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Confronting the Challenges of Student Engagement

A Case Study of a School-Based Intervention

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As John Mack, the president of the Los Angeles Urban League, succinctly pointed out, "school is just not cool" for far too many of today's youth. While policymakers can insist that every child attends school, they cannot legislate the positive attitude, motivation and behaviors that are integral to students' learning (National Research Council & Institute of Medicine, 2004). This dissertation explores a possible solution. It observes the implementation of a school-based program that has shown promising results in increasing middle schoolers student "engagement," the adolescent's desire and dedication to learning. Specifically, it closely follows the Valued Youth Program, a cross-age tutoring program, from its conception through adoption in Santa Monica-Malibu School District, which is facing marked achievement differentials across ethnic groups. It conducts a scientific evaluation of the program's effectiveness to influence intermediate student engagement outcomes, including attendance, school attitudes, disciplinary issues, and achievement (e.g., grades, standardized test scores) over the course of one year. Each step of the implementation is examined with a critical eye to how the process and the actors, both internal and external to the school system, facilitate or impede the program's final form and its ability to affect student engagement. This analysis concludes with lessons learned that provide guidance for educators and community members to implement and sustain student engagement programs.
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“Via ovicipitum dura est,” or, for the benefit of the engineers among you: “The way of the egghead is hard.” Adlai Ewing Stevenson (1900–65)

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Chapter 1. Understanding Student Engagement
Confronting the Challenges of Student Engagement

I am always ready to learn although I do not always like being taught.
—Winston Churchill

1.1 Introduction: What is the “Engagement” Problem?
During my visits to John Adams Middle School, several of the students shared their feelings about school with me. I was astounded by what I heard. Their comments painted a dismal picture of a learning environment where school was overwhelmingly considered “boring” and a “waste of time.” In their own words:

I don’t know of any [students who try hard at school]. None of my friends really like school, including me. I don’t really like school...I can’t think of a name of a kid who likes school.--Eighth grade boy

Overall I don’t like school. I would rather go play in traffic than come here. Sometimes school is fun because my friends are here [but] if they weren't, I wouldn't come. My teachers suck very much and they make everything so damn hard and they always argue with me. That’s why I don’t like it.--Eighth grade boy

It’s almost everybody that I know who doesn’t like school. They just get mad at the teacher. There are some teachers, like the math teacher, they hate because [they] give too much homework. For worksheets, they just put things down or they copy off somebody else’s. They don’t want to be there.--Eighth grade boy

I have a best friend who doesn’t want to do anything. She says she doesn’t care about graduating...and now she’s not coming to school for like three days...I got into a fight [and] that messed up my whole record. And they called the cops. She was in it too. She said she didn’t care. She says she’ll probably get in more fights...She doesn’t even want to go to college, she doesn’t even want to go to SAMOHI [high school]...I’ll always be there for her no matter what, but there will be times that I’m not going to be there for her and damn, I hope she doesn’t get into trouble.--Eighth grade girl
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Sadly, the students I spoke with in this one middle school are not unlike those in schools across the country. As John Mack, the president of the Los Angeles Urban League, succinctly pointed out, “school is just not cool” for far too many of today’s youth. The Public Policy Institute of California estimates that about a third of California’s children lack cognitive and affective engagement—the requisite interest and motivation—for scholastic achievement (2003). While policymakers can insist that every child attends school, they cannot legislate the positive attitude, motivation and behaviors that are integral to students’ learning (National Research Council & Institute of Medicine, 2004).

1.2 The Emphasis of Education Policy Research

Policy researchers and decision-makers devote significant energy to examining how the “supply side” of education can be leveraged to improve educational outcomes while spending considerably less time on the students’ motivation, the “demand side.” For example, education policy researchers have spent a substantial amount of time studying the effect of lowering class size on achievement. In the landmark class size study the Tennessee’s Student Teacher Achievement Ratio (STAR) Project (1990), class size was found to affect achievement, leading to class size reduction initiatives across the country (Normore and Ilon, 2006). However, the high costs associated with reducing class size, such as the salaries for additional teachers and construction costs and maintenance of more classrooms, are raising questions regarding the feasibility and sustainability of this reform movement.

Significant attention too has been devoted to the standards and accountability movement. Convinced that prior federal educational initiatives focused too closely on the provision of services rather than on student outcomes, federal policymakers enacted the No Child Left Behind Act (P.L. 107-110, H.R. 1). This law borrows the performance-
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based principles from successful private-sector management practices. It hold schools accountable for their student achievement as reflected by their performance on standardized tests (Stecher and Kirby, 2004). However, the achieveability of No Child Left Behind’s stated goal, namely that all students are proficient in reading and mathematics as reported by state standardized tests by 2014, is questioned by politicians and education practitioners, raising uncertainties as to whether and in what form Congress will reauthorize the law in 2007.

In addition to the standards and accountability work, education policymakers have looked to school governance as a causal factor for students' weak achievement. Their research has led to the rise of the educational choice reform movements, primarily the growth in educational voucher programs (Levin, 2002) and charter schools (i.e., public schools that receive funding from the local school district or state and do not need to adhere to local and state regulations as long as the comply with their charter requirements). Voucher programs, whereby parents are given certificates that can be used to pay tuition at any “approved” school, are intended to create a competitive school marketplace and thus provide tangible incentives for school improvement. These programs, however, have proven to be controversial and thus may not be a politically viable solution. For instance, some parents enjoy the benefit of being able to use the vouchers to pay tuition at private religious schools while others argue that using them in this manner violates state and federal laws that prohibit the use of public funds for religious instruction (Levin, 2002).

Attempts to improve student achievement by reforming school governance, particularly in regards to minimizing the bureaucratic organizational structures, has led to the establishment of charter schools. As of September 2006, almost 4,000 charter school
Confronting the Challenges of Student Engagement

were operating in 40 states and the District of Columbia, educating more than a million youths (The Center for Education Reform, 2006). The charter school movement has prompted the establishment of for-profit companies that are contracted by the government to operate public schools. They differ from charter school groups in that they do not “own” the school but are rather hired to manage it. The most notable of these education management organizations is Edison Schools, Inc., which operates 97 schools in the U.S., educating approximately 285,000 students in nineteen states, the District of Columbia and the United Kingdom (Edison Schools, Inc., 2006). Evidence concerning the ability of these organizations to deliver results is not yet conclusive. For example, in the first three years of Edison management, the test score gains of Edison schools, on average, did not exceed their comparison schools; in years four and five, however, the Edison schools exhibited better results than the comparable schools (Gill et al., 2005).

While these “supply side” reforms have shown mixed results or carry high price tags, still relatively little policymaker attention has focused on the “demand side” of the education equation. That examination begins below.

1.3 Individual and Societal Costs of Disengagement

Particularly for children living in marginalized circumstances, the lack of engagement, that is the desire and pursuit of academic achievement, carries social costs for the individual. It is closely tied to higher risks of misbehavior, criminal activity (Catalano et al., 2004), dropout (Alexander et al., 1997), and to restricted career prospects. There are financial costs as well. As a crude lower bound estimate associated with the most extreme form of disengagement, consider the cost of high school drop-outs. While these figures are certainly imperfect and likely underestimate the true costs of engagement,
they provide us with some sense of the consequences of low student engagement, which has not yet been quantified. The U.S. Census approximates that high school dropouts over their working lives will earn $270,000 less than high school graduates (Cheeseman-Day and Newburger, 2002). Furthermore, the situation is getting worse: in 1975, high school dropouts earned 90 percent as much as high school graduates while in 1999, the percentage dropped to 70 (Cheeseman-Day and Newburger, 2002).

Disengagement is costly for society as well. Rumberger estimated that for the school year 2002-2003, about 66,657 students dropped out in California. According to the U.S. Census statistics, this figure equates to a loss of some $14 billion in national and state income over the students' lifetimes, which bears significant consequences for state and federal tax revenues (The Civil Rights Project--Harvard University, 2005; Orfield et al., 2004). This figure, however, only represents the costs of California's dropouts. Considering that across the United States, approximately 68 percent of 3.9 million students entering ninth grade in the academic year 2000-2001 earned a regular high school diploma by twelfth grade (2003-4), which translates into a loss of an estimated $263 billion in national and state income from this cohort alone (Swanson, 2004).

Dropouts also increase government costs. For example, their crime and incarceration rates are higher and they have a higher tendency to rely more heavily on welfare and public health care. Two economists, Lochner and Moretti, estimated that, on average, high school graduation lowers the probability of incarceration for Caucasians by 0.76 percentage points and 3.4 percentage points for African Americans. Using these reduction rates, they estimated that a one percent increase in graduation rates would save the U.S. $1.4 billion dollars a year (2004). General equilibrium effects should be considered, however, as it is possible that increasing the number of high school
Confronting the Challenges of Student Engagement

graduates may reduce their wage levels, which could then increase the crime rate, suggesting an exaggeration of social savings. Likewise, it is possible that as the increasing numbers of high school graduates enjoy higher wage levels, they begin to decrease their criminal activities, which would suggest that the model provides an underestimation. Lochner and Moretti tested these hypotheses employing a relatively simple general equilibrium model and found that when one percent of the high school dropouts were moved to the graduates category, the overall reduction in wages for graduates was more than offset by increases in wages for dropouts (2004).

These financial figures, however, do not account for the lower level of civic engagement—participation in community activities—that correlates with academic attainment and engagement. Robert Putnam, author of Bowling Alone, emphasizes the relationship between education and social capital, the social norms and networks that enable people to work collaboratively. As he writes:

> Education is by far the strongest correlate that I have discovered of civic engagement in all its forms, including social trust and membership in many different types of groups...Education, in short, is an extremely powerful predictor of civic engagement...highly educated people are likely to be joiners and trusters, partly because they are better off economically, but mostly because of the skills, resources, and inclinations that were imparted to them at home and in school. (1995, p. 667)

Lower graduation rates then imply lower civic engagement and its consequences: poorer governance, weaker economic growth and lower life satisfaction results. As Putnam argues, in communities where civic engagement is low, people are more likely to cheat on their taxes, commit crimes and have poorer health (2001).
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Dropout rates, however, provide us only with a count of the most extreme instances of academic disengagement. Unfortunately, this sentiment runs far deeper than the scope that these rates convey: many schools with “reasonable” graduation rates still churn out disengaged and lesser educated students. Some of the low achievement might reflect students’ eroding commitment to scholastic activities, indicated in the school district’s analysis of data from its HiPlaces Assessment, a survey that seeks to increase the understanding of the impact of school improvement practices on student success. Each year, middle and high school students are asked to report whether fellow students showed school commitment on a scale from one to five, where one was never and five was always. Sixth graders, on average, reported that their peers showed school commitment nearly “most of the time” but the high school seniors, on average, reported only “sometimes” (HiPlaces 2004). See Figure 1.1.

Figure 1.1 Santa Monica Student Commitment, Student Reports 2002-2003
Confronting the Challenges of Student Engagement

While this information provides us only with a snapshot of the district at one point in time, the trend nonetheless is troubling. What then do we know about this problem and what can we do to address it?

1.4 Academic, Student Engagement Defined

Student engagement is a multidimensional construct, which scholars use to encompass behavioral, psychological/cognitive and affective components: engaged students are those that think, act and feel that schooling is interesting today while important for tomorrow. Students who are engaged exhibit a set of behaviors that support achievement including task persistence, regular attendance, and sustained attention. Emotional factors commonly considered to be indicative of student engagement include excitement, interest in learning and a sense of belonging. Lastly, the psychological/cognitive engagement component manifests as motivation and preference for academic challenge, a positive self-concept (both in terms of academic ability and overall efficacy), and aspirations for further education.

Interest in engagement rests on the concept’s two distinguishing features. Engagement differs from prior research concerning the separate yet related fields of interest—motivation, attitudes and student conduct—in its effort to study the precursors and result of the three components functioning together as a dynamic system (Fredricks et al., 2004). Conceivably, once a child has “engaged,” his efforts, feelings and thoughts may interact to create a self-perpetuating cycle of engagement, which might continue to grow in a non-linear fashion. Additionally, engagement potentially responds to contextual changes, such as improvements in the school environment or changes in teaching practices. If such is the case, it could then provide a tool with which to track a child’s progress towards desired learning outcomes. As Fredricks et al., write, “The
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study of engagement as multidimensional and as an interaction between the individual and the environment promises to help us to better understand the complexity of children’s experiences in school and to design more specifically targeted and nuanced interventions.” (2004, p.61)

Student engagement has been shown to be associated with student achievement, the ultimate education outcome of policy interest. While evidence from large, longitudinal, national samples of students is scant, research concerning particular student populations suggest a positive relationship between student engagement and achievement, as well as secondary school completion. For instance, a number of studies have linked behavioral engagement and higher achievement levels, defined by test scores or grades (e.g., Connell et al., 1994; Marks, 2000). One longitudinal study underscores the longevity of such effects. A study concerning a randomly selected, stratified sample of 790 students in Baltimore showed that teacher reports of engagement in elementary school were positively associated with student test score improvements and later decisions to finish high school (Alexander, Entwisle and Dauber, 1993; Alexander, Entwisle and Horsey, 1997).

The cognitive component of student engagement too has proven achievement benefits. For example, the Seattle Social Development Project (SSDP), which focused on helping elementary school children feel more connected to school and engender a sense of attachment (i.e., close affective relationships with people at school), provides some evidence. In its non-randomized control trial, the SSDP found that in the short term (at the completion of sixth grade), the treated low-income boys had significantly higher grades and standardized test scores in math, reading and language arts while low-income girls in the treatment group reported feeling that they had more opportunities to
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participate in class (O’Donnell et al., 1995). Over the long term, SSDP found that in the study’s follow up at age 18, students who had participated in the intervention were less likely to have repeated a grade and were less involved in school misbehavior (e.g., skipping class, cheating, being asked to leave the classroom) than the control group (Hawkins et al., 1999).

Student engagement is also related to social engagement, the pro-social behaviors, thoughts and feelings such as avoiding high-risk behaviors and criminal activity. For example, Hawkins and his colleagues at SSDP found that when they followed up with students at age 18, the full-intervention participants were 11.4 percent less likely than the control group to have committed a violent, delinquent act. They were significantly less likely to have drunk heavily in the preceding year (15.4 versus 25.6 percent), less likely to have engaged in sexual intercourse and to have had multiple partners (72.1 versus 83.0 percent), and less likely to have been pregnant or have caused a pregnancy (17.1 versus 26.4 percent) (1999).

Risk factors for disengagement include structural elements such as: low socio-economic status, minority, urban residence (Johnson et al., 2001) and age (i.e., engagement diminishes as the child grows older) (Fredricks and Eccles, 2002). A child’s mental and physical well-being also has been shown to impact school functioning (National Research Council & Institute of Medicine, 2004), as has self concept (Murdock et al., 2000). Certain behaviors also coincide with poor engagement: school misconduct and criminal activity, substance use and un/under-employment (Jenkins 1995; National Research Council & Institute of Medicine, 2004).
The characteristics of the school environment are also related to student engagement. Research indicates that racial/ethnic composition of school (i.e., a child who is a member of a minority group is more likely to feel like an outsider and is more likely to be disengaged); its size and school culture (i.e., the large, bureaucratic school appears to hurt school engagement); physical conditions and resources are associated with student engagement (Finn and Voelkl, 1993). Researchers have found that students tend to exhibit exemplary engagement most frequently in schools where positive and respectful student-teacher relationships are fostered and where curriculum is “customized” to meet the needs and interests of the student (National Research Council & Institute of Medicine, 2004). Additionally, successful outcomes appear more frequently where students have opportunities to experience the importance of today’s schoolwork for tomorrow’s aspirations, typically through strong ties among schools, community groups and families (National Research Council & Institute of Medicine, 2004; Fredricks et al., 2004).

1.5 The Psychology of the Matter: Conceptual Framework
Through a thorough literature review, researchers at the National Research Council and the Institute of Medicine have identified a core set of psychological mediators for student engagement (2004). Please see Figure 1.2.
Figure 1.2 Conceptual Engagement Framework
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These include “I can” i.e., child feels capable of and competent in completing the assigned schoolwork, “I should”, i.e., child shares educator’s value for learning, and “I want to,” i.e., child knows and desires the outcomes of academic performance. By applying multiple theories from psychology, the power of each lever is understood.

The three “engagement levers” do not map one-to-one onto the three engagement components (i.e., cognitive, behavioral and affective) but may instead influence each. For example, suppose that praise from a teacher successfully leverages the “I can” lever, effectively increasing cognitive engagement by reinforcing the student's perceived ability to complete the task. It may also create affective engagement through the “warm glow” gained through the positive interaction. Lastly, the knowledge that success at school is recognized by respected adults, might possibly increase the student's behavioral engagement (e.g., finishes more assignments) to gain more positive recognition.

“I can”: Bandura's Concept of Self-Efficacy

An important concept in learning and motivation theory is self-efficacy, people’s sense of “I can:” the beliefs about their abilities to perform and exert control in order to reach a goal (Bandura, 1997). Bandura postulates that self-efficacy shapes how people feel, think, motivate and behave; he argues that the motivation for behavior is one’s own sense of capacity to act (1997). People with strong perceptions of self-efficacy view difficult tasks as challenges and anticipate a competent completion, he contends. They feel that they can control the situation in order to succeed, enabling them to increase and sustain their efforts in the face of adversity, rebounding quickly in cases of failure. On the other hand, a poor or weak perception of self-efficacy leads people to expectations of failure and thus, a sense that challenges are threats to self-worth. People with low self
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efficacy tend to dwell on their personal deficiencies, presume an inability to control outcomes, and are less likely to persist when encountering obstacles (Bandura, 1994).

According to Bandura, self-efficacy is derived from three sources. First, self-efficacy is instilled through personal experience of overcoming obstacles. As Bandura writes, “By sticking it out through tough times, [people] emerge stronger from adversity.” (1994) Additionally, self-efficacy can grow through observing the experiences of others. If these role models are perceived as coming from comparable circumstances and are forced to confront similar difficulties, their successes can, in effect, provide a foundation for the observers’ self-efficacy by providing proof that these hurdles are surmountable. Finally, self-efficacy develops through social persuasion, that is, external affirmation of one’s abilities and skills. As Bandura writes:

People who are persuaded verbally that they possess the capabilities to master given activities are likely to mobilize greater effort and sustain it than if they harbor self-doubts and dwell on personal deficiencies when problems arise. To the extent that persuasive boosts in perceived self-efficacy lead people to try hard enough to succeed, they promote development of skills and a sense of personal efficacy. (1994)

Self-Efficacy and Student Engagement

Bandura underscored the relationship between self-efficacy and academics when he identified school as the primary location for the “cultivation and social validation” of a child’s sense of cognitive capacity (1994). In school, self-efficacy is built and undermined, impacting student attitudes and educational outcomes. Students with a higher sense of self-efficacy are more likely to be engaged, to persist in difficult tasks and seek higher education (Bandura, 1994). Researchers have observed a reciprocal relationship between academic achievement and a child’s self-concept: prior
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performance affects self-concept that then influences future achievement (Redd, Brooks and McGarvey, 2001). Other studies have found that students who perceived lower levels of barriers report higher school engagement levels and higher career aspirations (See Kenny et al., 2003).

Role models, particularly one’s parents, matter. Parents’ educational ambitions and attainment affect students: children of parents who are more educated tend to pursue more schooling (Plug and Vijverberg, 2003). More specifically, a mother’s education attainment has a positive effect on school commitment (Jenkins, 1995).

Students also respond to the positive reinforcement that teachers provide in the classroom. When considering the National Longitudinal Study on Adolescent Health, researchers found that the students who were more committed to school were those enrolled in schools with a more positive classroom management climate, defined as classes where students report that they get along well with their teachers, pay attention, and get along with other students (McNeely, Nonnemaker and Blum, 2002).

Frustration-Self-Esteem Model

The Frustration-Self Esteem Model provides another lens through which to understand the role of self esteem and efficacy in student engagement (Finn, 1989). Finn posits that unsuccessful school outcomes reduce students’ self esteem. As a result, the problem behavior increases as a “way of coping with social stigma and loss of self-esteem associated with failure” (Finn, 1989, p.121). Problem behavior then leads to further unsuccessful school outcomes and the cycle exacerbates until the adolescent withdraws or is removed from the school environment.
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The cycle can be disrupted, however, by improving school practices to increase student performance and self-esteem (Finn, 1989). One study provides some evidence: Gold and Mann (1984) investigated student outcomes for a group of delinquent adolescents who attended three alternative high schools, which emphasized “an increase in the student successful school experiences and a warm, accepting relationship with one or more adults” (p. 11). When compared to a sample of similar students who attended conventional schools, the treatment students demonstrated improvement in their in-school behavior but not in their reading levels or self-esteem (Gold and Mann, 1984).

“I want to”: Motivation from the Holistic Viewpoint

Psychologists generally consider motivation to be an internal state or condition (e.g., need, want or desire) that “activates” behavior by energizing and determining its direction (e.g., the goal) and intensity (Huit, 2001). Multiple theories of motivation exist in the psychological literature. For example, behaviorists argue that biological responses to stimuli induce and direct behavior while cognitive psychologists focus on an individual’s internal processing.

A compelling theory of human motivation results from the holistic-dynamic point of view. Holistic theorists, most notably Abraham Maslow and Kurt Goldstein, argue that one needs to study an individual as an organized whole—unified, integrated, consistent, coherent and dynamic—rather than as a combination of separable and static parts. Overall, this unified “whole” is motivated by one “sovereign” drive, which gives “direction and unity to life” (Hall and Lindzey, 1970).

Maslow’s Hierarchy of Needs
Maslow identifies this “sovereign” drive as the want of unsatisfied needs (1954). He argues that human beings have two types of needs: basic (deficit) and growth (meta) needs, which are arranged in hierarchical order. Each of the lower deficiency needs must be fulfilled before a person can ascend to the next level. However, once these basic needs are met, they are no longer relevant. Maslow explains that people’s basic needs exist in homeostasis: when a person lacks a substance, she develops a hunger that stops when enough of the substance is obtained (Boeree, 2004). Growth needs, unlike our basic needs, are continually felt once they have been activated. These needs are placed in hierarchal order based on the extent to which they dominate the others. Please refer to Figure 1.3.

Figure 1.3 Maslow’s Hierarchy of Needs (1954)
At the bottom of the hierarchy are **physiological needs**, such as the need for food, air, water and health, which dominate all others. As Maslow writes, “For the man who is extremely and dangerously hungry, no other interests exist but food. He dreams food, he remembers food, he thinks about food, he emotes only about food, he perceives only food, and he wants only food.” (1970, p.38) However, once this person is no longer chronically hungry, higher needs come forward. The next set to emerge is **safety needs**: security, stability, protection, freedom from fear, anxiety and chaos. Maslow suggests that these needs motivate people’s acceptance of military rule or diminished civil liberties when law and order is threatened. Having fulfilled these needs, the person is then dominated by her desire for a **sense of belonging and love**. Humans are driven by the need for contact and intimacy to overcome the sense of isolation and loneliness. The final basic need category is **esteem**, the desire for self-respect as well as the respect of others. When esteem needs are unfulfilled, feelings of inferiority and helplessness are experienced.

Once these lower-level needs are mostly satisfied, humans ascend to their growth needs. These needs are equally potent, and like basic needs, are instinctual. Their frustration leads to feelings of alienation, apathy and cynicism (Hall and Lindzey, 1970). Originally, Maslow conceptualized only one growth need, self-actualization, which he describes as “self fulfillment, self-expression, working out of one’s fundamental personality, the fulfillment of its potentialities, the use of its capacities, the tendency to be the most that one is capable of being” (1943). Late in his career he further refined the level, separating out three additional growth categories: cognitive wants (*i.e.*, the need to explore and understand), aesthetic needs (*e.g.*, beauty, order and symmetry) (Maslow and Lowery,
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1998) and self-transcendence, the need to connect to something beyond themselves or help others to reach their potential (Maslow, 1971).

Applying Maslow’s Motivation Theory to Student Engagement
School children have achieved different levels within Maslow’s hierarchy. For children with deficiency needs, the drive to satisfy these requirements supersede all others; these needs are pre-conditions to motivation for cognitive wants and its related construct, school engagement. For children who have reached the level of growth needs, their motivation for knowledge pushes towards engagement but the strength of the drive is closely related to how these activities assist in their quest for self-actualization.

Basic Needs and School Engagement
While some efforts (e.g., reduced and free lunch programs) have been made to meet the most basic of children’s needs, there remain a substantial number of children who are struggling with poor nutrition and health. The Children’s Defense Fund (2003) estimates that close to 12 million children in the U.S. are poor and that millions are hungry and living in poor housing conditions. Additionally, serious emotional and behavioral issues are prevalent amongst today’s youth. Some three million adolescents struggle with depression; nineteen percent of high-school aged students reported on the 2001 Youth Risk Behavior Surveillance System that they seriously considered attempting suicide at some point in the previous year (Crockett, 2003). Most of these children are not receiving treatment: the Centers for Diseases Control report that only 36 percent of youth at risk for suicide during the past year received mental health services (ibid, 2003).

Others have fulfilled their physiological needs but are focused on finding a sense of security within communities characterized by violence and harassment; achievement
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possibly has little value when the probability of surviving until tomorrow is questioned. For instance, children tend to show lower academic functioning (e.g., lower achievement scores) after having been exposed to marital conflict, domestic abuse and maltreatment (for a review, see Margolin and Gordis, 2000). Juvonen et al. (2000) found that persistent peer harassment is associated with negative school outcomes, including frequent absences from school. Schwartz and Gorman (2003) found significant negative relationships between children’s reports of exposure to community violence and academic functioning (e.g., achievement scores and GPA).

Other children are seeking to fulfill their need for belonging, many of whom may believe that academic engagement undermines their goal of social connection. Goodenow’s (1992) study of 301 urban adolescents in two high schools supports this assertion:

…even after controlling for the impact of the immediate peer group’s or personal friends’ values, a student’s subjective sense of belonging in the school—of being liked, included, respected by teachers and others in the school—appears to have a significant impact on several measures of motivation, and through motivation on engaged and persistent effort in the difficult academic work. (1992, p.16.)

Furrer and Skinner’s work (2003) with 641 students in third to sixth grades provides further evidence: children with a high sense of school relatedness also have high levels of engagement, based on both teacher and student self reports. Additionally, some researchers cite the need for belonging as influential on perpetuating the engagement gap between minority and white children, albeit with much contention. Fordham and Ogbu (1986) suggest that African-American and Hispanic children are not as engaged as Caucasian children because they do not want to “act white” and lose their connection with their respective communities.
Yet other children may be focused on their esteem needs. Fulfillment of these needs have been shown to influence engagement levels of African American adolescents: when analyzing the National Longitudinal Study of Adolescent Health, Sirin and Jackson (2001) found that self esteem was positively associated with school participation and future educational associations. For some children, schoolwork may be difficult and can overwhelm the child with feelings of inadequacy. When these children fall behind in school, they may seek alternative ways to build their self-esteem. For instance, an adolescent may gain confidence from paid employment, which has been shown to be negatively correlated with student engagement (Bachman et al., 2003).

Growth Needs and School Engagement

After their basic needs have been met, according to Maslow, children are motivated primarily by their growth needs. While we expect to see higher levels of engagement across these children (i.e., so that they may satisfy their cognitive needs), variation in levels of engagement is still anticipated based on the extent to which engagement and achievement are incorporated in the child’s personal goals and aspirations. For example perhaps the “artistic-genius” and gifted athletic, who have reached the pinnacle level of self-actualization, remain disengaged from school because the academic activities do not facilitate the achievement of their ultimate goal of becoming a world famous painter and football player, respectively.

Additional Theoretical Motivation Concerns: Intrinsic Versus Extrinsic Motivation

Researchers focused on studying motivation distinguish between intrinsic motivation (i.e., desire to engage in behaviors for their own sake, such as studying for the joy of learning) and extrinsic motivation (i.e., task is completed only to gain the extrinsic incentive or rewards, such as studying to pass a test to get the monetary reward a parent
promises for an “A”). Within educational and social psychology, the prevailing concern has been that the use of incentives and rewards can undermine an individual’s intrinsic motivation (Cameron and Pierce, 1996). That is, extrinsic motivators might not alter in a positive manner the emotional or cognitive functioning, which underlies behavior. As some research has concluded:

Reinforcement (rewards) has two effects. First, predictably, it gains control of [an] activity, increasing its frequency. Second...when reinforcement is later withdrawn, people engage in the activity even less than they did before reinforcement was introduced. (Schwartz, 1990, p. 10)

However, a meta-analysis that considered 96 experimental intrinsic versus extrinsic motivation studies, found that overall, rewards do not decrease intrinsic motivation (Cameron and Pierce, 1994). When considering the interaction effects, the meta-analysis revealed a positive relationship between praise and intrinsic motivation. The one negative effect (i.e., intrinsic motivation decreases when reward is removed) that was identified occurred when rewards are given for simply engaging in a task and is not connected to the task’s successful completion. In these circumstances, once a reward is removed, individuals spend less time on the task than control group members (Cameron and Pierce, 1994).

