Further, AP examinees who qualify as low income, when compared to their low income non-AP Exam-taking peers tend to have a higher likelihood of enrolling, persisting, and graduating from four-year colleges (Godfrey, Wyatt, & Beard, 2016). Consequently, participation in high level and advanced course work not only increases the probability of acceptance into colleges and universities, but also increases the chances that those same students will have greater success with post-secondary completion.
As it pertains to closing the achievement gap between those with access and those without, there are identifiable and measureable predictors for academic success. For example, a synthesis of research conducted by Choy (2002) examined three major longitudinal studies on the importance and net effects of completing a rigorous high school curriculum. The findings point to a strong correlation between high school preparation and persistence in completing a college degree. Her study revealed only 62% of students who completed a basic curriculum program of study at the high school level were on target for college completion, once enrolled, compared to 87% of students who had engaged in a rigorous program of study at the high school level. The restrictions of such educational opportunities are strongly correlated to “diminished school achievement” (Mickelson & Heath, 1999).

The advantages of completing a rigorous program, including credit bearing Advanced Placement courses, can significantly reduce the time spent and associated costs of completing a college degree. Students who take multiple Advanced Placement courses over the span of their high school years can potentially save thousands of dollars on tuition costs associated with college completion. For this reason, low SES populations need greater access to such programs that can further ensure greater success and future outcomes. (Mickelson & Heath, 1999). As such, there remains a need to increase opportunities for access to challenging course work for all students, in particular economically disadvantaged minorities who are traditionally underrepresented in high-level courses at the secondary level and in post-secondary institutions.

Consequently, advantages of college degree completion are significant, including the financial reward of having substantially higher lifetime earnings for those students who hold a bachelor’s degree, as compared to their peers who do not have a college degree. For example, on average, a middle aged person (45-54 years old) earns a little over $36,000 per year with a high
school diploma as compared to $69,548 per year for a Bachelor’s degree, $86,532 per year for a
Master’s degree, and $148,000 per year for professional licensure beyond the Master’s level
(Department of Commerce, 2011). Given this, completion of a college degree provides upward
social mobility for socioeconomic groups who have traditionally struggled with status and full
access to life’s offerings. Such access is critical in remaining globally competitive and
marketable for future success (Bakhtiari, 2006, Contreras, 2011).

Understanding and Challenging the Barriers for Economically Disadvantaged Minorities

There are developmental differences associated with children living in poverty as
compared to peers of wealthier families. For example, research studies conducted by Hart and
Risley (1995) found a clear and profound difference in the way lower and middle-class parents
foster cognitive development. For example, the number of words per hour used by parents with
their children varied significantly with welfare children at 616, as compared to 1,251 words with
working-class families and 2,153 words used with children of professionals. Additionally,
studies conducted on working memory and cognitive control found significant disparities
between lower-income and higher-income students in five neurocognitive areas of brain
development such as language, working memory, cognitive control, reward processing, memory,
spatial cognition, and visual cognition (Farah, Shera, Savage, Betancourt, Giannetta, & Brodsky,
2006). These developmental linguistic patterns and deficits play out in academic settings and
must be remediated through intentional academic programming at an early age.

The study by Farah et al. (2006) aids in dispelling the myth that poor achievement is a
direct cause of genetic make-up and motivation rather than neural development that is caused by
a myriad of environmental factors related to SES. Moreover, studies conducted by Klebanov,
Brooks-Gunn, & Duncan (1994) closely examined the conditions and subsequent related
maternal behaviors and influences associated with poverty-stricken neighborhood characteristics and family dynamics. Influences such as mental health, coping behaviors, social supports, and mother-child relationships relating to such areas as the home environment, provision of learning experiences, and warmth and responsiveness of the mother, all play a role in development. The study concluded that neighborhood and family conditions, where income levels were low, had a negative effect on the overall parenting and support of children within that environment.

The issues of achievement and attainment that is attributed to environmental conditions that are often malleable, are responsible for stereotyping minorities or children from low SES backgrounds as lazy or unwilling to achieve due to genetic or racial background. As such, SES plays a significant role in creating conditions for learning and growth and serves as a prompt for educators to combat the effects of poverty through supplemental exposures and planned programmatic experiences in early childhood education and beyond. With the right academic supports along the way, students can gain the necessary skills to achieve at any level despite beginning from a disadvantaged state (Murphy, 2010).

While data from organizations such as The College Board show that public school institutions across the country are gradually increasing opportunities for more ethnically diverse populations to participate in Advanced Placement level courses, overall the aggregated numbers still indicate a significant gap in equitable access to challenging and Advanced Placement courses for traditionally underserved populations (College Board, 2010). Unfortunately, a persistent negative culture of low expectations and racist attitudes towards minorities perpetuate the inequalities that exist between students from diverse and challenging backgrounds and those of their more advantaged peers. Moreover, in many schools where academic discrimination exists, “teachers have been taught that their primary responsibility is to teach the “basics”
because students are not thought to have either (1) the innate ability or (2) the experiential backgrounds of more privileged students” (Nieto, 1999, p. 4). As such, the academic pathways for disadvantaged students are further influenced by the socioeconomic and sociopolitical stereotypes that plague and impede students who are trapped in an adverse cycle of low expectation (Nieto, 1999, Oakes 2005).

The same negative attitudes are often reinforced through district and school policy, even serving to punctuate the lack of beliefs about the potential for all students to succeed. Such a foundation leads to shortsighted programming and ultimately, the promotion of school structures that inhibit progress for minorities and the economically disadvantaged. (Oakes, 2005)

**The Problem with Academic Tracking**

Academic tracking is defined as the process of dividing up students into categories and courses that follow a predetermined curriculum based on standardized test scores or achievement tests (Oakes, 1985). While the courses have names such as basic, general, honors, and Advanced Placement, the students themselves who are associated with these courses are often labeled as slow, average, or advanced learners. The less appealing labels can have longstanding and adverse effects on student self-confidence, self-perception, and ability to participate in advantageous academic programs (Murphy, 2010).

Many of the academic tracking policies that reproduce social groups are often referred to as ability groups, which can be found in public schools as early as elementary school. Stephen Brint (2006) identifies school systems as one of the first “performance based bureaucracies” that children will be exposed to en route to adulthood (p. 9). At an early age, students are routinely sifted and sorted according to perceived abilities and performance on state and national standardized tests. As a result, the generational and long-term effects result in minorities being
“restricted in employment, segregated in housing and stigmatized in the dominant culture” (Brint, 2006 p. 220).

For example, discriminatory academic tracking policies at the secondary level create barriers for minorities and low SES students by preventing access to rigorous and advanced placement curriculum. Unfortunately, not all students are included in opportunities to engage in challenging and rigorous curricula that will better prepare them for more successful outcomes.

Most middle school students for example, are sorted by mathematical ability as early as grade six, which can determine the academic “track” students will encounter through the twelfth grade. Reports compiled by The U.S. Department of Education have indicated a strong relationship in rigorous course work completion as having started with access to Algebra I curriculum at the middle school level (U.S. Department of Education, 2011). Attainment of a high-level track at an early age will lead directly to Advanced Placement options later in the high schools years. Those who do not gain entry to a high track by the end of middle school are often ineligible to participate in advanced level work at the secondary level. Further, these tracking policies systematically place students on varying trajectories of academic assignment as they move through the various grade levels. Consequently, students from low-income backgrounds placed in lower tracks are offered “curricula that is less intellectually stimulating, coherent, and demanding of the learner” (Knapp, 2001, p. 181). For example, Vanfossen, Jones, and Spade (1987) concluded that in schools where tracking exists, Latino and African American students are far less likely to be placed in high track classes as compared to their Asian or white counterparts with the same achievement scores. Additionally, the staggering numbers of minority students found in lower track classes further reinforces negative stereotypes, thus perpetuating the cycle of low achievement. Without equitable access, discriminatory academic
tracking policies create significant barriers for minority students attending schools where such policies exist.

While rarely discussed, students in lower tracked classes often lack quality instruction regardless of the level or subject. Research conducted by Mickelson and Heath (1999) examined the extent to which the Charlotte-Mecklenburg public school system, a highly publicized school system charged with the task of desegregation in 1971 by a Supreme Court order, remains segregated. Additionally, the authors examined the state of existing tracking policies and the effects of students’ achievements and outcomes. Lastly, the study looked at the ethnic make-up within tracks, specifically for African Americans, to dissect outcomes related to academics and educational achievement. The conclusion of the study revealed a significant educational disadvantage and subsequent diminished post-secondary educational opportunities for African Americans and for those students confined to lower academic tracks. In contrast, white students were consistently privileged and had benefitted greatly by the experiences and exposure to the more rigorous learning environments (Mickelson & Heath, 1999).

Further, Mickelson and Heath (1999) cite evidence that “ability grouping and tracking frequently reinforce the learning problems of disadvantaged students by providing them with instructors who teach the least challenging curricula using methods least likely to challenge students to learn” (p. 562). Often, those least equipped to teach are given the most challenging students.

A similar synthesis of research conducted by Oakes (1985) highlights the lack of quality instruction and curriculum provided to students, particularly minorities, in lower tracked classes. In her research, Oakes (1985) acknowledges the complexity of measuring educational outcomes in relationship to tracking; however, her research affirms the consistency between the
advantaged performance measures of high tracked versus lower tracked high school students over time. These indicators solidify the need to end tracking policies and instead, begin early exposure with the most challenging curricula available, so as to guarantee greater success at the post-secondary level and beyond.

In schools where academic tracking still exist, there is evidence of “discriminatory cycles of restricted educational opportunities for minorities that lead to diminished school achievement” (Mickelson & Heath, 1999, p. 570). These discriminatory tracking policies create roadblocks to accessing challenging course work and are often viewed as the “hidden curriculum” that reproduces some of the fruitless socialization patterns of minorities (Brint, 2006, p. 145). Therefore, school systems themselves have the power to perpetuate social class conditions by maintaining the structures that allow an all access pass for the academic elite while relegating less privileged peers to limited opportunity and futures. It is this politicized existence that forms the basis of a serious and compelling ethical challenge for educational leaders.

**Political Opposition to Reform**

Educational leaders are often faced with trying to satisfy the parents of the academic elite while simultaneously redistributing limited resources and funding to students with the most significant academic need (Murphy, 2010). It is here where a paradigm shift in programmatic structures and school culture requires true transformational leadership, a sense of urgency, and an ethically driven vision to guide the difficult decisions that will lead to equity and improved student outcomes (Fullan, 2003).

Parents of academically elite students often lead the charge against detracking and have expressed the belief that their children are entitled to more resources, teacher time, challenging curriculum and instructional opportunities. These parents believe there should be an advantage
for students who are more intelligent and talented than other students. While these parent groups are demanding and often the most vocal with school issues, they are highly involved in the life of the school, often leading fundraising committees and various parent and community organizations. Additionally, the educational backgrounds, the alumni networks, and professional career backgrounds of these high-powered parents lend themselves to the skillful petition and solicitation of town finance groups, local school boards, and corporate donors (Oakes 2005).

Often times, the broader national pressures to correct and undo the educational models that foster ethnic and socioeconomic segregation will come in direct conflict with the local high-powered political pressure engineered to maintain and reserve elite academic status for those with the wealth, power and influence to sustain the fight (Oakes, 2005). Despite the pressure, the commitment to remain steadfast with morally right decision-making is what defines true and transformational leadership (Fullan, 2001). Further, when a moral rudder guides a leader, the school policies that govern and shape educational frameworks will follow suit (Fullan, 2001).

Currently, those who have the power, education, and financial backing possess the power to create educational policy. Given this, “publically funded schools must serve all children, not simply those with the loudest or most powerful advocates” (Fullan, 2003, p.3). For educational leaders, this means “addressing the cognitive and social needs of all children, with an emphasis on including those who may not have been well served in the past” (Fullan, 2003, p. 3). Moreover, leadership teams must be willing to shed light on the major issues surrounding educational inequity and become influential players amongst the powerful brokers who are involved with setting policy.

Clearly, the work of dismantling academic tracking is quite possibly one of the most critical leverage points in secondary education en route to creating a clearer pathway toward
equitable opportunities for the disadvantaged. Nonetheless, school curriculum leaders play a vital role in creating a culture of high expectation for student achievement and for redesigning educational programming to promote the growth and success of learners and ultimately—practice that drives theory (Fullan, 2011). The reorganization and creation of more effective curricular programs of study can strengthen the ability for low SES students to perform well and provide for the same advantages that those students from higher SES typically enjoy. In view of this, the work ahead requires teamwork, persistence, and knowledge about the intricacies of reform.

**The Need to Find Strategies to Support Low SES and Minority Students Beyond Access**

The College Board (2013) released an Advanced Placement Report to the Nation which provides annual research information and key findings related to college readiness and success based on PSAT and Advanced Placement enrollment and assessment data. The current report reveals the loss of potential Advanced Placement course enrollment and access due to an underutilization of data that is readily available designed to pre-identify students that demonstrate high potential for success in advances courses. The findings show that only three out of ten Hispanic, Latino, and Black students were enrolled in AP courses for which they were considered qualified, based on available data sets. Surprisingly, only four out of ten White students were identified in a similar manner, which prompts questions around the identification and promotion strategies used with all ethnic and racial groups (College Board, 2013).

Further, Kyburg, Hertberg-Davis and Callahan (2007) conducted a research study that investigated the degree to which the specific learning needs of underserved minority students are adequately addressed within Advanced Placement and International Baccalaureate programs. A close dissection of the unique educational needs along with socioeconomic and mobility factors
related to the needs of low SES minorities, dominates the literature and contextual backdrop of the study. As such, the authors reveal problems with a lack of cultural capital on behalf of minority students to be able to access traditional programming. Moreover, the researchers probed and observed curricular, instructional, and assessment practices relative to advanced courses. Subsequently, the authors revealed that there were several mismatches between the needs of diverse students, and the curriculum and type of instruction offered in the advanced programs. The largest mismatch could be seen with students of color from impoverished backgrounds and the academic rigor of courses in which they were enrolled. This mismatch was widely viewed by the teachers as a reflection and weakness on the part of the students themselves.

Beyond the initial challenges associated with the identification process comes the need to support low SES students in rigorous academic programs of study. Hallet and Venegas (2011) investigated student experiences and outcomes for forty-eight students enrolled in AP courses past or present, using interviews and an analysis of course taking patterns for college bound students. The study highlighted the shortcomings of programs by looking at passing rates, exam participation, and in class experiences. Participants were largely Latino and African American and attended large urban schools in Los Angles where over ninety percent qualified for free or reduced lunch. Results demonstrated that beyond initial access to AP programs, which was good, interviewed students had low-test scores as compared to actual course grades and exam pass rates. Individual student experiences and support within the courses were poor as reported by students (Hallet & Venegas 2011).