“I Should”: Sense of Belonging and Group Membership in Student Society

Engagement, however, is more than academic motivation. It also concerns the degree to which a student accepts society’s valuation of academics and believes that school is important for success. The importance of accepting the larger group’s values is illuminated by Travis Hirschi’s Social Control Theory (1969, 1977). This theory, while criticized for a weakness in explanatory power for all forms of criminal behavior,
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remains prominent in the field of criminology (Welch, 1998) and is supported by considerable empirical research (Durkin, 1999).

Social Control Theory posits that people will engage in delinquent behaviors when their “social bonds”, their relationships with society’s members and institutions, are weak or lacking. Hirschi argues that four components shape these social bonds and determine an individual’s conformity with social norms: attachment, commitment, involvement and belief. First, the strength of an individual’s relationships or attachment to others guides behavior. The stronger the bond, the higher the value of the relationship is to the person. Individuals with strong and stable attachments or ties with other society members are less likely to break from societal expectations, which may harm their social bonds, while those with weak attachments likely care comparatively less about others’ wishes and are more inclined to deviate from group norms.

Secondly commitment, acceptance and investment in the normative paths for achieving goals, is important. It generates a fear of law-breaking, as it would threaten the person’s ability to enjoy the rewards of investment in social activities and institutions (Hirschi, 1969). For example, someone who has developed a positive reputation, earned a valuable degree and raised a supportive family would jeopardize all of these attributes by violating laws (Hirschi, 1969). Consequently, the more individuals invest time, energy and resources into complying with social norms, the less likely they are to participate in deviant behavior.

Thirdly, Hirschi identified involvement, the time spent in normative activities that grow one’s attachments and commitment. As he notes, “idle hands are the devil’s workshop.” He posits that “the child playing ping-pong, swimming in the community pool, or doing
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his homework is not committing delinquent acts”(Hirschi 1969, p.187). For this child, the opportunity for deviance is few.

The final component is belief, the degree to which the individual supports the moral validity of conventional norms. This includes the respect for law and authority. According to Hirschi, internalization, is critical (1969).

Applying Social Bond Theory to Student Engagement

Researchers have shown that each of Hirschi’s components of social bonds is significant to shaping student engagement and achievement. Attachment to family members matters. In a sample of African American adolescents from urban working-class backgrounds, students who perceived more social support from kin were less likely to exhibit problem behavior, more likely to be self-reliant and more likely to have higher grade point averages (Taylor, 1996). Additionally, researchers have shown that single parent families or stepparent families are critical factors in delinquency and poor school behaviors (Jenkins, 1995; Chilton and Markle, 1972; Gove and Crutchfield, 1982). Possibly, because single parents are likely employed full-time outside the home, they are likely to have less time to spend with their children as well as monitoring their behavior or getting involved in their schoolwork. As a result, they could have weaker bonds with their children. Likewise, stepparents may not feel obligated to become involved in their stepchild’s life (Jenkins, 1995). If true, then the child’s primary social bonds would be weaker, leaving the child more susceptible to school misconduct and delinquency.

School commitment too plays a role in student behaviors. In her sample of approximately 750 seventh and eighth graders from an urban-suburban middle school, Jenkins found through an analysis of survey data that students with higher school
commitment were less likely to participate in school crime and school misconduct (Jenkins, 1995).

Students involved in their school community through extracurricular activities such as music, academic clubs and sports, tend to be more engaged in their academics, have higher grades and more consistent attendance (Lamborn et al., 1992; Finn, 1993; National Center for Education Statistics, 1995). For example, Jordan and Nettles (2000) found evidence suggesting that participation in structured activities in tenth grade had statistically significant positive effects on education outcomes by the senior year, including participation in class and academic achievement in math, based on an analysis of the National Educational Longitudinal Study of 1988 (NELS: 88). When examining another national sample of students in the National Longitudinal Study of Adolescent Health, researchers found that students who participated in extracurricular activities had stronger connections with their school (McNeely, Nonnemaker and Blum, 2002).

Finally, belief in school, the identification with one’s school community, is also linked to school success: students who are at-risk for dropping out of school are less likely to identify with their schools or accept the values and norms that they promote (see Davalos et al., 1999; Srebnik and Elias, 1993).


In his review of school dropout literature, Finn (1989) describes the “Participation-Identification Model.” He argues that successful students have developed a greater sense of identification with school than those who are less successful. This identification has two parts: belonging and valuing. Students who identify with their school feel that they belong there and value the academic experiences the school provides. Accordingly,
they accept school-related aims as their own: they feel they “should” strive to succeed in academics (Finn, 1989). As he writes:

First, students who identify with school have an internalized conception of belongingness—that they are discernibly part of the school environment and that school constitutes an important part of their own experience. Second, these individuals value success in school-relevant goals. (Finn, 1989, p. 123)

In addition to identification with school, participation too is critical to student engagement: a student who maintains “multiple, expanding forms of participation in school-relevant activities” is more likely to graduate from high school (Finn, 1989, p. 117). Accordingly, efforts to increase students’ sense of belonging and connectedness to school as well as expanding their participation in school activities, are critical. For example, preschool education, including the Perry Project (Berrueta-Clement et al., 1984) facilitates student participation during a child’s preschool years, which can grow into other forms of pro-school behaviors as they age, such as better attendance and more homework completion.

Policy Making Value of the Conceptual Framework

While individual characteristics, including age, gender, SES, and ethnicity, clearly have an effect, the engagement levers are ripe targets for policies intended to influence academic engagement. These mediators are formed and reshaped by interactions across the child’s particular situation, which is strongly influenced by family, school, and the greater community. For example, teachers who hold high expectations may elevate their students’ sense of “I should” and “I can” while the respect for these teachers may influence the “I want to.”
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Once the engagement levers are activated, they can then push the child forward to engagement, which then might feed into a cycle of successful learning. High engagement can lead to higher achievement, and can motivate a child’s educational stability (e.g., decreased truancy), which may then feed the students’ engagement (i.e., the child is better prepared to understand a subsequent lesson and is thus more involved with activities). In concert, the child’s engagement, achievement and stability cycle provide the necessary skills and aspirations that can lead to successful adulthood (National Research Council & Institute of Medicine, 2004).

Upon these theoretical foundations, successful interventions will develop. A number of programs have demonstrated some success in improving student engagement. Many of these interventions appear to have put theory into practice by using the tools implied by Figure III. They appear to work by “activating” one of the engagement levers, the “I should,” “I can” and “I want to,” to achieve measurable improvement in student engagement levels. Below, interventions that influence the three levers are discussed.

Influencing the “I Want To” Lever

Maslow’s Hierarchy of Needs has lent guidance to researchers by directing their efforts to a variety of student deficiency and growth needs that affect student engagement. Depending on the needs level to which a child has reached, an intervention may or may not be connected to what is traditionally considered educators’ work.

In terms of Maslow’s basic needs, a number of interventions work to fulfill the children’s physiological needs for health care, food and safety. Community schools, where a school is used as a “hub” for educators, families, community volunteers, businesses, and social service agencies, have improved student outcomes by targeting these needs. For
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instance, the O'Farrell Community School for Advanced Academic Studies in San Diego, California has devoted one wing of its school to house more 25 community partners who address the students’ physical, social and emotional needs. It provides services including tutoring and mentorship programs, mental health counseling, parenting classes, job preparation classes and cooking classes. The Family Support Services also work to meet students’ esteem needs, by providing programs that build self-awareness, self-esteem and personal planning (Loveland, 2002). The school attributes the provision of health and social services with better student outcomes including reduced absenteeism and school detentions (Coalition for Community Schools, 2004).

Possibly, students also need to feel safe and comfortable at school before they are prepared to learn. Chicago’s Annenberg Project, which sought to improve Chicago’s public school system, likely achieved success by addressing Maslow’s safety need. One elementary school used the resources provided by the grant to make substantial improvements in the school’s space and environment. The chaos and high noise levels were minimized as teachers were given permanent classrooms and order was restored to the facility. Researchers of the Annenberg Project observed that both teachers and students were more enthusiastic and invested in school immediately after the improvements (Smylie et al., 2003).

Programs too have succeeded by focusing on the student’s need to feel accepted and esteemed by others, Maslow's need for love and belonging. An example is the Big Brothers Big Sisters of America (BBBS) program. Intent on building supportive relationships that enable youth to “realize their potential,” the program matches adult mentors, who commit three to five hours a week for at least one year, with children demonstrating certain risk factors (e.g., residency in a single-parent home, a history of abuse).
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Evaluators found that following eighteen months of the program, participants earned slightly but significantly higher grade point averages (2.71 vs. 2.63) and were 52 percent less likely to skip a day of school than the control group. The effect was more pronounced for girls: female participants skipped 84 percent fewer days of school than the control group. They also earned on average a higher grade point average than the control’s female students: 2.84 versus 2.67 (Tierney, Grossman and Resch, 1995).

**Influencing the “I Should” Lever**

Social bonds too have been emphasized by interventions. The Seattle Social Development Project advances student engagement by pursuing a risk-reduction and skill-development strategy intended to connect students with their families and teachers. The program is built on the social development model, which argues that students develop strong bonds with their families, teachers and schools when they are provided opportunities for greater involvement in their families and schools’ lives.

Males participating in the program in their first and second grades demonstrated fewer anti-social behaviors and were in particular less aggressive than the control group. Girls in the treatment group were significantly less self-destructive than girls in the control group (Hawkins, von Cleve and Catalano, 1991). After the fourth year of intervention, the treatment group reported significantly lower rates of alcohol initiation than the control sample (21 versus 27 percent) and reported less delinquency initiation (46 percent versus 52 percent) (Hawkins et al., 1992). By the sixth grade, low-income students in the treatment group showed measurable improvement in school-related outcomes. Boys in the treatment group were rated more socially competent by teachers and had significantly higher grades and scored higher on the standardized tests than the control group students (O’Donnell et al., 1995). By the time the students who had participated in the full intervention (in grades one through six) reached age 18, they
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were significantly less likely to have repeated a grade (14 versus 23 percent); were significantly less involved in school misbehavior such as skipping class, cheating or being removed from the classroom (3 percent versus 5 percent); and had earned moderately higher overall grade point averages (2.42 versus 2.18) (Hawkins et al., 1999). Finally, by age 21, the full-intervention students were significantly more likely to have graduated from high school (91 percent versus 81 percent) (Hawkins et al., 2005).

Another program that has focused on building meaningful, long-term relationships between students and adults to improve academic outcomes is the Quantum Opportunity Program. This intervention provides comprehensive case management to participating socio-economically disadvantaged students for the four years of high school. In exchange for stipends and bonuses, the participating students complete 250 hours of activities each year in each of three areas: education, development, and community service. The program’s evaluators found that after the second year of the program, the average test scores of the participants were significantly higher in five of the eleven academic and functional areas: vocabulary, comprehension, mathematics computation, mathematics concepts and language expression (Hahn et al., 1994). In comparison to their control group, the participants were significantly more likely to graduate from high school (63 percent versus 42 percent) and more likely to pursue post secondary school (42 percent versus 16 percent) (Hahn, 1999).

Influencing the “I Can” Lever

Bandura’s theory concerning self efficacy too has been an important tool for intervention designers. One example is the Coca Cola Valued Youth Program, a dropout prevention program that began more than twenty years ago. The Intercultural Development Research Association (IDRA), a non-profit based in San Antonio, Texas, created this program with the financial support of the Coca Cola Corporation and its Foundation.
Compelled by IDRA’s leader Jose Cárdenas’ tutoring experiment in the Edgewood School District, an overwhelmingly poor, Latino/Hispanic district in San Antonio, the nonprofit pursued an innovation in dropout prevention: it created a cross-age tutoring program. IDRA saw much potential in a program that placed “at risk” secondary students—those students at the bottom achievement quartile or at least two years behind their grade level—as tutors for elementary school children.

The program activities address the three sources of self-efficacy identified by Bandura: consistent positive reinforcement of each student’s value and ability to succeed, personal experience in achieving success, and demonstrations of success by community role models. The tutoring experience may provide the opportunity for the older students to gain self-esteem from their position of responsibility, as well as skills from the tutoring classes, which together may motivate them to overcome the obstacles to remaining in school. In return, the younger students gain from the insights and experiences of their tutors, the Coca Cola “Valued Youth” (IDRA, 2004). The program also introduces the students to powerful role models who have come from similarly distressed backgrounds. These adults share their struggles with the students and show them how they persevered and have created successful lives. All the while, the program coordinators provide constant, positive reinforcement to the students.

Additional Policy Solutions: Developmentally Focused Interventions

While the engagement levers provide guidance for intervention work, other tactics for engaging students should be mentioned. For instance, it is possible that behavior may change without targeting a specific set of behaviors but by facilitating the adolescent’s overall development (e.g., Youniss and Yates, 1997; Hedin and Conrad, 1990). Such techniques are commonly called “service learning,” which integrates community service with learning to benefit both the student participant and the community at large. By
focusing on broader development issues, some postulate, multiple problem behaviors that are interrelated may be changed.

Teen Outreach (TOP), a national volunteer service program, utilizes this emphasis on students' overall development to prevent teenage pregnancy and improve school outcomes. The intervention seeks to engage adolescents in structured, volunteer community service that is linked to classroom discussions concerning the volunteer activities as well as future life options, including career goals and relationship issues (Allen et al., 1997). Students participate in at least 20 hours of volunteer service a year, such as peer tutoring and work as aides in nursing homes. They also attend a weekly class in which trained facilitators help them prepare for their volunteer work as well as discuss the personal issues affecting the students (e.g., family stress, human growth and development, and the issues relating to the social and emotional transitions from adolescence to adulthood).

The Program was evaluated in an experimental study where high school students of diverse backgrounds (n=695) in 25 sites nationally were randomly assigned to the program or a control group. Both groups were assessed at the beginning of the program and at the end of the school year. The study showed that the participant students had substantially lower rates of pregnancy, school failure, and academic suspensions than the control group, even after accounting for differences in students' social and demographic characteristics (Allen et al., 1997).

1.6 Dissertation Organization
The remainder of this dissertation focuses on the Coca Cola Valued Youth Program and its implementation in Santa Monica Malibu Unified School District. In chapter two, the
program is described in further detail and the research methods for evaluating the program are outlined. In chapter three, the outcomes from the pilot test are reviewed. Chapter four considers the ramifications of the program's implementation on the students' outcomes. Finally, chapter five discusses the lessons provided by this case study and identifies areas for future research.
Chapter 2
Dissertation Research Questions, Hypotheses and Methods
Confronting the Challenges of Student Engagement

I have ever found, the surest way to cure a mischievous boy was to make him a monitor [tutor]. I never knew anything succeed much better, if as well.
— Joseph Lancaster, 1803

The Coca-Cola Valued Youth Program (CCVYP), as introduced in chapter one, is an intervention designed around Bandura’s self-efficacy principles. It is a cross-age tutoring program with a twist: the “at-risk” middle school students are placed as tutors. The program intends to recognize the tutors as leaders, show them how valuable they are and help them discover their own sense of confidence. And, as many a new teacher have discovered, providing instruction enables the student-tutors to develop a deeper, more complete understanding of the basic school lessons.

The remainder of this dissertation focuses on evaluating the outcomes resulting from the first year of CCVYP’s implementation in Santa Monica, California and examining the process of its implementation. In this chapter, the program is first described in detail. Secondly, the research questions and hypotheses for the study are discussed. Finally, the methods used to answer the research questions and test the hypotheses are outlined.

2.1 CCVYP Program Components and Strategies

Several programmatic components and intervention strategies are critical to the CCVYP. They are reviewed below.

“Valuing” Each Child

The Intercultural Development Research Association (IDRA) established a set of values to guide the program’s everyday functioning and to inform every interaction with the students. At the core is the belief that all children can learn and are valuable. All
students can actively contribute to their own education and to the education of others. Furthermore, excellence in schools contributes to individual and collective growth, stability and advancement and when provided with extensive, consistent support, all students will succeed (IDRA, 2004).

The task of recognizing the value of each child and the efforts that they make as tutors is accomplished in a straightforward way: they are paid for the time spent with the younger children. To emphasize its importance, the first paycheck is delivered in an evening event in front of the tutors’ families, teachers and school administrators. Tutors are also to be recognized in other less tangible ways. For instance, each site is to celebrate its students’ achievements in an annual end of the year banquet that is attended by tutors, teachers, parents and administrators. One tutor is selected from each school to be honored as tutor of the year. This individual is chosen based on the evaluations of the teacher coordinator, the elementary school teachers and the tutors themselves, in addition to the adolescent’s own academic progress.

Tutoring
The program’s activities center on the students’ tutoring responsibilities. During the school day, the tutors walk to a nearby elementary school. Here they spend between four and eight paid hours a week with up to three tutees, who are minimally four grades lower than the tutor, for the school year. Three “little ones” are identified so that the tutor is assured of having a child to tutor, regardless of the elementary students’ absences or mobility. The elementary school teachers select the tutees according to the guidelines identified by IDRA: these students should need some extra assistance but not be too greatly at risk. The tutors provide instruction and encouragement to these
younger students in many subjects, including reading and mathematics. In return, tutors are to receive course credit and a stipend.

To prepare for the work and ensure their tutoring success, all tutors are to participate in a weekly “reflection day” with the secondary school’s teacher coordinators. They develop their tutoring and communication skills, improve their reading, writing and other academic abilities, as well as build their self-confidence. In these sessions, the students also share their tutoring experiences with each other and write journals to practice their communication skills and learn from each other’s experiences. Teacher coordinators also use this time to mentor the students; they follow each tutor’s academic progress, attendance and disciplinary issues closely and work to keep the adolescents on track.

“Vicarious Experience” Through Role Models and Field Trips
Additionally, educational field trips are required. These excursions are meant to enable students to gain exposure to the variety of opportunities that exist in their community. They visit educational sites, including colleges and universities, as well as observe a variety of professional activities. In so doing, these field trips are intended to help students connect what they are learning in school with what will be expected of them as working professionals. To further develop the student’s “career awareness,” role models—individuals who share a similar background with the tutors—are invited to speak. These individuals share with the students how they have overcome barriers to succeed in their particular fields of expertise.
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Support Strategies
The program is supported by five components: curriculum, coordination, professional support, family involvement and evaluation. The curriculum for the program is designed to prepare tutors to work with elementary students by focusing on their tutoring and academic skills as well as by bolstering their self-concept. The program provides structure through a general framework and a tutor workbook for teacher coordinators to use. The curriculum emphasizes student problem solving and reflection. Teacher coordinators are given broad latitude in determining how to prepare the students so that they are able to customize their instruction to a child’s many talents, challenges and goals.

Coordination is the responsibility of the school’s implementation team, which consists of the teacher coordinators, school counselors, evaluation and family liaisons, and school principals. Communication and coordination must be well planned and the roles and responsibilities of the team members should be clearly defined. The implementation team meets regularly to discuss the progress of the program, to trouble shoot or make necessary changes to modify the program to the site.

Additionally, opportunities for professional development and support are to be provided. All the project staff must be dedicated to the program’s success; to foster this support, extensive training is provided both before and during the program. Training focuses on understanding the program’s philosophy and instructional components so that coordinators can create a “climate” for success. Additionally, professional development covers issues such as program operation and logistics. Importantly, it teaches practitioners how to use the results from program evaluations.
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Family involvement too is critical. IDRA recognizes that Latino children traditionally have had tight connections with their families and wants to utilize these strong networks to influence student engagement levels. Families assist by providing information regarding how the program’s goals and requirements should be modified to better fit the needs of each particular site. Families also receive support through outreach visits to the tutor’s homes that supply the needed information, support and attention to ensure the students’ success.

Finally, rigorous program evaluation using both quantitative and qualitative techniques is critical. Continual monitoring enables timely corrective action as well as documents the impact of the program’s implementation. This data is then augmented with staff member debriefings after a visit to a site school.

2.2 Theoretical Foundation of the CCVYP

The CCVYP program is expected to be effective by activating each of the three engagement levers: “I can,” “I should,” and “I want to.” The intervention attempts to increase a students’ sense of “I can” through the tutoring experience. Following the Frustration-Self-Esteem Model described by Finn (1989), the students are prepared for the task through classroom work, which then translates into successful tutoring interactions. These positive experiences within the school environment build student self-esteem and reduce the incentives for problem behavior. Following Bandura’s self efficacy work, the recognition events and informal praise serve to reinforce the students’ developing self efficacy, while the guest speakers demonstrate how success can be achieved. Hopefully, an increased sense of “I can” then helps to reduce absenteeism, disciplinary frequencies and tardies, while improving classroom citizenship.
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The program intends to increase students' sense of “I should” through strong bonds that are built and reinforced among the tutors and the teacher coordinators. These bonds will likely facilitate students' acceptance of school norms through attachment and identification, helping these students accept school as personally important. Stronger attachment to school then might improve students' grades and work habits as well as standardized test scores. Additionally, the role modeling inherent in tutoring too might affect the students' school values. As they ask the elementary school tutees to focus, they might internalize this message: if they are to ask others to study, then perhaps they too should complete their assignments.

Lastly, the program attempts to motivate students towards school activities; it leverages the “I want to” lever by exposing the students to the opportunities that are available through education. Specifically, the field trips and guest speakers should help provide incentives for completing school. Desire to learn will likely appear in students' attitudes about school as well as their future ambitions. While some psychologists might be concerned with the effect of the monetary rewards on the students' intrinsic motivation, the tutor's stipend is intended to emphasize the value of the students' contribution in terms most easily accepted in American culture: payment for a job well done. Furthermore, the pay is not used as a reward for improved student engagement or academic grades.

2.3 Published Results
The program has shown promising results in reaching “at-risk” students according to IDRA’s internal evaluations. In 1992, the group evaluated the program using a quasi-experimental design. Both the tutors and their comparison students were selected from the same pool of “at-risk” children in San Antonio who had limited English proficiency
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and who read below their grade level on a standardized achievement test. Tutors were first selected, primarily on the basis of their availability, while the comparison group was randomly selected from the remaining students. At baseline, these groups looked almost identical in terms of ethnicity, average grades and self-concept scores, except that more of the treatment group participants were eligible for free lunch (i.e., were of a lower socio-economic status).

IDRA collected data regarding school completion, reading grades, self-concept and attitudes towards school at four points in time: before tutoring began, during implementation and at the end of the first and second years of the program’s implementation. They found that after two years of participation in the program, tutors had a lower dropout rate than the comparison group (1 percent versus 12 percent), showed greater gains in reading grades, had higher self-concepts and had established better attitudes toward school (Cárdenas et al., 1992).

In addition, IDRA has estimated that fewer than 2 percent of its participants over the last decade have dropped out. Specifically, during the 1996-97 school year less than 1.2 percent of Valued Youth tutors dropped out of school, compared to the reported national dropout rates of 29.4 percent for Latino students and 11 percent for students overall (IDRA, 2003).

Limitations of the CCVYP Evaluation

While the one evaluation of the program appears promising, its limitations mean that more research is required before CCVYP’s efficacy can be confidently and scientifically characterized. This one published evaluation was completed by the organization that created it: conflicts of interest are naturally in play, causing the reader to question the
study’s conclusions. Secondly, the study considers an implementation of CCVYP in San Antonio only. Focusing on this one city raises questions regarding the generalizability of the results to other locations considering the program. Another limitation was the nonrandom assignment so that the issue of selection bias is a deep concern. Furthermore, CCVYP is a fairly complicated intervention that calls for the coordination of multiple individuals to ensure all the program’s component parts function together properly. A demonstration partner—a school willing to take a gamble on CCVYP—was needed. Santa Monica’s John Adams Middle School stepped forward.

2.4 The Santa Monica Valued Youth Program

Energized by the results experienced in San Antonio and the program’s close alignment with his personal education philosophy, Santa Monica-Malibu Unified School District (SMMUSD)’s superintendent decided to implement the Valued Youth Program in Santa Monica, California. He quickly earned the school board’s endorsement for starting the program in Fall 2005.

The plan was to follow the Value Youth Model developed by IDRA. The program coordinators would recruit and select 30 “at-risk” seventh and eighth graders at John Adams Middle School (JAMS) and send them to Will Rogers Elementary School (WRES) to tutor kindergarten through third graders. Tutees would be selected by their teachers, who would volunteer to welcome the adolescent tutors into their classrooms. The tutors would join the elementary students in their classrooms three times a week to assist them with their studies. Tutors would meet with a teacher coordinator, who would provide training and resources for the tutoring sessions as well as attend to the tutor’s particular academic and social needs. The contributions of the tutors would be recognized in a number of ways, including a stipend, course credit, and a variety of awards provided at
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regular evening ceremonies with parents and administrators. The tutors would also participate in field trips and meet with role models from their community.

In a departure from the original Valued Youth Program, SMMUSD wanted to pair each tutor with a “business mentor” identified through the superintendent’s relationships with the local Rotary Club. This community member would nurture a relationship with the tutor through regular contact and provide “real life” advice, such as how to open a bank account, how to organize a budget and how to dress on the job. The intent was that this relationship would extend and strengthen the student’s professional ambitions, providing a practical motivation for scholastic achievement.

The superintendent was excited by the potential of the program and its emphasis on celebrating the value of all children. It offered a solution to one of the district’s most pressing issues: the stark disparities in school attitudes, motivation and academic achievement across the community, closely paralleling the lines of race, ethnicity and socio-economic status. Plus, a graduate student would provide an external evaluation of the pilot for the Santa Monica Valued Youth Program to determine how effective the program would be in his school district.

2.5 Dissertation Objectives: Evaluating the Process and Program

The research that follows explores the implementation process and programmatic effects of this school-based intervention to influence secondary students’ academic engagement, the behaviors, psychological processes and emotions critical to student learning. Specifically, it tracks the progress of Santa Monica’s adaptation of the Valued Youth Program, from its conception through adoption, in a school district of marked diversity. Each step is examined with a critical eye to how the process and the political
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players, both internal and external to the school system, facilitate or impede the program’s final form and its ability to affect student engagement. At its core, it evaluates the outcomes of the program using a quasi-experimental design, conducting pre and post tests with a treatment group as well as with comparison group. It assesses the effectiveness of the program to influence intermediate student engagement outcomes, including attendance, engagement, disciplinary issues, and achievement (e.g., grades) over the course of its first year. Once the program’s impact has been defined, it considers how real-world implementation issues played in shaping the results. Lastly, it concludes with suggestive findings to provide guidance for policy makers as they implement and sustain school-based programs for student engagement.

Research Questions

As with all programmatic evaluations, the central line of inquiry begins by looking at the outcomes to see how likely an implementation is to replicate the results observed in San Antonio. To address this goal, the research considers the following evaluation questions:

- How effective was the program?

- Did the program make a measurable difference in terms of the participants’ student engagement and its correlates, including attendance, disciplinary rates, grades, standardized test results and self confidence?

The outcomes themselves, however, do not tell us how the desired results were achieved or delayed. If the program were successful, how did it make a difference? If it were not successful, how do we account for this failure? For this analysis, the implementation
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process itself must be taken apart, piece by piece. Specifically, the following research questions are considered:

− How did policymakers identify and define the problem? How was this program selected as a possible solution? Was this an appropriate choice?

− From whom did the policymakers need to ensure project “buy-in”? How did policy makers garner and maintain the necessary support from these constituencies in a community characterized by diversity in socio-economic status, race and ethnicity?

− How faithful was the implementation to the original plan? What trade-offs were recognized by the different constituencies? How were competing priorities negotiated? To what degree did these issues affect how the program is delivered and received?

− Reflecting on the process and outcome of the first year program implementation, how can policymakers improve their chances of implementing an effective, school-based program?