While historically the odds have been stacked against them, underprivileged students do gain entry into good colleges and universities; however, many of these students are often faced
with more challenging obstacles than their advantaged peers. For example, research by Writ, Choy, Rooney, Provasnik, Sen and Tobin (2004) has shown that economically disadvantaged minority students who do attend college are more likely to need remedial courses than are students who come from higher socioeconomic backgrounds. Some of these students needing additional prerequisite course work will need more time to complete a college degree, as well as incurring increased overall costs associated with matriculation. Additionally, without support those who lack adequate preparation or the financial resources might easily be found among the higher statistical dropout rates associated with minorities from lower socioeconomic backgrounds (Carter, 2006).

Additionally, Carter (2006) highlighted the key factors which lead to post-secondary success, affecting White, African American, and Hispanic students. For each of the three groups, the following factors attributed in some way to successful completion of post-secondary educational outcomes: high income or adequate aid that was guaranteed as a way to overcome parental income issues, completion of college preparatory courses at the high school level, and an increased availability and participation of advanced courses at the high school level. The research also revealed inadvertent discriminatory policies such as those found in retention policies and remedial course placements. Equally problematic and potential detractors to success were the lack of available networks to support and guide minority students.

**School Leadership Implications**

Learning is a complex problem, which cannot be explained or improved upon by focusing on any one area of culture, curriculum, or pedagogical practice (Nieto, 1999). As such, changing curriculum, or altering problematic school structures will do little by way of improvement if cultural attitudes are not addressed or if teacher skill sets are not improved
(Nieto, 1999). Likewise, no individual curriculum leader, building principal, or board member can lead successful reform without having all stakeholders invested in the process of improvement. Still, district curriculum leaders, who often have responsibilities at both the district and school building levels, are in a unique position to play a key leadership role in developing a comprehensive approach to improving educational outcomes for students.

Unfortunately, little research exists to highlight the necessary and successful work roles of the central office team to support major organizational change related to the improvement of identification and support of low SES and minority students in advanced curricular programs. While generic to the problem at hand, studies conducted by Honig and Copland (2008), members of a research team from the Center for Comprehensive School Reform and Improvement, illustrate the lack of effective current central office practices that are required to fully support student-learning initiatives. The research team examined practices and leadership efforts by looking at examples from Atlanta Public Schools, New York Public Schools, and Oakland Unified School District in California, highlighting great deficiencies in key areas for development and district wide leadership (Honig & Copland 2008). Moreover, curriculum leaders are integral to the creation and implementation of policy, as well as for the development of professional learning communities that promote an educational vision driven by commitment to equitable student outcomes and achievement. Such a vision needs to include a vested interest in the development of inclusive multicultural classrooms as well as one that sets high expectations for both teacher practice and student learning (Nieto, 1999). Additionally, curriculum leaders need to regularly evaluate programmatic structures by using a critical multifaceted lens that looks at such areas as equitable resource allocation evidence based student outcomes, teacher effectiveness, and student motivation (Murphy 2010). As such, coordinated
and distributive leadership efforts must be undertaken to instill a sense of collective responsibility towards an end goal of closing the access gaps found in Advanced Placement courses and creating greater opportunities for diverse populations (Spillane, 2006).

**Open Enrollment Policy and Tools for Equity**

Open Enrollment for course selection is a concept where students freely elect to take courses at varying degrees of challenge, without the traditional barriers such as fulfillment of pre-requisites, obtainment of specific grade point averages, teacher recommendation or school counselor approval. The College Board, purveyor of the Advanced Placement Program, has made great strides in reinforcing this concept, opening up the doors to increased AP participation, only once accessible to the most academically elite students. Published in 2002, the following policy statement was issued as a call to action for more equitable access.

**The College Board Official Policy Statement Regarding Equity and Access**

The College Board and the Advanced Placement Program® encourage teachers, AP Coordinators, and school administrators to make equitable access a guiding principle for their AP programs. The College Board is committed to the principle that all students deserve an opportunity to participate in rigorous and academically challenging courses and programs. All students who are willing to accept the challenge of a rigorous academic curriculum should be considered for admission to AP courses. The Board encourages the elimination of barriers that restrict access to AP courses for students from ethnic, racial, and socioeconomic groups that have been traditionally underrepresented in the AP Program. Schools should make every effort to ensure that their AP classes reflect the diversity of their student population. (College Board, 2002)
Since the decree to increase participation and access was issued in 2002, the College Board sparked a steady increase in minority representation, mostly accomplished through the introduction of open enrollment policies and targeted recruitment. For example, National Advanced Placement data from 2017 show approximately 50% of underrepresented students with a high degree of readiness for Advanced Placement coursework are participating in the program (College Board, 2017). While the policy changes encourage the application of open enrollment, many underrepresented students are unaware of the benefits of taking AP courses and lack knowledge about the transferability of their skill sets to those courses. As such, the recruitment of students into an AP courses is key to filling program seats with a more diverse student body reflective of the local community. One such readiness tool created by the College Board, “AP Potential”, assists school leaders and counselors with identifying students who have the potential to find success in AP courses. This success is defined as the potential to score a “3” or better on end course examinations. Scores are determined using data derived from PSAT data, a preliminary version of the SAT test used in college admissions. The College Board oversees the PSAT, SAT and AP Programs. Recent innovations include a new partnership with Khan Academy, a nonprofit, open source online learning platform that is free for all students to access, essentially leveling the playing field for those who could afford and those who could not afford expensive SAT practice and preparation. The site now includes PSAT and SAT preparation and practice along with other subject area content. Along with success in Advanced Placement courses, the attainment of proficiency on the SAT is one of the greatest predictors of post-college readiness, bearing considerable weight with the ability to access post-secondary opportunities. New research indicates that sustained practice with and exposure to the explicit skills found within the SAT assessment can lead to dramatic increases in results. (College Board, 2018)
In 2017, Khan Academy and the College Board, the maker of the SAT, analyzed gains between the PSAT, NMSQT, which is the National Merit Scholarship Qualifying Test, and the SAT and noted a positive relationship between use of Official SAT Practice, found on Khan Academy, and score improvements on the SAT. These score gains were consistent across family income, race, ethnicity, gender, and parental education level. For example, only 20 hours of practice on Khan Academy is correlated with an average 115-point score increase from the PSAT/NMSQT to the SAT, nearly double the average gain without Khan Academy (College Board, 2018). Consequently, the same PSAT skills used to identify students for potential success in AP courses, are the same skills associated with college worthy SAT scores (Camara & Millsap, 1998). The College Board, along with high school leaders who have embraced the call to action to increase access and participation for minorities, has helped change the future of many students. Yet, even with the improvements seen in recent years, minorities from low socioeconomic backgrounds still have challenges far greater than their higher socioeconomic peers. These include poor parental support systems, perpetually low expectation from adults, and a lack of cultural capital needed to navigate politically driven educational institutions.
Gaps in the Literature

Currently, much of the literature related to low SES students and Advanced Placement programs deal primarily with predictors of success and student outcomes, particularly with specific minority groups such as with African American and Hispanic students. While these studies support the need to increase programming, there are few points of reference that address the specific strategies and leadership moves that create the conditions for both access and success of low SES students in Advanced Placement programs, particularly in large urban high schools. The need to illuminate drivers of institutional and school level change, along with the personal experiences of students is of interest to this researcher. In order to assist urban high schools in making informed systemic and programmatic changes that will enhance the overall experience and success of low SES students, more research is needed to fill this void. As such, the proposed study found in this paper will help to address this critical information and fill the gaps that exist in this area.

Summary

Students who gain access to and are supported in rigorous academic programs are better prepared to navigate the complexity and difficulty of college course work and life in a highly globalized and competitive world. Further, as research studies indicate a strong secondary level preparation as being one of the keys to attaining higher degrees of achievement, school systems must remain cognizant of the institutional barriers that impede the pathways for minority and low SES student access. Additionally, curriculum and school leadership teams need to build the necessary capacity required to create cultural and programmatic change. Consequently, teams must start with a critical look at the educational philosophies and practices that either help or hinder favorable student outcomes. Where little research exists concerning the successful
support structures needed for low SES students, an investigation is warranted as to the strategies that can be implemented by district leaders to both improve access to and success with Advanced Placement programming. This information can be obtained by examining the drivers of change at the district, school, and teacher level as well as the personal experiences and perspectives of low SES students who are taking Advanced Placement courses. As local school districts attempt to redesign curricular programs of study, curriculum leaders need to evaluate whether district philosophies, values, and practices serve to reinforce the existing inequalities among students or provide for an advantageous educational framework where all students are ensured equitable access to a challenging academic preparation.

In today’s globalized economy and information based society, “knowledge and information are the keys to social inclusion and productivity, and connectivity is the key to global competitiveness” (Bakhtiari, 2006, p. 98). As such, there is nothing more potentially powerful or life changing than having access to knowledge.
Chapter III: Methodology

The researcher used a single site case study that was designed to illuminate the drivers of organizational change and inherent leadership implications with regard to one urban public school systems’ desire to achieve the outcome of increased access and participation in Advanced Placement courses for low SES students. The case study also incorporated subunit levels of analyses within the broader context of the research. The research methodology allowed the researcher to focus on eliciting detailed qualitative information from key stakeholders at the district, building, teacher, and teacher leader levels. The researcher conducted focus groups and document review and engaged in a triangulation of that data at a large and ethnically diverse urban high school. This research design, specifically case study using a focus group format, allowed multiple levels of participants to engage in an informal dialog and built on each other’s comments, thoughts, reflections and experiences, both with one another as well as with the researcher. Creswell (2013) states that by using case study as a research method, one can "eludicate the particular, the specific” as opposed to creating generalizations (p.157). Further, the case study allows the researcher to “capture the circumstances and conditions of an everyday situation - because of the lessons it might provide about the social processes related to some theoretical interest” (Yin, 2014 p.52) Employment of the case study enabled the researcher to identify the strategies, structures, resources and leadership that facilitate organizational change in support of students previously marginalized by a politically driven academic tracking system.

After conducting the focus groups, the researcher transcribed the discussions using Rev.com and then uploaded the transcription data into Google spreadsheets for annotation, coding, and analysis. The researcher also reviewed and analyzed district level documents such as executive summaries of testing analysis, board of education meeting minutes, state reports,
grant reports, course of study guides, and reports from The College Board and triangulated the data with the information derived from the focus groups. Further, she employed in-vivo and descriptive coding to develop themes aligned with the research questions. Finally, through careful review of all data presented and analyzed, the researcher developed findings from the identified themes related to the research questions guiding the study as well as through the theoretical lens of The Burke-Litwin Model of Organizational Performance and Change.

The use of the Burke-Litwin Model as a framework allowed the research to be interpreted through simplified and focused dynamics that are present in most workplace organizations. The factors and forces of change, both external and internal, will be illuminated as a mechanism for study for improvements within the current school system, while also serving as a critical example for replication for other school organizations.

This case study entailed data collection employing the use of multiple sources of information, including district, school leader and teacher interviews, document reviews, and interviews with support staff as needed, based on iterative findings (Stake, 1995).

**Research Questions**

The three research questions guiding this case study are as follows:

1. How did a large Connecticut public high school dramatically increase minority and low socioeconomic status students’ access and participation in Advanced Placement courses?
2. How did leadership at both the district and school level contribute to the success of the change?
3. How were strategies implemented and resources used to support minority and low socioeconomic status students in the program?
Site and Participants

The Danbury Public School system is one of the most ethnically and economically diverse districts in the state of Connecticut. Over the past 7 years, the student population has grown from 10,186 to more than 11,200 students. In that time, the total minority composition rose from 52% to 62.9%, while the number of students receiving free and reduced lunch increased from 32.6% to more than 53.5%. In many individual schools, the number of students qualifying as living in poverty is over 80%. Throughout the school system in any given year, more than 45 languages are spoken with a large proportion of students coming from homes where English is not the native language. Danbury High School reflects this diversity with 58.8% of its students being minority, 45% Hispanic or Latino and more than 45.1% students qualifying for Free and Reduced Lunch. A little more than 13.9% are still classified as English Language Learners. The high school has consistently been one of the largest and most comprehensive in the state of Connecticut for several decades.

There were four focus groups arranged by position type; District Leaders, Building Leaders, Teacher Leaders, and Teachers. Key participants in the study were district level leaders such as the superintendent of schools, the finance director, and curriculum directors. Additionally, the current building principal who was also the former Freshman Academy Principal, the Associate Principal for Instruction and both the Head of School Counseling and Advanced Placement teacher leaders served as focus group participants. Finally, four Advanced Placement teachers who taught both prior to and after the organizational changes occurred were interviewed together in a focus group. These focus group interviews took place at the district office and the actual research site, Danbury High School.
Data Collection

Using available data sources such as pre and post AP course enrollments between 2010-2017, before and after the shift to open enrollment, demographic data and Advanced Placement test results, a preliminary analysis and data disaggregation highlighted the access level and performance results of low SES students, who completed at least one Advanced Placement course at Danbury High School in Connecticut. The participants named above were interviewed in an audio recorded session; their recordings were then transcribed using Rev.com. Descriptive and explanatory comments were categorized into emerging themes and patterns across the participant groups as a way to extract important organizational information at four key levels – district leader, building leader, teacher leader, and teacher. As a result of these focus groups, the researcher was able to elicit more detailed information about the content of the changes that occurred within the district, school, and Advanced Placement program. The interview questions were aligned to the original research questions noted at the beginning of this proposal. The four focus groups were interviewed during a 30-45 minute audio only recorded session. Once the recordings were transcribed, the categorization of descriptive data and themes will laid the foundation for a detailed look at student outcomes, as well as the district, school, and teacher level factors that were supportive of low SES students accessing rigorous coursework. Follow up member checking with school counselors and AP staff members and administrators were used to triangulate the data and to help clarify programmatic questions as well as to identify available program and curricular supports and actual student use of those supports.

Data Analysis Plan

Phase 1 – Reviewed and defined the usefulness and purpose of initial research documents: AP test results from previous years prior to and after the change as well as
demographic student data, and historical academic records relating to AP enrollment and course grade outcomes.

Phase 2 – Disaggregated student data to create initial subgroup identification of minority and low SES students in the AP program both prior to and after the change.

Phase 3 – Interviewed member groups from district, building, & program as well as support staff as needed.

Phase 4 – Transcribed, annotated, coded, categorized and analyzed data

Phase 5 – Triangulated interview data and results with school leaders, school counselors, AP staff/teachers and program administrators as needed.

Phase 6 – Examined the study results through the lens of organizational change and synthesized information learned from the study.

Phase 7 – Identified and disseminated recommendations for programmatic improvement to central office colleagues and school level leaders/teachers that build on current success.

Data Coding & Analysis

Once participant interviews were transcribed, data coding followed a first cycle and second cycle coding process to both condense and reveal the most meaningful material for analysis (Miles, Huberman, Saldana, 2014). First cycle coding included descriptive, in vivo, process, values, and holistic coding while second cycle coding involved generating interrelated pattern codes such as categories and themes, causes and explanations, relationships among people, and theoretical constructs.

Trustworthiness

As noted, all information derived from the interview groups was verified with school level staff where possible. This included checking with all stakeholders on the accuracy of
information. Where information was vague or confusing, follow up clarifying questions were used. Further, as an administrative member of the organization being studied, researcher bias was accounted for to create increased trustworthiness and reliability of the design and overall analysis of the study. Lastly, inherent in embedded case study research was the potential for sub unit analyses to become the central focus rather than the organization as a whole. Careful and focused attention to broader themes of the larger work unit in the context of organizational change remained the critical focus of the study (Yin, 2014).

**Data Storage**

The researcher protected the anonymity of participants by assigning broad titles, such as “Teacher Participant” or “School Leader Participant” or “District Leader Participant” with the exception of the reference to the “Superintendent” who gave permission to the researcher to distinguish that title from the “District Leader” group.

The data collected in this study will be stored digitally on a private server with all names redacted and backed up on a single hard drive available only to the researcher. While data transcription using Rev.com was employed, there were confidentiality assurances to protect subjects. The majority of information related to the review of documents is widely available public information generated from state databases as well as school databases. Any information containing student level data that is unavailable to the general public had names redacted and replaced with student alias numbers. All audiotapes will be held confidentially and stored for three years before being destroyed.

**Protection of Human Subjects**

The researcher completed an IRB application pursuant to the requirement that Regulation 45 CFR 46 requires colleges, universities, and research organizations that conduct human
research and receive federal funding, to do so. The application contained the necessary information, which described the purpose of the research, description of participants, research tradition, as well as, recruitment of subjects and all informed consent materials. While the nature of the study produced a low risk level to participants, these were still discussed to be sure all facets of the study and implications for the study were transparent.
Chapter IV: Research Findings

The purpose of this case study was to identify the effects of the organizational changes in one urban high school that led to a transformation in the school’s Advanced Placement program, ultimately increasing access and participation of minority and low socioeconomic status students (SES). This study employed The Burke-Litwin Causal Model of Organizational Performance and Change as a lens to analyze both the complex transformational and transactional dimensions of organizational change that took place in one urban public high school, relative to Advanced Placement Program outcomes for minority and low SES students.

The three research questions guiding this case study were as follows:

1. How did a large Connecticut public high school dramatically increase minority and low socioeconomic status students’ access and participation in Advanced Placement courses?

2. How did leadership at both the district and school level contribute to the success of the change?

3. How were strategies implemented and resources used to support minority and low socioeconomic status students in the program?

This chapter summarizes the demographics of the participants in the focus groups, examines the experiences of district leaders, school leaders, teacher leaders and teachers at this research site, along with research site data collected and an outline of the themes which emerged as a result of the research.

Summary of Research Site, Participants, Focus Group Organization, and Data Collected

Danbury High School is one of the largest and most racially, ethnically and economically diverse high schools in the state of Connecticut. Danbury High School has a 58.8% minority
population, arguably a majority population, which is primarily Hispanic and Latino, with more than 45.1% students also qualifying for Free and Reduced Lunch and almost 14% still classified as English language learners. Aside from the size, it is considered to be one of the most comprehensive high schools in the state of Connecticut, offering a wide variety of sports, academic and arts programs, early college opportunities, clubs and supports for unique students.

Focus groups were organized at the district level, school leader level, Advanced Placement teacher leader level, and Advanced Placement teacher level. At the district level, the Superintendent of Danbury Public Schools, the Director of Finance and Operations, the K-12 Stem Curriculum Administrator and the Deputy Superintendent in charge of curriculum and instruction were interviewed in one focus group. Among the school building leader focus group, the building Principal was interviewed along with the Associate Principal for Instruction, the Freshman Academy Principal, and one Assistant Principal. At the teacher leader level, the Head of School Counseling, the Department Head for Fine Arts and the AP Program Teacher Coordinator during the time period study served as a third focus group. Both the Department Head for Fine Arts and the AP Program Coordinator also taught Advanced Placement Courses in Art and Computer Science, respectively.

At the teacher level, there were five participants involved. Four of these teachers participated in the focus group for teachers which consisted of two Advanced Placement English teachers, one Advanced Placement Science teacher, and one Advanced Placement Social Studies and History teacher, all of which have taught multiple Advanced Placement courses in a variety of areas related to their certifications and training. Due to calendar conflicts, one additional teacher was interviewed outside of the focus group. This teacher did not actually teach an AP course, but rather worked in support of ELL students taking the AP Spanish Heritage exam. The
participant focus groups were arranged as such to tease out data and experiences at multiple levels of change implementation, as well as, to allow for more free discussions without fear of creating conflicts with power differentials. All the participants were selected because they had institutional knowledge of the culture of the school and district both prior to, during, and after the transition to increased access to Advanced Placement courses for all students. Finally, Tables 4.1 through 4.4 provides a summary of the District Leader, Building Leader, Teacher Leader and Teacher rolls represented in the study.

Table 4.1

*Focus Group 1*

<table>
<thead>
<tr>
<th>Specific Role</th>
<th>Level Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendent of Schools</td>
<td>District Leader</td>
</tr>
<tr>
<td>Deputy Superintendent</td>
<td>District Leader</td>
</tr>
<tr>
<td>K-12 STEM Curriculum Administrator</td>
<td>District Leader</td>
</tr>
<tr>
<td>Director of Finance</td>
<td>District Leader</td>
</tr>
</tbody>
</table>

Table 4.2

*Focus Group 2*

<table>
<thead>
<tr>
<th>Specific Role</th>
<th>Level Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Principal</td>
<td>School Leader</td>
</tr>
<tr>
<td>Associate Principal for Instruction</td>
<td>School Leader</td>
</tr>
<tr>
<td>Freshman Academy Principal</td>
<td>School Leader</td>
</tr>
<tr>
<td>Assistant Principal</td>
<td>School Leader</td>
</tr>
</tbody>
</table>
Table 4.3

*Focus Group 3*

<table>
<thead>
<tr>
<th>Specific Role</th>
<th>Level Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of School Counseling</td>
<td>Teacher Leader</td>
</tr>
<tr>
<td>Department Head Fine Arts</td>
<td>Teacher Leader</td>
</tr>
<tr>
<td>AP Program Teacher Coordinator</td>
<td>Teacher Leader</td>
</tr>
</tbody>
</table>

Table 4.4

*Focus Group 4*

<table>
<thead>
<tr>
<th>Specific Role</th>
<th>Level Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP English Teacher</td>
<td>Teacher</td>
</tr>
<tr>
<td>AP English Teacher</td>
<td>Teacher</td>
</tr>
<tr>
<td>AP History/Social Science Teacher</td>
<td>Teacher</td>
</tr>
<tr>
<td>AP Science Teacher</td>
<td>Teacher</td>
</tr>
<tr>
<td>ESL Teacher</td>
<td>Teacher</td>
</tr>
</tbody>
</table>

In the following section, the researcher presents the overarching themes that resulted from the four focus groups and individual interview session. The researcher used data generated from these interactions and reviewed key district documents to understand the research questions presented.
Table 4.5

*Themes in relationship to research question 1*

| Communication of a shared vision and a relentless belief that all students should have access to advantageous Advanced Placement curriculum. |
| High leverage leadership was exerted at multiple levels of implementation that included district leaders, school leaders, teacher leaders, and the teachers themselves. |
| The use of external resources to leverage change and jump start a new strategy for improvement in sustainability of the future. |

---

**Communication of a shared vision and a relentless belief that all students should have access to advantageous Advanced Placement curriculum.** The district and building leaders referred to this effort as a moral imperative and worked on changing the culture of the district and school. Focus group discussions revealed a general consensus by both district and building leaders that a major hurdle they faced was the negative culture of the district, community and state with regards to the idea of opening access to all students interested in taking Advanced Placement courses. For example, the Superintendent noted that the prevailing culture believed that Advanced Placement was reserved for the elite. He asserted that the elitism was pervasive in New England, particularly along the Gold Coast communities of Fairfield County, Connecticut. It was a commonly held belief that students that were advanced by measure of test high scores, and only those students, should be allowed to have access to upper level honors and Advanced Placement courses. It was also common knowledge that these “advanced
students” were mostly Caucasian students, while many minorities populated the lower level courses, often referred to as lower tracks. He stated that it was “institutional racism” and that “in policies and procedures, we stood in the way of kids moving ahead…that we had an obligation, a moral imperative to do something about and that’s what led us down this path”. A District Leader Participant stated, “The thinking was bifurcated that you were either academically capable or you weren’t. It was like the 1800’s. You would go into the world of work.” Teachers believed that students were only capable of the track they were placed in at an early age and the trajectory of that track was either viewed as an academic college-bound track or a school-to-work track; there was no in-between. Further, another District Leader Participant noted that there was rebellion against adding perceived slower students to Advanced Placement courses because the community was entrenched in a tracking system. He stated, “There were nine electives in mathematics that were below the level of Algebra, or just pre-Algebra. There was applied math, there was applied Algebra, there was applied Geometry, there was mastery math, mastery Geometry, and other courses with ridiculous titles.” He clarified that these courses did not prepare students for college and were generally not accepted by post-secondary institutions, but were acceptable to meet the high school’s graduation requirements. In these types of lower level courses, minorities and students of color dominated the landscape.

Further, resistance and fear on the teacher's part of being able to handle students with different needs caused tension in the building. Teachers were also worried about the pace of the course, the skill sets and the readiness of the students they would need to serve while trying to attend to demands of more “elite” students. “There was a lot of pushback and a lot of resistance.” (District Leader Participant). School leaders believed that some of the angst around the change had more to do with the way the previous building administration handled the annual results of
the Advanced Placement exams. In previous administrations, the school principal would call teachers into the office to discuss low AP test scores saying, “How come you have not so many passing scores?” (Building Leader Participant). This fed into the fear of allowing lower level students in these new courses.

Teachers painted a visual of walking down the halls of higher level classes that contained mostly Caucasian students while lower level classes on the second floor contained mostly minority students and students of color. These classes consisted of low level curriculum and students placed in rows to contain behavior, while upper level courses were filled with collaborative groups, and used tables instead of desks so that students can collaborate and converse on more student centered projects.

Parents at this time were vocal and afraid of the courses being “dumbed down”, having slower pacing and that their students would somehow suffer or be less advantaged as a result of integration in the open enrollment system (District Leader Participant). Teacher leaders openly discussed the entrenchment and lack of metacognition about what actually was happening within the school and attributed it deeply rooted cultural practices that became the norm over time.

Since the change to open access, district level leaders report that there is now a “culture of opening doors for students” and that there's been a change to “student focused” as opposed to “adult focused” actions. (Superintendent) Fortunately, the culture has been sustainable even though the grant, Project Opening Doors, which was used to jumpstart the initiative, has since expired. Building leaders report that the hiring of new staff has helped to refresh the needed mind set and erase old institutional memory and that there is a transparency in discussions about scores in Advanced Placement and that constantly restating the mission has helped to both create and sustain this new culture. District leaders and school leaders used relentless and regular
communication with the Board of Education, School Governance Council, Faculty Meetings, Data Teams, local newspapers and with area schools, as well as at the State level. They shared updates of the work and they shared data with staff on a routine basis which resulted in a culture focused on access and equity that became grounded in evidence.

Currently, there is an expectation that every teacher in the school will teach a variety of levels of courses such as a mix of college prep, honors and Advanced Placement courses and electives, which has stopped teacher entrenchment in only identifying themselves as being a teacher of upper or lower level students. So, teachers now service a variety of students and regularly keep up practice for the demands of these in all classes. A Building Leader Participant reported, “AP is not a rite of passage in this building, just because you're the oldest teacher and the most senior teacher doesn't mean that it's your foregone conclusion that you're gonna be teaching it. We look to make good matches, we look to balance out practice, so this way we don't have elitist [teaching] lines where it's only Advanced Placement versus only college prep. So teachers see the spectrum of students. I think that that's really important.” The school leaders and district leaders communicate and affirm through their actions that the exposure and participation in rigorous coursework yields advancement for all students and that it is less about the exam results and more about the growth and learning of the student. “Teachers are no longer betting against their students they're betting on them” (Teacher Leader Participant). Teachers report seeing more girls in science classes in Advanced Placement stem courses more so than ever before and have reported that they've adopted the belief that they are preparing students for the future, not just the final exam. “My job is to lay a foundation that you'll be the better student. You'll be the better reader, writer, thinker and community intellect that you might not have been before. Perhaps, you'll pass the test, and perhaps, you'll have the grade to go to the university
because it'll get credit for you, but the biggest thing is that you'll be better than you would've been had you not taken this challenge." (Teacher Participant). This sentiment is highly supported by school leaders and regularly communicated. Teachers also report that students feel good about themselves and are supporting a new culture about work ethic and “plugging away at something that's challenging” (Teacher Participant). The teachers now believe that hard work and perseverance outweighs innate ability and students who once saw themselves as marginalized, and who are now encouraged, realize they are capable of so much more, even though some will still struggle. “There are still unintentional stereotypes about some learners in the building particularly around English language learners and what they are capable of, possibly bias that may inadvertently be at play for this group and others such as special education students, but in general, there is a renewed culture of equity and access and to support students [in] challenging themselves” (Teacher Participant).

**High leverage leadership was exerted at multiple levels of implementation that included district leaders, school leaders, teacher leaders, and the teachers themselves.** This leadership ultimately led to the disruption of structures, systems, beliefs and practices that rooted students in failure. At every level of the change it was clear that district leaders, school leaders, teacher leaders and teachers were moved to act based on a deep commitment to ensuring equity for all students despite wrestling with political and cultural challenges they faced as they moved into a new era. Leaders took on challenging discussions with the community, the Board of Education, parents and even the students themselves. Even within the ranks of each of those levels, not all were convinced. Colleagues challenged colleagues’ assumptions and understandings about the root cause of inequity and well respected teachers and school leaders who were viewed in the community as being knowledgeable and progressive, struggled with
some of the new ideas. Still, there was critical mass in the sense that there was enough leadership capacity at each level to bring others on board through discussion, use of data, and the sharing of success stories on a regular basis. Over time and through careful monitoring, the leaders turned new practices and structures and systems into cultural change. As leaders shared data and results of the increased participation and they dispelled myths and misconceptions about what would happen to the quality of the courses with open access, community members who once politically challenged the initiative vocally, quieted. By leading conversations and presentations grounded in evidence, there was little room to argue about the benefits.

While leading change is difficult, perhaps greater than this is the perseverance needed to sustain a new culture. Leadership exerted at all levels through intensive monitoring of new systems and the strategic use of supports in the form of timely relevant professional development and training for teachers became a focus and priority.