Measurement Model: Outcomes Analysis

The program’s efficacy likely depends on its ability to initiate the three engagement levers presented in the conceptual model. The tutoring responsibility is meant to increase the adolescent’s sense of “I should” (i.e., I need to learn because I will need to teach) while the tutoring classes should enhance the adolescent’s self concept (i.e., “I can”) by strengthening the tutor’s academic skills, providing rewards and recognition
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for jobs well done, and exposing the students to strong role models. The mentoring work with the teacher coordinators as well as the field trips are intended to increase the student’s desire to learn (i.e., “I want to”). See Figure 2.1.

![Diagram of Engagement-Achievement-Stability Cycle]

**Figure 2.1 Measurement Model**

A number of proxies are available to identify the program’s effect on both the mediators and the desired outcomes in the Engagement-Achievement-Stability Cycle. Several metrics are identified on Figure V; those in black are considered in this study. The outcomes analysis will focus on the school record and survey data, comparing pre and
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post test results as well as the results of the treatment group with its comparison group. Specific school record data available for the study include the following information from before the program began (end of academic year 2004-5) and then again after (end of academic year 2005-6):

- Absences, including those excused, unexcused, and total number;
- Tardies;
- Overall disciplinary action frequencies;
- In-school suspension frequencies;
- Out-of-school suspension frequencies;
- Cumulative grade point averages;
- Math and English/Language Arts grades;
- Math and English/Language Arts citizenship marks;
- Math and English/Language Arts work habits marks; and,
- Math and English/Language Arts state test (CST) results.

Additionally, two surveys were administered to the treatment and comparison groups: Quality of School Life Survey and the Piers Harris Survey. The first provides a tool to measure student attitudes while the second focuses on defining the survey taker’s self concept. Students in the treatment and control groups completed these surveys at two points in time, in Fall 2005 and Spring 2006. This data is supported by interviews with students and the program’s adults, which were conducted several times during the year, checking to see whether any changes have been observed in student attitudes and behaviors. Lastly, the teacher coordinators assess the tutors according to fifteen items
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such as their interest in school, their relationships with teachers, administrators and counselors and future goals, at the beginning and at the end of the school year.

2.6 Research Methods
A quasi-experimental research design is applied to evaluate the impact of the pilot Valued Youth Program on disengaged youth at John Adams Middle School. The control group comprises the students who were eligible for the program (i.e., had a Spring 2005 grade point average of less than 2.0) but who were not enrolled in the intervention. Pre- and post-test data were collected where possible to facilitate the identification and comparison of changes occurring across the school and within the confines of the program.

Quantitative Outcome Measures
Both quantitative and qualitative data were collected from students at two points in time. School records from the end of the previous academic year (2004-5) and then again at the end of the program’s first year (2005-6) were extracted for students in both treatment and comparison groups. School record data considered are: California Standards Test (CST) scores in Language Arts and Math; end of year grade point averages (GPAs); letter grades (teachers’ assessments of classroom behavior) in English-Language Arts and Math; citizenship marks (teachers’ assessments of classroom behavior) in English-Language Arts and Math; work habits marks (teachers’ assessments of student effort) in English-Language Arts and Math; overall disciplinary actions (frequency); disciplinary frequency resulting in out of or in-school suspensions; total and unexcused absences; and number of tardies. As the CST scores from 2005 were not yet available for the program coordinators’ to use when selecting students into the program, scores from 2004 were utilized as the baseline indicators.
In addition to the academic and behavior metrics, students were asked to complete the *Piers-Harris 2 Children’s Self-Concept Scale* (Piers, Harris and Herzberg, 2002) in Fall 2005 and again in Spring 2006. This survey is a self-administered 60-item questionnaire that is designed to assess how youth feel about themselves. Results are broken down along six sub-scales: students’ behavioral adjustment, intellectual or school status, physical appearance, freedom from anxiety, popularity and students’ overall happiness or satisfaction. Please see Appendix I for further information on this scale.

Students in both groups also completed the *Quality of School Life Scale* (Epstein and McPartland, 1976), a self-administered 27-item survey designed to measure student attitudes according to three dimensions: satisfaction with school in general, their commitment to class work and their attitudes towards teachers. Please see Appendix II for further information regarding this scale. It should be noted that this scale provides only a partial measure of student engagement. That is, it only addresses student attitudes and does not consider student behaviors that are indicative of engagement level.

Teacher ratings of non-academic performance were available as well. A program coordinator for the Santa Monica Valued Youth rated the tutors in Fall 2005 and Spring 2006 according to fifteen different criteria: self-concept; disciplinary record; academic achievement; attendance; interest in class; interest in school; future goals; ability to socialize with school-mates; ability to socialize into school environment; relationships with parents; desire to graduate; relationships with teachers, parents, administrators and counselors; and hygiene/dress.
Lastly, all tutors were interviewed in Fall 2005, while twelve follow-up discussions were conducted in Spring 2006. In addition, Spring 2006 interviews were held with ten students from the comparison group.

*Program Participants: Middle School Students*

Following the mission set by the district administrators, the program coordinators identified a pool of nearly 150 seventh and eighth graders as eligible participants for the program according to one metric: their last semester 2005 GPAs were below 2.0. The selection team purposively-selected 31 participants from this pool based on the appearance of general aptitude, as proxied through nearly basic proficiency scores on the California’s Standards Test (CST), but without the will, which the group defined as poor grades, spotty attendance records and/or frequent disciplinary issues. Importantly, the coordinators wanted to include the youth who were unlikely to receive assistance and support elsewhere. All eligible students who were not selected into the program became the program’s comparison group.

The coordinators purposeful selection process resulted in assigning a treatment group that at baseline looked somewhat different than the control group as a whole. See Table 2.1.
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Table 2.1 Student Demographic Attributes*

<table>
<thead>
<tr>
<th></th>
<th>Treatment ( n=31 )</th>
<th>Comparison ( n=107 )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n )</td>
<td>%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>38.7</td>
</tr>
<tr>
<td>Male</td>
<td>19</td>
<td>61.3</td>
</tr>
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<td><strong>Race &amp; Ethnicity</strong></td>
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<td></td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>23</td>
<td>74.2</td>
</tr>
<tr>
<td>African American/Black</td>
<td>4</td>
<td>12.9</td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>3</td>
<td>9.7</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Grade</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7th*</td>
<td>5</td>
<td>16.1</td>
</tr>
<tr>
<td>8th*</td>
<td>26</td>
<td>83.9</td>
</tr>
<tr>
<td><strong>SES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free or Reduced Lunch*</td>
<td>23</td>
<td>74.2</td>
</tr>
<tr>
<td>Full Paid Lunch*</td>
<td>8</td>
<td>25.8</td>
</tr>
<tr>
<td><strong>Language Status</strong></td>
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<td></td>
</tr>
<tr>
<td>English Learner (any level)</td>
<td>16</td>
<td>51.6</td>
</tr>
<tr>
<td>Intermediate English Learner</td>
<td>4</td>
<td>12.9</td>
</tr>
<tr>
<td>Advanced English Learner*</td>
<td>7</td>
<td>22.6</td>
</tr>
<tr>
<td>Bilingual</td>
<td>5</td>
<td>16.1</td>
</tr>
</tbody>
</table>

*Values that are statistically different at the 95 percent confidence level are asterisked and bolded.

In three categories, the difference between the groups is statistically significant at the 95 percent confidence level: the treatment group had more eighth graders (\( t = -3.34, p\text{-value}= 0.00 \)); more free or reduced-lunch eligible students (\( t=-2.56, p\text{-value}=0.01 \)); and more advanced English learners (\( t=2.19, p\text{-value}=0.03 \)). While not statistically significant, the treatment group also seemed to have more minority students (87 percent versus 82 percent) and fewer white students (10 percent versus 18 percent). These differences are somewhat concerning as older age, minority status and lower socio-economic status have all been shown as indicators for lower student engagement, as well as lower grades and standardized achievement test results (e.g., Carpenter, Ramirez and Severn, 2006).
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In terms of the school records, however, the treatment and comparison groups looked, on average, approximately similar. Only one of the items considered exhibited a statistically significant difference: in-school suspensions. See Table 2.2. While the comparison students had statistically more in-school suspensions (.06 versus 0), the magnitude of this difference may not be of practical importance. In addition, this finding may be the result of family-wise error, that is the probability of making a type one error (i.e., finding a false positive) when making multiple pairwise comparisons. For example, when three comparisons are made at the 95 percent confidence level, on average, (.05) * 3=.15 type I errors, are expected to be made. Here, 26 items were evaluated so that, on average, (.05) * 26 =1.3 items are expected to be wrongly identify as statistically significant. Consequently, the identified statistical significance of the one pairwise comparison could be attributed to family-wise error alone rather than true significance.
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Table 2.2 Baseline Values of School Records, Self-Concept and Student Engagement

<table>
<thead>
<tr>
<th>Baseline Pre-Test Measures</th>
<th>Treatment Group N=31</th>
<th>Comparison Group N=107</th>
<th>Statistical Tests</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td><strong>SCHOOL RECORDS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CST 2004 English L. Arts</td>
<td>29</td>
<td>2.66</td>
<td>91</td>
<td>2.58</td>
</tr>
<tr>
<td>CST 2004 Math</td>
<td>29</td>
<td>2.66</td>
<td>91</td>
<td>2.31</td>
</tr>
<tr>
<td>Cumulative GPA 2004-5</td>
<td>26</td>
<td>1.26</td>
<td>100</td>
<td>1.23</td>
</tr>
<tr>
<td>Disciplinary Actions</td>
<td>31</td>
<td>4.97</td>
<td>107</td>
<td>5.53</td>
</tr>
<tr>
<td>English L. Arts Citizenship</td>
<td>31</td>
<td>2.65</td>
<td>104</td>
<td>2.47</td>
</tr>
<tr>
<td>English L. Arts Grade</td>
<td>31</td>
<td>0.81</td>
<td>105</td>
<td>1.01</td>
</tr>
<tr>
<td>English L. Arts Work Habits</td>
<td>31</td>
<td>0.84</td>
<td>105</td>
<td>1.06</td>
</tr>
<tr>
<td><strong>In-School Suspensions</strong></td>
<td><strong>31</strong></td>
<td><strong>0</strong></td>
<td><strong>107</strong></td>
<td><strong>0.06</strong></td>
</tr>
<tr>
<td>Math Citizenship</td>
<td>31</td>
<td>2.26</td>
<td>103</td>
<td>2.41</td>
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<tr>
<td>Math Grades</td>
<td>30</td>
<td>1.15</td>
<td>103</td>
<td>1.04</td>
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<tr>
<td>Math Work Habits</td>
<td>31</td>
<td>1.35</td>
<td>103</td>
<td>1.24</td>
</tr>
<tr>
<td>Suspensions</td>
<td>31</td>
<td>0.13</td>
<td>107</td>
<td>0.21</td>
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<tr>
<td>Tardies</td>
<td>31</td>
<td>5.61</td>
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<td>6.04</td>
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<tr>
<td>Total Absences</td>
<td>31</td>
<td>7.26</td>
<td>107</td>
<td>5.25</td>
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<tr>
<td>Unexcused Absences</td>
<td>31</td>
<td>2.39</td>
<td>107</td>
<td>1.59</td>
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<tr>
<td><strong>PIERS HARRIS CHILDREN’S SELF CONCEPT SCALE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Concept (Overall)</td>
<td>25</td>
<td>41.92</td>
<td>77</td>
<td>41.13</td>
</tr>
<tr>
<td>Behavioral Adjustment</td>
<td>25</td>
<td>10.2</td>
<td>77</td>
<td>9.36</td>
</tr>
<tr>
<td>Intellectual/ School Status</td>
<td>25</td>
<td>10</td>
<td>77</td>
<td>9.06</td>
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<tr>
<td>Freedom From Anxiety</td>
<td>25</td>
<td>10.64</td>
<td>77</td>
<td>10.22</td>
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<tr>
<td>Happiness &amp; Satisfaction</td>
<td>25</td>
<td>8.12</td>
<td>77</td>
<td>7.92</td>
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<tr>
<td>Physical Appearance</td>
<td>25</td>
<td>7.08</td>
<td>77</td>
<td>7.84</td>
</tr>
<tr>
<td>Popularity</td>
<td>25</td>
<td>8.32</td>
<td>77</td>
<td>8.91</td>
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<tr>
<td><strong>QUALITY OF SCHOOL LIFE SCALE</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of School Life (Overall)</td>
<td>28</td>
<td>11.46</td>
<td>95</td>
<td>10.41</td>
</tr>
<tr>
<td>Commitment to Classroom</td>
<td>28</td>
<td>4.43</td>
<td>95</td>
<td>4.00</td>
</tr>
<tr>
<td>Reaction to Teachers</td>
<td>28</td>
<td>4.89</td>
<td>95</td>
<td>4.40</td>
</tr>
<tr>
<td>Satisfaction with School</td>
<td>28</td>
<td>2.14</td>
<td>95</td>
<td>2.00</td>
</tr>
</tbody>
</table>

*Values that are statistically different at the 95 percent confidence level are asterisked and bolded.
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The statistical differences that appeared in the baseline demographic measures suggest that the comparison group might be a sufficient but not perfect match, highlighting the possibility of selection bias in ways not directly identified by measurable attributes. As such, the analysis of the final results may be biased due to observed and unobservable differences between groups. Statistical methods to strengthen the match will be attempted to address the selection bias concern.

Program Participants: Elementary School Students

While not the target of the intervention, the program also selected students in kindergarten through the third grade to be tutored. The tutees who selected by elementary school teachers were students considered to sit on the “cusp” and who likely needed a little boost to reach proficiency level. Students with significant learning disabilities were not assigned to the tutoring pool. The tutees’ literacy, behaviors and grades in math and English-Language Arts were monitored over the course of the year. Elementary teachers also assessed the tutees in Fall 2005 and Spring 2006 according to nine different criteria: self-concept; disciplinary record; academic achievement; attendance; interest in class; interest in school; ability to socialize with schoolmates; ability to socialize into school environment; and hygiene/dress. These results were supplemented by interviews with elementary school teachers in the Spring.

Qualitative Data

The evaluation of the implementation process focuses on qualitative data that has been gathered during each implementation stage: program selection, pre-implementation planning, implementation and post-implementation review. The stages were defined by natural transitions inherent to the process. Program selection refers to the period where the district performed due diligence and presented the program to the school board for
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approval; pre-implementation planning refers to the time between the school board's approval and the first day of school (the program preparation time); implementation refers to the time period in which tutors were enrolled in CCVYP through the end of the school year; and finally, post-implementation refers to the end of year review process. Please see Figure 2.2.

**Figure 2.2 Implementation Process**

<table>
<thead>
<tr>
<th>Stage 1 Program Selection (PS)</th>
<th>Stage 2 Pre-Implementation Planning (PIP)</th>
<th>Stage 3 Implementation (I)</th>
<th>Stage 4 Post-Implementation Review (PIR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Selection</td>
<td>Problem Identification</td>
<td>Board Endorsement</td>
<td>Participant Recruitment</td>
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<tr>
<td>Selection</td>
<td>Site Selection</td>
<td>Site Selection</td>
<td>Tutoring</td>
</tr>
<tr>
<td></td>
<td>Coordinator Selection</td>
<td>Coordinator Selection</td>
<td>Classroom Activities</td>
</tr>
<tr>
<td></td>
<td>Participant Selection</td>
<td>Participant Selection</td>
<td>Recognition Events</td>
</tr>
<tr>
<td></td>
<td>Constituency “Buy-in”</td>
<td>Constituency “Buy-in”</td>
<td>Speakers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Field Trips</td>
</tr>
</tbody>
</table>

Several forms of qualitative data are collected at multiple points over the year. Please see Table 2.3, which indicates the type of data collected and the number of subjects who participated during each stage.
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Table 2.3 Qualitative Data Collected from Key CCVYP Adults

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>District Administration</td>
<td>INT (n=1)</td>
<td>INT (n=3), VIS</td>
<td>INT (n=3), VIS</td>
<td>INT (n=2), VIS</td>
</tr>
<tr>
<td>Elementary School Principal</td>
<td></td>
<td>INT (n=1), VIS</td>
<td>INT (n=1), VIS</td>
<td>INT (n=1), VIS</td>
</tr>
<tr>
<td>Elementary School Teachers</td>
<td></td>
<td>INT (n=1), SUR (n=15), VIS</td>
<td>INT (n=2), VIS</td>
<td>INT (n=4), SUR (n=15), VIS</td>
</tr>
<tr>
<td>IDRA Representative</td>
<td>VIS</td>
<td>VIS</td>
<td>VIS</td>
<td>VIS, INT (n=1)</td>
</tr>
<tr>
<td>Middle School Parents</td>
<td></td>
<td>INT (n=2), VIS</td>
<td>SUR (n=10), VIS</td>
<td></td>
</tr>
<tr>
<td>Middle School Principal</td>
<td></td>
<td>INT (n=1), VIS</td>
<td>INT (n=1), VIS</td>
<td>INT (n=1), VIS</td>
</tr>
<tr>
<td>Middle School Teachers</td>
<td></td>
<td>INT (n=2), FOC (n=4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Coordinators</td>
<td>INT (n=2), SUR (n=1), VIS</td>
<td>INT (n=2), VIS</td>
<td>INT (n=2), SUR (n=1), VIS</td>
<td></td>
</tr>
<tr>
<td>School Board Members</td>
<td>VIS</td>
<td>INT (n=2)</td>
<td>INT (n=2)</td>
<td></td>
</tr>
</tbody>
</table>

FOC= Focus group; INT=Semi-structured interview; SUR=survey re. students; VIS= site visit

As indicated in Table 3, qualitative data is collected through researcher observation during site visits, semi-structured interviews, focus groups and surveys with key participants, including the school superintendent, school board members, the teacher coordinators, the “receiving” elementary school teachers, the “sending” middle school teachers, foundation representatives and parents. Content of the interviews, surveys and focus groups rely heavily on the activities characterizing the stage of the implementation. Respondents are asked to discuss their expectations for the program.
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and its current progress. Their responses are then probed for information concerning the degree to which the program has been implemented according to plan. The key issues sought here are the barriers and facilitators to the program’s effective operation.

Qualitative data is also collected from middle school students at two points in time, during the fall and again in the spring. See Table 2.4.

Table 2.4 Qualitative Data Collected from Middle School Students

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Fall 2005</th>
<th>Spring 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comparison Students</strong></td>
<td>SUR (nPH=77, nQSL=95), VIS</td>
<td>INT (n=10), SUR (nPH=83, nQSL=92), VIS</td>
</tr>
<tr>
<td><strong>Treatment Students</strong></td>
<td>INT (n=31), SUR (nPH=25, nQSL=28), VIS</td>
<td>INT (n=12), SUR (nPH=20, nQSL=23), VIS</td>
</tr>
</tbody>
</table>

INT=Semi-structured interview; PH=Piers-Harris Survey; QSL=Quality of School Life Survey; SUR=self report survey; VIS=site visit

Student participants are interviewed to develop a sense of their student engagement at baseline and to explore whether the students’ perceptions of school, their attitudes, behavior and self-concepts change and how, if at all, they attribute these changes to the program. If the program is effective, the intent is to find out what is happening within the student that results in progress. If the program is not effective, the interest shifts to learning about the hurdles influencing these youth. Comparison students are interviewed in the spring to see if noticeable, qualitative differences exist between the groups.
2.7 Analysis Plan

Quantitative Analysis

The outcomes analysis first considers a comparison between the uncorrected means of the above measures for the treatment and comparison group. The differences are analyzed using t-tests to determine whether the absolute results demonstrate statistically significant differences. However, as the students were not randomly selected into the program, selection bias is a concern. To statistically adjust for selection issues, a propensity scoring method is used to “match” treatment group students with comparison group members. While this method does not eliminate the issue of selection bias, it moves the analysis closer to an “apples to apples” comparison allowing the estimation of a “treatment effect on the treated.”

School records (e.g., grades, literacy assessments and behavioral marks) for the elementary tutees’ fall and spring semesters are also assessed. Elementary teachers evaluate these students at the start and finish of the school year according to nine factors including self concept, ability to socialize in the school environment, interest in school and disciplinary record. While the number of concurrent interventions makes it difficult to isolate a causal relationship between the tutoring and the elementary students’ outcomes, patterns in these data points may indicate whether the tutoring affected these students. It is critical to remember that these students are not the focus of the intervention. Their interests, however, should not be harmed by the program’s implementation.

Qualitative Analysis

The interview and focus group transcripts, site visit notes and meeting memos are examined using content analysis to identify the characteristics of the barriers and
facilitators to the program’s implementation. The data are initially coded according to the implementation stage. The transcripts are tagged with these codes using Atlas ti software to indicate where in the text the themes occur, to facilitate later retrieval and indexing. All quotes associated with these broad themes are generated and then sorted into appropriate piles that become the analysis’ sub-themes. The texts are then again tagged, this time with sub-theme codes.

The codes then are used to create a series of matrices that facilitate the data analysis. In the matrices’ cells, the content of the associated quote and site visit observations is inputted for review. The matrix focuses on the actions taken by the stakeholder groups, plotting the stakeholders’ activities by the stage of implementation (i.e., program selection, pre-implementation planning, implementation, post-implementation review). See Table 2.5.

*Table 2.5 Skeletal Stage Analysis*

<table>
<thead>
<tr>
<th></th>
<th>Program Selection</th>
<th>Pre-Implementation</th>
<th>Implementation</th>
<th>Post-Implementation Review</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Teachers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Site Administrators</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>District Administrators</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Community Members</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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The matrix is then scrutinized to identify the barriers confronted, conflicts encountered, trade-offs discussed and decisions made to understand how the program reached the shape in which it was implemented.

In the next chapter, the outcomes from the Santa Monica Valued Youth Program are evaluated. In most respects the program did not produce a measurable impact on its participants. Fidelity to the program’s implementation plan, discussed in chapter 4, is one large factor responsible for the program’s ineffectiveness. The dissertation concludes with a framework to guide the choice and implementation of school-based engagement interventions and identifies areas for further research.
Chapter 3
Student Outcomes Evaluation
3.1 Introduction—Setting

One of the most pressing issues for the Santa Monica-Malibu Unified School District is the disparity in achievement across the diverse student body at John Adams Middle School (JAMS). Indeed, this school enrolls many of the district’s students who have traditionally been considered “high-risk.” As a district administrator described the school:

[JAMS has] the highest indicators of poverty, highest percentage of students who come from neighborhoods with violence, the highest non-white racial and ethnic mixture of [our] middle schools. This school is in the most highly impacted neighborhood [in Santa Monica]. And its scores are the lowest of our middle schools, historically.

While the school had consistently received California’s Academic Performance Index (API) scores considered “above average,” it lagged behind Lincoln, Santa Monica’s other middle school and exhibited a distinct achievement gap amongst its student subgroups. See Figure 3.1.

---

1 California’s API provides an indexed summary of a school’s yearly results on the state assessments, including the California Standards Tests, California Achievement Tests and the High School Exit Exam, to measure school’s academic performance and progress. The API score ranges between 200 at the low end and 1,000 at the high end, while a score of 800 is the target value. For further information, see the California’s Department of Education’s Guide to the Academic Performance Index at http://www.cde.ca.gov/ta/ac/ap/api0506.asp.
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Figure 3.1 John Adams Middle School API Scores by Student Sub-Group, 1999-2005

Source: California Department of Education, Test and Accountability, downloaded on 10/24/06 from [http://dq.cde.ca.gov/dataquest](http://dq.cde.ca.gov/dataquest). Note: API scores were not reported for the Asian student sub-group as there were not a significant number of Asian students at JAMS between 1999 and 2005.

While the race/ethnicity gaps in achievement are slowly narrowing, White/Caucasian students continue to outscore the other students groups significantly: in 2005, White/Caucasian students scored 213 API points higher than Black/African American students and 176 API points more than Hispanic/Latino students. See Figure 3.2.
To steer the school to a more successful academic course, the district began to redesign the school into “small learning communities” intended to strengthen the relationships amongst school administrators and faculty with students. This structural reform included the implementation of block periods and the introduction of advisories, a period where students met with one teacher to discuss non-course related school issues. The Valued Youth Program, the administration felt, would provide the additional support that some youth at JAMS would need to succeed in the newly designed school. Consequently, the program was to begin the same year as the school enacted large-scale structural reform.

It is against this backdrop where the student engagement problem was identified and reform plans were drawn. The results of the first year of VYP in Santa Monica follow.
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3.2 Results
Santa Monica Valued Youth Program (CCVYP) provided no measurable positive impact on the students who participated, both when comparing the participants’ pre and post test results as well as when comparing the tutors to similar students matched on several key co-variates.

Analysis of Uncorrected Means: Within Group
For all outcome measures, the pre-test and the post-test mean values were compared to identify statistically significant change within each group. In terms of the student records, both groups tended to lose academic ground. For instance, the number of suspensions per tutor grew from 0.21 in 2005 to 0.49 in 2006; the suspensions per comparable student grew from 0.13 in 2005 to 1.08 in 2006. In both groups, the increased number of suspensions was statistically significant. Please note: as the 2005 CST scores in both Mathematics and Language Arts were not available when the students were selected into the program so that the coordinators used standardized test results from the previous years, the scores from 2004 are evaluated instead of 2005 results. See Table 3.1.
## Table 3.1 Descriptive Statistics — School Record Means

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Comparison Group</th>
<th>Treatment Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td><strong>CST Mathematics 2004</strong></td>
<td>91</td>
<td>2.31</td>
</tr>
<tr>
<td><strong>CST Mathematics 2006</strong></td>
<td>98</td>
<td>2.15</td>
</tr>
<tr>
<td><strong>CST Language Arts (LA) 2004</strong></td>
<td>91</td>
<td>2.58</td>
</tr>
<tr>
<td><strong>CST LA 2006</strong></td>
<td>99</td>
<td>2.48</td>
</tr>
<tr>
<td><strong>Disciplinary Frequency 2005</strong></td>
<td>107</td>
<td>5.53</td>
</tr>
<tr>
<td><strong>Disciplinary Frequency 2006</strong></td>
<td>100</td>
<td>6.52</td>
</tr>
<tr>
<td><strong>GPA 2005</strong></td>
<td>100</td>
<td>1.23</td>
</tr>
<tr>
<td><strong>GPA 2006</strong></td>
<td>100</td>
<td>1.08</td>
</tr>
<tr>
<td><strong>In-School Suspension 2005</strong></td>
<td>107</td>
<td>0.06*</td>
</tr>
<tr>
<td><strong>In-School Suspension 2006</strong></td>
<td>100</td>
<td>0.38*</td>
</tr>
<tr>
<td><strong>LA Citizenship S2 2005</strong></td>
<td>104</td>
<td>2.47*</td>
</tr>
<tr>
<td><strong>LA Citizenship S2 2006</strong></td>
<td>98</td>
<td>2.00*</td>
</tr>
<tr>
<td><strong>LA Grade S2 2005</strong></td>
<td>105</td>
<td>1.01*</td>
</tr>
<tr>
<td><strong>LA Grade S2 2006</strong></td>
<td>100</td>
<td>0.74*</td>
</tr>
<tr>
<td><strong>LA Work Habits S2 2005</strong></td>
<td>105</td>
<td>1.06*</td>
</tr>
<tr>
<td><strong>LA Work Habits S2 2006</strong></td>
<td>98</td>
<td>0.78*</td>
</tr>
<tr>
<td><strong>Math Grade S2 2005</strong></td>
<td>103</td>
<td>1.04</td>
</tr>
<tr>
<td><strong>Math Grade S2 2006</strong></td>
<td>100</td>
<td>0.95</td>
</tr>
<tr>
<td><strong>Math Work Habits S2 2005</strong></td>
<td>103</td>
<td>1.24</td>
</tr>
<tr>
<td><strong>Math Work Habits S2 2006</strong></td>
<td>100</td>
<td>1.02</td>
</tr>
<tr>
<td><strong>Suspension 2005</strong></td>
<td>107</td>
<td>0.21*</td>
</tr>
<tr>
<td><strong>Suspension 2006</strong></td>
<td>100</td>
<td>0.49*</td>
</tr>
</tbody>
</table>

¹ Values between the two school years that are statistically different at the 95 percent confidence level are bolded and asterisked.