**The use of external resources to leverage change and jump start a new strategy for improvement and sustainability of the future.** The district and school leadership team secured resources beyond what was available through the general budget. For this, they applied for and won a sizeable grant which allowed them to launch their new plan. Project Opening Doors was a privately funded grant in partnership with the Connecticut National Math and Science Initiative. For schools interested in participating, Project Opening Doors required information such as the current status of AP offerings, information on the types of courses offered, and support services available along with information about the personnel who would be involved in the project. The grant was awarded to districts with a viable potential to implement change on a large scale. The key features of Project Opening Doors included:

1. Voluntary participation on the part of the students teachers and schools
2. Annual financial incentives for teachers, students, and schools based on AP exam results.

3. Cultivations of lead teachers to mentor or vertical team of AP and pre AP teachers.

4. Advanced level content-focused training for teachers of AP and pre AP math, science, and English courses.

5. More time on task for students including Saturday Advanced Placement exam prep sessions.

6. Measurement and accountability for results through professional management by Project Opening Doors.

(POD Grant Application 2009)

The grant, while controversial to many, funded much of the initiative and resources that leaders needed. A Teacher Participant who worked closely with grant leaders recalls that in addition to the training and support, the grant offered the school a tremendous amount of supplies, materials, and technology as well as books to support the project. The building principal at the time used the supplies as a carrot to the staff. The teacher recalled him saying, "Hey, if you are willing to open the doors, this is what you're gonna get." And it wasn't [like we would say no]. I was one of the people brought in because I wanted to bring this AP English class in, and it wasn't even a question. It was how do you say "no" to that?" (Teacher Participant)

At the time, Danbury was an ideal candidate for the grant and had been actively pursued for several years. “I know from the leadership of Project Opening Doors that they were hungry for us. We were a linchpin too. We were heavily minority. We didn't have that high of enrollment percentage-wise. So they knew that we were gonna pop [enrollment wise] when they did it.” (Teacher Participant) The grant lasted only a few years after beginning in 2010, but the effects
have been long standing and sustained over time. While the number of students scoring a “3” or higher has slightly declined, the number of minority students has increased. For example, in 2009-2010, just prior to Project Opening Doors grant implementation and open enrollment, there were 277 students taking 463 Advanced Placement courses, and of those students, only 30% were minority. In 2017-2018, there were 627 students taking 1078 Advance Placement courses, with 51% of these being minorities. See Table 4.6.

The results have been more exposure to college level course material for a greater number of students, many who were previously marginalized by the former academic tracking system.

Table 4.6

<table>
<thead>
<tr>
<th>Year</th>
<th># Students enrolled in AP Courses</th>
<th># Classes taken by AP Students</th>
<th>% of Students in AP Courses who are Minorities</th>
<th># Enrolled Students who took the AP Test &amp; Percent</th>
<th># of Students with Scores at 3 or Higher on the AP Test &amp; Percent</th>
<th># of Students with Scores at 5 on the AP Test &amp; Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-03</td>
<td>208</td>
<td>315</td>
<td>26%</td>
<td>113 (54%)</td>
<td>164 (79%)</td>
<td>40 (19%)</td>
</tr>
<tr>
<td>2003-04</td>
<td>214</td>
<td>402</td>
<td>28%</td>
<td>151 (70%)</td>
<td>197 (78%)</td>
<td>45 (21%)</td>
</tr>
<tr>
<td>2004-05</td>
<td>229</td>
<td>386</td>
<td>22%</td>
<td>167 (72%)</td>
<td>156 (68%)</td>
<td>44 (19%)</td>
</tr>
<tr>
<td>2005-06</td>
<td>291</td>
<td>441</td>
<td>32%</td>
<td>201 (69%)</td>
<td>204 (70%)</td>
<td>61 (21%)</td>
</tr>
<tr>
<td>2006-07</td>
<td>289</td>
<td>446</td>
<td>27%</td>
<td>278 (96%)</td>
<td>199 (69%)</td>
<td>52 (18%)</td>
</tr>
<tr>
<td>2007-08</td>
<td>265</td>
<td>404</td>
<td>30%</td>
<td>265 (100%)</td>
<td>188 (71%)</td>
<td>61 (23%)</td>
</tr>
<tr>
<td>2008-09</td>
<td>278</td>
<td>463</td>
<td>30%</td>
<td>278 (100%)</td>
<td>209 (75%)</td>
<td>64 (23%)</td>
</tr>
<tr>
<td>2009-10</td>
<td>277</td>
<td>463</td>
<td>30%</td>
<td>277 (100%)</td>
<td>211 (76%)</td>
<td>63 (23%)</td>
</tr>
<tr>
<td>2010-11</td>
<td>441</td>
<td>756</td>
<td>36%</td>
<td>441 (100%)</td>
<td>277 (63%)</td>
<td>66 (15%)</td>
</tr>
<tr>
<td>2011-12</td>
<td>551</td>
<td>1011</td>
<td>35%</td>
<td>516 (94%)</td>
<td>307 (59%)</td>
<td>71 (14%)</td>
</tr>
<tr>
<td>2012-13</td>
<td>567</td>
<td>1093</td>
<td>38%</td>
<td>519 (92%)</td>
<td>332 (64%)</td>
<td>73 (14%)</td>
</tr>
<tr>
<td>2013-14</td>
<td>625</td>
<td>1252</td>
<td>40%</td>
<td>600 (96%)</td>
<td>364 (61%)</td>
<td>75 (13%)</td>
</tr>
<tr>
<td>2014-15</td>
<td>602</td>
<td>1163</td>
<td>38%</td>
<td>593 (98%)</td>
<td>317 (53%)</td>
<td>62 (10%)</td>
</tr>
<tr>
<td>2015-16</td>
<td>623</td>
<td>1133</td>
<td>40%</td>
<td>620 (98%)*</td>
<td>292 (47%)</td>
<td>52 (8%)</td>
</tr>
<tr>
<td>2016-17</td>
<td>644</td>
<td>1110</td>
<td>46%</td>
<td>632 (98%)</td>
<td>296 (47%)</td>
<td>52 (8%)</td>
</tr>
<tr>
<td>2017-18</td>
<td>627</td>
<td>1078</td>
<td>51%</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

*Results for this year not yet available
Research Question 2: How did leadership at both the district and the school level contribute to the success of the change?

Table 4.7 presents the themes identified in response to research question 2.

Table 4.7

*Themes in relationship to research question 2*

<table>
<thead>
<tr>
<th>District and School leaders used encouragement, relentless communication, and direct engagement of stakeholders to drive the new vision and mission of increased access.</th>
</tr>
</thead>
<tbody>
<tr>
<td>District and school leaders dismantled decades old structures &amp; systems that rooted students in failure, and replaced these with opportunity and a commitment to social justice.</td>
</tr>
<tr>
<td>School leaders implemented proactive adult practices and measures and prepared teachers with needed pedagogical training that changed the culture and focus the school.</td>
</tr>
</tbody>
</table>

District and School leaders used encouragement, relentless communication, and direct engagement of stakeholders to drive the new vision and mission of increased access.

The Danbury district leaders encouraged both school leaders and teachers and made a declaration to do what is right for students. District leaders saw the opening access issue as its top priority and assumed direct responsibility to clear a path to bring in Project Opening Doors and to "assure it happened" and to “put it the hands of the leaders who could operationalize it” at the building level and provide needed support at along the way (Superintendent).

Additionally, district leaders recalled a never ending engagement of teacher, parent groups, the Board of Education and even school leaders to discuss and continually keep the vision and mission and importance of this initiative on the front burner of every conversation.
District leaders continually sought to justify the new vision and to regularly communicate it to the Board of Education and even engaged state level officials and regional educational organizations in discussions to help dismantle the trend that was playing out in Fairfield County Connecticut, railing against the pressure of preserving the elitism of Advanced Placement access for only a select few students. Further, district leaders regularly communicated to others including neighboring districts about their heavy focus on increasing access for students.

At the school level, leaders took on the challenge of immersing themselves in the research base related to equity and access for students and engaged in constant communication about the vision and mission of the initiative. Moreover, they convinced teachers and the School Board Governance Council to overhaul an adult driven scheduling system to make way for a more student driven, responsive, and dynamic scheduling system designed to meet the needs of student elected course requests, as opposed to maintaining adult driven schedules based on adult interests and requests. Further, school leaders continually spoke to teachers in this new open enrollment environment about the importance of the growth as being the focus of the initiative and not the end score and backed this up by not referring to AP scores in a pejorative way when the results came in. This was something the teachers were initially afraid of due to experiences during past administrations. The teacher group confirmed that this change was accurate and welcomed and that practice was no longer occurring.

In addition to engaging teachers and school boards, school leaders continually sought opportunities for all students by seeking and facilitating communications and course credit articulations with local universities, and establishing other Early College Opportunity agreements for course credit. For example, at the local state university, students who were
enrolled and successfully passed certain AP courses, exclusive of passing the Advanced placement exam, would still receive college credit.

Lastly, school leaders continually monitored the course demographics and regularly communicated the results and openly discussed the adult antecedents to these results, updating the Board of Education, as well as faculty, parents, and School Governance groups. They used their success stories and results to combat negativity on a regular basis.

District and school leaders dismantled decades old structures & systems that rooted students in failure, and replaced these with opportunity and a commitment to social justice. District leaders detracked the middle school, specifically math and algebra and eliminated gifted and talented programs and tracks in favor of heterogeneously grouped classrooms. This occurred simultaneously with the detracking at the high school which replaced five levels of courses with college prep, honors and Advanced Placement levels. The options to choose between the three levels of academic challenge were based on student interest and choice. With “college prep” serving as the lowest level, it cemented the new expectation that all students were to take courses that would prepare them for college entrance.

District and school leaders worked together to create and implement new open enrollment policies as a way to increase equity in the wake of the deleveling. School leaders eliminated all prerequisites for Advanced Placement courses and created earlier AP enrollment options for students beginning in freshman year. In the year following open enrollment, detracking, and implementation of the Project Opening Doors grant, the number of minority students enrolled in Advanced Placement classes increased dramatically and reflected a higher than normal trend when compared to national statistics of minority participation rates. That year (2010), Danbury High School was nationally recognized as a School of Distinction by the College Board for
enrollment. The criteria for the award required a significant increase in number of students enrolled and receiving qualifying scores. DHS was recognized as one of the top 10 in the State of Connecticut with the highest number of qualifying scores in math, science, and English, as well as having the highest number of minority qualifying scores in math and the highest number of minority qualifying scores in science in 2011. In that year, The College Board named the Danbury Public Schools an “innovative district”. This achievement represented an increase of 305 students or a 98.3% increase in the number of students taking exams. Further, there were 60 minority students taking exams in the 2010-2011 school year, followed by 102 minority students in 2011-2012, reflecting a 70% increase. Additionally, low socioeconomic status students, determined by free and reduced lunch status, demonstrated a 237% increase from only 29 students in 2010-2011, to 98 students in 2011-2012 (POD progress report email from Donna Walstrup). To build on this success, school leaders sought to gradually add more Advanced Placement course choices and trained more teachers to teach the new courses. Danbury high school currently has 24 Advanced Placement courses, ensuring great choice and options for all students.

Lastly, the school switched to an online registration system to provide students with more control over the final decision making process for course selection as opposed to having decisions controlled by school counselors and teachers.

**School leaders implemented proactive adult practices and measures and prepared teachers with needed pedagogical training that changed the culture and focus the school.** The leadership staff put into practice the regular use of surveys to gather information on staff training needs and then used administrative aspirants to lead support sessions based on those needs. Training was relevant and responsive to teacher need and aimed specifically at working
with students in more heterogeneous groups. Additionally, for new teachers, the school leadership team instituted five mandatory coaching sessions to support differentiation strategies and offered these on a voluntary basis for veteran members as well. There was a priority placed on focusing training on differentiation of pedagogical practice, all which was needed at a post de-tracking era. This also included Sheltered Instruction Observation Protocol (SIOP) training, which was provided on a monthly basis for all to better serve English language learners who were now dispersed amongst the course types and levels (college prep and honors) that remained.

In addition to the differentiation training made available for all teachers, cadres of teachers were regularly sent for intensive Advanced Placement training to ensure that more teachers were trained to keep pace with the rising increases in open enrollment course requests. This training was partially funded by Project Opening Doors and further cemented the school culture that decisions were student driven as opposed to adult driven.

As a shift from past practice, the district and school leaders ensured that content area department heads taught at least two classes in addition to attending to their leadership responsibilities, thus serving as instructional role models more capable of relating to and connecting with the needs of the teachers they were supporting. They also changed hiring practices to include interview questions and writing activities for candidates that would reflect personal views about the achievement gap in Connecticut and its root causes. For example, responses that placed blame on students or parents for failure, as opposed to ones noting the influence and decision making of adult educators and leaders, were viewed dismissively. Those candidates expressing such views were not moved forward.
Two years after open enrollment began with Advanced Placement courses, the school leaders partnered with the College Board to engage in data driven discussions around ways to further increase enrollment and to identify potential students. These reports included a deeper understanding of how to use the AP Potential tool, as well as understanding College Board Participation and Performance reports, and a variety of College Board support tools. These reports, such as the AP Potential tool, looked at the relationship between the PSAT, SAT and AP exams and generated lists of students for AP recruitment. These reports also helped school leaders to look at opportunities within the district, specifically looking at the rigor gap between courses and elective AP offerings. Further in 2013, the school underwent an self-elected Advanced Placement diagnostic site visit where the College Board visiting team spent time in the building identifying and analyzing the academic learning environment at the school, highlighting the potential for using Advanced Placement tools created by the College Board, and identifying instructional supports for teachers, students and families. Information and research was shared on such topics such as “expanding equity” in access to Advanced Placement along with Advanced Placement resources, and additional research related to their own district data. The site visit included district interviews, school based interviews, school site visits, informal discussions with teachers, and online survey instruments (College Board Visiting Team Report, 2013). The school used these new resources to further expand their offerings and quality of programming to students. These changes were welcomed by administration.

At the high school, school counselors personalized conversations with students regarding Advanced Placement Potential (AP Potential tool), a report produced by the College Board outlining a students’ potential for success in Advanced Placement courses based on PSAT and SAT data. Counselors met with students to discuss their personal interests and sent home AP
Potential letters in English, Portuguese and Spanish. Counselors planned and discussed the workloads of each course and made sure students were aware of the responsibilities in these courses, all the while making sure the conversations were empowering. For example, a Teacher Leader Participant noted the change in the ways adults engaged students during the registration process, “If you are telling a kid, well you're not really appropriate for this course, then that feeds into that students’ self-efficacy and it’s a self-fulfilling prophecy that [then] they will not be successful in that course, but if you talk to the kid about [that] they have great capacity for being successful in this class, then their self-efficacy will reflect it.” (Teacher Leader Participant).