² Direction change between years is considered (−) if the tutors appear “worse off” and (+) if the tutors appear “better off.”
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<table>
<thead>
<tr>
<th>Tardies 2005</th>
<th>107</th>
<th>6.04*</th>
<th>8.06</th>
<th>-</th>
<th>31</th>
<th>5.61</th>
<th>6.09</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tardies 2006</td>
<td>100</td>
<td>15.94*</td>
<td>14.32</td>
<td>25</td>
<td>15.44</td>
<td>16.33</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Total Absences 2005</td>
<td>107</td>
<td>5.25*</td>
<td>6.01</td>
<td>-</td>
<td>31</td>
<td>7.26*</td>
<td>5.26</td>
<td>-</td>
</tr>
<tr>
<td>Total Absences 2006</td>
<td>100</td>
<td>15.70*</td>
<td>11.43</td>
<td>25</td>
<td>16.44*</td>
<td>11.32</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Both groups showed statistically significant loss after academic year 2005-6 (at the 95 percent confidence level) in several scholastic outcomes. They showed increases in unexcused and total absences, and in-school and out-of-school suspensions. Their English-Language Arts grades, citizenship and work habits marks also fell. Tutors showed statistically significant declines in their end of the year grade point averages, math grades and work habits. In addition, the comparison group students were tardy significantly more often in the post-test.

Table 3.2 exhibits the changes in both groups' Piers-Harris and Quality of School Life scores. While the treatment group's scores appear to move downwards, the scores of the comparison group tended towards growth although neither with statistical significance. For example, the tutors’ average Piers Harris Total Score seemingly fell from 41.92 in Fall 2005 to 40.80 in Spring 2006 while the comparable students’ average Piers Harris Total Score appeared to grow from 41.13 in Fall 2005 to 42.78 in Spring 2006.

---

4 Some teachers have indicated work habits marks are directly related to the students’ class grade.
Table 3.2 Descriptive Statistics—Survey Results for Control and Treatment Groups

<table>
<thead>
<tr>
<th>Outcome Measure (2005= 2004-05 School Year)</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Chge Direct&lt;sup&gt;5&lt;/sup&gt;</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Chge Direct&lt;sup&gt;6&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre Test PH—Total</td>
<td>77</td>
<td>41.13</td>
<td>9.83</td>
<td>+</td>
<td>25</td>
<td>41.92</td>
<td>10.56</td>
<td>-</td>
</tr>
<tr>
<td>Post Test PH—Total</td>
<td>83</td>
<td>42.78</td>
<td>10.84</td>
<td></td>
<td>20</td>
<td>40.80</td>
<td>9.42</td>
<td></td>
</tr>
<tr>
<td>Pre PH—Anxiety</td>
<td>77</td>
<td>10.22</td>
<td>3.19</td>
<td>+</td>
<td>25</td>
<td>10.64</td>
<td>2.98</td>
<td>-</td>
</tr>
<tr>
<td>Post PH—Anxiety</td>
<td>83</td>
<td>10.57</td>
<td>3.24</td>
<td></td>
<td>20</td>
<td>9.75</td>
<td>3.60</td>
<td></td>
</tr>
<tr>
<td>Pre PH—Behavior</td>
<td>77</td>
<td>9.36</td>
<td>3.73</td>
<td>+</td>
<td>25</td>
<td>10.20</td>
<td>3.25</td>
<td>-</td>
</tr>
<tr>
<td>Post PH—Behavior</td>
<td>83</td>
<td>9.49</td>
<td>3.80</td>
<td></td>
<td>20</td>
<td>9.10</td>
<td>3.04</td>
<td></td>
</tr>
<tr>
<td>Pre PH—Happ./Satisfaction</td>
<td>77</td>
<td>7.92</td>
<td>2.11</td>
<td>+</td>
<td>25</td>
<td>8.12</td>
<td>2.11</td>
<td>-</td>
</tr>
<tr>
<td>Post PH—Happ./Satisfaction</td>
<td>83</td>
<td>8.25</td>
<td>2.22</td>
<td></td>
<td>20</td>
<td>7.95</td>
<td>2.26</td>
<td></td>
</tr>
<tr>
<td>Pre PH—Physical Appearance</td>
<td>77</td>
<td>7.84</td>
<td>2.33</td>
<td>+</td>
<td>25</td>
<td>7.08</td>
<td>3.03</td>
<td>+</td>
</tr>
<tr>
<td>Post PH—Physical Appearance</td>
<td>83</td>
<td>8.22</td>
<td>2.58</td>
<td></td>
<td>20</td>
<td>7.40</td>
<td>2.35</td>
<td></td>
</tr>
<tr>
<td>Pre PH—Popularity</td>
<td>77</td>
<td>8.91</td>
<td>2.35</td>
<td>+</td>
<td>25</td>
<td>8.32</td>
<td>2.82</td>
<td>+</td>
</tr>
<tr>
<td>Post PH—Popularity</td>
<td>83</td>
<td>9.34</td>
<td>2.19</td>
<td></td>
<td>20</td>
<td>8.90</td>
<td>2.31</td>
<td></td>
</tr>
<tr>
<td>Pre PH—School Status</td>
<td>77</td>
<td>9.06</td>
<td>3.34</td>
<td>+</td>
<td>25</td>
<td>10.00</td>
<td>3.81</td>
<td>-</td>
</tr>
<tr>
<td>Post PH—School Status</td>
<td>83</td>
<td>9.88</td>
<td>3.84</td>
<td></td>
<td>20</td>
<td>9.50</td>
<td>3.44</td>
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<tr>
<td>Pre Test QSL--Total</td>
<td>95</td>
<td>10.41</td>
<td>6.21</td>
<td>+</td>
<td>28</td>
<td>11.46</td>
<td>6.37</td>
<td>-</td>
</tr>
<tr>
<td>Post Test QSL--Total</td>
<td>92</td>
<td>10.79</td>
<td>6.56</td>
<td></td>
<td>23</td>
<td>9.00</td>
<td>5.01</td>
<td></td>
</tr>
<tr>
<td>Pre QSL—Commitment to Class</td>
<td>95</td>
<td>4.00</td>
<td>2.73</td>
<td>-</td>
<td>28</td>
<td>4.43</td>
<td>3.17</td>
<td>-</td>
</tr>
<tr>
<td>Post QSL—Commitment to Cl.</td>
<td>92</td>
<td>3.76</td>
<td>2.65</td>
<td></td>
<td>23</td>
<td>3.13</td>
<td>1.91</td>
<td></td>
</tr>
<tr>
<td>Pre QSL—Reaction to Teachers</td>
<td>95</td>
<td>4.40</td>
<td>2.73</td>
<td>+</td>
<td>28</td>
<td>4.89</td>
<td>2.91</td>
<td>-</td>
</tr>
<tr>
<td>Post QSL—Reaction to Teachers</td>
<td>92</td>
<td>4.65</td>
<td>2.99</td>
<td></td>
<td>23</td>
<td>3.96</td>
<td>2.64</td>
<td></td>
</tr>
</tbody>
</table>

<sup>5</sup> Values between the two school years that are statistically different at the 95 percent confidence level are asterisked and bolded.

<sup>6</sup> Direction change is considered negative (-) if the tutors appear “worse off” and (+) if the tutors appear “better off” in post test results.
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<table>
<thead>
<tr>
<th></th>
<th>Pre QSL—School Satisfaction</th>
<th>Post QSL--School Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>1.71</td>
<td>2.38</td>
</tr>
<tr>
<td></td>
<td>+</td>
<td>1.77</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>2.14</td>
<td>1.91</td>
</tr>
<tr>
<td></td>
<td>1.65</td>
<td>1.76</td>
</tr>
</tbody>
</table>
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*Analysis of Means “Uncorrected “For Selection Bias: ”Difference of Differences” Between Group*

Looking at the tutors’ results in isolation, however, does not allow us to estimate what the results would have been had the program not been implemented. Consequently, the outcomes for the two groups were compared. The difference between the post and pre variable means were calculated separately for the treatment and the comparison groups; the difference between these values was then computed for each group as a rough indicator for the coefficient associated with outcomes not corrected for selection bias. Again, the results do not show the growth that was anticipated for the program. For example, tutors math grades fell on average 0.79 points between 2005 and 2006 while the comparable students fell on average 0.66 points; in other words, the tutors lost more ground (0.16 points) than the comparable students. See Table 3.3.

Although the statistical power provided by large sample sizes to detect significant differences was not available for the analysis, the overall trend for the performance of tutors was below that of the students in the comparison group: tutors showed greater declines than comparable students in all measured categories, including the Piers-Harris and Quality of School Life sub-scales, with four notable exceptions. The tutors appeared to lose less ground than comparable students in their English-Language Arts CST scores, while their total number of absences, unexcused absences and tardies increased less quickly.

Some statistically significant differences between the two groups, however, were detected even with the minimal power provided by the small sample sizes. Tutors showed significantly greater (at the 95 percent statistical significance level) losses than the control group in overall change in grade point average: tutors GPA fell 0.70 points (a fall from a “D+” to a “D-”) versus -0.16 for comparable students. Math was a
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particularly challenging subject for the tutors; they showed greater losses in their math grades, which fell -0.79 (a fall from a D to an F+) while the math grades for comparable students fell -0.13; the tutors’ math work-habits marks fell 1.08—an entire category level drop from “needs improvement” to “unsatisfactory” ranking for tutors—while comparable students fell 0.26; and tutors’ math citizenship marks fell 0.79 (from “satisfactory-good” to “satisfactory-needs improvement” ranking) while the math citizenship marks fell 0.14 for the comparable students.

Additionally, tutors’ sense of intellectual or school self-efficacy fell (a drop of 0.89 points, a 6 percent loss) while the comparison group showed gains (increases of 0.44 points, a 3 percent gain). See Table 3.4. While these results may not be practically significant, they certainly do not indicate the positive trend hoped for by the school administration.
### Table 3.3 School Records “Difference of Difference” of Treatment and Comparison Groups*, **

<table>
<thead>
<tr>
<th>Measures</th>
<th>Treatment Group N=31</th>
<th>Comparison Group N=107</th>
<th>&quot;Difference of Differences&quot;</th>
<th>Statistical Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>TXpost-TXpre</td>
<td>N</td>
<td>CGpost-CGpre</td>
</tr>
<tr>
<td>CST Language Arts Scores (2004, 2006 data)</td>
<td>22</td>
<td>-0.14</td>
<td>84</td>
<td>-0.17</td>
</tr>
<tr>
<td>CST Math Scores (2004, 2006 data)</td>
<td>21</td>
<td>-0.29</td>
<td>83</td>
<td>-0.19</td>
</tr>
<tr>
<td>English-Language Arts Citizenship Marks</td>
<td>24</td>
<td>-0.67</td>
<td>95</td>
<td>-0.44</td>
</tr>
<tr>
<td>English-Language Arts Grades</td>
<td>25</td>
<td>-0.57</td>
<td>98</td>
<td>-0.29</td>
</tr>
<tr>
<td>English-Language Arts Work Habits Marks</td>
<td>25</td>
<td>-0.60</td>
<td>98</td>
<td>-0.33</td>
</tr>
<tr>
<td>In-School Suspensions</td>
<td>25</td>
<td>0.76</td>
<td>100</td>
<td>0.34</td>
</tr>
<tr>
<td>Math Citizenship Marks*</td>
<td>24</td>
<td>-0.79</td>
<td>96</td>
<td>-0.14</td>
</tr>
<tr>
<td>Math Grades*</td>
<td>25</td>
<td>-0.79</td>
<td>96</td>
<td>-0.13</td>
</tr>
<tr>
<td>Math Work Habits Marks*</td>
<td>24</td>
<td>-1.08</td>
<td>96</td>
<td>-0.26</td>
</tr>
<tr>
<td>Second Semester GPAs*</td>
<td>25</td>
<td>-0.70</td>
<td>100</td>
<td>-0.16</td>
</tr>
<tr>
<td>School Suspensions</td>
<td>25</td>
<td>0.96</td>
<td>100</td>
<td>0.31</td>
</tr>
<tr>
<td>Unexcused Absences</td>
<td>25</td>
<td>5.44</td>
<td>100</td>
<td>5.82</td>
</tr>
<tr>
<td>Tardies</td>
<td>25</td>
<td>10.04</td>
<td>100</td>
<td>10.33</td>
</tr>
<tr>
<td>Total Disciplinary Frequencies</td>
<td>25</td>
<td>4.24</td>
<td>100</td>
<td>1.35</td>
</tr>
<tr>
<td>Total Absences</td>
<td>25</td>
<td>9.12</td>
<td>100</td>
<td>10.65</td>
</tr>
</tbody>
</table>

*Values that are statistically different at the 95 percent confidence level using a two-tailed test are asterisked and bolded.

**TX=treatment (tutors) group; CG=comparable student group.
### Table 3.4 Survey Results “Difference of Difference” of Treatment and Comparison Groups*, **

<table>
<thead>
<tr>
<th>Measures</th>
<th>Treatment Group N=31</th>
<th>Comparison Group N=107</th>
<th>“Difference of Differences”</th>
<th>Statistical Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N TX_post-TX_pre</td>
<td>N CG_post-CG_pre</td>
<td>(TX_post-TX_pre)-(CG_post-CG_pre)</td>
<td>T-stat (unequal variance assumed) P-value</td>
</tr>
<tr>
<td><strong>PIERS-HARRIS (SELF CONCEPT) SURVEY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Piers-Harris Self-Concept Score (max score= 60)</td>
<td>18 -1.83 61 0.43</td>
<td>61 -0.63</td>
<td>-2.26</td>
<td>1.03</td>
</tr>
<tr>
<td>Sub-Scale: Behavioral Adjustment (max score=14)</td>
<td>18 -1.82 61 -0.59</td>
<td>61 -0.45</td>
<td>-0.63</td>
<td>0.78</td>
</tr>
<tr>
<td>Sub-Scale: Freedom from Anxiety (max score=14)</td>
<td>18 -0.39 61 0.07</td>
<td>61 -0.45</td>
<td>-0.63</td>
<td>0.58</td>
</tr>
<tr>
<td>Sub-Scale: Happiness/Satisfaction (max score=10)</td>
<td>18 -0.17 61 -0.02</td>
<td>61 -0.15</td>
<td>-0.63</td>
<td>0.25</td>
</tr>
<tr>
<td>Sub-Scale: Intellectual-School Status (max score=16)*</td>
<td>18 -0.89 61 0.44</td>
<td>61 -1.33*</td>
<td>-2.13</td>
<td>2.13</td>
</tr>
<tr>
<td>Sub-Scale: Physical Appearance (max score=11)</td>
<td>18 -0.28 61 0.48</td>
<td>61 -0.75</td>
<td>-1.14</td>
<td>1.16</td>
</tr>
<tr>
<td>Sub-Scale: Popularity (max score=12)</td>
<td>18 -0.22 61 0.39</td>
<td>61 -0.62</td>
<td>-1.14</td>
<td>1.14</td>
</tr>
<tr>
<td><strong>QUALITY OF SCHOOL LIFE (ENGAGEMENT) SURVEY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Quality of School Life Score (max score =27)</td>
<td>23 -2.22 80 -0.02</td>
<td>80 -2.19</td>
<td>-1.37</td>
<td>1.37</td>
</tr>
<tr>
<td>Sub-Scale: Commitment to Classroom (max score =11)</td>
<td>23 -0.96 80 -0.34</td>
<td>80 -0.62</td>
<td>-2.85</td>
<td>0.85</td>
</tr>
<tr>
<td>Sub-Scale: Reaction to Teachers (max score =11)</td>
<td>23 -1.04 80 0.05</td>
<td>80 -1.09</td>
<td>-1.44</td>
<td>1.44</td>
</tr>
<tr>
<td>Sub-Scale: Satisfaction with School (max score = 5)</td>
<td>23 -0.22 80 0.28</td>
<td>80 -0.49</td>
<td>-1.99</td>
<td>0.99</td>
</tr>
</tbody>
</table>

*Values that are statistically different at the 95 percent confidence level using a two-tailed test are asterisked and bolded.

**TX=treatment (tutors) group; CG=comparable student group.
“Correcting” the Means For Selection Bias: Propensity Scores

Students were not randomly selected from the eligible pool and assigned to the treatment or comparison groups, as is done in the randomized control trial, the “gold standard” of experimental design. Consequently, the ability to establish a causal relationship between the dependent and independent variable is compromised: the treatment effect cannot be easily disentangled from the other differences existing between the groups. The selection process created opportunities for bias, raising concerns over the potential unmeasured (or un-measurable) variables that might be causing the tutors’ loss of academic ground and decreasing evaluations of their student/intellectual self-efficacies. Unless all the omitted variables are uncorrelated with selection in the program, the endogeneity issue is hard to dismiss. For example, the two student groups did not necessarily always share the same group of teachers. It is then possible that the treatment group had better teachers than the comparison groups, leading to their better outcomes at the end of the year.

Similarly, suppose the students selected into the program were more likely to have significant health issues such as Attention Deficient Hyperactivity Disorder (ADHD). The illness produces behavioral issues that can lead to frequent disciplinary actions, which might serve to highlight a student’s significant “need” for intervention, prompting the coordinators to select the student. At the same time, ADHD also impedes the youths’ ability to “engage” in student activities and leads to poorer student engagement and grades. If a standard Ordinary Least Squares (OLS) regression were run, the coefficient associated with outcomes would then be biased downwards, under-reporting the program’s effect. On the other hand, suppose the children in the treatment group with ADHD are diagnosed and receive treatment, facilitated by the close relationship between the teacher coordinator and student engendered by the program. Suppose the ADHD treatment increases the students’ ability to focus and leads to improvements in the student’s outcomes. Then, the OLS regression’s results would exaggerate the program’s effect, crediting the program with the growth gained from the students’ health improvements.
The non-random assignment into the program presents a limitation common to many school-based interventions. Propensity scores, the probabilities of assignment to the treatment group conditional on the participants’ covariates, are statistical tools that help to better “match” the treatment and comparison groups. These techniques address the dissimilarity between treatment and comparison groups by “modeling the selection process” (McCaffrey, Ridgeway, and Morral, 2004). The estimated probabilities represent the pre-treatment variables condensed into a single variable, which controls for the differences between the treatment and the comparison groups (Dehejia and Wahba, 1999). As such, the method enables an “apples-to-apples” comparison between the treatment and a like control group to estimate the average treatment effect (ATE) on the treated. Please see Appendix III for more information on this statistical technique.

Three Propensity Models

Several propensity models were analyzed, “matching” the treatment group with the comparison students based on different sets of co-variates. One model matched students only on their grade level and socio-economic status, as proxied by the students’ enrollment in the school’s free or reduced lunch program, as these were two of the major demographic traits on which the two groups’ differed significantly at baseline. The second model also matched the groups according to their baseline grade point average, which is likely an indicator of future achievement, in addition to their grade level and socio-economic status. The final model went one step further and also matched the students’ on several behavioral measures: baseline disciplinary frequencies and citizenship marks from math and English-Language Arts classes. The behavioral indicators were added to the model as JAMS administrators suggested that the program had enrolled students with extreme behavioral issues.

As the number of variables on which samples are to be matched increases, the more difficult the “match” becomes. For example, in the first propensity model, the treatment mean for student socio-economic status (SES) is 0.74 and the propensity score weighted control mean (using the first stop method, $ks.stat.mean$ (which selects how the
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generalized boosting modeling iterates and tunes the weights)), is also 0.74. However, in the third model, the propensity score weighted control mean calculated using the same stop method is 0.73. See the balance tables, which show how well the propensity scores (using two stop methods) were able to manipulate the control group so that its weighted pretreatment characteristics matched the unweighted treatment group, in Appendix IV. These tables exhibit how well the propensity score weights were able to balance the pretreatment characteristics with those of the unweighted treatment (Ridgeway, McCaffrey and Morral, 2006). Assessing the balance tables, the “fit” between the treatment and comparison groups certainly suggests a better match than what was used in the uncorrected analyses.

Propensity Score Findings

The propensity score analyses highlighted the same areas of statistically significant change as were discovered by the uncorrected means assessment. For instance, the analysis found that over the year, tutors’ GPAs fell significantly more (0.52 points) than the comparable students’ GPAs. Please refer to Appendix V to view the results for all outcome variables.

Regardless of model employed, the treatment group is worse off in terms of their grades and in the closely related work habits marks. Table 3.5 illustrates the values for indicators that appeared to show a statistically significant change in at least one of the four analyses: three propensity score model and one uncorrected “difference of difference” model. It shows, for instance, that while the uncorrected difference of difference analysis did not show a statistically significant difference between the change in the tutors’ English-Language Arts grades and comparable students’ change in English-Language Arts grades, all three propensity models did identify significant results. Tutors’ English-Language Arts grades fell significantly faster than those of the comparable students, by 0.51 points in Model 1; by 0.52 points in Model 2, and 0.60 points in Model 3.
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Table 3.5 Santa Monica Valued Youth Program Coefficients Associated with Outcomes

<table>
<thead>
<tr>
<th>Analysis Model</th>
<th>GPA 06</th>
<th>E-LA Grade 06</th>
<th>E-LA Work Habits 06</th>
<th>Math Grade 06</th>
<th>Math Citizenship 06</th>
<th>Math Work Habits 06</th>
<th>PH’s Intell./School Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncorrected Difference of Difference</td>
<td>-0.54* (t=4.98)</td>
<td>-0.29</td>
<td>-0.22</td>
<td>-0.66* (t=3.22)</td>
<td>-0.66* (t=2.24)</td>
<td>-0.82* (t=3.51)</td>
<td>-1.33* (t=2.13)</td>
</tr>
<tr>
<td>Model 1 (2 co-variates)</td>
<td>-0.52* (t=3.86)</td>
<td>-0.51* (t=3.45)</td>
<td>-0.41</td>
<td>-0.79* (t=3.34)</td>
<td>-0.44</td>
<td>-0.85* (t=3.76)</td>
<td>-0.49</td>
</tr>
<tr>
<td>Model 2 (3 co-variates)</td>
<td>-0.52* (t=3.81)</td>
<td>-0.52* (t=3.50)</td>
<td>-0.36</td>
<td>-0.84* (t=3.09)</td>
<td>-0.53</td>
<td>-0.91* (t=3.18)</td>
<td>-0.82</td>
</tr>
<tr>
<td>Model 3 (6 co-variates)</td>
<td>-0.63* (t=4.43)</td>
<td>-0.60* (t=3.74)</td>
<td>-0.58* (t=2.23)</td>
<td>-0.82* (t=3.06)</td>
<td>-0.64* (t=2.08)</td>
<td>-0.97* (t=3.50)</td>
<td>-0.69</td>
</tr>
</tbody>
</table>

*Values that are statistically different at the 95 percent confidence level using a two-tailed test are bolded and asterisked.

With the exception of the change in students’ intellectual self-efficacy as measured by the Piers-Harris scale, the changes that were identified as statistically significant in the uncorrected “difference of difference” analysis persist after matching the treatment and control group on a variety of co-variates. In most cases, the coefficient associated with outcome grew larger. In all models, GPA shows a statistically significant decline, ranging between 0.52 and 0.63. Math grades and math work habits too both declined. Furthermore, the propensity scores models identified additional attributes showing statistically significant change: English-Language Arts grades and work habits.

Alternative Measures — Teacher Coordinator Assessments

The teacher coordinator’s pre and post student evaluations are also available for analysis. These evaluations show more positive trends, indicating statistically significant growth in self-concept, disciplinary record, attendance, interest in class, interest in school, future goals, ability to socialize into school environment, desire to graduate, relationships with teachers, relationships with counselors and hygiene/dress.
For instance, on average, the teacher coordinator reported that the tutors’ attendance was “negative” (2.27) in Fall 2005 but marked their attendance as “positive” (3.02) in Spring 2006. See Table 3.6

**Table 3.6 Teacher Coordinator’s Evaluation of Tutors, Pre and Post*, **

<table>
<thead>
<tr>
<th>Measures</th>
<th>Pre Test</th>
<th>Post Test</th>
<th>Δ</th>
<th>Statistical Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>Ability to Socialize into School Environment*</td>
<td>31</td>
<td>2.81</td>
<td>25</td>
<td>3.28</td>
</tr>
<tr>
<td>Ability to Socialize with Schoolmates</td>
<td>31</td>
<td>2.77</td>
<td>25</td>
<td>3.12</td>
</tr>
<tr>
<td>Academic Achievement</td>
<td>31</td>
<td>1.68</td>
<td>25</td>
<td>1.96</td>
</tr>
<tr>
<td>Attendance*</td>
<td>30</td>
<td>2.27</td>
<td>25</td>
<td>3.04</td>
</tr>
<tr>
<td>Desire to Graduate*</td>
<td>31</td>
<td>3</td>
<td>25</td>
<td>3.6</td>
</tr>
<tr>
<td>Disciplinary Record*</td>
<td>30</td>
<td>2.27</td>
<td>25</td>
<td>2.88</td>
</tr>
<tr>
<td>Future Goals*</td>
<td>31</td>
<td>2.84</td>
<td>25</td>
<td>3.52</td>
</tr>
<tr>
<td>Hygiene/Dress*</td>
<td>31</td>
<td>3.03</td>
<td>25</td>
<td>3.36</td>
</tr>
<tr>
<td>Interest in Class*</td>
<td>31</td>
<td>1.9</td>
<td>25</td>
<td>2.36</td>
</tr>
<tr>
<td>Interest in School*</td>
<td>30</td>
<td>1.97</td>
<td>25</td>
<td>2.36</td>
</tr>
<tr>
<td>Relationships with Administrators</td>
<td>31</td>
<td>2.71</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Relationships with Counselors*</td>
<td>30</td>
<td>3.07</td>
<td>25</td>
<td>3.32</td>
</tr>
<tr>
<td>Relationships with Parents</td>
<td>31</td>
<td>2.87</td>
<td>25</td>
<td>2.88</td>
</tr>
<tr>
<td>Relationships with Teachers*</td>
<td>31</td>
<td>2.39</td>
<td>25</td>
<td>2.88</td>
</tr>
<tr>
<td>Self Concept*</td>
<td>31</td>
<td>2.52</td>
<td>25</td>
<td>3.12</td>
</tr>
</tbody>
</table>
On several measures, both school records data and teacher reports are available: self-concept, disciplinary record, academic achievement and attendance. For three of these outcomes, the teacher’s evaluation does not always align with the results observed in the students’ school records. For example, while the coordinator evaluations show a statistically significant growth in self concept, the comparison of pre and post Piers Harris Scores do not demonstrate significant change. There are several possible explanations for the discrepancy between the two data sets. Likely, the teacher coordinator's post-program evaluations of the tutors’ growth was affected by her role. At the pre-test point, she knew the students as their counselor only. As such, possibly the early evaluations were not biased in any one particular direction but rather may contain error due to lack of information. Through the program and its demand for her intensive intervention with each one of the tutors, however, she developed close relationships with the students, which could potentially have affected the post-test ratings of growth, adding a systematic bias into the ratings.

Likewise, her role is to focus on the good in each child, which could influence the ratings. Additionally, there is a conflict of interest as her role in the program. If positive growth were not observed, it could affect the program’s survival and her job as teacher coordinator. The incentives to perceiving positive growth possibly resulted in an overestimation of the program’s effects. Observations of the program through site visits on a several occasions across the year indicate that the program appeared to be highly influential with a small number (3-4) of students. For example, one boy who stated in Fall 2005 that he enrolled in the program because his mother felt it was a good idea, by the end of year, was coaching the elementary students’ touch football game, running up and down the field and engaging them in the sport.
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Qualitative Analysis: Within Group

The pre and post interviews with students corroborates the conclusion reached through the quantitative analysis. Overall there was no discernible change in student engagement from the interviews. They reported that their attitudes, behaviors and feelings about school had not improved over the school year. However, one tutor of the twelve interviewed both in the fall and spring showed some progress. While he reported in the fall that he came to school only because he had to, in the spring he came “to learn and be a better person” and to have better job opportunities in the future. In addition, his perception of himself in the fall as a good student varied according to the day and how tired he was feeling while in the spring, he felt that he always tries hard at his schoolwork. Some measurable improvement had occurred in this boy: his score for the Piers Harris sub-scale for intellectual self-efficacy increased 1 out of 16 points, equivalent to a six percent rise.

Four students, however, showed indications for diminishing school engagement. One girl reported that she felt that school was “important for her future” in the fall, however, in the spring she found it “boring.” In the spring she reported that she no longer did her homework as she had in the fall. Another girl in the spring felt that she used to think that school was “okay” but now thinks it’s like “World War IV” and is no longer a place she enjoys.