To bolster the effort and get an earlier jump on motivating students, the high school counselors also traveled to the middle school several times a year to make connections and to establish adult-student relationships. They developed presentations to discuss Advanced Placement opportunities, Early College Opportunities, and the new open enrollment policy, as well as to educate parents on high school expectations well before students began their high school years.

A Building Leader Participant felt the efforts were well worth the results, particularly for such a diverse urban district stating, “The National Clearinghouse tracks students in the Connecticut university system, and I can tell you that 78 percent of the kids who graduated Danbury High School, who go to a university system in-state returned for a sophomore year, which is higher than [other] district averages. We also have a lower than the state average of students who were required to take the “zero level courses” that are non-credit bearing, but they [universities] are still charging tuition.”

Another Teacher Leader Participant captured a general sentiment about the shift in thinking, attributing the will of a new building leader no longer employed in the district, with
disrupting the current culture at Danbury High School. He stated, “In the zeitgeist of things, educationally, the pendulum had swung and the literature reflected that by getting more students into these Advanced Placement courses, [it] offered them more opportunities. Logistically at the school level, we also had a principal who ushered this in at this school, but it was someone from the outside who was able to come in and make these changes without having the history, the institutional memory of the school to keep things status quo. It was someone really brought in to make that change and for better or worse, or how people felt about that particular leader that was really the impetus into getting us to change”.

**Research Question 3: How were strategies implemented and resources used to support minority and low socioeconomic status students in the program.**

Table 4.8 presents the themes identified in response to research question 3.

**Table 4.8**

*Themes in relationship to research question 3*

<table>
<thead>
<tr>
<th>In collaboration with school leaders, teachers and teacher leaders used encouragement and engaged students in incentivized support sessions outside of the normal school day.</th>
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<tbody>
<tr>
<td>While teachers recognized the tremendous value of the Saturday and after school sessions during the grant period, most feel that since the grant ended, students who have gaps in foundational skills no longer have the needed supports for success, but all agreed that work ethic and perseverance enable many to survive.</td>
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In collaboration with school leaders, teachers and teacher leaders used encouragement and engaged students in incentivized support sessions outside of the normal school day. Teachers were paid, through Project Opening Doors, to lead Saturday support sessions for students. These support sessions included guided sessions from content experts in each Advanced Placement area. The sessions were incentivized for both teachers and students in
that teachers were paid an additional stipend for the number of students, who passed each exam successfully, defined as a qualifying score of “3” or better on the end of year AP exam. Likewise, students were motivated to attend these sessions since qualifying scores of 3, 4 or 5 on the exam resulted in receiving a $100.00 gift card. A Teacher Participant recalls, “When the first door opened, we had Saturday sessions with refreshments and object lessons, and we met with other schools. It was awesome. Kids that wanted to learn more, signed up. They came in droves. We had bus loads going to other schools. We had other schools wanting to come, with districts saying, ‘The kids are raving about your workshops’ and then we had after school twice a month, wasn't it? We each were obligated twice a month to offer the after school sessions, and we were packed out. We really had good training, but they were being paid, I think, a hundred dollars. They weren’t being paid to participate, they were being paid to be successful and so were we.”

Students were provided extra test preparation sessions such as mock exams using official College Board practice exams. For some courses, the exam itself and the correction of the exams were paid for by Project Opening Doors. Even outside of the grant scope, the school leaders also started a Tutoring Center, which supported all students from any level course.

The teacher group noted that all students were provided extra study guides and some teachers invited students after school for additional review sessions and provided refreshments and snacks and encouragement. A Teacher Participant noted the significance of this stating, “That invitation thing can mean a whole lot. It was an invitation that changed my path as a student. I was looking to drop out, and I had a history teacher that invited me to into an Honors course because he saw something in me”.
Another Teacher Participant was happy with the big picture results. “I think it was really beneficial to our school, tremendously and a lot more girls we see [now] in the AP Physics class that we didn't see before. For one, we had, I think, 12 in AP Physics B, which is what we had at the time. And then, with the Project Opening Doors, I think, we got up to three separate classes that were ... I don't know the exact numbers, but it was in the fifty-plus range. We still have that now. I wanna say it's more ... It used be like one girl and ten boys, and now it's more about like 30/70, 40/60 mix. So, it made a big difference, just reducing those barriers to coming in.”

The same teacher also noted that changing the lowest level to be called college prep, had meaningful influence on encouragement and student culture stating, “I know it's just a name, but ‘college prep, guys!’ ‘College prep’ means I'm preparing you for college. Whether you're going to college or not, that's the boat that we're in. So, having that, I feel like that label has made a difference.” On being realistic with students about the work, a Teacher Participant spoke candidly about profiling for an AP type student saying, “We are not teachers who go hand pick who we want to bring in to these classes. We work with what we get. But to be honest, your level here indicates you're gonna have to maybe read things twice to get it.”

Despite the challenges, there were more recent grass root efforts undertaken by teachers, in support of English Language Learners taking the AP Spanish Heritage exam. For example, outside the scope of the grant that has since passed, an individual teacher runs after school sessions for ESL students, native Spanish speakers, or any ESL student who was interested in taking the AP Spanish Heritage exam. This evolved as a result of the teacher trying to encourage her class to get involved in clubs and activities that would help them develop competitive college applications. During her discussions, the teacher realized her English Language Learner students did not know what an Advanced Placement course was or how it could help them in the future.
She decided to get her students involved, reaching out to building leaders and Advanced Placement Spanish teachers saying, "Listen, most of your AP students are non-native Spanish speakers and my kids are native. What if we try to do community conversations?" With this new engagement, the teacher created opportunities for ESL students to take on a slightly different, more leadership type role. The teacher reported that when the two groups got together, native and non-native speakers, all of a sudden the ESL students became the ones that have the knowledge and skills. She reported that her students felt empowered and confident and were motivated to take on the challenge of the AP exam.

Further, the teacher identified the lack of exposure and conversation about college and post-secondary knowledge in her ESL students and organized opportunities for her students to visit a college for the first time, leading conversations about what college is and ways to access it through the careful sequencing of academic courses over 4 years. When the district learned of the initiative, the superintendent contacted her and offered to pay for the busing to take students on the tour.

While there were many successes to speak of with regard to open enrollment and increased access, teachers in the focus group were reflective of themselves in the change process and realistic about the shortcomings they feel still need to be addressed. For example, a Teacher Participant stated, "I did make a personal adjustment because I've been saying for years, if you're going to college, you need to take at least one AP class. “Okay. I'm saying this, and I'm rejecting students from taking the class." I said, "That [doesn’t] make any sense." And so, I personally ... I think I was the first one to say to have open enrollment. So, you want to take the class? You've got it. But there is a drawback to this - kids who are just not prepared.” The teacher group was in consensus that supporting students who lack foundational skills is their
The greatest challenge with teaching Advanced Placement courses at Danbury High School. The teacher group noted that since the grant expired, so too did many of the student supports that were in place.

While teachers recognized the tremendous value of the Saturday and after school sessions, most feel that since the grant ended, students who have gaps in foundational skills no longer have the needed supports for success, but all agreed that work ethic and perseverance enable many to survive. While the AP teachers came full circle in their belief about the importance of open access, they were all in agreement that students who lack foundational skills still struggle. The teachers reported that at times, they became very frustrated and stressed with the pressure to keep up with the pace demanded by Advanced Placement courses, while still trying to fill in the gaps for students who struggle with the content. For example, one of the AP teachers who teaches two courses which rely heavily on math skills, noted the issue stating, “I think it's those students who come in that believe they are prepared, and for me, usually, it's the math skills. How do I give them support? How do I keep them going with the rest of the class because I can't sit there and teach basic math?” Another teacher quickly agreed, adding, “I felt that our role as facilitator was hampered by the deficiencies of grammar and writing skills and reading comprehension. One of us recently in an AP meeting said, “The problem is that you can't teach them how to think and it is those missing thinking skills that make people dig deep into literature to access it. The kids don't have the basic foundation of what they need. I'm teaching a class of AP kids what a noun a verb or preposition is to help them with their syntax in their sentence and they don't know.” Another Teacher Participant agreed, “So, science in physics... it's becoming more of a reading test. I'm training these kids how to read
and interpret the problems. There is as much writing in the physics as there is application of scientific thought and the kids have to be able to make a conclusion in support it well”.

While all the teachers agreed that students who lacked basic foundational skills would have a more difficult path to success, the teachers also readily agreed that work ethic and perseverance allowed some to be successful. For example, a Teacher Participant noted that, “Success and AP comes down to 2 things - innate ability and work ethic - and if you're gonna choose which one is more important, the work ethic is.” All of the teachers believed that the Saturday support sessions were very valuable and would be helpful for all students.

**Documents Reviewed**

Documents that were reviewed included Danbury high school profile and performance record from 2009-2010 to the 2016-2017 school year, the 2017-2018 Danbury High School Improvement plan, The Danbury Public School District Advanced Placement Diagnostic Visiting Team Report from January 2013, produced by the College, and the district's Annual Executive Summary reports for Major Testing and Analysis from years 2010 to 2017. Also, reviewed were the Danbury High School Course of Study Guide offerings between the years of 2007-2017, and additional documents such as, Project Opening Doors Request for Designation as a Project Opening Door School application, and BOE Presentations and minutes related to this grant and open access initiative.

**Summary of Findings**

This single site case study was designed to illuminate the drivers of organizational change and inherent leadership implications with regard to one urban public school systems’ desire to achieve the outcome of increased access and participation in Advanced Placement courses for low SES students. The researcher facilitated four focus groups consisting of members
from each level of the school system. The participants in the study and focus groups were organized at the district level, school leader level, Advanced Placement teacher leader level, and Advanced Placement teacher level. At the district level, the Superintendent of Danbury Public Schools, the Director of Finance and Operations, the K-12 Stem Curriculum Administrator and the Deputy Superintendent in charge of curriculum and instruction were interviewed in one focus group. Among the school building leader group, the building Principal was interviewed along with the Associate Principal for Instruction, the Freshman Academy Principal, and one Assistant Principal who was a veteran of over 25 years. At the teacher leader level, the head of school counselors, the Department Head for Fine Arts and the AP Program Teacher Coordinator during the time period study. Both the Department Head for Fine Arts as well as the AP Program Coordinator teach Advanced Placement Courses in Art and Computer Science, respectively. At the teacher level, there were five participants. Four of these participated in the focus group for teachers which consisted of two veteran Advanced Placement English teachers, one veteran Advanced Placement science teacher, and one veteran Advanced Placement Social Studies and History teacher, all of whom have taught multiple Advanced Placement courses in a variety of areas related to their certifications and training. Due to calendar conflicts, one additional teacher was interviewed outside of the focus group. In addition, the researcher reviewed printed documents from the district, state and outside organizations relative to the research and used these to triangulate information unearthed in the focus groups discussions and interview.

To summarize the major themes, district leaders and school leaders alike committed to and communicated a shared vision of “access” based on the idea that all students should have the ability to avail themselves to the challenge of high quality curriculum and opportunities for
College readiness. They utilized outside funding sources to jumpstart, resource and incentivize the change process for both teachers and students.

Further, these leaders used relentless communication with stakeholders and exerted leadership through acts of disrupting systems and structures that relegated students to tracks and limited experiences with advanced course work needed to gain access to post-secondary institutions. These were replaced with new systems that institutionalized student choice and access to rigorous curriculum along with new adult practices that were designed to empower, challenge, and send the message that Danbury High School was preparing all students for post-secondary opportunities. School leaders supported teachers by ensuring timely and relevant training and professional development to address the new Advanced Placement courses, but also differentiation, in the post detracking, open enrollment environment. Teachers, while initially hesitant about the change, were motivated by the grant and eventually embraced the new changes and subsequent culture that emerged. Despite the acceptance and ultimate change in beliefs, teachers report that individual and group supports are still needed for all students, but especially for students who struggle with foundational knowledge and skills.
Chapter V: Discussion of the Findings

Revisiting the Problem of Practice

Research has demonstrated that student success with Advanced Placement coursework in high school is a strong predictor of future success at the college level (Kyburg, Hertberg-Davis, & Callahan, 2007). Access and success with these courses creates advantageous opportunities for students to gain entry into competitive colleges and universities, receive tuition free credit, and achieve advanced standing at the start of their college career (Dougherty, Mellor, & Jian, 2005). Given this, participation in these courses should be open to all students and appropriate academic supports should be included to meet the needs of all learners, particularly those from economically disadvantaged backgrounds. While access has been gradually increased, the pervasiveness of the minority achievement gap continues to plague both public school systems and society as a whole in the United States (Oakes, 2005). This gap is further perpetuated by the lack of minority access to and enrollment in rigorous academic programs such as with Advanced Placement (AP) programs of study commonly found in high schools across the country. The purpose of this case study is to identify the effects of the organizational changes in one urban high school leading to a transformation in the school’s Advanced Placement program, ultimately increasing the access and success for minority and low socioeconomic status students (SES).

Review of Methodology

This single site case study was designed to illuminate the drivers of organizational change and inherent leadership implications with regard to one urban public school systems’ desire to achieve the outcome of increased access and participation in Advanced Placement courses for low SES students. The research methodology allowed the researcher to focus on eliciting detailed qualitative information from key stakeholders at the district, building, teacher
and teacher leader levels. The researcher conducted focus groups, and a document review and triangulation at a large and ethnically diverse urban high school. This research design, specifically case study using a focus group format, allowed multiple levels of participants to engage in an informal dialog and built on each other’s comments, thoughts, reflections and experiences, both with one another as well as with the researcher. Creswell (2013) states that by using case study as a research method, one can “eludicate the particular, the specific”, as opposed to creating generalizations (p.157). Further, the case study allows the researcher to “capture the circumstances and conditions of an everyday situation - because of the lessons it might provide about the social processes related to some theoretical interest” (Yin, 2014 p.52). Employment of the case study enabled the researcher to identify the strategies, structures, resources and leadership that facilitate organizational change in support of students previously marginalized by a politically driven academic tracking system. The research will likely assist other district and school leaders in replicating success in their own schools.

After conducting the focus groups, the researcher transcribed the discussions using Rev.com and then uploaded the transcription data into Google spreadsheets for annotation, coding and analysis. The researcher also reviewed and analyzed district level documents such as executive summaries of testing analysis, board of education meeting minutes, state reports, grant reports, course of study guides, and reports from The College Board and triangulated the data with the information derived from the focus groups. Further, she employed in-vivo and descriptive coding to develop themes aligned with the research questions. Finally, through careful review of all data presented and analysis, the researcher developed findings from the identified themes related to the research questions guiding the study and as well as through the theoretical lens of The Burke-Litwin Model of Organizational Performance and Change.
In the remaining sections of this chapter, the researcher presents a discussion of major findings, a discussion of findings in relationship to the theoretical framework, a discussion of findings aligned with the literature review, and a final analysis along with recommendations. The chapter will conclude with the significance of the study, its limitations, and considerations for future research.