Qualitative Analysis: Between Groups

When the 12 tutors’ spring interviews are compared with those of 10 comparison group students, again, no discernible pattern of positive growth in the tutors’ engagement emerges. Rather, the data suggest that the engagement level of the tutors was lower than the comparison group students. Tutors appear to have stronger dislike for school than comparison group as more students responded with negative feelings about school (5 of 12 tutors versus 1 of 10 comparable students). More of the comparison group students reported that they have mixed feelings about school (6 of 10 comparable students) or actually like school (3 of 10 comparable students). This emotion is echoed
by the students’ reason for coming to school. While the most popular reason for coming to school for the comparison group was "to learn" (8 of 10 comparable students), the tutors’ responses (nearly) evenly fell into two categories: because they had (6 of 12 tutors) to or because they wanted to learn (5 of 12 tutors). No control group students reported that they came because “they had to.”

Further support for the tutors’ relative disengagement appeared in responses to questions regarding specific classes. More tutors identified a non-academic class as their favorite course (4 of 12 tutors versus 2 of 10 comparable students). Both groups disliked the classes in which they struggle academically or where they found the subject area "boring." These negative feelings carried over into the effort that the students exert in their schoolwork. While none of the comparison students identified themselves with students who “don’t try hard at school,” 5 of 12 tutors did, citing that the work is “boring” or too difficult. Nine of the ten comparison group students, and 6 out of 12 in the treatment group, placed themselves "in between" the hard workers and non-working student categories. They explained the variation by changes in mood, tiredness or the relative importance of a school assignment. In both groups, one individual stated that he worked hard in school.

Tutors were more likely to complete homework assignments inconsistently, in line with their “mood.” Students in the comparison group were more likely to report that they completed homework (6 of 10 comparable students versus 5 of 12 tutors) while those in the treatment group were more likely to report doing it occasionally, when it "counted" a lot or when there is nothing more entertaining to do (4 of 12 tutors versus 2 of 10 comparable students). While both groups agreed that students don’t do their schoolwork because they don't care, are lazy or because their parents aren't pushing them, the treatment group is more likely to comment on the nature of the work, calling it "boring" (4 of 12 tutors).
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Possibly, some of the difference in engagement may result from the difference between the comparison and treatment groups’ parental education. While all students reported that their parents told them to finish high school, it is more likely that the parents of comparison group students reached this goal themselves. According to Bandura’s self-efficacy theory, their primary role models did not provide these students with salient role models of academic achievement, which might not help strengthen the youths’ resolve for education attainment. Many more of the tutors had at least one parent who did not complete high school (7 of 12 tutors versus 1 of 10 comparable students), while more of the comparison group parents had at least started college (8 of 10 comparable students versus 3 of 12 tutors). None of the tutors had parents who completed college or technical school while parents of five control group students had earned these credentials.

One bright spot appeared in the comparison between the groups’ interview responses. While not indicated by their Piers-Harris scores along the intellectual/school status subscale, more tutors than comparison group students (4 of 12 tutors versus 2 of 10 comparable students) reported that over the last year they had begun to feel better about themselves: they reported feeling smarter and more confident. None of the tutors, and 3 members of the comparison group, reported feeling worse about themselves.

Elementary School Student Tutees Outcomes

The elementary students who were tutored by the CCVYP students (i.e., the tutees), however, showed statistically significant growth in all available measures. For example, the tutees’ math achievement marks rose from “below basic” (2.24) in Fall 2005 to “basic” (3.27) in Spring 2006. See Table 3.7.
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Table 3.7 Tutee School Records, 2005-6*

<table>
<thead>
<tr>
<th>Measures</th>
<th>N</th>
<th>Mean (Fall)</th>
<th>Mean (Spring)</th>
<th>T-stat</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Marks—“Follows Rules”</td>
<td>51</td>
<td>2.98</td>
<td>3.29*</td>
<td>3.30</td>
<td>0.00</td>
</tr>
<tr>
<td>Grades—Math</td>
<td>29</td>
<td>2.24</td>
<td>3.27*</td>
<td>9.90</td>
<td>0.00</td>
</tr>
<tr>
<td>Grades—Reading</td>
<td>51</td>
<td>2.16</td>
<td>3.04*</td>
<td>7.72</td>
<td>0.00</td>
</tr>
<tr>
<td>Grades—Writing</td>
<td>51</td>
<td>2.18</td>
<td>3.06*</td>
<td>10.14</td>
<td>0.00</td>
</tr>
<tr>
<td>Houghton Mifflin Literacy Assessment</td>
<td>42</td>
<td>0.66</td>
<td>0.70*</td>
<td>2.16</td>
<td>0.04</td>
</tr>
</tbody>
</table>

*The report card grades follow a five-point scale, where 1 is far below basic; 2 is below basic; 3 is basic; 4 is proficient; and 5 is advanced. The behavior marks refer to the students’ ability to follow rules according to a four-point scale, where 4 is consistently, 3 is usually, 2 is sometimes, and 1 is rarely. Change in grades between fall and spring that are statistically significant at the 95 confidence level (2-tail test) are asterisked and bolded.

On the Houghton Mifflin formative literacy assessments, the 42 tutees who were tested in both fall and spring improved on average 4 percentage points. While 28 improved on average 11 percentage points, 2 stayed the same and 12 fell on average 12 percentages. Grades in math increased on average 1.02. While only 1 of the 51 tutees was considered at least proficient in the fall, 21 attained this status in the spring. Eleven students remained the same while all the 38 others improved. No students regressed.

Reading grades increased an average .88. While none of the tutees were considered at least proficient in the fall, 17 were so in the spring. Thirty seven of the students showed improvement, 12 remained the same while two students regressed. Grades in writing also increased, on average 0.88 points. While none of the 51 tutees in the fall were at least proficient, 15 were so in the spring. Overall, 40 students showed improvement, 10 remained the same while one student regressed. Lastly, the tutees ability to follow rules also improved, on average .31 points. Behavior worsened in three students, while 19 improved and 29 stayed the same.

Elementary school teacher pre and post evaluation according to nine criteria also showed statistically significant growth in all areas. For instance, elementary teachers
marked that the students' achievement increased from “negative” (1.92) in Fall 2005 to “positive” (2.96) in Spring 2006. See Table 3.8.

Table 3.8 Elementary Teacher Pre & Post Evaluations of Elementary Students* 2005-6

<table>
<thead>
<tr>
<th>Measures</th>
<th>NFall</th>
<th>MeanFall</th>
<th>NSpring</th>
<th>MeanSpring</th>
<th>Δ</th>
<th>T-stat</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to Socialize into School Environment</td>
<td>62</td>
<td>2.61</td>
<td>50</td>
<td>3.16</td>
<td>0.63*</td>
<td>4.55</td>
<td>0.00</td>
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<tr>
<td>Ability to Socialize with Schoolmates</td>
<td>62</td>
<td>2.77</td>
<td>50</td>
<td>3.12</td>
<td>0.43*</td>
<td>3.21</td>
<td>0.00</td>
</tr>
<tr>
<td>Academic Achievement</td>
<td>62</td>
<td>1.92</td>
<td>50</td>
<td>2.96</td>
<td>1.00*</td>
<td>7.87</td>
<td>0.00</td>
</tr>
<tr>
<td>Attendance</td>
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<td>2.58</td>
<td>50</td>
<td>3.34</td>
<td>0.76*</td>
<td>3.72</td>
<td>0.00</td>
</tr>
<tr>
<td>Disciplinary Record</td>
<td>62</td>
<td>2.29</td>
<td>50</td>
<td>3.10</td>
<td>0.73*</td>
<td>5.53</td>
<td>0.00</td>
</tr>
<tr>
<td>Hygiene/Dress</td>
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<td>3.03</td>
<td>50</td>
<td>3.36</td>
<td>0.35*</td>
<td>1.97</td>
<td>0.05</td>
</tr>
<tr>
<td>Interest in Class</td>
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<td>50</td>
<td>3.24</td>
<td>0.82*</td>
<td>6.16</td>
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<tr>
<td>Interest in School</td>
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<td>2.52</td>
<td>50</td>
<td>3.22</td>
<td>0.76*</td>
<td>5.23</td>
<td>0.00</td>
</tr>
<tr>
<td>Self Concept</td>
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<td>2.60</td>
<td>50</td>
<td>3.06</td>
<td>0.47*</td>
<td>3.28</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*The elementary teacher of each tutee rated each student in the Fall and again in the Spring on a four-point scale (where 1=very negative and 4=very positive), according to the 9 components indicated above. Results that statistically significant at the 95 confidence level (2-tail test) are asterisked and bolded.

Unfortunately, equivalent data for non-tutored elementary school students was not available. However, the elementary school's former principal commented that the pattern of growth demonstrated by the tutees follows the trend that is commonly observed in this elementary school, where students typically show improvement over the course of the school year. As there were a number of different interventions that were in place at the elementary school, it is impossible to attribute the growth to the CCVYP. Although absolute improvement for the tutees is observed, whether the students would have improved at a faster, the same, or slower rate had the tutors not been present cannot be determined. Anecdotally, however, there is some evidence.
Several elementary teachers felt that the tutors did boost their students’ achievement. As one wrote in an evaluation, “Test scores for one tutee went up 25 percent! Her self-confidence did too. I know Ms. [tutor’s last name] helped her achievement.”

### 3.3 Limitations of Analysis and Discussion

It is critical to interpret these results within the context in which this analysis occurs. Some issues, including response bias and attrition bias, might exaggerate effect size while others, including selection bias, the size of the sample size, the length of time the intervention was in place, possibility for spillover, opportunity costs of other programs as well as teacher relationships, could make the program appear less effective. Additionally, it is possible that there was not enough time for improvements to appear. The possibilities of upward and downward bias in the results are considered below.

**Upward Bias**

**Response Bias**

Response rates for both the pre and post test surveys were generally high, exceeding 70 percent of students in comparison group and 80 percent of the tutors. Analysis of the non-responders’ school records data, however, does indicate that the students who demonstrated higher rates of poor school behaviors and more disciplinary actions were less likely to complete the Quality of School Life survey. When interpreting the engagement scores, then, it is important to bear in mind that the result might be somewhat artificially inflated due to the absence of the “problem” students’ surveys: some doubt should be cast on the absolute QSL score values. Furthermore, no change was identified in the discipline measures so the null hypothesis remained valid even in light of the potential bias.

**Tutor Attrition Bias**

Tutors exhibited a statistically significant higher rate of attrition than the students in the comparison group, 19 versus 7 percent, respectively. Only one of the six students who left the program remained at JAMS meaning that overall mobility rate was higher for
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tutors than the comparison group students. This difference again is reason for concern: mobility is a high risk factor for low-engagement, poor achievement, and ultimately high school drop out (Jacobson, 2001); (Rumberger and Larson, 1998); (U.S. General Accounting Office, 1994). Students who left the treatment group had statistically significantly lower math citizenship marks: 1.17 versus 2.52, the difference between “needs improvement” and “good.” Furthermore, students who left appeared to have had more behavioral issues. Students who left the comparison group had statistically significantly more tardies (12.14 versus 5.61) and more disciplinary actions (10.71 versus 5.17) than the students who remained at JAMS.

The departure of these higher risk students, might make the spring time results appear better. Furthermore, as the attrition rate is higher for the treatment group than the comparison group, the inflation might be greater for the tutors. However, as statistical tests did not identify behavioral issues as significantly different between the two groups and the null hypothesis remained, the concern is likely muted.

Selection Bias
Even after the sample matching performed by propensity score methods, a causal link between CCVYP and the students’ poorer outcomes cannot be claimed, as possibly there are variables omitted from the analysis that might be the “true” causal factors pushing down on the tutors’ engagement and achievement. Furthermore, “true” comparison students may not exist. The selection process, as discussed earlier, was not random and all factors able to impact students’ engagement and achievement cannot be measured and included in the analysis. As such, the few “statistically significant” results i.e., the tutors’ achievement losses, cannot be attributed to the Valued Youth Program.

Statistical Power
The relatively small (in statistical terms) number of students eligible and enrolled in the program makes it very difficult to detect a significant effect as the power (Moore and
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McCabe, 1999). The sample size required of both groups to detect a significant difference from the null for a two sample test is as follows:

\[ N = \frac{(Z_{\alpha/2} + Z_{\beta})^2(2\sigma^2/\left(\mu_2 - \mu_1\right)^2)}{ } \]  \hspace{2cm} (1)

Where \( N \) is sample size for both groups, \( Z_{\alpha/2} \) is the z statistic used to reject the null hypothesis with \( \alpha \) probability (frequently 0.05 for confidence level of 95 percent), \( Z_{\beta} \) is the z statistic used for the z test to accept the null hypothesis when the alternative is actually true at \( \beta \) (frequently 0.20 to reach the commonly accepted value of 80 percent for power, 1 - \( \beta \)); \( \sigma \) is the estimated standard deviation; \( \mu_2 \) is the mean value for group 2 and \( \mu_1 \) is the mean value for group 1. Consequently, power decreases as sample sizes decreases meaning that the statistician is more likely to accept the null hypothesis when the alternative value is true: a program is more likely to be identified as having “no effect” in small samples than if more participants were included in the experiment.

Another way of looking at this issue is to consider a power calculation using “effect size”, \( \delta \), the distinguishable effect in standard deviation units:

\[ \delta = |\mu_2 - \mu_1|/\sigma \text{ or } \sigma = |\mu_2 - \mu_1|/\delta \]  \hspace{2cm} (2)

substituting this value into the equation (1), we find that:

\[ N = \frac{(Z_{\alpha/2} + Z_{\beta})^2(1/\delta^2)}{ } \]  \hspace{2cm} (3)

Meaning, as sample size increases, smaller effect sizes can be identified as statistically significant. Consequently, for small sample sizes, effect sizes must be large to be detected. As changing human behavior and attitudes is difficult work, and because the program had been implemented for only a short period—ten months—it is perhaps unreasonable to expect to see change in the students’ behavior and school attitudes on a scale large enough to be detected across such a small group.
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Downward Bias

Cross Sample Contamination
Possibly, the comparison group might have also been “contaminated,” that is, was able to benefit from the Santa Monica Valued Youth Program. The teacher coordinator of the program was also the counselor to all eighth graders. Possibly, she used the strategy promoted by the Valued Youth Program, particularly the use of consistent positive reinforcement, with all students she came into contact. If students do respond well to this strategy, it is possible that members of the comparison group grew from the interactions with the teacher coordinator, leaking CCVYP “effect” into their engagement, academic and self-concept measures.

Alternative Elective Programs at JAMS
It is also reasonable to think that the results can be explained by the fact that the Valued Youth Program in its first year might not have been as effective as the alternative electives available to students. Students in the comparison group took a variety classes instead of the Valued Youth Program, including Art (n=42), study skills including math and reading workshops and supervised study halls (n=25), Spanish classes (n=26) and teacher assistant positions (e.g., library book-reshelving and runners for the attendance office) (n=16). The study skills classes likely provided the students with time to complete homework assignments and to get the extra help needed to understand classroom work. Possibly, these classes taught them valuable lessons in time management and study skills. These benefits could have boosted the comparison group’s ability to perform in their academic core subjects and improve their grades. Alternatively, the art and music electives might have captured the imagination of the comparison students, connecting them with at least one class and one teacher, which could tighten their overall connection and attitude towards school. The benefit provided by these electives may have proven strong enough that any additional effect of the Valued Youth Program could not be detected.
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Teacher Relationship Issues

It is particularly interesting to note that the tutors seemed to struggle more in their math classes than their English-Language Arts courses. One of the more vocal individuals against the presence of the Valued Youth Program at JAMS was a math teacher who had a large number of tutors in his classroom. All seventh and eighth grade teachers had been alerted to the program and its enrollees through an email that identified the names of all the tutors. Possibly the disdain for the program affected the objectivity in evaluating the tutors’ effort, citizenship and even class grades. Marks to some degree require judgment calls—the difference between a D and F might be a teacher’s perception of the student’s effort, which in turn, may reflect the character of the teacher-student relationship. Enough judgment calls against tutors might make the tutors’ appear worse off than the comparable students not enrolled in the program.

3.4 Conclusion

Finally, when interpreting these results it is important to bear in mind “Rossi’s Law”: analysts should expect the effect of a program to be zero for numerous reasons. Changing human behavior is hard work. Even the most well thought out and energetically implemented program might not produce the results, or at least the ones most easily measured, in the time frame prescribed by evaluators. Programs are designed and implemented by human beings, who are fallible, into politically charged systems that might very well negatively interact with the program’s intended success factors. The next chapter of this dissertation considers the causes of the disappointing results: implementation fidelity is explored, providing a possible explanation as to why the Valued Youth Program failed to produce the desired results within its first year.
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Chapter 4.

Process Evaluation & Implementation Fidelity
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Why didn’t the Coca Cola Valued Youth Program (CCVYP) in Santa Monica succeed in achieving its anticipated positive results in its first year? Clearly, the implementation process itself deserves attention. Oftentimes, an efficacious program is ineffective because of flawed implementations and failures to implement the program as planned. Assuming that the program itself is efficacious\(^7\), that is, the program is capable of motivating attitudinal and behavioral changes in “at-risk” students, to what degree did the actual implementation meet the ambitions outlined in the program’s original plan? Was the implementation of the CCVYP adequate to permit a reliable “test” of its effectiveness?

By no means is implementing the CCVYP a simple task. It requires the integration of multiple stakeholder groups and two different school sites: the school board, district administration, middle school administration, middle school faculty, elementary school administration, elementary school faculty, students and their parents. The responsibilities of these individuals vary according to the implementation stage. As is shown in the following diagram, central to the success of this network are the program’s coordinators who are given the onerous task of maintaining this web of constituency groups. The large number of requisite relationship links activated at different points of the implementation increases the probability that at least one of these interactions in at least one point in time, will falter.

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\(^7\) While an external evaluation of the Coca-Cola Valued Youth Program does not exist, for matters of this chapter, the evaluation of the program by IDRA researchers, its creators, will be assumed to provide sufficient evidence to indicate that program has created some value in terms of improvements in student attitudes and behaviors. This evaluation used a quasi-experimental design to consider the effect of the program on 63 tutors as opposed to the results of 70 middle school students who also attended one of four schools in San Antonio. The treatment and comparable groups were comprised of “at-risk” (in terms of socio-economic status, race and ethnicity) middle schoolers with limited English proficiency. It considered pre- and post- measures of student grades, disciplinary action referrals, absenteeism, self-concept and quality of school life. Over the two years of program implementation, tutors showed significantly better performance than comparable students in terms of dropout rates, reading grades, self-concept and attitudes towards school. Evidence presented in this evaluation, however, is not sufficient for researchers to assert a causal relationship between the tutors’ improved outcomes. See Cárdenas et al, 1992.
In Santa Monica's implementation of CCVYP, this network of stakeholders sometimes functioned productively. At other times, however, some linkages faltered, undermining the entire network's ability to operate as a cohesive whole. This chapter discusses the network's functioning, comparing the optimal form with the one actually realized, across the four stages of implementation: problem identification and site selection, pre-implementation planning, implementation and post-implementation review. In so doing, it identifies where Santa Monica's CCVYP’s excelled and where it fell short, positing the consequences each bore on the program’s outcomes.

4.1 Implementation Stage I: Problem Identification and Program Selection
The first step in solving a problem is to define it. The right formulation, coupled with correctly outlined objectives, will lead to the right set of alternatives; a poor characterization can lead to inappropriate solution (Hammond, Keeney and Raiffa,
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The Santa Monica administrators identified the problem: a significant achievement gap among their student socio-economic, racial and ethnic groups. They diagnosed the cause, in part: poor student attitude and disengagement from schoolwork. They then set their sights on the school within the district with the greatest proportion of students in need: John Adams Middle School. As indicated in the baseline data presented in Chapter Two, many of the students at this school have low levels of student engagement, characterized by frequently poor school behaviors, poor school attitudes and low personal estimations of academic self-efficacy.

Having achieved less than optimal results using traditional methods, the administrators wanted to address the problem in a new manner. Their previous attempts had focused on the high school where the achievement differential was most acute. Perhaps prevention efforts—addressing the issue before it fully matures—they thought, could be more successful. As one district administrator stated, “I never want to say never, but I think that it’s getting really late in the game if we can’t hook [these students] and motivate them by eighth grade.”

The administrators had already taken significant steps to reforming the school structure to facilitate the emergence of small learning environments. In addition, they wanted to provide extra support to those students in greatest need. This support, they felt, would give that special boost to help prepare the students for the ever troublesome transition into high school. Establishing at least one strong relationship with an adult on campus, they thought, would help. As the administrator continued:
It’s really hard for us to see kids make gains over the six years at the elementary school level and then slide back and disengage when they hit the middle school environment...At our elementary school, [all students have] an adult mentor who they are assigned to. They meet weekly and do all kinds of activities. There is one person at the school that knows this kid all the way through their [elementary school] career. If something changes from one year to the next, there is somebody who notices. And then when the kids go to middle school, yeah they have a counselor...but it’s not quite the same...There’s not that one adult who cares about [them], and who...[they] know that [they] are going to have to face the music with.

**A Hard Act to Follow: Program Selection**

Excited by a presentation that showcased CCVYP at the RAND Corporation, the district’s superintendent decided to act. He found the video that was shown to be particularly compelling: Katie Couric’s exposé depicted students similar to the troubled middle schoolers at John Adams achieve academic success and forgo gang membership through participation in CCVYP. In the superintendent’s words, “It was like a bolt out of the blue.” In consultation with several school board members and his senior staff, the superintendent decided to advocate for the program’s implementation in the next school year.

The appearance of the program at the seminar seemed serendipitous: here, respected researchers presented a compelling solution to an issue causing tremendous grief for the district, at a time when the district and city were willing to take bold, non-conventional moves to affect their at-risk students. As one school board member speculated:
Maybe [the program] came as the result of feedback we got from students when we had our little civil unrest there on April 15th at the high school\(^8\). As a result of that [incident], [we're] trying to find ways to have more of a connection [with students].

Also, a graduate student (myself) who worked with the researchers from RAND offered to provide an external evaluation. As the superintendent commented, “We needed a research partner...that was really critical to me and so that is why we decided to go forward with this.”

In hindsight, however, the selection of the CCVYP for John Adams possibly deserved greater caution. The CCVYP takes aim at discrete elements of the problem: the tough kids outside of their classrooms. This approach, however, is counter-indicated by research including the RAND Change Agent Study, a large-scale, evaluation of federally-funded education programs. As Milbrey McLaughlin, one of the study's authors, wrote:

Special projects, or reforms aimed at discrete elements of the education policy system, are likely to be disappointing. The dominance of local implementation, the local factors that make variability the rule, and the fluid and often unpredictable character of the local institutional environment all underscore the systemic nature of the problems that change agent policies address. Special projects focused on single issue or single inputs typically (by necessity) ignore the systemic and interconnected conditions that influence classroom practice. (p. 14-15, 1990)

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\(^8\) On April 15, 2005, tension amongst several students on Santa Monica High School’s campus escalated into fights. The school’s administration contacted the police, requesting their presence during the lunch hour. Fights, however, did occur during the lunch hour, forcing the administration to cut the lunch break short and request students to proceed to their fifth period classes. When few responded, the police declared the area an “unlawful assembly” and called in back up from Culver City and Beverly Hills to get the students into their classrooms. Concerns that fights would erupt once the period was over pressed the administration to enter lock-down mode, so that students would not be dismissed at the end of fifth period. The day ended with a progressive dismissal beginning at 2:30. For more information, please see the SMMUSD’s Agenda for May 5, 2005 at [http://www.smmusd.org/brd0405/agn050505.pdf](http://www.smmusd.org/brd0405/agn050505.pdf).
The program does not address many of the influences that shape student engagement. For instance, it did not address the attitudes of some middle school teachers, which were incompatible with the program’s stated values, who interacted daily with the students. Some of the faculty believe that poor school behaviors should be disciplined while the program argued that more emphasis should be put on praising student’s achievements. By focusing on the positive, the program developers argue, students’ self confidence will grow and the poor behaviors will be replaced with appropriate ones. While the program coordinators adopted the program’s philosophy, a sizable number of the John Adams faculty did not. Consequently, many of the students’ classroom experiences were guided by beliefs and values that ran counter to the program. Possibly, the conflicting messages from classrooms and from the intervention might undermine the program’s effectiveness.

On a practical side, CCVYP is a very costly endeavor on a per-student basis. District administrators estimated the first year at John Adams would cost $140,000, almost $5,000 per student. The amount of finances involved in this implementation put pressure on the program to create measurable benefits in a short time frame. As a school board member commented:

My main concern is the money. It’s a lot of money for 30 kids. That isn’t to say that the kids don’t deserve it in some big picture sense. Lord knows that we have many other kids with special needs that we spend tons of money on quite appropriately…it’s okay but then it better work well. If there is no effect…that’s really distinguishable from the control group or the difference is so minimal as not to be in medical terms “clinically significant,” then I don’t think it can go on.

A district administrator concurred:

It is very expensive. However, pretty much anything that I have read [argues] that the more you invest in kids who are struggling upfront, the less you invest in them as a society later on. We can make an argument to continue this level of investment in certain child groups if we see progress, but it is very expensive.

This pressure resulted in expectations for rapid turnaround. Meeting these high expectations was further complicated by the short amount of time available to
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implement the program: three months. The time constraint rushed implementation and necessitated cutting of corners off the implementation plan, which in turn put the program at higher risk of failure.

The reason for the high cost of the program rests in its complexity, which posed some significant implementation challenges. As a school board member worried before implementation:

One [barrier to the program’s success] is just logistics. This is hard because you have to take kids out of class, they got to have their [tutoring] sessions, they have to walk over to the elementary school...they need a place to tutor the kids, and the tutors have to be observed and overseen. It seems very complex to me.

CCVYP is a complicated intervention that requires the active participation of eight stakeholder groups and coordination between two school sites, the middle school that provides the tutors and tutoring classes and the elementary school that provides the opportunities to tutor. The two school-intervention model necessitates that two sets of administrators and two faculties work together to support a relatively small group of admittedly difficult middle school students. Each stakeholder group is required to maintain at least three CCVYP working relationships, oftentimes layered over ties already burdened with multiple responsibilities. All of these linkages center around the two teacher coordinators who are responsible for managing the web of network connections. An “X” indicates a CCVYP relationship needed for the program to function as intended. For example, the middle school administration needed to coordinate with the district administration to support CCVYP. See Table 4.1.
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Table 4.1 CCVYP Relationships

<table>
<thead>
<tr>
<th>Stake-holder</th>
<th>Board</th>
<th>District Admin.</th>
<th>Elem. Sch Admin.</th>
<th>Elem. Sch Faculty</th>
<th>Mid Sch Admin.</th>
<th>Mid Sch Faculty</th>
<th>Parents</th>
<th>Program Coords.</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board</td>
<td>—</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District Admin.</td>
<td>X</td>
<td>—</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elem. Sch. Admin.</td>
<td>X</td>
<td>—</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Elem. Sch. Faculty</td>
<td>X</td>
<td>—</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Middle Sch. Admin.</td>
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<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle Sch. Faculty</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
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</tr>
<tr>
<td>Parents</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>—</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Coordinators</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Students</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>—</td>
</tr>
</tbody>
</table>

Furthermore, the roles for each stakeholder group vary according to implementation stage. In Table 4.2, an “X” indicates stakeholder’s participation in the implementation stage, based upon review of its literature and site visits. The extent of role is described by the X's size: a minimal role is indicated by x, a mid-level of responsibility is indicated by X while extensive responsibilities are indicated by X. For instance, the students played a significant role during the program's implementation.
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Table 4.2 CCVYP Stakeholder Participation by Implementation Stage

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Stage I: Program Selection</th>
<th>Stage II: Pre-Implementation Planning</th>
<th>Stage III: Implementation</th>
<th>Stage IV: Post-Implementation Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District Admin.</td>
<td>X</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Elem. Sch. Admin.</td>
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<td>x</td>
<td></td>
<td></td>
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<td>Elem. Sch. Faculty</td>
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<td>Middle Sch. Admin.</td>
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<td>Students</td>
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With shifting responsibilities, heavy workloads, and relationships already laden with many obligations, consistent fulfillment of these interactions did not always occur. In fact, in each implementation stage, certain weaknesses in the key relationships emerged that undermined the program’s effectiveness, as the following process analysis of the first year of implementation identifies.

4.2 Implementation Stage II: Pre-Implementation Planning

The second implementation stage, the planning phase, refers to the period after the school board endorsed the program and before the students began to tutor. It was the time where support for the program needed to be garnered from multiple parties and when the coordinators planned the program’s roll out, including the selection of the students who would participate. As indicated in Table 4.3, the Santa Monica CCVYP implementation team excelled in some facets of the pre-implementation planning, but faltered in one very critical component: they failed to earn the support of the middle school faculty and staff.
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Table 4.3 Pre-Implementation Planning Adherence to Plan

<table>
<thead>
<tr>
<th>Core Component</th>
<th>Implementation Quality</th>
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<tbody>
<tr>
<td>Management buy-in: Board and District</td>
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<tr>
<td>Middle school buy-in: JAMS faculty and school staff</td>
<td>3</td>
</tr>
<tr>
<td>Elementary school buy-in: WRES faculty and school staff</td>
<td>1</td>
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<tr>
<td>Tutee selection</td>
<td>1</td>
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<tr>
<td>Tutor selection</td>
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Constituency Buy-In: District Administration and Board Endorsement

The RAND Change Agent study identified active commitment of district leadership as “essential” to a project’s success and necessary “at the outset to under-gird implementation efforts” (McLaughlin, 1990). Without it, school employees typically will not make the necessary investments in the program (McLaughlin, 1990). In this respect, Santa Monica received solid support from the district, even explicit endorsement from the Board. As one district administrator commented:

There is a big commitment by the superintendent and the school board to really work with those hardest to teach kids. It’s not a district belief or practice that there are throw-away kids...Decades ago, [it] was just standard practice [to] teach to the middle: you can maybe help this group a little but that there really isn’t anything you can do about that [one]. There used to be [the belief that] you’re going to lose 10 percent of your kids every year. And I think what we have going for us is that that is explicitly not okay from the superintendent and the school board.

The superintendent presented the program to the school board as part of multi-pronged strategy to address low student engagement and achievement disparities amongst the district’s different socio-economic, racial and ethnic groups. The board explicitly endorsed the plan. One school board member even attended CCVYP’s national
leadership conference in San Antonio and visited schools where the program had been running for several years.

The administrators backed up their support with resources. Importantly, they established funding in such a way that would require specific efforts to remove it from the district’s budget. As a district administrator described:

We ended up creating a line in the general fund, which is really a good thing for the program...our state funding [changes] year to year and is totally dependent on the state budget...as long as it is in the general fund, it has the potential to get reviewed annually as a continuing item, whereas if it goes into our [district] funding, our priorities shift so much and the state funding levels shift a lot that it could get slashed just as part of the general need to save positions as opposed to programs...My experience has been that if you can get it into the general fund, it often stays there.

Constituency Buy In: Middle School

In addition to the need of a school-based intervention to address the systemic nature of a problem, the RAND change agent study also indicated a program’s need to achieve organizational support from all levels: it found that support from the schools’ faculty was critical to a program’s success. As McLaughlin wrote, “Policy cannot mandate what matters. What matters most is local capacity and will...The presence of the will or motivation to embrace policy objectives or strategies is essential in the generation of the effort and energy needed for a successful project” (p.12-13, 1990). Several types of “buy in” were needed from JAMS staff, from the school’s administration to program coordinators and finally the faculty interacting with the students. Possibly, the support of these two groups would be linked. As the program representatives, the coordinators would likely be seen as the personification of the CCVYP. If so, teachers might then transfer respect for the coordinators into support for the program.

For its part, the school administration agreed with the program’s philosophy. As one school administrator spoke:
I think that the key is looking at students as valuable...that they are of worth, that they have skills that they can contribute to make life better for other children. That whole piece you can’t artificially construct in the classroom...[where] there’s no [real] risk involved. Although we artificially create risk, it’s all theoretical, it’s all paper pencil, and there is no investment in the interchange that goes on. Once you take a student out to participate in the Valued Youth Program, they actually have a responsibility that they can see fulfilled in the children that they’re working with...I believe that this is a way that students can experience [success], can see the product of their work in real tangible ways that adds strength to them and that can’t be taken away. What I like about [the Valued Youth Program] is believing in children, giving them hope, giving them a place where they can actually contribute and feel of worth.

In addition, the two individuals selected as coordinators had already incorporated the program’s philosophy in their roles. Their previous work with “at risk” youth at JAMS had identified their personal affiliation for the program’s philosophy. In addition, they had well developed skills and connections that would support the program. One coordinator brought her experience of counseling at-risk students while the other brought a wealth of community ties. In particular, she brought strong working relationships with the school board, the district administration and the community at large, many of the networks required by the program. As a district administrator lauded her:

She has a tremendous amount of knowledge about kids and families in the community...She’s knowledgeable about community resources. She’s on a first name basis with people who provide resources, counseling agencies, police department, [the superintendent], she has all those networking connections. She’s highly respected....And she can use that to tap into resources.

Neither individual would be solely dedicated to the program, however, and would continue in their organizational roles as the school’s child advocates, which had already and would continue to place them, at times, in conflict with John Adams’ teachers and administrators. These encounters could influence the bonds between the coordinators and middle school faculty and administration and might even color faculty support for the program. While some faculty respected the efforts these women invested in
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troubled youth, a vocal group of others felt that these women were too lenient with the students. As one eighth grade teacher commented:

Teachers in general are concerned about who is in charge of the program. I think that there might be a greater comfort level if people [were confident] that the teacher of the program was a person able to [insist on] appropriate behavior. Counselors tend to be a little more tolerant.

A seventh grade teacher concurred:

[These students] have been allowed to continue with the [bad] behavior. It’s been accepted...The idea seems to be not tough love but love no matter what...I don’t think these kids are being prepared for high school or life because no one on earth will accept their behavior...We’re doing [them] a disservice.

One coordinator, who had confronted teachers regarding their choices of discipline, was singled out by a number of the middle school faculty. As this coordinator explained:

I think it’s a personal thing between [some teachers] and myself, or them and [the other coordinator], because we push the envelope to advocate for students. Some teachers are not very embracing about that. They’ll say, well, they’re just kids and they shouldn’t have any choice in anything. Or, they don’t care so why do you even bother? That type of thing.

Some teachers felt that as long as there is an instructional component to the program, a certified teacher needed to be involved. As a middle school teacher discussed the situation:

We went to school to learn the theory behind classroom management and lesson planning, [to think about] the way our kids [might] respond to [a] lesson plan, and changing it so that it is more effective. Counselors have different training. Their training is how do I deal with these student one on one to help them through their problems, whereas the teacher says how do I deal with 20 kids, 30 kids, 40 kids, [how do I] present this piece of information [so] that it is beneficial for all types of learners.

These concerns and personal tensions led to weak linkages between some middle school faculty and the coordinators, possibly resulting in poor faculty support for CCVYP. Furthermore, the middle school’s administration did not address the weaknesses at the
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appropriate time, during the pre-implementation stage. Efforts to “sell” the program to the middle school faculty were particularly needed because of the program’s non-conventional approach of putting “at-risk” students in leadership positions. Without it, many middle school teachers assumed that this program would serve as a reward for good behavior, rather than as the program’s incentive for good behavior. As one eighth grade teacher stated:

There has to be some way for kids to leave the program and other kids to enter the program...A lot of the youngsters who started in the program are still in the program [even though] there’s something seriously at fault...We can’t [get] anything out of many of these youngsters...there has to be a stronger commitment on the part of the kid to do something other than take this class, get out of another class, do a good job tutoring and draw a paycheck. Maybe drawing the paycheck needs to be tied to something more than just the mentoring program. It’s a privilege.

By not understanding the program’s intentions and abilities, expectations for rapid turnaround were raised. Lack of dramatic improvement in the tutors’ behavior created a sense that the program was not succeeding, which could have further undermined the program’s reputation with faculty.

District and school administrators both overlooked the need for faculty support until the program and its coordinators were besieged with negative criticism. For its part, the district thought that because teachers were not actively engaged in project roles and that the program did not affect their teaching, i.e., did not remove students from their classrooms, the faculty would not react to the program. And, it also felt that the responsibility for gaining this buy-in from faculty rested on the shoulders of the school’s leadership. The middle school administrators, however, were caught up in managing the school’s tremendous structural changes. As a district administrator explained:
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The principals are completely overwhelmed by the number of things they are trying to do at the school site this year. And this one just doesn’t get on the radar screen. I really don’t know [why] because this [program], cost wise, is the biggest investment we are making per child at the school. And not that you should think of everything in terms of money, but when they have to make a presentation to the board this spring, the board is not just going to say what’s going on with collaborative planning time, they are going to be asking what’s happening with Valued Youth?...I really want to mindful of not sounding like I’m criticizing them. They have a lot going on, they are really very new...[but] we have the odd situation of [having] a board member who is more involved in the program than the principals at the school.

The middle school administration finally presented CCVYP to the full faculty in early March, six months after the program had begun. Unfortunately, the presentation provided too little information too late to have a positive effect on teachers’ attitudes and support for the program. As one eighth grade teacher described:

We had a presentation. I found it [to be] a sales pitch. It was sort of a RAH-RAH and the faculty was not able to ask questions. I felt that we missed a valuable opportunity to gain some knowledge about the program. So there might be a lot of superficial knowledge about the program, there’s not a lot in depth.

A second eighth grade teacher continued and described the information she and other faculty members had hoped to gain from the presentation:

[What] we were looking for was what [are the] requirements? How did they get in? What are their responsibilities in class? What are their responsibilities when they go to the elementary school? What are the requirements citizenship wise? We were looking for all of that and we didn’t really get that answered at that meeting. We got [an] overall general idea about the valued youth program...but we wanted to know specifically what it was doing.

As such, the negative attitudes towards the program held by some vocal faculty members continued. Without efforts to win the support of the faculty, the teachers then moved to make changes it felt would improve student outcomes but not necessary consider its impact on the program with which some were not aligned. For example, the JAMS faculty enacted a policy that it felt would provide the structure that their students
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needed: no late homework would be accepted. Rather than providing support for the program, this policy made the CCVYP’s intervention work more difficult. As a district administrator discussed:

I’m not sure that the teaching staff at JAMS really understood the intent of the program nor do I think they were asked to make any commitment in terms of altering their sense of fair play in terms of dealing with this population of students...Kids [are] failing classes, getting Ds in classes, because they haven’t turned in assignments. [Now] they have people through Valued Youth who will work with them to get the assignments done, but the teachers won’t accept them late...I can’t really understand why they won’t bend the rules. Here you’ve got kids who have consistently failed, now they have someone in their corner helping them so that if they miss an assignment, they’ve got someone to help make sure that they get it in. Now, what’s the point of doing it if you don’t get credit for it if it’s late?...I’m not sure if they are really aware of how special this program is and what an opportunity it is for these kids but it really will only make that impact if everyone takes ownership of these kids...teachers should be able to meet the program and the kids at least half way.

The relationships among coordinators and some middle school teachers never developed into the support network that the program designers had hoped. Instead, the coordinators were forced to spend significant time trying to gain the teachers’ approval for the program. Students could not make up homework. Some teachers continued to kick misbehaving students out of their classes, which meant that these students had less instructional time. Many faculty members continued to expect poor results from these students and the tutors complied. As a JAMS administrator reflected on the issue: “If we were to start over again, I would have done a better job of letting the faculty know about the purpose of the program [and] the growth that we expect to see so that their expectations weren’t unreasonably high.”

Constituency Buy-In: Elementary School

The CCVYP implementation pre-planning work focused mainly on the elementary school. Some were worried about elementary school parents' response to the introduction of Valued Youth tutors to the elementary school classroom. How would parents interpret their presence? A school board member worried that by bringing in
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tutors, parents would think that there was “a serious problem” at the elementary school. Others thought that parents might be upset if they knew that “disengaged” middle school students were being used in the classroom as they might present poor role models for the younger students. Others expressed concern that as the elementary school principal had been promoted to a district job in July, an interim principal had been assigned without much time to prepare for her new management role or act as an advocate for CCVYP. Some worried about how the elementary school faculty would respond to the Valued Youth. As a school board member stated, “Perhaps even more concerning is that [the elementary school faculty] might think that their school is being dumped on. Here are all these middle school students who are disengaged and need help...and here they are, flocking into our school and hanging out.”

The biggest concern, however, was the elementary school’s past history with John Adams’ “teacher assistants.” Once the original Santa Monica CCVYP (implemented in late 1980s and concluded in early 1990s) lost its funding, it deteriorated into a more “cost effective” model. For their elective class, students could go across the street and provide “assistance” to the elementary school teachers and staff. No training was provided to these students and no middle school teacher accompanied them across the street. Expectations for these students during this period were never made clear and the program failed. As a former administrator at the elementary school described the situation:

We actually stopped [the teacher assistant program] about a year or two ago because we thought that those kids were being encouraged to TA rather than [take] a class. It was, from our perspective, an easy way for JAMS to settle scheduling issues or perhaps “get rid of” some kids for a period a day...[And] they just walked over on their own and our front office took attendance. They had to sign in every day, but they would sign each other in or they would sign in and leave. And our teachers were responsible for giving them a grade...So we finally said thanks but no thanks. Don’t send us anymore TAs.

Because of the negative feelings about the TA program, the Valued Youth coordinators worried about recruiting enough teachers to participate. Luckily for them, the newly
appointed elementary school principal was dedicated to smoothing the path for the Valued Youth’s entrance. She placed the program squarely within the elementary school’s value system. As she stated:

[The elementary school coordinator] was really worried that we wouldn’t get enough people. So I tried to calm the situation by linking it back to our goals. This is who we are and what we believe as a school. We’re talking about collaborating and having an open mind and open door...and this naturally leads [to this program] because part of building partnerships was to reconnect with previous graduates.

She, along with the elementary school coordinator, also worked to present this program to the elementary school faculty in very practical terms. They presented ways to use the tutors in the classroom with minimal prep time: “Okay, we’ve got the frames already, in a baggie, with a book, [and] here’s an example.” Plus, they both checked in with the elementary teachers and visited the classrooms when the tutors were present. They provided timely support before issues grew into unwieldy burdens.

This preparation was effective in overcoming what could have become an implementation barrier. Too many elementary school teachers signed up for tutors and some had to be turned away. The tutors were welcomed to the campus. And, the elementary teachers helped to manage parent reactions. As one kindergarten teacher explained:

I told my parents that I had middle school children working with their children on letter recognition, number id, letter formation and that they are working in pairs of two...I told the parents that right now [their children] are not meeting these goals but I feel that if I have these people working with them and they get a little extra nudge that this will be a good thing [and] that I think they could reach those exit goals. So they were like, that’s great!...They were happy to know that there was somebody else out there that was working with their kids.

The superintendent noticed and celebrated the success at the elementary school. As he stated, “[One thing that has] surprised me is, to my knowledge, there were no issues whatsoever in the receiving school. I expected that there would be concerns, a transition period, a rough spot. [If there were,] I’m totally unaware of them.”
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While a few elementary teachers that participated in the program complained about scheduling difficulties and weak communication, most felt that overall, the program was good for their school and their students. As one second grade teacher commented:

We try to have differentiated instruction and some teachers work with small groups...I think that part of the reason that the administration wanted the tutors [was] so that everybody [would] differentiate and meet the needs of all the different levels in the classroom...This is one way to do that...it helps makes sure that you’re not teaching whole class all the time.

She continued further:

I like having the students come in. It’s like an extra person working with them. I also like the part of seeing these kids and seeing how they changed over the year. When they first came in, especially one, was a little reluctant, uninvolved...But after a couple months, they opened up and then became so responsive to the students and me, just a cheeriness and just so polite. When he was finished working, he would put everything away, shove in all the chairs...I got attached to the tutors...they were both great. The girl especially was like a little teacher. She was just so nurturing and seemed to pick up on when kids needed something.

Some elementary teachers supported the program for what it offered the tutors who participated. As one kindergarten teacher spoke:

I buy into this [program] because it is so worth it. I know, being a person of color myself, coming from a working class family, it ain’t easy. It’s a hard sell. It’s not what college are you going to? It’s you graduate from high school hooray, because college is expensive. College costs money. We don’t have that money. What are you’re thinking? I think it’s really, really hard [for these students]. It’s getting the kids to realize that they can feel like a student and can be successful...I think for the [tutor’s names] of the world, they’re going to need that shot in the arm. They’re going to need [to hear], you can do it. It can be done. Don’t give up.

Participant Selection: Tutees
The program’s designers suggested selecting elementary school tutees based on the sense that with a little additional help, they would succeed. Santa Monica operationalized this recommendation by choosing students based on their test scores.

As an elementary school coordinator described the process:
I [looked] at the California standardized testing, [which] is divided into ranges: advanced, proficient, basic, below basic and far below basic. We’re not including the far below basic kids or the resource (special education) kids. We’re looking at kids who are the bottom range of the basic, almost below basic, because we have other programs in place that we use to target the almost proficient, the high end of the basic...And because data doesn’t tell us everything, we...gave the teachers the list of students who we’ve selected and asked them to observe these students to see who would work well with a tutor.

Once the tutees were selected, they remained with the tutor for the entire year, in hopes of developing a relationship with them. While following the program guidelines closely, some elementary teachers were disappointed by the selection process. As one commented:

It’s great having the extra support for those kids, although I feel, and a lot of people wish, that we had given them different [tutees], because we didn’t give them the lowest and now the students who they are working with don’t need the support. We wish that we had given them the remedial [students], but we didn’t because we didn’t want them to struggle like we have to struggle with them. So perhaps it’s the best thing, but now I wish somebody could just go work with this student because he’s so struggling.

Participant Selection: Tutors

When the superintendent first considered CCVYP, he wanted to include all the students with grade point averages below 2.0, in all, nearly 150 students. He was soon persuaded to start on a smaller scale: 30 students would be enrolled in the pilot program. This however, is still a large size for a class; in most implementations of the CCVYP, 15 to 20 students are enrolled. With more students in the tutor training sessions, class management becomes a more challenging task: more kids means greater group dynamics with which the coordinators had to cope.

Narrowing the eligible pool into a class of 30 students, however, is a difficult task that required balancing individual needs, political interests and group interactions to create a well-functioning program. The program’s developers recommended a process: seek out students who demonstrate a variety of issues so that they would have some strengths that enable them to provide positive leadership for each other. For example, some
students with attendance problems might provide a positive model of student behavior in the classroom. The program’s developers underscored the need for enrolling a class with students who exhibited a variety of disengagement indicators.

The program coordinators first generated a list of middle school students with grade point averages below 2.0. They then eliminated students already enrolled in special programs and highlighted students receiving free or reduced lunch. A school administrator outlined the procedure:

We really had to push ourselves [on] who are we trying to target? And we had to check ourselves. Are we picking kids that we know are going to be successful? Picking kids who have a high probability of success makes us feel a lot better, but that’s not who we are targeting. And so we looked at identifying the population “at-risk.” We looked at a lot of different things. We looked at attendance, discipline, referrals [and] the academic piece. And we decided [on] a sub-group that reflected the demographics, not of the school, but the demographics of that population.

In addition, as the coordinators explained at a parent meeting, the program’s implementation team also looked for students whose achievement test scores did not match their grades, those who did well on state tests but whose grades were low.

The decision not to use random selection led to a group not very well balanced in student strengths and deficiencies as was designed by the CCVYP creators. Perhaps because of a committed effort to serving the most at-risk students at the school and likely their notoriety from frequent trips to the main office, the selection process resulted in a group of students with significant disciplinary problems. A seventh grade teacher described one incident with a tutor, “[The student] actually slapped the assistant principal. He slapped one of the teachers. And he thinks it’s funny.” As the middle school principal stated, “These are the kids that are probably the most disenfranchised from the school. They’re a struggle. God bless them.” For example, in one week in October, seven of the 25 tutors had been suspended.
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Not only did this make the actual intervention work with these youth more difficult, it also made it harder to work with their middle school teachers, many of whom felt these students had not earned the right to participate in the program. The well-known disrepute of the students exacerbated some middle school teachers’ disdain for the program and resulted in further tension between coordinators and some faculty members.

4.3 Implementation Stage III: Implementation

During the program’s implementation, the tutors were recruited and then worked with the elementary students. They also attended a weekly tutoring prep class, went on field trips, listened to guest speakers and attend recognition events. The teacher coordinators spent considerable time with each tutor, to identify the reasons for the particular student’s disengagement and provide customized support to help the adolescent succeed. See Table 4.4.

Table 4.4 Implementation Adherence to Plan

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<thead>
<tr>
<th>Core Component</th>
<th>Implementation Quality</th>
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<tbody>
<tr>
<td></td>
<td>1=As planned;</td>
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<tr>
<td></td>
<td>2=Somewhat as planned;</td>
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<tr>
<td></td>
<td>3=Not at all as planned</td>
</tr>
<tr>
<td>Awards and recognition events</td>
<td>2</td>
</tr>
<tr>
<td>Field Trips</td>
<td>1</td>
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<tr>
<td>Guest Speaker Presentations</td>
<td>2</td>
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<td>Intense intervention by coordinators</td>
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<tr>
<td>Student Recruitment</td>
<td>1</td>
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<tr>
<td>Tutoring</td>
<td>2</td>
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<tr>
<td>Tutor stipends</td>
<td>3</td>
</tr>
<tr>
<td>Tutoring classes</td>
<td>2</td>
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During the implementation stage, issues arose that affected the “treatment's” delivery, how well the program's intensity matched the implementation plan, as well as issues
that affected the students’ ability to receive the designed “dosage.” In particular, problems were encountered including delayed payment of the tutor stipend, weaker training sessions, few recognition events, and a lack of diversity in speakers, which meant that the program was not implemented as planned.

Coordination of the CCVYP network resulted in the rapid establishment of the program at JAMS. Although the program was not identified for implementation until the summer of 2005, on the first day of school in September, the tutors were enrolled and receiving training. As a district administrator opined:

I think [the program] started off really well. I think we have an extraordinary number of conditions that could have made it a much more difficult start—an acting principal at the elementary school, two different acting assistant principals at the middle school, so basically a still novice leadership team at John Adams. All of those things could have meant that it never got started at all. And I think it’s pretty much [because of] the tenaciousness of the coordinators and their commitment to it.

While the program was quickly instituted, the network relationships had not fully formed. One ramification of the complicated network was inconsistent communication. For example, some elementary school teachers wanted more communication about their tutors. Several expressed disappointment when they did not receive notice when their tutors had left the program. As one elementary teacher noted, “They just stopped showing.” The elementary school principal discussed her frustration with the lack of communication:

At the meeting [there was talk about how] some of the kids had left the program. That was all news to me. I didn’t really know what was going on. I feel that there’s this missing piece that I don’t know about...I knew something strong had happened but I didn’t know what. I don’t know how I can help in that. There’s just a disconnect.

Leveraging the talents of all adults involved too is complex in a partially formed network. Neglecting the network’s resources, however, sends the wrong signals to the staff. Without being called upon to contribute as team members, they feel like discrete
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parts of the program that needn’t work in concert with the “main” site. As the elementary administrator continued:

If in fact our collective role is to impact kids in meaningful ways, [I don’t know why] we’re looking at this like we are two different sites. There isn’t a collective or continual conversation... as far as I am concerned, I feel like they’re using our site...I would love to be involved in conversations [about] other ways to impact [these] kids’ academic achievement. That’s what drew me unequivocally [to the program]. And yet, the middle school [acts as if it alone] knows how to handle middle schoolers [issues]...I’m not happy with that...there are obvious stressers and I want to...help.

Program Delivery: Student Recruitment

When it came to the nuts and bolts of running the program, the coordinators experienced success in recruiting students, providing tutoring opportunities, giving structure to some students’ academic work as well as introducing the students to some community role models. In other areas, however, their achievements were limited including some weak class lessons, sub-optimal foundations of trust with the students as well as the limited provision of recognition events and parent involvement opportunities.

Recruitment went well: the students were excited about participating in the program and were ready to take on the tutoring role. They were thrilled to be earning a paycheck. And, a large number had more altruistic hopes for the program. As one male eighth grader commented:

It’s about tutoring, right? Helping other kids out, man. Not doing some of things that I be doing, helping them with their work trying to help them not fail. I’m not asking for straight As, but I’m also not asking for Fs and Ds. I’m asking for Cs and Bs...You really shouldn’t be getting no fails. Helping other kids, they can do better, stop them from making mistakes and failing and not participating in school activities.

Parents too noticed their children’s early interest in the program and for the most part, were happy to have them participate. As one mother stated:
She’s excited that she’s going to be paid, but her greatest concern is the kids. She got a cut on her foot last week and she couldn’t come to school for one day. And she goes, I want to go! And I go, Why? Because my little girls, they are going to miss me! She didn’t think about whether she was going to get paid. She likes to get involved with the little girls...She’s excited about [the pay] but it’s just that she helps those little girls.

Program Delivery: Intense Intervention by Coordinators

When it came to the actual intervention work, the coordinators were committed to providing the intense intervention that they felt would make a difference with these tutors: they were ready to make investments in a relationship with each child. They worked to help the students stay organized and complete their assignments on time. As one eighth grade girl reported, “I like that [the coordinators] keep you organized. They tell you exactly what to do. They don’t just say, you do this and just leave you there. They help you out. They help you look through the instructions.” Parents noticed their efforts. As one mother described what she likes most about the program: “They’re there for my daughter. And she’s aware of that too.”

Through this attention, the relationships between the coordinators and students grew into some productive unions. Knowing the students better through their intensive intervention enabled the coordinators to better understand the issues putting each child at risk. For instance, the coordinators identified a number of students who needed outside help. As one stated: “A lot of the students are in counseling through this program; we made sure that they are receiving counseling...they have to do a lot of self reflection [to] help change the way that they think.” The relationship with the coordinators also helped prevent some students from getting deeper into trouble. A school administrator described one such scene:
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The students who are involved in the program are our most at risk. There was a situation last week where the police [had] pulled aside several students...[and] one of them is in our valued youth [program]. It was a very tense situation. There was a lot of anger about the students being detained, being singled out, accusations of racism...it was a very dramatic scene. I got approached and went with [the coordinator] to the scene...The student was so charged from the energy of what happened...he was pacing and angry and you could see that it could have gotten out of control very fast. [The coordinator] was able to get him to calm down and listen. She met with the student the next day and he was able to reflect on his behavior. So we’re talking about students who are on the edge of really becoming part of the system, dropping out of the system, either way you look at it, it’s not positive.

The administrator felt that the program was integral for solidifying that connection. As she continued:

I don’t think we would have been able to do that [without] the program. I think a lot of it is being able to work with students when they’re in a positive situation. So they’re able to see that you know them other than what they or other people perceive them as, or what they think they need to be. So [the coordinator] has seen them, has experienced them being in a place that is positive, where they are leaders, where they have to act in a mature way. And she can call on that whenever she needs to.

The coordinators, however, were not quite ready to fulfill their teaching responsibilities required to create the optimal CCVYP student-coordinator relationships. Santa Monica’s coordinators lacked classroom experience, which necessitated a steep learning curve for both coordinators. Furthermore, the coordinators did not receive training specific to managing a class of “at-risk” adolescents. The greatest challenge, they found, was coming to terms with group dynamics. Students who might be endearing in one-on-one interactions could become challenging when interacting in groups. As one coordinator described:
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[Working with these students in groups] was actually the biggest [challenge]. I have worked with these students individually and had relationships with them...They would come after school, during their break, during lunch, to hang out with me and talk about things. You know, wonderful relationships. And then the same students, sometimes within the same day, would turn into these little monsters. That really surprised me...The dynamics of the group is something that I didn’t give enough importance...I thought that developing relationships with individuals would be enough. But it wasn’t.

Plus, they found that these students needed clearly defined expectations and tangible reasons for following guidelines. The coordinators began to use simple instructional tools to provide incentives for good behavior. Most notably, they created a “merit card” system, in which students earn stamps through good behavior that when added up, win them rewards such as pizza parties. One coordinator was surprised by how well the stamps worked. She commented:

I feel like the class’ energy has died down, in terms of the behavior that can be disruptive for learning [since we started using the merit system]. I think that behavior issues have actually declined. You would think that in eighth grade, stamps wouldn’t matter, but they do, even though they say that they don’t care about stamps...They want that [incentive] piece.

Along with the rewards for good behavior, consequences for poor behavior were also added. For example, if a student disturbed classrooms (e.g., banged on doors) while walking over to the elementary school, their pay would be reduced. However, changing the classroom rules mid-course were difficult to implement. In one coordinator’s words: “When we started changing things, they saw it as a way to punish them.” Changing the expectations led to students’ distrust in the coordinators and it lessened the quality of relationship between youth and intervention agent.