**Discussion of Major Findings**

After thorough review of the themes and data presented in Chapter Four, three main findings emerge at the center of this study including:

1. Despite political challenges, both District and School Leaders adopted and communicated a new mission and vision of equity and access, and pursued outside resources to help spark a new era for all students at Danbury High School.

2. District and school leaders dismantled decades old structures & systems that rooted students in failure, particularly those from low SES and minority backgrounds.

3. School leaders, teachers, and teacher leaders used encouragement and engaged students in incentivized support sessions outside of the normal school day. Although these resources were highly valued, they no longer exist, leaving students who lack foundational skills with few supports and mechanisms to be successful beyond “access”.

**District and school leaders shared and communicated a new mission and vision of equity and access, and pursued outside resources to help spark a new era for all students at Danbury High School.** Leaders in the Danbury Public Schools routinely engaged stakeholders in difficult politically charged conversations and used relentless communication to combat negativity and to share success stories with the Board of Education, community members,
parents and teachers. The Superintendent noted that the prevailing culture believed that Advance Placement was reserved for the elite and asserted that the elitism was pervasive in New England, particularly along the Gold Coast communities of Fairfield County, Connecticut. In spite of this, he forged a new path with the mission of creating more access to challenging curricula for all students. While strong leadership was the driving force behind the change, it could not have been possible without the funding from the Project Opening Doors grant, which flooded the district and high school with resources and money for incentives, teacher training and student support sessions. Statements from both district and school leader focus groups referred to the work and mission as a “moral imperative”, which helped to motivate others and ultimately led to sustainability of the focus as well as substantial increases in the number of students accessing and participating in Advanced Placement courses.

Leaders shared updates of the work as well as shared data with community members and stakeholders on a routine basis which resulted in a culture focused on access and equity, and grounded in evidence. As such, a clear path for organizational change was made possible through both the superintendent’s leadership and the leadership of the Danbury Highs School team.

**District and school leaders dismantled decades old structures & systems that rooted students in failure, particularly those from low SES and minority backgrounds.** To accomplish this, school leaders dissolved a tracking and scheduling system that institutionalized the racism that was quietly subverting the success of low ES and minority students at Danbury High School. In its place, a new more student driven, responsive and dynamic scheduling system designed to meet the needs of student elected course requests as opposed to maintaining adult driven schedules based on adult interests and requests. The school leaders implemented proactive adult practices, used student centered measures and monitoring systems, and prepared teachers
with needed pedagogical training to handle both the increase in students wanting to take
Advanced Placement courses, but also for meeting the differentiated needs of students in a post
tracking environment. These actions changed the focus of the school, opened doors for students,
particularly low SES and minority students, and laid the foundation for the future where high
expectations and access to challenging curricula would be the norm for all students entering
Danbury High School.

School leaders, teachers and teacher leaders used encouragement and engaged
students in incentivized support sessions outside of the normal school day. Although these
resources were highly valued, they no longer exist, leaving students who lack foundational skills
with few supports. Teachers were paid, through Project Opening Doors, to lead Saturday
support sessions for students. These support sessions included guided sessions from content
experts in each Advanced Placement area. The sessions were incentivized for both teachers and
students in that teachers were paid an additional stipend for the number of students who passed
each exam successfully, defined as a qualifying score of “3” or better on the end of year AP
exam. Likewise, students were motivated to attend these sessions since success on the exam
resulted in receiving a $100.00 gift card. Additionally, there were recent grass root efforts
undertaken by teachers, in support of English Language Learners taking the AP Spanish Heritage
exam. For example, outside the scope of the grant that has since passed, an individual teacher ran
after school sessions for ESL students, native Spanish speakers, or any ESL student who was
interested in taking the AP Spanish exam.

While the AP teachers came full circle in their belief about the importance of open
access, they were all in agreement that students who lack foundational skills still struggle. The
teachers reported that at times, they became very frustrated and stressed with the pressure to keep
up with the pace demanded by Advanced Placement courses, while still trying to fill in the gaps for students who were struggling. Students were provided extra test preparation sessions such as mock exams using official College Board practice exams. For some courses, the exam itself and the correction of the exams were paid for by Project Opening Doors. Even outside of the grant scope, the school leaders also started a Tutoring Center, which supported all students from any level course.

The teacher group noted that all students were provided extra study guides and some teachers invited students after school for additional review sessions and provided refreshments and snacks and encouragement. While all the teachers agreed that students who lacked basic foundational skills would have a more difficult path to success, the teachers also readily agreed that work ethic and perseverance allowed some to be successful, substantiating the assertion that Saturday support sessions are needed to aid all students, but particularly low SES and minority students.

Discussion of Major Findings in Relationship to the Theoretical Framework

Burke (2011) defines a significant organizational change as one that can redesign or redirect a system or organization and change the culture and manner in which things are done. In the Burke Litwin Model for Organizational Performance and Change, there were twelve components that are interlinked and have varying degrees of influence over one another (see Table 1.1). The components can be categorized into three major themes, those that comprise transformational dimensions of organizational change, those that comprise transactional dimensions of organizational change and individual and personal factors that affect change. With this, transformational categories include the external environment, mission, strategy, leadership, and culture. “Changes in these categories are likely to be influenced by “direct interaction with
external environment forces and will, as a consequence, require significantly new behavior from organizational members” (p.216). To achieve meaningful changes in an organization, visionary leadership is required. In contrast, the transactional dimension, or structures, management practices and systems, illustrate the day to day workplace “transaction” that takes place to help an organization to run efficiently. Whereas transformational actions are viewed as leadership, transactional actions are viewed as managerial in nature. Individual and personal factors, such as the work unit climate, task and individual skills, needs and values, and motivation, while important, are not nearly as influential as longer term transformational factors. In the case study of Danbury High School, there was a high degree of influential transformational leadership exerted on behalf of district and school leadership teams as well as key transactional changes that disrupted a politically driven culture that rooted minorities and low SES students in a cycle of failure.

**Transformational factors.** Changing the mission and strategy of an organization means “culture must be modified if the success of the overall change effort is to be realized” (Burke, p.24). Burke (2011) describes culture as “the way we do things around here”, and these are rooted in “deeply held beliefs, attitudes and values” (p.24). At the highest level of leadership in Danbury, the Superintendent adopted and communicated a shared vision and a relentless belief that all students should have access to challenging curriculum, including Advanced Placement curriculum. The district and building leadership teams referred to this effort as a moral imperative and worked on changing the culture of the district and school. To accomplish this, both the district leaders and school leaders continually sought to justify the new vision by engaging the Board of Education, parents, state level officials and regional educational organizations in discussions to help dismantle the trend that playing out in Fairfield County.
Connecticut, railing against the pressure of preserving the elitism of Advanced Placement access for only a select few students. They shared updates of the work as well as shared data with staff on a routine basis which resulted in a culture focused on access and equity, grounded in evidence.

**Transactional factors.** While the “transformational” effectiveness of the leadership exerted in the context of fulfilling the organization’s mission has the greatest influence on the organization’s culture and ultimate success, “transactional” factors play a role in the smooth functioning of an organizational system (Burke & Litwin, 1992). At Danbury High School, district and school leadership teams created and monitored new structures, systems and policies that were in alignment to the new district mission and vision of increased access and equity of academic opportunity.

For example, district leaders detracked the middle school, specifically math and algebra, and eliminated gifted and talented program tracks in favor of heterogeneously grouped classrooms. This occurred simultaneously with the detracking at the high school which replaced five levels of courses with college prep, honors and Advanced Placement levels. Leaders created options to choose between the three levels of academic challenge that were based on student interest and choice. These changes sent a message to students, teachers and counselors that cemented the new expectation that all students were to take courses that would prepare them for college entrance. Further, district and school leaders worked together to create and implement a new open enrollment policy as a way to increase equity and eliminate institutional barriers to the access of rigorous curricula. In conjunction, school leaders eliminated all prerequisites for Advanced Placement courses and created earlier AP enrollment options for students beginning in
freshman year as well as continually sought to create multiple pathways to earn college credit by seeking and facilitating communications and course credit articulations with local universities.

Moreover, the school leadership implemented a more student driven, responsive and dynamic scheduling system designed to meet the needs of student elected course requests, replacing and adult driven scheduling system based on adult interests.

Lastly, school leaders continually monitored the course demographics and regularly communicated the results and openly discussed the adult antecedents to these results, updating the Board of Education, as well as faculty, parents, and School Governance groups. They used the practice of sharing their success stories and results to combat negativity on a regular basis. These factors helped to operationalize and breathe life into the mission and vision of the organization.

**Individual and personal factors.** Changes often originating from leadership exerted at the top of the organization can also cause or necessitate change in the task requirements and individual skills needed to achieve alignment with new strategies or organizational goals (Burke & Litwin, 1992). While Burke considers individual and personal factors short term levers of change, there were individual level needs and training that played role in the outcome of the larger and more complex organizational change at Danbury High School.

Precipitated by the detracking and open enrollment policy, teachers found themselves in need of new training both to become certified and prepared to teach new Advanced Placement offerings, but also to learn how to reach students with a wide range of skills in a heterogeneously group classroom. To assist the transition, the leadership team put into practice the regular use of surveys to gather information on staff training needs the used administrative aspirants to lead support sessions based on those needs. Training was relevant and responsive to teacher need and
aimed specifically at assisting teachers to develop more scaffolded teaching techniques to accommodate a wide variety of learning needs. Additionally, for new teachers, the school leadership team instituted five mandatory coaching sessions to support differentiation strategies and offered these on a voluntary basis for veteran members as well. There was a priority placed on focusing training on differentiation of pedagogical practice, all of which was needed in a post de-tracking era. This also included SIOP training, which was available on a monthly basis for anyone to better serve English language learners who were now dispersed amongst the course types and levels that remained. In addition to the differentiation training made available for all teachers, cadres of teachers were regularly sent for intensive Advanced Placement training to ensure that more teachers were trained to keep pace with the rising increases in open enrollment course requests.

To incentivize and motivate individuals, the grant, Project Opening Doors, was used to pay teachers to lead Saturday support sessions for students. These support sessions included guided sessions from content experts in each Advanced Placement area. The sessions were incentivized for both teachers and students in that teachers were paid an additional stipend for the number of students, who passed each exam successfully, defined as a qualifying score of “3” or better on the end of year AP exam. Likewise, students were motivated to attend these sessions since success on the exam resulted in receiving a $100.00 gift card. The grant also offered the school a tremendous amount of supplies, materials, technology, and books to support the project and to keep teachers in support of the new initiative.

In summary, Burke’s organizational model highlights the need to affect each of the primary levels of change, which consist of individual, group and the total system. At every level of change, effective leadership is required. Leaders can be anyone in an organization who
actively play an important role in the vision development or implementation, however, large scale transformation require executive level leadership to drive changes that require significant shifts in the organizational mission and overall cultural change. In the case of Danbury High Schools’ effort to increase the access and participation of minority and low SES students, the Superintendent of the Danbury Public Schools, with the support of a highly effective central office and school leadership team, can be attributed with disrupting the status quo and for clearing a path for meaningful change to occur, instilling a new vision for the future.

**Discussion of Major Findings Aligned to the Literature Review**

The literature presented in Chapter II focused on three main areas that serve as foundational underpinnings to understanding the case study presented. These include understanding the advantages to having access to knowledge, both generally and specifically related to Advanced Placement courses, and understanding the challenges and barriers that low socioeconomic status, mainly minority students’ face with accessing rigorous curricula, and understanding the need to find strategies to support students in the quest to gain access. As such, in the sections that follow, the researcher presents the three major findings aligned to the research in these areas.

**Understanding the advantages to having access to knowledge, both generally and specifically related to Advanced Placement courses.** The research and literature clearly defines the merits and advantages to having access to specific types of knowledge. Parents, education leaders, and community members worldwide realize that success in today’s global marketplace depends largely on an individual’s education and preparation (Suarez-Orozco & Qin-Hillard, 2004). Further, many colleges and universities use student participation in Advanced Placement courses, specifically, as an indicator for the potential to succeed at the
college level (Kyburg, Hertberg-Davis, & Callahan, 2007). Research derived from longitudinal studies conducted by the National Center for Educational Accountability indicate that student performance scores of three or higher on the AP test as one of the strongest predictors of student ability to complete a bachelor's degree (Dougherty, Mellor, & Jian, 2005). The most compelling evidence shows a direct link between college completion rates and those students who were exposed to a rigorous academic experience (National Association for College Admission Counseling [NACAC], 2011). Further, AP examinees who qualify as low income, when compared to their non-AP Exam-taking peers, also low income, tend to have a higher likelihood of enrolling, persisting, and graduating from four-year colleges (Godfrey, Wyatt, & Beard, 2016). Consequently, participation in high level and advanced course work not only increases the probability of acceptance into colleges and universities, but also increases the chances that those same students will have greater success with post-secondary completion.

All of the participants in this study referenced this understanding in different ways and conveyed deeply held beliefs and commitments to being a part of something larger than just teaching an Advanced Placement course. Teachers clearly understood that success in college meant rigorous preparation in high school and teacher leaders and school leadership teams worked diligently to create the systems and conditions to increase the amount of students engaging in coursework that would prepare them for post-secondary success. The closer the conversations were to the central office level, the broader an understanding that completion of a college degree provided upward social mobility for low socioeconomic status groups who have traditionally struggled. There was a strong sense of value on social justice and increasing equity.

Understanding the challenges and barriers that low socioeconomic status, mainly minority students’ face with gaining accessing to rigorous curricula. There is a considerable
lack of equitable educational access and support, which is inclusive of the needs of all students, in particular, minority students, and those who come from low socioeconomic backgrounds (Oakes, 2005).

Academic tracking is defined as the process of dividing up students into categories and courses that follow a predetermined curriculum based on standardized test scores or achievement tests (Oakes, 1985). While the courses have names such as basic, general, honors, and Advanced Placement, the students themselves who are associated with these courses are often labeled as slow, average, or advanced learners. The less appealing labels can have longstanding and adverse effects on students’ self-confidence, self-perception, and ability to participate in advantageous academic programs (Murphy, 2010).

A persistent negative culture of low expectations and racist attitudes towards minorities perpetuate the inequalities that exist between students from diverse and challenging backgrounds and those of their more advantaged peers (Nieto, 1999). Moreover, in many schools where academic discrimination exists, “teachers have been taught that their primary responsibility is to teach the “basics” because students are not thought to have either (1) the innate ability or (2) the experiential backgrounds of more privileged students” (p. 4).