Program Delivery: Tutoring Work

The Santa Monica CCVYP, however, ran into a few issues that influenced the coordinators’ ability to implement the program as intended. Basic logistics were
difficult to align: scheduling was tough as the day at the two schools is structured differently. As one elementary school teacher described:

Scheduling is the worst because we have PE, we have music, we have library. And, the tutors have to [come during] their third period, so no matter what we’re doing here, that’s the time they come...[So] they don’t have enough time one-on-one in the room with their tutees because we may be in PE, library, music...Some people have tried to adjust. It depends on the teacher. [During] the PE block, they may keep their tutee in with their tutor for ten or 15 minutes and have them read with them. So the student loses a little time of PE once or twice a week.

Not all elementary teachers, however, kept the tutees back from their PE or music classes. As a result, some tutors did not have tutees to work with during the period and consequently did not tutor the amount of time recommended by the program. Less time with the tutees meant that some of these tutors did not develop strong relationships with the younger students, the core of the program’s incentive structure. The tutors who lacked strong bonds with the elementary students did not worry about their tutees missing them on the days that they did not feel like coming to school. As a result, the overall absenteeism of the tutors did not improve, as has been observed in other implementations of CCVYP. Their frequent absences affected the elementary school’s experience. The elementary teachers complained about the problem. As the elementary school coordinator commented: “The number one complaint [from the elementary teachers] is, I don’t know if they’re going to be here or not.” Not only did the frequent absences disrupt the elementary school teacher’s planning, it also resulted in weaker relationships between the elementary teacher and the tutors.

Nevertheless, some tutors had some good experiences at the elementary school. The young students were thrilled to work with the “big kids.” As an elementary teacher spoke, “For both of [the tutees], it just made them feel special.” Another chimed in: “All the kids want to get to them. It’s kind of a status thing for these kids to have a tutor.” Elementary school teachers reported that the tutors were helpful in their classroom in
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ways beyond the extra attention they were able to give the young students. As one

described:

One of the tutees needed that little extra care from someone because there are
some things going on in the family. I think that knowing that she has this
connection with this one person who comes and talks with her built her self
esteem. Her eyes beam, she comes back very happy, [and] I think that emotional
part helped her move on with academics.

Another teacher used the tutors as models for her students:

When [the tutors] usually came, they would kind of slither in and I then would
stop and say, Did you see how those two come into the classroom? And,
because they’re five year olds [they come in like] I’M BACK!! -I said, did you see
how they just came in? This is what older children do. They come in quietly,
they sit down and listen. And they’re like, oh yeah. Do you think you could try
that the next time? So now we have people coming in just like you so the [young
students] make a connection.

And, while the changes in the tutors were not measurable, some felt they were
noticeable. Even by mid year, the elementary school principal could see a difference:

There’s a strong show of power just in terms of the kids’ demeanors when
they walk on campus...Their heads [are] up...There’s a seriousness to them now.
Phenomenal stuff is happening between our kids and their kids. I see a sense of
confidence...I can only go on what I saw in the beginning in the year, but the
way they carry themselves now implies bonding, with eye contact and a smile on
their faces...As far as working with our kids, it’s just amazing, amazing, amazing
to watch. You would think that they had been here a lot longer because they
have taken on the lexicon of the teacher. You can hear it when them talk to the
kids. And sometimes they know that I am present, [but] sometimes they don’t
because they are so fully engaged with the child...It’s great to watch.

Elementary school teachers too observed the changes. As one elementary school teacher
commented:

I’ve seen such a great change in them...At first, [one tutor] was very cold and
reserved and put offish. She’s so different now. I like to see that change. And
my girls who go see them, they wait for them, they are anxious to see them.
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They like that one-on-one or one-on-two relationship with them. I think it’s the emotional [piece]. I think the emotion has something to do with their academics. Some of the tutors interviewed felt that the program had a positive effect on them. As one eighth grade girl said, “We have much more responsibility [because of this program]. You have to think about your actions more.” Her male peer added, “It helped me to ask more questions and not just hold it in.” Many of the tutors stated that they feel good about themselves when they tutor. As one commented, “I feel proud of [the tutees] because it’s very cool to know that they’ve learned stuff since I’ve been tutoring them...On the first day, they barely knew anything about math and it was very hard for them. I got used to them and they got used to me helping them [and] they’ve come a long [way].” Her male friend agreed:

It’s fun to see kids learn because you help them. It just makes me happy. I feel proud that I’m helping somebody else learn. And I think that kids learn better from other kids than from adults sometimes. Because the kids put it in words that other kids can understand. And they’re probably at the same level.

Another added: “I feel better about myself when I help them.”

Program Delivery: Tutoring Classes

The program was not given a dedicated classroom. Instead, the students were moved from room to room, sometimes congregating in front of the attendance office or in the quad outside a coordinator’s door before they left for the elementary school. Without a stable place to meet, the program lacked a consistent routine, which would support these students. When this lack of structure was combined with the coordinators’ minimal teaching experience, and the relatively large size of the class (particularly as all the students were considered “high risk”), the instructional work to prepare the students for tutoring did not always succeed. A few elementary school teachers felt that their tutors did not always come prepared to work. Nevertheless, a few tutors reported that the class activities did help them in ways other than in the tutoring. As an eighth grade girl commented:
[The classes helped my schoolwork] a little bit. They made you be creative in writing and stuff. Like when you’re trying to do a language arts assignment and you don’t know what to do, I like to think back to the ideas and try to figure out what I would do if I were in valued youth instead of language arts, because I’m different in different classes.

*Program Delivery: Speakers and Field Trips*
Because much of the coordinators’ time was spent working public relations with the middle school faculty, the time available to identify and recruit speakers was limited. Consequently, all speakers who presented to the CCVYP were educators and did not represent the many opportunities available in the Santa Monica community. However, one educator made a distinct impact on the students. As the coordinator noted:

[One presentation] went above my expectations because [he and the tutors] really did make a connection. [The speaker] knew a lot of the parents of the kids, so there was an instant connection there. He talked about the glamor of being involved in gangs…the students asked him if he had ever seen someone get shot. He said, yeah. And he described the scene…This was not in a movie. That mom was suffering. The kid was suffering, seeing his mother [there]...and he was fighting for life. It’s not like in the movies, you’re shot, you’re dead. No, he was fighting for life. Every breathe he took he was fighting. The kids were totally mesmerized.

One male student described why this speaker’s talk was so powerful:

It wasn’t all you “guys should do this, you guys should that,” it was more like he had already been through everything and he was giving us his outcome on it. He was giving us some choice. [It made me think differently.] It did. He was talking about drugs. And I didn’t think that…I can’t remember the name of the drug he named, but I didn’t know that it made you feel like you had super-strength. I just thought it got you high. But when you’re on that type of drug, he explained, you feel like you’re superman. He told us a story about how one of his friends did that drug and broke his hand when he hit the wall because he thought he could break it.

While the two field trips to amusement parks did not meet the goals of expanding students’ horizons, one trip did so particularly effective: the visit to the USC campus. The tutors watched a documentary of how a student like themselves was able to complete college and earn a Ph.D. in sociology. They toured the campus, talking with
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professors and students; the tutors connected with the university scene. As one eighth girl described, the trip was a success: “[We] got to see what college is like, all the classes you would take and everything and why you need to go to college. I always thought that college was boring and all you do is study, and everything is hard, [but] it looked like fun.”

Program “Delivery”: Awards and Recognition

The coordinators’ planning time for award ceremonies and meaningful recognition events too was displaced. As the elementary school principal lamented: “We talk about celebrations. So couldn’t we have a celebration? Does it have to wait until the end of the year? Don’t get me wrong, we are very, very busy. But anything that we do, I want it have more meaning.” One particular problem of foregoing the recognition events is that these were the evening affairs that brought parents into the school and involved them in praising their children’s achievements.

Two recognition events, however, did reach a high level of meaningfulness. During the flag salute in front of the entire elementary school, the principal thanked each tutor for the contributions made to the elementary students. Plus the closing ceremony, in which the coordinators introduced the students with a compliment and awarded them a certificate in front of all tutors and their parents, was memorable for the tutors. As one boy described, “The dinner we had [was my favorite event] because everybody got an award, no matter if they were a good tutor or a bad tutor. They still got an award because they were helpful...it felt so good to see everybody get an award instead of just one or two people.”

Program Receipt

When the actual implementation did not match the planned one, it affected the students’ perception of the program. One very influential issue was payroll. Taxpayer money, as the superintendent stated, is intended to pay the salaries of school adult employees and is not to be used for student stipends. Initially, he thought that using federal monies
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would work around this issue. Unfortunately, he was mistaken and it took three months for one very committed coordinator to navigate the system and craft a legal solution. As a district administrator described, “[She] was relentless. She visited most of everyone in fiscal and HR at least 10 times.” Towards the end of November, the district’s fiscal director finally figured out a way to pay the tutors: the Education Foundation of Santa Monica and Malibu would pay the kids based on the number of hours they had worked and then bill the district. The district could then use the local monies it set aside for the program to reimburse the Foundation.

The pay was important to the students. While many also presented more altruistic explanations, almost all of the students in the fall credited the stipend as their top reason for participating in the program: as one boy stated, “[I’m participating] because I get to tutor children and make them better at whatever and I get paid for it.” As such, there were significant consequences to making the students wait until November 21st for their first pay check: it undermined the students’ trust in the program’s coordinators and created an atmosphere of tension displacing the program’s “honeymoon” period, when the students’ hopes for the program were highest. As the teacher coordinator discussed:

It wasn’t just about them getting the paycheck. It was about the expectation that was built at the beginning. We didn’t deliver [the paycheck] and we kept delaying it. It caused anxiety...it became an obsession with them...they didn’t believe us that we were going to pay them...They realized that oh, they keep saying soon, but they don’t give us the date, and when they give us the date and we cross that [without a paycheck]...When you say that something was going to happen but it doesn’t, especially with money, there is a loss of trust and that had an impact on the program...It caused a lot of tension between us and the kids...[and] that distrust lasted a long time.

The results were substantial. Some school personnel credit the payroll issue as the trigger for the expulsion of one student. The coordinator continued:
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It was sort of a ripple effect. These students are in the program for various reasons. One of the reasons is behavior. So when you tell a student that no, you’re not going to get a check, we’re really sorry. They’re not going to say oh, all right, we understand. They’re really mad and they’ll express it...You understand the disappointment but you still need to keep it under control because there are other students. And as one escalates, then you have to do things that you don’t want to do.

As for the tutors, the delayed payment left a scar: they were still talking about it in June. When asked about what he disliked about the program, an eighth grade boy responded, “Well, I disliked how they didn’t pay us for the first month even though we were working.”

The pay issue continued to be a point of contention between the coordinators and students even after the checks started coming in on schedule. Unlike what is suggested by the program’s creators, the coordinators decided to use the paycheck as more than an incentive for attendance (i.e., students were paid for the number of hours that they tutor) but also for good behavior. Stipends were reduced if students did not behave appropriately at the elementary school or during the tutoring class at JAMS. The students did not welcome the change:

We didn’t get paid for the first month even though we worked. And then [when] we started getting paid, they started getting stricter and started docking a little bit, then docking a lot...[they dock pay] for little stuff, like if you’re late, if you’re doing something else that they told you not to. They used to give us a warning, now they don’t.

While the policy seems like a logical extension, it de-motivated students just as the program creators had feared. According to CCVYP developers, the pay should be used only as a form of recognition of tutoring efforts: it’s pay for their work. Consequently, the coordinators are rethinking the policy. As one stated:
We’re not sure that we want to continue doing that. We’re thinking that it’s only going to be attendance that we’re going to dock pay for. Because they are doing their work when they’re [at the elementary school] and the [bad] behavior, we don’t really see it when we’re [at the elementary school]. It’s more in the classroom and when we’re walking to and from the school. So we feel that they should get paid for their work time.

4.4 Implementation Stage IV: Post-Implementation Review

The final implementation stage concerns the program’s appraisal of its progress. Overall, about a third of these activities were done as planned. See Table 4.5.

Table 4.5 Post-Implementation Review Adherence to Plan

<table>
<thead>
<tr>
<th>Core Component</th>
<th>Implementation Quality</th>
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<tbody>
<tr>
<td>Brainstorming to address fundamental disengagement issue</td>
<td>3</td>
</tr>
<tr>
<td>Brainstorming to mend implementation problems</td>
<td>1</td>
</tr>
<tr>
<td>“Lessons Learned” generation</td>
<td>1</td>
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Just as recommended by the CCVYP creators, the entire project team—including a district administrator, principals for both schools, as well as the program’s coordinators—met with the national CCVYP director to debrief. In this meeting, they took time to consider what went well and what needed more work; they generated a list of lessons learned and a “to-do” list for the coming year. Top of the list was addressing faculty attitudes. The national director suggested a strategy: have teachers nominate candidates for the program. Of course, school records should be used to make the final calls, however, incorporating the teachers in the process might make them feel included and help them develop a personal stake in the program’s success. This strategy she felt would strengthen the working relationships between the coordinators and the middle school faculty. Additionally, the team decided that one coordinator should check in
with middle school teachers during their team meeting time, to stay on top of the tutors’ behavior and achievement in their core courses before a problem reaches crisis level.

The group also discussed ways to minimize the scheduling conflicts between the elementary and middle schools to ensure sufficient tutoring time. To improve the elementary school teachers’ rating of the program they also felt that it was important to allow for more time to identify the students who were best suited for the program while the coordinators would use this time to better prepare the tutors.

Lastly, the group felt that the frequency of opportunities to recognize the students for their achievements needed to be increased: more showcasing of the students talents, particularly in front of John Adams’ faculty, was critical. They felt that by focusing on these recognition events, the relationships between the tutors and the adults involved in the program—the coordinators, principals, district administrators—would help school personnel to see the students in a positive light that rarely shines upon them. Parents too would be incorporated in these events and thus brought into the CCVYP network of support for these students.

The post-operation conversation, however, was rather “action-oriented” and to the dismay of some participants, did not focus enough on the problem truly at hand: academic disengagement. As one participant mentioned afterwards:

There’s conversation and there’s conversation and that conversation to me is superficial. Okay transportation. Can’t we just ask the district for transportation? But how are you going to turn a child’s life around? I didn’t hear any conversations about. It’s the same thing here. We don’t talk about [it.] There’s a disconnect. I think [the program] could be very powerful and that is the reason why we have already seen some really key things happening. It just seems like it would be a natural next step to work together to resolve some of the broader pieces.

Possibly, this was a missed opportunity to refocus, as a team, on the students and use their various interactions with them to inform an open conversation on how to improve
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these students’ outcomes. Perhaps it could have been used as a time to reassure all of those involved of the support that exists for the program and its goals across the district, that even when the job becomes most challenging, there are others who would support them. Improving these students’ lives is a responsibility shared across the community and does not rest solely on the coordinators’ shoulders. And possibly, they sometimes needed to be reminded of that.

4.5 Conclusion: Need for Maturity Period

However, it important to remember that this implementation was a pilot, the first year in the operation of a fairly complicated and non-conventional intervention directed at particularly “at-risk” students. To fairly evaluate it, the program’s network likely needs time to find its equilibrium, that period in which the implementors’ work to overcome the inevitable hurdles and fine tune the program's functioning. The network likely needs time to practice using the relationships to find the optimal path to support the program. It is a major accomplishment that the Santa Monica CCVYP completed its first year, learned from its mistakes, and committed to a smoother and more complete implementation in year two.

The problem that this program seeks to address too is not a simple issue to resolve. As one school administrator spoke, “We can’t expect two semesters to undo all of what has built up over nine years.” As another school administrator added, “We want results. We need to have more of a long-term perspective in how we treat children. So many of the things that we expect to see right away we may not see. And that has to be okay. We have to let them grow into it.” For its part, the district was willing to fund another year. As one district administrator stated:

I know that there were issues with not seeing the massive turn around of kids, the 180 degrees turn in their academic careers over the course of the year, but I think that is much to be expected. If we can think about it as a two year program, I think we really will see some positive impact on kids...I think that two years has a much better shot at [producing] actual demonstrable success than one year.
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Certainly, the anecdotal stories and teacher observations provide evidence to support the decision to provide the program more time. Over the course of the first year, the program’s tutoring component developed into a strong, resilient piece of the program. The coordinators appear to have climbed the very steep learning curve, and have learned the ropes the hard way: through trial and error. With their hard earned experience, they are likely in a far better position to run this program.

There is a possibility that the faculty attitudes might become more supportive. Change in leadership has occurred at John Adams. A new discipline policy, developed by the faculty and administration, has been installed: it has clear rules and consequences. Plus, faculty has received training to enforce the rules consistently. And, the one coordinator followed the advice from IDRA and worked to get more support from faculty by asking for their tutor recommendations.

So far, at least anecdotally, this second year of the Valued Youth in Santa Monica is moving forward with far less resistance. On a recent visit, I saw students who were compliant with school rules, who lined up quickly and quietly and, unlike their predecessors, crossed the street without banging on doors or somehow else interrupting classes. The teacher coordinators talked about finding their stride and through one hard year’s worth of experience, feel that they are better able to work as a team to promote the students and the program.

And, importantly, the first year cannot address how well the district’s top priority has been accomplished: did the program create a bridge between the middle and high school years, to craft the scaffolding that will enable the students to graduate from Santa Monica High? Only time will enable us to tell.
Chapter 5.
Lessons Learned and Opportunities For Future Research
Reflecting on Santa Monica's first year with the Coca Cola Valued Youth Program (CCVYP), one can easily be disappointed. The school district tried a novel approach to improve the student engagement of its most at-risk middle school students. While it appeared that a few students enjoyed the opportunity and gained self-perceived confidence from the experience, the program failed to produce the quantifiable, systemic improvement that the district sought.

5.1 Maintaining Perspective

However, it is critical to counter this disappointment with the reality of the matter: the school implemented a pilot program, which constituted its first steps in pursuing a new intervention. As such, before the program even began, we knew that the results from the first year would be at best conservative. Imperfections in the implementation are expected as beginning a program is a demanding task; particularly because of the complexity of the CCVYP network, implementation of this particular program was far from simple. While the program started “small” to minimize the complications of scale, it still required the coordination of two school sites and the intensive interaction with a group of admittedly difficult students. Time too was a constraint: the school had only about three summer months (an admittedly slow time of year) to prepare for the implementation. The school’s concurrent structural reform also complicated matters, as the changes meant that the school structure was not firmly developed and thus likely not strong enough to support the program. Lastly, the pilot program’s components most likely needed the opportunity to stabilize. Finding the programmatic equilibrium takes time for the team members to learn how to best work towards the program's objectives.

Over the first year, many hard lessons were learned. Much to the school’s credit, the Valued Youth project team was diligent in its efforts to better prepare the program for its second year. The team made it a priority to gain the confidence of the middle school’s faculty and to showcase the tutors’ successes. They developed the tools to run a classroom with a defined structure and clear expectations for the students. They also determined the consequences that would be consistently enforced when the boundary
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lines were crossed. The team also considered how to better train the Valued Youth for their tutoring. For example, they decided to incorporate the school’s literacy specialist in the training to improve their ability to teach reading skills. Plans were made to increase parent participation in the program.

5.2 Key Lessons of Case Study

The imperfect implementation means, however, that we have an imperfect test of the program’s potential in Santa Monica: we cannot deduce from this experiment whether CCVYP is, or is not, an efficacious intervention. What we can say is that the district likely needed to invest more thought in the selection of the intervention. The district did what most would expect: it examined the program’s materials and website, watched the Katie Couric special that showcased it, scanned its reviews and considered how it might influence its students’ engagement. These are all important components of decision analysis. But efforts should not end there. The district administrators needed to consider not only whether the program had achieved results in other schools but also whether JAMS’ environment was ready for the programmatic model.

An intervention will likely interact with the school’s milieu in ways that will either hinder its progress or promote its success. Potentially, the closer the fit, the higher the probability of success. The district did not consider how the particularities that define John Adams Middle School aligned with CCVYP. Had the district administrators considered how the program would be resisted by the faculty’s values and policies, how poorly it might be promoted by the inexperienced leadership team already charged with managing significant change, perhaps they would have at least considered other solutions and made different choices. For instance, maybe they would have foreseen a need for district-driven, extensive public relations work to change attitudes and convince the school community to support the program prior to its implementation. Or, maybe they would have concluded that, because of the extent of incongruities, CCVYP is a good intervention but not one suitable for John Adams Middle School at this point in time.

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The decision to implement the program, however, was made. The responsibility now of both the school and district administration is to develop the JAMS environment into a space more conducive for the program. This means revisiting the issue of middle school faculty buy-in, addressing the underlying tension between JAMS administration and teachers. The debate over discipline practice needs to be resolved to build a unified JAMS team. The practical tools to accomplishing this likely includes professional development for teachers concerning classroom management as well as the identification of a clear and consistently implemented disciplinary policy.

5.3 Selecting a School-Based Intervention

How have other practitioners leveraged the “selection process” to maximize the benefits provided by their interventions? Some education researchers (e.g., Lane et al., 2005; Merrell and Buchanan, 2006) have looked beyond the boundaries of their scholarly domain and have found useful lessons in practice from others well-versed in intervention work. Specifically, some researchers suggest borrowing the “RE-AIM” framework from health policy. From experience, these researchers conclude that a program’s efficacy, defined as the program’s ability to achieve the desired results when evaluated in a highly controlled experiment, does not necessarily ensure program effectiveness, its realized outcomes.

As was observed in the case study of Santa Monica’s Valued Youth Program, interveners need to consider the constraints particular to the intervention’s site and populations. Focusing on the five RE-AIM components helps to assess a program’s potential for effectiveness. This framework asks that five programmatic components are considered prior to implementation: reach, efficacy, adoption, implementation and maintenance. See Figure 5.1.
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**Figure 5.1: RE-AIM Framework (Merrell and Buchanan, 2006)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
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<tbody>
<tr>
<td>Reach (R)</td>
<td>What proportion of the population at need or targeted does the intervention affect?</td>
</tr>
<tr>
<td>Efficacy (E)</td>
<td>What is the program’s success rate if implemented correctly?</td>
</tr>
<tr>
<td>Adoption (A)</td>
<td>How similar is intervention to existing practices in school?</td>
</tr>
<tr>
<td>Implementation (I)</td>
<td>Will there be consistency and quality in the intervention’s delivery?</td>
</tr>
<tr>
<td>Maintenance (M)</td>
<td>How well are the intervention’s effects maintained over time?</td>
</tr>
</tbody>
</table>

Each component—and more specifically, not only the “efficacy” piece—contribute to a program’s realized success; possibly, a program weak in efficacy but strong in the other components could translate into a more successful intervention overall than a program with strong efficacy but significant weakness in the other components.

**Applying the RE-AIM Framework to Santa Monica**

**Reach and Efficacy**

Santa Monica’s district administrators considered the program’s reach and efficacy prior to implementation. In this case, the reach of the intervention was somewhat limited: only 22 percent of the students who were eligible for the program (that is, all the seventh and eighth graders at John Adams Middle School who had less than a 2.0 grade point average) could be enrolled in the pilot. Information regarding the program’s efficacy is promising, but still leaves many questions unanswered. While anecdotal evidence abounds—including a compelling video exposé—an external evaluation does not exist. The value of the one internal evaluation is also restricted because of limitations in its design and sample size: a causal relationship between the program and improved student outcomes has not been isolated. Furthermore, data concerning how well the conjectured positive results last over time does not exist. However, because of the centrality of Santa Monica’s mission of tapping into these students’ potential, the administrators gambled on promising yet not proven results.
Adoption

The district administrators did not, however, consider all the adoption, implementation and management issues raised by the RE-AIM framework. The intervention was not similar to the existing faculty practices at John Adams. The values explicitly indicated in the program’s materials were actually in some respects the flipside of those that commonly guided classroom practice. While these values could be operationalized in the tutoring classes, which occurred once per week, the vast majority of the tutors’ classroom experiences were infused with beliefs and practices that the program’s creators had identified as counter to the program. The tension between the program’s values, as promoted by the middle school and district administrative staff, and those held by John Adams faculty, was clearly an issue for the school, provoking heated discussions regarding discipline and might have even contributed to the school’s change in leadership.

Implementation

The school’s ability to implement the program with quality and consistency was also not emphasized sufficiently. The human capital tapped to run the program came with limitations. Significant “change agent” demands had already laid on the middle school’s administration: they knew that the school’s structural redesign needed strong leadership to succeed. It also knew that the administrative staff at the school was a relatively young and inexperienced team. They did not consider, however, how these other demands coupled with the lack of tenure might translate into benign neglect of the CCVYP. And, while they had great confidence in the counseling, community engagement skills and dedication of the coordinators selected to lead CCVYP, they did not consider how their lack of experience instructing a large classroom of the school’s most challenging students might impact the program’s implementation.

The logistics of implementing CCVYP too was not given enough thought and led to substantial holes in the program’s structure. In particular, not enough attention prior to implementation went into producing the students’ paycheck, the key initiator of the
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program. While a district administrator indicated in July before the program’s implementation an awareness of some difficulties with paying students with tax payers’ money, the actual process of transferring money between the district and the tutors was not dealt with until the time that the payments were due. Only then were the legal restrictions raised; not only did this procedural problem create a large issue for one of the coordinators to focus on, but undermined one of the greatest incentives of the program. Delaying payment to students was disastrous: the students were angry and questioned the efforts and intentions of the coordinators. They acted as though they did not believe that the coordinators valued them. Possibly, the students felt that if these adults did not immediately fulfill on the promises of paychecks, their other actions and words were questionable. Arguably, as the coordinators acted very differently from many of their core subject teachers, the students potentially did not believe the coordinator’s notion that they were “valued youth.”

Lastly, scheduling between the elementary and middle schools proved problematic and weakened the experience for both the tutors and tutees. The middle school schedule did not correspond with the elementary’s as PE, music and art classes caused the cancellation of many tutoring sessions. Some of the tutors were not able to meet the program’s recommended dosage of “tutoring time,” and consequently did not build as strong a bond as prescribed with the elementary students and elementary teacher. Again, the program’s incentives were downplayed and the improvements typically observed in attendance of CCVYP tutors did not appear in Santa Monica’s group.

Management

The evidence for long term success of program and the enduring nature of the changes that it promotes in students is promising, yet certainly not proven. It appeared in the internal evaluation that CCVYP did improve student high school graduation rates. Beyond grade twelve, however, the sustainability of the progress is not documented. We do not know about the long term outcomes, such as their pursuit of post-secondary education or the employment opportunities available to them.
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Alternative Intervention: Classroom Management Training

Each element of the “RE-AIM” analysis, albeit in hindsight, then raises questions as to whether the Valued Youth Program would succeed at John Adams. Had the district considered the issues, perhaps their intervention dollars would have been spent on other projects that offered more promising results according to the RE-AIM framework. For example, consider an intervention directed at the faculty of John Adams Middle School. This hypothesized program would provide the teachers with training in classroom management and give them the tools that they need to engage students in active learning. In this manner, teachers learn how to enforce a disciplinary policy more fairly in the classroom, and instruction might became more interactive.

This proposed intervention would have an extensive reach. It would affect all JAMS students—certainly all 138 students who were eligible for the program—rather than only thirty “chosen” tutors. While the benefit would likely be less per child, in aggregate, it might provide greater rewards. The efficacy of this intervention too is promising (e.g., Combs and White, 2000) and is currently one of the strategies pursued by schools working to meet the requirements of the federal No Child Left Behind Act.

The adoption of the program would hopefully improve practice at JAMS. In alignment with the other structural changes, this intervention might create a more conducive learning environment for all students. It also might persuade the faculty to discipline students within the classroom, rather than sending them out to the main office where students would lose instructional time.

Assuring the quality of the intervention, as well as the consistency in which it is implemented, is an easier task for a teacher-centered intervention than it was for CCVYP. Professional development has long been a cornerstone of improving school quality. A typical strategy would be to hire external consultants who have demonstrated success in other schools to work with the faculty, to provide them with the tools and mentorship needed to improve their instructional practices. Monitoring
change too can be accomplished by district administrators sitting in during a teacher’s lesson, a practice already instituted at the school. Lastly, the effects of the change on the students could be maintained by spreading the practices across the district. Ensuring that teachers in the high school also provide the same sort of structured classroom environment while enabling significant small group interaction for the students would possibly sustain some of the improved student engagement developed in middle school.

*Alternative Intervention: Service Learning Program*

Another possible intervention for the JAMS community is the Teen Outreach Program (TOP) (Allen *et al.*, 1997). Participants would select a “school approved” volunteer activity and complete at least 20 hours of volunteering per academic year. Additionally, they would enroll in a weekly class that focused on preparing them for the work while facilitating their development into productive and happy adults. Classroom activities would include self-reflection activities as well as group discussions.