Students from low-income backgrounds placed in lower tracks are offered “curricula that is less intellectually stimulating, coherent, and demanding of the learner” (Knapp, 2001, p. 181). For example, Vanfossen, Jones, and Spade (1987) concluded that in schools where tracking exists, Latino and African American students are far less likely to be placed in high track classes as compared to their Asian or white counterparts with the same achievement scores. Additionally, the staggering numbers of minority students found in lower track classes further reinforces negative stereotypes, thus perpetuating the cycle of low achievement.
Currently, those who have the power, education, and financial backing possess the power to create educational policy. Given this, “publically funded schools must serve all children, not simply those with the loudest or most powerful advocates” (Fullan, 2003, p.3).

Despite the pressure, the commitment to remain steadfast with morally right decision-making is what defines true and transformational leadership (Fullan, 2001). Further, when a moral rudder guides a leader, the school policies that govern and shape educational frameworks will follow suit (Fullan, 2001).

The focus group discussions, particularly the AP teach group, confirmed that while they struggled initially with the concept of open enrollment, they could look back reflect on the barriers that existed for minority students in Danbury. At every level, district, leader and teacher, these barriers were reinforced by adult actions that came in the form of either policy or systems that were in place that reinforced the status quo of only allowing the most elite, mostly Caucasian students, into Advanced Placement courses. Teachers all confirmed that they welcome the new changes and felt their current role was to champion the access of students and to provide encouragement and information to any student who wanted to challenge themselves.

District and school leaders confirmed their commitment to removing any and all barrier through their actions and regularly review policies and practices that that could be helpful or harmful to students. There remains a strong sense of urgency and advocacy for increasing the opportunities of students with regard to college access and with helping students gain every advantage for success.

**Understanding the need to find strategies to support students in the quest to gain access.** With the right academic supports along the way, students can gain the necessary skills to achieve at any level despite beginning from a disadvantaged state (Murphy, 2010).
The College Board annually releases an Advanced Placement Report to the Nation which provides annual research information and key findings related to college readiness and success based on PSAT and Advanced Placement enrollment and assessment data. The reports reveal the loss of potential Advanced Placement course enrollment and access due to an underutilization of data that is readily available designed to pre-identify students that demonstrate high potential for success in advances courses. The findings show that only three out of ten Hispanic, Latino, and Black students were enrolled in AP courses that were considered qualified based on available data sets. Surprisingly, only four out of ten white students were identified in a similar manner, which prompts questions around the identification and promotion strategies used with all ethnic and racial groups (College Board, 2013).

Further, Kyburg, Hertberg-Davis and Callahan (2007) conducted a research study that investigated the degree to which the specific learning needs of underserved minority students are adequately addressed within Advanced Placement and International Baccalaureate programs. The authors revealed problems with a lack of cultural capital on behalf of minority students to be able to access traditional programming.

Beyond the initial challenges associated with the identification process, comes the need to support low SES students in rigorous academic programs of study. Hallet and Venegas (2011) investigated student experiences and outcomes for forty-eight students enrolled in AP courses past or present, using interviews and an analysis of course taking patterns for college bound students. The study highlighted the shortcomings of programs by looking at passing rates, exam participation, and in class experiences. Participants were largely Latino and African American and attended large urban schools in Los Angles where over ninety percent qualified for free or reduced lunch. Results demonstrated that beyond initial access to AP programs, which was
good, interviewed students had low-test scores as compared to actual course grades and exam pass rates.

The focus group results, along with data triangulated from documents obtained in the research process, substantiated the findings that the district and school leaders at Danbury High School worked to combat the national trend of inherent racial and ethnic bias in minority student ability access to high level courses such as with Advanced Placement by adopting new policies and systems to dismantle barriers to that access. To accomplish this, leaders detracked the school system and established an open enrollment policy for course selection. Open enrollment is a concept where students freely elect to take courses at varying degrees of challenge, without the traditional barriers such as fulfillment of pre-requisites, obtainment of specific grade point averages, teacher recommendation or school counselor approval. The district leaders and school leaders, including school counselors also established a student driven scheduling systems and new protocols within the school to ensure students are identified, encouraged, and counseled with critical information related to the participation in Advanced Placement courses. They leveraged resources such grant money and College Board tools, such as the AP Potential tool, used to identify students early using PSAT data, and planned specialized counseling sessions along with detailed communication to parents in their native language. Further, school leaders, teachers and teacher leaders used encouragement and engaged students in incentivized support sessions outside of the normal school day. These actions, overtime, helped to routinize a culture of high expectation for both adults and students and an understanding that all students were preparing for post-secondary success.

Lastly, while there were tremendous strides made at the district, school and teacher leader level with creating access, there remains a sentiment punctuated by the teacher group, that
there are many students who lack foundational skills and there are currently few supports and mechanisms in place to aid students to be successful beyond “access”.

Conclusion

The purpose of this case study was to identify the effects of the organizational changes in one urban high school leading to a transformation in the school’s Advanced Placement program, which ultimately increased access and participation for minority and low socioeconomic status students (SES). This study used The Burke-Litwin Causal Model of Organizational Performance and Change as a lens to analyze both the complex transformational and transactional dimensions of organizational change that took place in one urban public high school, relative to Advanced Placement Program access and outcomes for minority and low SES students. This study used a single site case study to understand the following research questions:

1. How did a large Connecticut public high school dramatically increase minority and low socioeconomic status students’ access and participation in Advanced Placement courses?

2. How did leadership at both the district and school level contribute to the success of the change?

3. How were strategies implemented and resources used to support minority and low socioeconomic status students in the program?

To achieve the goals of this study, the researcher gathered focus group data relative to one urban high school, capturing the experiences of district leaders, school leaders, and teacher leaders and teachers at this research site, and used that data, along with the triangulation of document based data collected at the site such as school profiles and Advanced Placement performance records from 2009-2017 school year, the 2017-2018 Danbury High School
Improvement plan. Additional documents included The Danbury Public School District Advanced Placement Diagnostic Visiting Team Report from January 2013, produced by the College Board, and the district's Annual Executive Summary reports for Major Testing and Analysis from years 2010 to 2017. Further, course of study guide offerings between the years of 2007-2017, Project Opening Doors Request for Designation as a Project Opening Door School application, and BOE Presentations and minutes related to this grant and open access initiative, were analyzed.

After careful analysis of the evidence and the literature, three major finding emerged which included that despite political challenges, both District and School Leaders adopted and communicated a new mission and vision of equity and access, and pursued outside resources to help spark a new era for all students at Danbury High School. Further, to increase opportunities district and school leaders dismantled decades old structures & systems that rooted students in failure, particularly those from low SES and minority backgrounds. Finally, school leaders, teachers and teacher leaders used encouragement and engaged students in incentivized support sessions outside of the normal school day. As such, these resources were highly valued; however, many of these supports no longer exist, leaving students who lack foundational skills with few supports and mechanisms to be successful beyond “access”. These major findings address the both the research question and purpose of the study.

**Significance of the Study**

This research examined how one urban high school dramatically increased minority and low socioeconomic status students’ access and participation in Advanced Placement courses by analyzing leadership that was exerted at the district and school level, as well as the strategies used to support students in the effort. As such, the ability for low minority and low
socioeconomic status students to gain access to and engage with advanced curricula is the first step toward achieving positive student outcomes for those not typically represented in post-secondary institutions. There is a strong correlation between high school preparation and persistence in completing a college degree resulting in increased opportunities and advantaged such as financial lifetime earnings and upward mobility (Choy, 2002). Moreover, research by Mickelson and Heath (1999) indicate that restrictions of such educational opportunities are strongly correlated to “diminished school achievement” (p. 70). More so than any other student group, low SES populations need greater access to such programs that can further ensure greater outcomes with college completion.

Given this, it is imperative that district and school leaders, as well as local educational practitioners, fully understand both the institutional experiences and backgrounds of these students to better provide relevant support mechanisms that ensure success. Lastly, the resulting research findings and subsequent recommendations will be used to help both inform and guide leaders as they continue to refine and align systems and strategies to create meaningful change through equity based reform.

**Recommendations**

After careful review of the research findings, the researcher offers the following recommendations for district and school leaders to consider:

1. Create a more refined vision of equity for minority and low socioeconomic status students that moves beyond access and participation and includes a focus on strategic student supports for success.

2. Increase both parent and student communication strategies that target populations traditionally underserved in Advanced Placement courses.
3. Increase teacher training and support for both Advanced Placement courses as well as training on differentiation for students needing foundational support.

**Create a more refined vision of equity for minority and low socioeconomic status students that moves beyond access and participation and includes a focus on strategic supports for success.** At the onset of the organizational change and with the support and monitoring requirements of the Project Opening Doors Grant, minority access, participation and success, defined by scoring a 3 or better on the Advanced Placement exam, was tracked and heavily monitored and communicated. Since the grant expired, the school does not regularly report out on the “success” of minorities in its annual update to the Board of Education.

Currently only the following data points are communicated to Board Members; the number of students enrolled in Advanced Placement courses, the number of classes taken by Advanced Placement students, the percent of students in Advanced Placement courses who are minorities, and the number of students who took the Advanced Placement test, the number of students with scores of three or higher, and the number of students who scored a five on the end of course exam. When the researcher sought this information, it was not readily available, although easily retrievable with a request to the districts data department.

Danbury High school has made remarkable progress in increasing access for minorities that are close to mirroring the demographics of the students they serve. As such, they are well positioned to take next steps, in pursuit of increasing and ensuring the success of the minorities and low SES students.

Focus group data and findings at the teacher level reveal that teachers are often concerned about supports for students who lack foundational skills and those who need extra support to succeed in a fast paced rigorous classroom. As such, Saturday support sessions should be
reinstated and additional professional training implemented for Advanced Placement teachers who are supporting mixed ability students. While teachers were generally satisfied with the amount of Advanced Placement training they have received, this training can be bolstered by more in depth approaches to teaching Advanced Placement courses that consider the needs of students with gaps in foundational knowledge. Additionally, while the school maintains a tutoring lab for all students, specific tutoring relative to exam strategies and expansion of content lessons would enable students to more directly focus on strategies related specifically to Advanced Placement preparation and ultimately success on final examinations.

Lastly, while the district has limited resources, it is recommended that district leaders make the funding of Advanced Placement student and teacher supports a budgetary priority to solidify its vision of equity for all students.

**Increase both parent and student communication strategies that target populations traditionally underserved in Advanced Placement courses.** Danbury district leaders encouraged both school leaders and teachers to make a declaration to do what is right for students. The district and school leaders engaged in a never ending communication campaign with teachers, parents, board of education members and the students themselves to keep the vision and mission in importance of the changes they valued on the front burner of every conversation. District leaders even engaged in communications with neighboring districts and at the state level as a way to share information and to disrupt conditions that prevented students from accessing the highest levels of opportunities in their district. School leaders used data on a regular basis as a method to increase awareness and to share success stories that would combat negativity. They facilitated communications with area universities and continually focused on increasing opportunity for early college experiences and course credit. In addition, school
counselors made use of the College Board AP potential tool to communicate and recruit students who specifically had the potential to do well in Advanced Placement course work and detailed letters went home to parents and students indicating this potential, encouraging students to avail themselves of the challenge of engaging in rigorous coursework. In conjunction with these efforts, school counselors met regularly with students to talk about their interests and to encourage students to get involved with advanced coursework as early as possible, even traveling to the middle schools to begin the discussion about the expectations for high school along with showcasing the resources and offerings that were available to students.

In spite of these efforts, there were reports from teacher leaders and teachers that communication is sometimes hampered by the diverse languages that comprise the school. While many parent communications are sent home in Spanish and Portuguese it was often confusing to determine which families needed which letters due to issues with the data management system utilized by the school. Further, it was communicated by teachers that while they feel the school has made tremendous efforts in reaching students, there are still gaps in communicating critical information in a way that is more easily accessible by English language learners and their families. Specifically, a teacher who works closely with this population reported that many of her students do not understand what Advanced Placement courses are or even how to access planning materials for college or understand the importance and the difference between the levels of course work at the school and the importance of joining clubs and activities and taking on leadership opportunities that help them have a more competitive application in the college process.

It is imperative that school leaders reassess the accessibility and communication of critical information made available to students that allow all students to have the same advantage
with utilizing all of resources at Danbury High School. This includes the school website which has information and explanations about clubs, activities, scholarship information and other resources as well as parent communication letters that go home or are made available through the school data management system.

Lastly, teachers expressed the need and desire to provide more information about Advanced Placement courses and clubs and activities that students can be involved in by showcasing these in more ways than are currently offered at the school. For instance, teachers suggested AP shadowing days for students who want to get a no risk glimpse of what the rigor of an Advanced Placement course is like. Additionally, teachers wanted to see an evening dedicated to Advanced Placement, showcasing the different courses, contents, and alignment to careers closely related to the subject matter. Teachers would also like to see more routine use of surveys to find out what areas are of interest to students and what information they are aware of or not aware of, particularly for ESL students and students who may lack support at home for schooling.

**Increase teacher training and support for both Advanced Placement courses as well as training on differentiation for students needing foundational support.** At the onset of organizational change and at the beginning and throughout the grant period, there were more resources available for staff training for both Advanced Placement courses as well as for differentiation strategies and pedagogy. Since the grant expired, training has been limited, although still present. It is recommended to continue to train all staff on differentiation and scaffolding techniques, but specifically for Advanced Placement teachers who are juggling the differentiation needs in a fast paced environment that contain students with mixed ability and gaps in their foundational knowledge. It is also suggested that school leaders train teachers who
are supporting students in Advanced Placement courses even though they may not be actually teaching those courses. Further, teachers and school leaders should engage in cultural competency training to ensure a greater connection with the diverse needs of the students and families they serve. All staff members should be made part of discussion and trainings as well as professional development related to differentiation, cultural competency and scaffolding supports for students who need additional assistance.

**Validity of the Study**

To ensure that the results of this study are valid, the researcher included participants that represented a multi-level range of key stakeholders that were closest to the subject matter being studied. Prior to involvement, the researcher informed the participants of the purpose of the study as well as outlined her positionality. She assured participants of their anonymity, indicating that only positional titles would be referenced in any documentation and confirmed that participation was in no way evaluative or influential with the terms of their employment. While the researcher has programmatic oversight for some of the courses that the teacher group teaches, she does not directly evaluate the teacher members. No teacher reported feeling any undue stress as a result of this relationship and readily welcomed an opportunity to respond freely. Further, the researcher identified her bias and outlined the prepositions for the research before initiating the study.

Further, precautions to maintain validity included a member checking process to ensure that focus group data and document data collected at the research site was accurate as well as accurately transcribed. Moreover, the researcher followed a consistent focus group questioning protocol to ensure through and balanced responses from participant groups and to maximize participation and responses from all members. The researcher took the measures outlined above
to ensure validity of the data presented and to ensure the findings offered a legitimate representation of research study.

**Limitations of the Study**

The limitations of this study are constrained by the nature of a single site analysis and an inability to collect data from the former high school principal at the time of the initial organizational change. Due to its size, urban status, level of diversity, and success with opening access, Danbury High School made for an excellent case to study minority and low socioeconomic status student participation in Advanced Placement. This school, however, only represents one high school, limiting the ability to generalize that the findings would be indicative of other high schools, even those similar to the demographics and size. Still, Yin (2009) cites the value in using case study “an empirical enquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p.14).

To this end, the research data and relevant findings may have been different, although only slightly, if the participation included the former principal at the time of organizational change who some say was a key “disruptor”. Still, while there was an inability to include a key member, all other leaders, including district and school leaders, as well as teacher leaders and teachers, each confirmed and corroborated the findings of the research. Feedback from the current School Leader Participants, two of which who were second and third in command under the former principal, was consistent with one another and aligned to the data generated in all of the participant focus groups.
Considerations for Future Research

This case study was designed to illuminate the drivers of organizational change and inherent leadership implications with regard to one urban public school systems’ desire to achieve the outcome of increased access and participation in Advanced Placement courses for minority and low SES students. Without question, Danbury High School achieved its mission of increasing access and participation; however, there is more work to do to ensure greater equity with success. As such, student voice, particularly minority and low socioeconomic status student voice needs to play a larger role in shaping the next level of work for this school. As a consideration for future research, it would be important to more deeply understand the motivations of students as they approach the course decision making process. In an open enrollment system, it would be important to understand how students make decisions about choosing both coursework and the level of rigor for their classes and how that process is influenced, along with identifying who or what is most influential in that process. Understanding these factors can help school systems and school leaders to better leverage resources, time and energy as they seek to guide students through complex process of ensuring college and career readiness.

The research is clear in that students who participate in rigorous coursework, specifically Advanced Placement course work, are better prepared for the challenges of college and beyond and have greater lifetime earnings and social mobility (Hallett & Venegas, 2011, Kyburg, Hertberg-Davis, & Callahan, 2007, Brint, 2006). Given this, it is imperative to maximize every available opportunity to support high school students as they navigate their high school academic experience.
Personal Comments

While produced almost thirty years ago, *A Nation at Risk* (1983) from The National Commission on Excellence in Education, warned educational leaders about the lack of high expectations for students in the United States, as well as the concerning lack of focus and commitment to the most critical issues at hand. The report reiterated the educational promise made to all Americans emphasizing that:

all children by virtue of their own efforts, competently guided, can hope to attain the mature and informed judgment needed to secure gainful employment and to manage their own lives, thereby serving not only their own interests, but also the progress of society itself. (p. 2-3)

Since then, progress has remained slow until more recent mandates, such as No Child Left Behind (NCLB), and its replacement, Every Student Succeed Act (ESSA). These mandates have charged public school districts and educational leaders with uncovering and dismantling the many structures that prevent various groups of children from achieving and demonstrating growth, particularly minorities from low socioeconomic backgrounds. While many have criticized the reform effort for its lack of federal financial backing, the policy did set into motion as a new era of accountability while forcing states, school districts, and practitioners to focus on the needs of those who were underperforming as compared to their peers. As data sets have trickled in, the evidence and results have set fire to a serious conversation about a lack of inclusive academic opportunity for underrepresented student populations, and many others who are not well served by current public school system. These critical conversations must include the issue of academic tracking and the inherent racism that permeates the institutional systems and structures that claim to serve the best interests of all children.
To this end, educational leaders must disrupt the status quo and take on local community-based cultures that tolerate any level of racial or ethnic bias within the walls of their schools. A shift in programmatic structures and school culture requires true transformational leadership, a sense of urgency, and an ethically driven vision to guide the difficult decisions that will lead to equity and improved student outcomes (Fullan, 2003). On the whole, educational leaders must examine the crucial truths of educational equity as it relates to their own districts and schools. Subsequently, leaders, specifically school superintendents need to re-examine their own personal educational philosophies to determine if the structures and programs they govern reflect the beliefs and attitudes that all students, regardless of race and background, can learn and be successful.
References

Publication Date: 2016 Pages: 60 Abstractor: ERIC Reference Count: 18 ISBN: N/A
ISSN: N/A Exploring College Outcomes for Low-Income AP® Exam Takers with Fee
Reductions. Research Report 2016-2 Godfrey, Kelly E.; Wyatt, Jeffrey N.; Beard,


Briscoe, F. M. (2005). A question of representation in educational discourse: Multiplicities and

SAGE Publications.

Stamford, Conn.: Jai Press.

Camara, W. J., & Millsap, R. E. (1998). Using the PSAT/NMSQT and course grades in
predicting success in the Advanced Placement Program. New York (Box 886, New York
10101-0886): College Entrance Examination Board.

issue]. New Directions for Institutional Research, 130 Retrieved from
www.interscience.wiley.com


Nadler, D., and M. Tushman. "A Diagnostic Model for Organizational Behavior."


Appendix A: District Focus Group Guide

Thank you for your interest in participating in my research. Before we begin the focus group, please review the consent form and sign if you agree to participate. The consent form provides a short overview of the study and the focus group process. The consent form outlines what I will do to protect confidentiality. Please review the consent form carefully to make sure you are comfortable with everything detailed on the form.

Since this study is meant to learn about how Connecticut’s largest and most diverse high school increased minority and low socioeconomic status student access and participation in Advanced Placement courses, I will be recording the focus group. Please do your best to speak clearly and to take turns speaking during the discussion. Since there will be a range of responses during the focus group, it will be important to respect the responses of others.

We will begin the focus group in a few minutes. This process will take between 50 and 75 minutes. I will ask that you share your experiences while working at this district. My role is to facilitate the discussion. I encourage everyone to speak openly about the questions. There is no time limit for specific questions, so it is fine to go into detail with your responses.

The first few questions of the focus group will be demographic questions. During these questions, I will ask participants to answer individually in a circle. We will then proceed to in-depth questions and more of a discussion among peers.

Are there any questions before we begin the focus group?

Descriptive Information

-What is your role here?
-How long have you been here?
-Where were you before coming here and what did you do?

I now want to take some time to talk with you about the academic programming, specifically Advanced Placement programming and course access in your district, and your district leadership responsibilities for these programs, and developments in these programs over the last several years. Let’s start with the Advanced Placement program at Danbury High School.

1. How would you describe your district leadership role and level of responsibility for Advanced Placement Programming?
   -Could you provide one or two examples of what that looks like?
   -What has been your contribution to the academic program over the past several years as a district leader?

2. Can you tell me about any developments or changes that have occurred in the academic programming at Danbury High School over the last several years – both in general and with Advanced Placement? What were those?
- Why did you and/or the district decide to undertake those developments? And how did they come about? What drove those changes?

3. What was the community, school and teacher culture like around “access” for Advance Placement? Has that changed? If so, why or how did it change? What steps did the district leaders take to change it?

4. What specific district level structures, strategies, resources or policies have been put in place to increase access and participation for low SES and minority students? Who monitors these areas? How is it that going?

5. What have been your greatest leadership challenges and successes with regard to this topic?
   - What advice would you have for district leaders on how to lead and support increased access and participation? Where should they begin?

6. Is there anything else you would like to share about your district level work that supports increased access and participation for low SES and minority students desiring to take advanced level courses your school system?
Appendix B: Building Focus Group Guide

Thank you for your interest in participating in my research. Before we begin the focus group, please review the consent form and sign if you agree to participate. The consent form provides a short overview of the study and the focus group process. The consent form outlines what I will do to protect confidentiality. Please review the consent form carefully to make sure you are comfortable with everything detailed on the form.

Since this study is meant to learn about how Connecticut’s largest and most diverse high school increased minority and low socioeconomic status student access and participation in Advanced Placement courses, I will be recording the focus group. Please do your best to speak clearly and to take turns speaking during the discussion. Since there will be a range of responses during the focus group, it will be important to respect the responses of others.

We will begin the focus group in a few minutes. This process will take between 50 and 75 minutes. I will ask that you share your experiences while working at this school. My role is to facilitate the discussion. I encourage everyone to speak openly about the questions. There is no time limit for specific questions, so it is fine to go into detail with your responses.

The first few questions of the focus group will be demographic questions. During these questions, I will ask participants to answer individually in a circle. We will then proceed to in-depth questions and more of a discussion among peers.

Are there any questions before we begin the focus group?

Descriptive Information
- What is your role here?
- How long have you been here?
- Where were you before coming here and what did you do?

I now want to take some time to talk with you about the academic programming, specifically Advanced Placement programming and course access in your high school, and your school leadership responsibilities for these programs, and developments in these programs over the last several years. Let’s start with the Advanced Placement program at Danbury High School.

1. How would you describe your school leadership role and level of responsibility for Advanced Placement Programming?
   - Could you provide one or two examples of what that looks like?

   - What has been your contribution to the academic program over the past several years as a school leader?

2. Can you tell me about any developments or changes that have occurred in the academic programming at Danbury High School over the last several years – both in general and with Advanced Placement? What were those?
- Why did you and/or the school leadership team decide to undertake those developments? And how did they come about? What drove those changes?

3. What was the community, school, teacher and student culture like around “access” for Advance Placement? Has that changed? If so, why or how did it change? What steps did Danbury high school leaders take to change it?

4. What specific school level structures, strategies, resources or policies have been put in place to increase access and participation for low SES and minority students? Who monitors these areas? How is it that going?

5. What have been your greatest school leadership challenges and successes with regard to this topic?
   - What advice would you have for school leaders on how to lead and support increased access and participation? Where should they begin? What worked and what didn’t?

6. Is there anything else you would like to share about your school leader work that supports increased access and participation for low SES and minority students who desiring to take advanced level courses in your school?
Appendix C: Teacher Focus Group Guide

Thank you for your interest in participating in my research. Before we begin the focus group, please review the consent form and sign if you agree to participate. The consent form provides a short overview of the study and the focus group process. The consent form outlines what I will do to protect confidentiality. Please review the consent form carefully to make sure you are comfortable with everything detailed on the form.

Since this study is meant to learn about how Connecticut’s largest and most diverse high school increased minority and low socioeconomic status student access and participation in Advanced Placement courses, I will be recording the focus group. Please do your best to speak clearly and to take turns speaking during the discussion. Since there will be a range of responses during the focus group, it will be important to respect the responses of others.

We will begin the focus group in a few minutes. This process will take between 50 and 75 minutes. I will ask that you share your experiences while working at this school. My role is to facilitate the discussion. I encourage everyone to speak openly about the questions. There is no time limit for specific questions, so it is fine to go into detail with your responses.

The first few questions of the focus group will be demographic questions. During these questions, I will ask participants to answer individually in a circle. We will then proceed to in-depth questions and more of a discussion among peers.

Are there any questions before we begin the focus group?

Descriptive Information
- What is your role here?
- How long have you been here?
- Where were you before coming here and what did you do?

I now want to take some time to talk with you about the academic programming, specifically Advanced Placement programming and course access in your high school, and your teacher level responsibilities for these programs, and developments in these programs over the last several years. Let’s start with the Advanced Placement program at Danbury High School.

1. How would you describe your teacher role and level of responsibility for Advanced Placement Programming?
   - Could you provide one or two examples of what that looks like?

   - What has been your level of involvement in the academic program over the past several years as a teacher?

2. Can you tell me about any developments or changes that have occurred in the academic programming at Danbury High School over the last several years – both in general and with Advanced Placement? What were those? How did you feel about those changes?
-Why did you think the school leadership team decided to undertake those developments? And how did they come about? What drove those changes?

3. What was the community, school, teacher and student culture like around “access” for Advance Placement? Has that changed? If so, why or how did it change? What steps did Danbury high school leaders take to change it? Teachers themselves?

4. What specific school and teacher level structures, strategies, resources or policies have been put in place to increase access and participation for low SES and minority students? Who monitors these areas? How is it that going?

5. What have been your greatest teacher challenges and successes with regard to this topic? What advice would you have for teacher, school and district leaders on how to lead and support increased access and participation? Where should they begin? What worked and what didn’t?

6. Is there anything else you would like to share about your teacher level work that supports the increased access and participation for low SES and minority students desiring to take advanced level courses your school?
Appendix D: Teacher Leader Focus Group Guide

Thank you for your interest in participating in my research. Before we begin the focus group, please review the consent form and sign if you agree to participate. The consent form provides a short overview of the study and the focus group process. The consent form outlines what I will do to protect confidentiality. Please review the consent form carefully to make sure you are comfortable with everything detailed on the form.

Since this study is meant to learn about how Connecticut’s largest and most diverse high school increased minority and low socioeconomic status student access and participation in Advanced Placement courses, I will be recording the focus group. Please do your best to speak clearly and to take turns speaking during the discussion. Since there will be a range of responses during the focus group, it will be important to respect the responses of others.

We will begin the focus group in a few minutes. This process will take between 50 and 75 minutes. I will ask that you share your experiences while working at this school. My role is to facilitate the discussion. I encourage everyone to speak openly about the questions. There is no time limit for specific questions, so it is fine to go into detail with your responses.

The first few questions of the focus group will be demographic questions. During these questions, I will ask participants to answer individually in a circle. We will then proceed to in-depth questions and more of a discussion among peers.

Are there any questions before we begin the focus group?

Descriptive Information
- What is your role here?
- How long have you been here?
- Where were you before coming here and what did you do?

I now want to take some time to talk with you about the academic programming, specifically Advanced Placement programming and course access in your high school, and your teacher leader responsibilities for these programs, and developments in these programs over the last several years. Let’s start with the Advanced Placement program at Danbury High School.

1. How would you describe your teacher leader role and level of responsibility for Advanced Placement Programming?
   - Could you provide one or two examples of what that looks like?
     - What has been your level of involvement in the academic program over the past several years as a teacher leader?

2. Can you tell me about any developments or changes that have occurred in the academic programming at Danbury High School over the last several years – both in general and with Advanced Placement? What were those? How did you feel about those changes?
Why did you think the school leadership team decided to undertake those developments? And how did they come about? What drove those changes?

3. What was the community, school, teacher and student culture like around “access” for Advance Placement? Has that changed? If so, why or how did it change? What steps did Danbury high school leaders take to change it? Teachers?

4. What specific school level structures, strategies, resources or policies have been put in place to increase access and participation for low SES and minority students? Who monitors these areas? How is it that going?

5. What have been your greatest teacher leader challenges and successes with regard to this topic?
   -What advice would you have for teacher leaders, school and district leaders on how to lead and support increased access and participation? Where should they begin? What worked and what didn’t?

6. Is there anything else you would like to share about your teacher leader work that supports the increased access and participation for low SES and minority students desiring to take advanced level courses in your school?