While this program’s reach would likely not exceed that of the CCVYP because of the need to supervise volunteer efforts as well as effectively manage the weekly classroom exercises, a rigorous, external evaluation of the program across the country provides more evidence of efficacy (in terms of transforming student engagement) than what is available for CCVYP. For example, in their evaluation of TOP at 25 sites nationwide, Allen *et al.* (1997) randomly assigned high school students to either treatment or control groups and examined all students’ outcomes between 1991 and 1995. They found that school suspension rate for TOP participants decreased by 24 percent during the study period while the rate for control group participants increased 21 percent. Furthermore, TOP participants’ course failure rate decreased 12 percent after the study while control group students increased their failure rate 24 percent (Allen *et al.*, 1997). No information regarding the maintenance of this effect is yet available.

Furthermore, TOP is aligned with current practices at JAMS where eighth grade students are already required to complete fifteen hours of community service in order to
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graduate. Assuming appropriate implementation, TOP would formalize this requirement and help students gain more from the experience by assuring structured volunteer activities. In addition, the weekly class would promote self exploration and development through discussions about the volunteer experiences.

Of course, there are likely to be implementation failures, programmatic issues and unexpected conflicts with these interventions. But the RE-AIM indicators for both suggested interventions are more promising than those concerning the Santa Monica CCVYP. Potentially, once these interventions had been incorporated in practice at John Adams, the scene might be better placed for the Valued Youth’s introduction. With practices more in-line with CCVYP’s philosophy, the intensive intervention with the few students in greatest need might have the external support its depends on.

At the conclusion of the first year of the Valued Youth in John Adams, change occurred. A new principal entered the scene, quality teacher development was provided, the disciplinary policy of the school was simplified and made clear. And by mid Fall 2006, the second year’s implementation the program coordinators felt more confident in the possibility of success.

5.4 Future Research: Engagement Metric
There is much more that we need to know about student engagement. Policy research’s interest in student engagement is still in its relative infancy when compared the variety of other education reform work, such as standards and accountability, school governance and class size. While anecdotal evidence abounds concerning the topic, the engagement literature is not empirically advanced. For instance, when searching for an indicator of the national level of student engagement, only relatively weak proxies, such as graduation rates, were found. A large part of the problem is that no one scale has emerged to provide the body of evidence concerning the magnitude of the issue.
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Research at the Indiana University’s School of Education, Bloomington has begun to define a student engagement metric that considers the concept's multifaceted nature rather than only assessing student attitudes, on which other scales tend to focus (see http://ceep.indiana.edu/hssse/). However, the tool that this group of researchers have created has not had its psychometric properties tested with children and adolescents in kindergarten through twelfth grade. The only evidence concerning its validity and reliability concerns its parent survey which addresses the engagement of college students; as such, the evidence for how this tool achieves its goal with secondary students is non-existent. Without a scale that critics agree measures student engagement, not only are we unaware of the size of the issue, we cannot reliably estimate its costs for either the individual or for society overall. An accepted and widely used engagement measure would allow scientists to test the hypothesized relationship between engagement and achievement, as well as causally link it with other pressing indicators of social progress.

Once such a measure were developed and tested, a national assessment of student engagement could be conducted. Engagement levels could be monitored over time to better understand engagement's relationship with individual and societal outcomes. We could look at how disengagement is distributed over time and space; the variations identified could then assist efforts to explain how the problem develops, which may then inform its “cure.” Perhaps, the engagement metric could be developed so that it isolates the particular domains causing the students' overall low engagement score. In so doing, this tool could be used to isolate the “cause” of students' disengagement and inform the choice of intervention.

5.5 Future Research: CCVYP

Data Requirements

For an ideal evaluation of CCVYP, there are a variety of process and outcome indices that could be collected to strengthen the analysis. In terms of the elementary tutees, pre and post school record data (e.g., grades, disciplinary ratings, standardized test scores)
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from comparable students is needed to better understand the tutoring’s effect on the young students. More data are needed to describe the tutor-tutee relationship. For instance, the actual number of hours spent tutoring should be logged so that the influence of tutoring “dosage” on student outcomes (both tutor and tutee) could be evaluated. Tutee attitudes could be surveyed before and after their work with the tutors. Lastly, as the tutor’s perception of ability to help the tutees is likely an important factor in building their self-efficacy, it is important to capture tutors’ self-evaluations of their effectiveness in improving the tutees’ academic and social performance.

More data is also needed in terms of the middle school students themselves. Pro-social behaviors should be documented before and after implementation so that the program’s ability to increase good behavior, as well as decrease problem behaviors, can be determined. Such pro-social behaviors could include the time student spent volunteering in the community, frequencies of homework assignments completed by their due dates, and number of school-related extracurricular activities in which each student participates. Additionally, more detailed information regarding the nature of the disciplinary issues too would be helpful, in order to test whether the program is more effective with particular behavioral problems. It is also important to document the number and nature of disciplinary issues that occur during the transfer from middle school to elementary school. Lastly, tutors who leave the program should be interviewed.

CCVYP Experiments

On the programmatic level, much is left to be understood about CCVYP. Without the benefits of random assignment into the program, it is very difficult to determine the programmatic effect. Failing to assign participants randomly means that the evaluator is never quite sure whether the program were responsible for a change (or lack thereof) or whether some unobservable were the true causal factor. To “prove” or “disprove” the value of the program, then, randomization is critical. Likewise, it is important to evaluate the program in an setting where more students participate to minimize the
Concerns related to statistical power. Likely, the program’s effect size is not huge as changing adolescent attitudes and behavior is difficult. With more students participating in the experiment, a smaller effect size could be identified as statistically significant.

Additionally, it would be interesting to evaluate the opportunity costs that participation in the program entailed. Comparison students were enrolled in a variety of other interventions (e.g., study skills classes) and classes (e.g., art, language and music), in which the treatment group could not participate in because of enrollment in the Valued Youth Program. These “alternatives” should be rigorously evaluated so that the comparable worth of the CCVYP is understood.

Lastly, one important benefit not empirically considered in this dissertation was the program’s effect on the participating elementary students. Indeed, a thorough cost-benefit analysis is needed to inform the decisions of future school districts and their funders whether to pursue this novel approach to student disengagement. This cost effectiveness study could help compare the program’s with others to lead to informed choices. In Santa Monica, one of the reasons that the comparable group appeared to outperform the treatment group might be because of their enrollment in other study skills and mentoring programs. Possibly, these other programs were more effective than CCVYP. And if they were also less complicated and less expensive, they might provide more efficient paths to student engagement.

5.6 Dissertation Conclusion
Change is hard, and often discouragingly complicated work. But the goal is far greater. In the United States, every child is entitled to an education. For many, the lack of one, confounded by socio-economics and racial-ethnic tension, leads to a life of conflict, failure and limited opportunities for self-actualization. And society pays a price in terms of public expenditures on social welfare and health care, and frequently, incarceration, when these future adults are not engaged in learning. The effort of the
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Santa Monica Malibu Unified School District and the dedicated individuals who made the significant investments in the Valued Youth Program at John Adams should be applauded. The challenges are great enough, however, that they do not need to be expanded by pursuing ill-suited programs. Schools’ determination for student success should be used in the most powerful way. By considering the options carefully, selecting the most complementary option and using the extensive enthusiasm provided by the dedicated staff, change will happen. More of these students who are considered “at-risk” will be able to gain from the benefits of education, to pursue the more rewarding life paths that can result in a stronger society for all.
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Appendices
Appendix I: Piers-Harris Children's Self-Concept Scale

The Piers-Harris Children's Self-Concept Scale (PH) is designed to measure children and adolescent's self-concept, defined by Piers as the “relatively stable set of self-attitudes reflecting both a description and an evaluation of one's own behavior and attributes” (1984, p.1). Over the last 50 years, it has been widely used by researchers to evaluate educational and psychological interventions, to examine the relationship between self-concept and behaviors, and monitor change in self-concept.

**Description**

This scale is a 60-statement self-report inventory for children ages 8-18. Written at the second grade level, the items are simple descriptive statements. The respondent indicates whether an item applies to them by selecting a yes or no response. Approximately half of the items are high self-concept statements and half are low. Below are some sample items from the scale.

- I often get into trouble.
- I can give a good report in front of the class.
- I am strong.
- I worry a lot.
- I have many friends.
- I am a happy person.

Total PH scores calculated by tallying up the number of answers corresponding to a positive self-concept, range between 0 to 60, where high scores indicate high self-concept. Piers reports that the normative mean for the total score is 47 with a standard deviations of 10.

In addition to providing a total score, the scale also generates six factor analytically derived sub-scales: behavior, intellectual and school status, physical appearance and
attributes, freedom from anxiety, happiness and satisfaction, and popularity. In addition, the scale yields two validity indexes, a response bias index that estimates the amount response bias present in the score, and an inconsistency index that examines the extent to which redundant questions were answered in opposing directions (Robinson, Shaver and Wrightsman, 1991). No sex or grade differences have been reported (Longstaffe, Moffatt and Whalen, 2000).

Reliability of Total Score

A sample of 1,183 children, in grades 4 through 12 from a Pennsylvania school system was used for the scale’s original standardization. In terms of the scales reliability, Piers (1984) reports 10 internal consistency coefficients, each based on a different scale, ranging from .88 to .93 (Wylie, 1989). Piers also reports test-retest reliability coefficients for 10 different samples. The samples were retested between 14 days and 1 year. The coefficients ranged between .42 and .96, with a median value of .75 (Wylie, 1989).

Convergent and Discriminant Validity of Total Score

Robinson, Shaver and Wrightsman (1991) found several reports of the scale’s convergent validity. They found correlations as high as .54 with teacher ratings of self-concept and peer ratings correlations between .26 and .49. They also found that correlations with other self-esteem measures have been relatively consistent; PH correlated .51 with the Tennessee Self-Concept Scale for makes and .61 for females (Yonker, Blixt and Dinero 1974); corrected .85 with the Coopersmith Inventory (Schauer, 1975); and .67 with the Personal Attribute Inventory for Children (Parish and Taylor, 1978). Wylie (1989) found reports on convergence with 18 other self-report instruments that are intended to measure “self-concept” or “self-esteem.” Based on a total of 2,629 subjects, the PH total score correlates on average .59 with these other surveys (See Wylie, 1989, p. 16 for the specific scales considered).

In terms of discriminant validity, Wylie considered correlations between total PH and self-report instruments used to measure non self-concept variables and found
"disappointingly large coefficients," with self-reports of anxiety (-.54 to -.69), depression (-.87, -.64), extraversion (.40,.41) and neuroticism (-.47, -.27) (1989, p.17-19).

**Limitations**

While the response indices help identify subjects whose results are suspect, response bias is still a concern when interpreting PH scores. The scores may be distorted by socially desirable responses as well as “random” responses resulting from the subjects’ lack of understanding or motivation to completing the scale. Because of potential issues with response bias and socially desirable self-reporting, the PH is better suited to children than adolescents. In addition, the test is considered unsuitable for children who are overtly hostile, uncooperative, or significantly disorganized in thinking (Longstaffe, Moffatt and Whalen, 2000).
Appendix II: Quality of School Life Survey

Description

The Quality of School Life Scale (QSL) is a 27-item survey used to measure student attitudes regarding three domain areas: general reactions to school, commitment to classwork (i.e., level of student interest in work), and reaction to teachers (i.e., the nature of student-teacher relationships). An overall total score is calculated from the composite of these sub-scales.

Sample items are listed below:

- The school and I are like: Good friends; Friends/Distant relatives; Strangers; Enemies.
- The things I get to work on in most of my classes are: Great stuff—really interesting to me; Good stuff—pretty interesting to me; OK—school work is school work; Dull stuff—not very interesting to me.
- I wish I could have the same teachers next year: True; False.
- Teachers here have a way with students who makes us like them: True; False.

Scores are reported between 0 and 27, where 27 is the highest possible score that indicates positive attitudes towards school.

Reliability

Based on the responses of 4,266 student surveys of students in grades 4, 5, 6, 8 and 11 in public schools in Maryland, the QSL creators found the scale to be both reliable and valid across elementary, middle and high school students (Epstein and McPartland, 1976). Epstein and McPartland report internal consistency for the total score and the three sub-scales, reporting K-R coefficients between .80 and .89 for elementary school students and .81 to .89 for secondary students. The QSL and sub-scales reliability coefficients varied little according to student sub-groupings, including groups based on race, SES, gender, high/low achievement, and high/low grades. The authors also examined the stability of the scores for respondents over time. The test-retest coefficient
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for the individual sub-scales over a one-year period were .47, .42 and .36 for secondary grades and .49, .37, and .17 in elementary schools.

Validity

The authors also present evidence for the scale's concurrent and discriminative validity for grades 6 through 12. Overall, students who report high satisfaction with the quality of their school experiences are comfortable with the school work demands placed on them, the opportunities available at school. They also have more positive self-evaluations and receive more positive evaluations from parents and teachers. Correlations for school performance and activities (e.g., anxiety about school, classroom behavior, hours spent on homework, report card grades, standardized achievement) range between .14 and -.43; correlations with school evaluations (e.g., history of liking school, perceived teacher evaluation of students,) range between .18 and .45; correlations with aspirations (college plans, occupational plans) range from .17 to .23.

Also considered was the QSL’s ability to discriminate amongst groups of students expected to differ in their responses to school life. Scores for students who were recognized by teachers as having strong interest in school were higher than for the students who teachers indicated that had low interest. Similarly, QSL scores for students who peers nominated for positive social and behavioral characteristics (e.g., friendship, popularity, independence, and realistic behavior) were higher than for the less positively regarded students.

Limitations

Other than the work presented by the QSL creators, no articles were located that evaluated the scale in different student populations in a variety of school environments. Consequently, it is difficult to define QSL norms with accuracy. Of particular importance to this dissertation is that this scale does measure all facets of student engagement: it focuses on student attitudes and does not provide information regarding student behaviors and affective responses to their school environment.
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Appendix III. Propensity Score Matching

Chapter 2: Blinder-Oaxaca Decomposition Method

Prior to recent critiques (e.g., Barsky, Bound, Charles and Lupton, 2002) the standard methods used to compensate for the distribution of covariates across treatment and control groups were decomposition techniques, such as the generalized Blinder-Oaxaca Decomposition. This technique uses “logged linear” modeling, or multiple regressions to estimate the separate coefficients for the treatment and control groups for each independent variable. Critically, the treatment is not used as an indicator variable in the regression. The difference between these models produces the average effect:

$$\hat{Y}_C - \hat{Y}_T = (\beta_0^C - \beta_0^T) + (\beta_1^C x_1^C - \beta_1^T x_1^T) + (\beta_2^C x_2^C - \beta_2^T x_2^T) + \ldots + (\beta_j^C x_j^C - \beta_j^T x_j^T)$$

For which $\hat{Y}$ is estimated outcome, the C superscript denotes the control group control and T superscript denotes the treatment, $\beta_0$ is the intercept, $\beta_j$ is the coefficient for the jth variable, and $x_j$ is the mean of the jth variable (Gosse, 2002).

This method has been criticized for a number of reasons (Barsky, Bound, Charles and Lupton, 2002). The key arguments are summarized below:

- It forces the analyst to impose a parametric form on the relationship between the dependent and independent variables, where doing so is, at best, difficult. This opens the analysis up to specification error.

- The method works well when the characteristics of the treatment and control groups overlap to a significant degree. However, this situation is not always the case. For instance, when considering a gender pay gap, we find that the distribution of women’s wages is clustered around the low end, with very few data points of high income while men supply more high income data. Because of
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the dearth of data from high-income women, the analyst must extrapolate the functional form across these incomes, which will likely produce inaccuracies.

- The decomposition method provides information regarding the average difference conditional on treatment only and does not tell us about the differences along the entire distribution of the independent variable.

**Propensity Scoring Methods**

Propensity scoring methods provide a way to address decomposition’s shortcomings and balance the observed respondent characteristics across the two groups. They use counter-factuals to define treatment effects. Each sample member demonstrates only one of the two possible outcomes, one where it has been assigned to the treatment ($y_1$) and one where it has been assigned to the comparison group ($y_0$). The second outcome is not observable. Instead, we only see $y_{observed} = ty_1 - (1-t)y_0$, where $t=0$ for the control group and $t=1$ for the treatment group. As we are most interested in learning what would have happened to the treatment group had they been assigned to the control group, we need to calculate the average treatment effect on the treated (ATE): $E(y_1|z=1) - E(y_0|z=1)$. To do so, we use propensity scores.

A propensity score, $p(x)$, is the probability that the respondent receives treatment, which is equivalent to $Pr(z=1|x)$, where $x$ is the vector of the observed pretreatment characteristics of the study’s population. Rosenbaum and Rubin (1983) demonstrated that the distribution of $x$ is independent of $z$ conditional on the propensity score; as such, these scores enable the analyst to match the covariate distributions for the observed pretreatment variables between the treatment and control groups. This assumption holds as long as $x$ is composed of all the factors that determined assignment to the treatment group. Rubin and Rosenbaum went a step further and showed that the distribution of the observable outcomes for the control group equals the distribution of the unobserved $y_0$ values for the treatment group, conditional on the propensity scores.
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Derivation of the Average Treatment Effect on the Treated

To derive the ATE, we begin by defining the expectation of the treatment group at time zero:

\[ E(y_0|z=1) = \int y_0 f(y_0|z=1) \, dy_0 \]  

(1)

This expression is equivalent to one that includes the pretreatment \( x \) variables:

\[ E(y_0|z=1) = \int y_0 f(y_0|z=1) \, dy_0 = \int \int y_0 f(y_0, x|z=1) \, dx \, dy_0 \]  

(2)

If we then multiply and divide the integrand in equation two by \( f(y_0, x|z=0) \), we get an expression that we can more closely approximate using our dataset.

\[ E(y_0|z=1) = \int \int y_0 \left[ \frac{f(y_0, x|z=1)}{f(y_0, x|z=0)} \right] f(y_0, x|z=0) \, dx \, dy_0 \]  

(3)

Next, we apply Bayes Theorem to both the numerator and denominator in equation 3, which transforms the equation to the following expression (4):

\[ E(y_0|z=1) = \frac{f(z=0)}{f(z=1)} \int \int y_0 \left[ \frac{f(z=1|y_0, x)}{f(z=0|y_0, x)} \right] f(y_0, x|z=0) \, dx \, dy_0 \]  

(4)

Recalling Rosenbaum and Rubin’s (1983) assumption that assignment to the treatment group is independent of the outcome conditional on \( x \), we can set \( f(z=1|y_0, x) = f(z=1|x) = p(x) \) and by analogy, \( f(z=0|y_0, x) = f(z=0|x) = 1-p(x) \).

Plugging these values into equation (4), we get:

\[ E(y_0|z=1) = \frac{1-P(z=1)}{P(z=1)} \int \int y_0 (p(x)/(1-p(x))) \, f(y_0, x|z=0) \, dx \, dy_0 \]  

(5)

From the sample, we can estimate the integral using the sample average, where \( w_i \) is the odds ratio for membership in the treatment group \( (w_i = p(x)/(1-p(x))) \):

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\[ E(y_0 | z=1) = (1-P(z=1)/P(z=1)) \times (\sum y_0 \ w_i(1-z_i)) / \sum (1-z_i) \]  \hspace{1cm} (6)

Recall that \( 1=(1-P(z=1))/P(z=1) \) \( \int \int (p(x)/(1-p(x)) \times f(y_0, x | z=0) \, dx \, dy_0. \)  \hspace{1cm} (7)

which is roughly equivalent to \( 1=(1-P(z=1))/P(z=1)) \times (\sum w_i(1-z_i)) / \sum (1-z_i) \)  \hspace{1cm} (8)

Dividing equation (6) by equation (8), we can estimated the average effect of the treated as a weighted average:

\[ \hat{E}(y_0 | z=1) = \sum y_0 \ w_i(1-z_i) / \sum (1-z_i) \]  \hspace{1cm} (9)

so that,

\[ \text{ATE} = \hat{E}(y_1 - y_0 | z=1) = (\sum z_i y_i) / \sum z_i \times (\sum y_0 \ w_i(1-z_i) \ y_0 i / \sum w_i (1-z_i) \) \]  \hspace{1cm} (10)

We now need to estimate \( f(z=1 | x) \), which can be done in a number of ways including boosted regression (see McCaffrey, Ridgeway and Morral, 2004), the method used in this dissertation, and a variety of matching methods (see Becker and Inchino, 2002).

Modeling Propensity Scores Via General Boosted Regression

A significant limitation of matching methods such as logistic regression is that modelers must assume a functional form. That is, modelers use a simple linear regression, to estimate the propensity scores. An alternative method is boosted logistic regression, which provides modelers with greater flexibility by enabling them to use nonlinear forms, which might likely result in better estimates of propensity scores (Ridgeway, 2004).

Limitations of Propensity Score Methods

As with most statistical techniques, certain caveats are important to keep in mind when utilizing propensity-scoring methods. Chief among these is the endogeneity problem.
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posed by the groups’ unobservables. The two groups that are alike can only be matched on their observable characteristics, which may undermine the analyst’s attempt to isolate the causal relationship as unobservables might exist. Nonetheless, propensity scores provide use with a valuable tool for identifying causal relationships.
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Appendix IV. Balance Tables for the Three Propensity Score Models

Table A4.1 Balance Table for Model Matching SES and Grade Level

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<td>0.00</td>
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</table>

\(tx.mn, ct.mn\) = The treatment mean and propensity score weighted control mean for each variable. The unweighted table (UNW) shows unweighted means.

\(tx.sd, ct.sd\) = The treatment standard deviations and the propensity score weighted control standard deviation for each variable.

\(std.eff.sz\) = The standardized effect size, or the “standardized bias,” defined as the treatment group mean minus the control group mean divided by the treatment group standard deviation.

\($ks.stat.mean$\) = a stop method, which selects how the generalized boosting modeling (gbm) iterations and fine-tune the weights.

\($ks.stat.max\) = an alternative stop method, which selects how the generalized boosting modeling (gbm) iterations and fine-tune the weights (Ridgeway, McCaffrey and Morral, 2006).
### Confronting the Challenges of Student Engagement

#### Table A4.2 Balance Table for Model Matching SES, Grade Level and Baseline GPA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unweighted</th>
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<td>tx.mn</td>
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<tr>
<td>GPA 05</td>
<td>1.26</td>
<td>0.62</td>
<td>1.30</td>
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<tr>
<td>Grade Level</td>
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<td>SES</td>
<td>0.74</td>
<td>0.45</td>
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</table>

**tx.mn, ct.mn** = The treatment mean and propensity score weighted control mean for each variable. The unweighted table (UNW) shows unweighted means.

**Tx.sd ct.sd** = The treatment standard deviations and the propensity score weighted control standard deviation for each variable.

**Std.eff.sz** = The standardized effect size, or the “standardized bias,” defined as the treatment group mean minus the control group mean divided by the treatment group standard deviation.

**$\text{ks.stat.mean}$** = a stop method, which selects how the generalized boosting modeling (gbm) iterations and fine-tune the weights.

**$\text{ks.stat.max}$** = an alternative stop method, which selects how the generalized boosting modeling (gbm) iterations and fine-tune the weights (Ridgeway, McCaffrey and Morral, 2006).
Confronting the Challenges of Student Engagement

Table A4.3 Balance Table for Model Matching SES, Grade Level, Baseline GPA, Baseline Math and English-Language Arts Citizenship Marks, and Disciplinary Frequencies

<table>
<thead>
<tr>
<th>Unweighted</th>
<th>tx.mn</th>
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<td>0.62</td>
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<td>0.63</td>
<td>0.04</td>
<td>0.17</td>
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<tr>
<td>Grade Level</td>
<td>7.84</td>
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<tr>
<td>SES</td>
<td>0.74</td>
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<td>0.49</td>
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</table>
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Appendix V  Outcomes From the Three Propensity Score Models

Table A5.1 Outcomes for Model Matching SES and Grade Level

| Outcome                          | Estimate | Std Error | t value | Pr>|t| |
|----------------------------------|----------|-----------|---------|-----|
| Classroom Suspensions 06         | 0.08     | 0.38      | 0.21    | 0.83|
| CST English-Language Arts 06    | -0.02    | 0.21      | -0.11   | 0.91|
| CST Math 06                      | 0.12     | 0.18      | 0.65    | 0.52|
| Detentions 06                   | 0.20     | 1.47      | 0.14    | 0.89|
| GPA 06                           | -0.52*   | 0.13      | -3.86   | 0.00|
| In-school Suspensions 06         | 0.29     | 0.29      | 1.01    | 0.32|
| Language Arts Citizenship 06    | 0.18     | 0.35      | 0.51    | 0.61|
| Language Arts Grade 06          | -0.51*   | 0.15      | -3.45   | 0.00|
| Language Arts Work Habits 06    | -0.41*   | 0.21      | -1.97   | 0.05|
| Math Citizenship 06             | -0.44    | 0.31      | -1.42   | 0.16|
| Math Grade 06                   | -0.79*   | 0.24      | -3.34   | 0.00|
| Math Work Habits 06             | -0.85*   | 0.23      | -3.76   | 0.00|
| Piers Harris-School Status      | -0.49    | 0.97      | -0.51   | 0.61|
| Piers Harris Total (post)       | -1.93    | 2.70      | -0.72   | 0.48|
| QSL-Classroom                   | -0.44    | 0.57      | -0.78   | 0.44|
| QSL-School                      | -0.45    | 0.44      | -1.02   | 0.31|
| QSL-Teacher                     | -0.35    | 0.67      | -0.53   | 0.60|
| QSL Total (post)                | -1.24    | 1.39      | -0.90   | 0.37|
| Saturday School 06              | -0.03    | 0.31      | -0.11   | 0.92|
| Suspensions 06                  | 0.70     | 0.51      | 1.37    | 0.17|
| Tardies 06                      | -4.17    | 3.95      | -1.05   | 0.29|
| Total Absences 06               | -0.45    | 2.78      | -0.16   | 0.87|
| Total Discipline Actions 06     | 1.25     | 2.39      | 0.52    | 0.60|
| Unexcused Absences 06           | -0.32    | 1.58      | -0.20   | 0.84|

*Values that are statistically different at the 95 percent confidence level using a two-tailed test are bolded and asterisked.
### Table A5.2 Outcomes for Model Matching SES, Grade Level and Baseline GPA

| Outcome                            | Estimate | Std Error | t value | Pr>|t| |
|------------------------------------|----------|-----------|---------|-----|
| Classroom Suspensions 06           | 0.25     | 0.36      | 0.68    | 0.50|
| CST English-Language Arts 06       | -0.13    | 0.25      | -0.53   | 0.60|
| CST Math 06                        | 0.13     | 0.20      | 0.65    | 0.52|
| Detentions 06                      | -0.59    | 1.60      | -0.37   | 0.71|
| **GPA 06**                         | **-0.52***| **0.14**  | **-3.81**| **0.00**|
| In-school Suspensions 06           | 0.23     | 0.36      | 0.64    | 0.52|
| Language Arts Citizenship 06       | 0.38     | 0.39      | 0.99    | 0.32|
| **Language Arts Grade 06**         | **-0.52***| **0.15**  | **-3.50**| **0.00**|
| Language Arts Work Habits 06       | -0.36    | 0.20      | -1.75   | 0.08|
| Math Citizenship 06                | -0.53    | 0.33      | -1.63   | 0.11|
| **Math Grade 06**                  | **-0.84***| **0.27**  | **-3.09**| **0.00**|
| **Math Work Habits 06**            | **-0.91***| **0.29**  | **-3.18**| **0.00**|
| Piers Harris-School Status         | -0.82    | 0.96      | -0.85   | 0.40|
| Piers Harris Total (post)          | -2.30    | 2.74      | -0.84   | 0.40|
| QSL-Classroom                      | -0.22    | 0.58      | -0.39   | 0.70|
| QSL-School                         | -0.40    | 0.45      | -0.90   | 0.37|
| QSL-Teacher                        | -0.16    | 0.69      | -0.23   | 0.82|
| QSL Total (post)                   | -0.78    | 1.43      | -0.55   | 0.59|
| Saturday School 06                 | -0.13    | 0.35      | -0.36   | 0.72|
| Suspensions 06                     | 0.64     | 0.53      | 1.21    | 0.23|
| Tardies 06                         | -4.81    | 3.97      | -1.21   | 0.23|
| Total Absences 06                  | -0.05    | 2.77      | -0.02   | 0.99|
| Total Discipline Actions 06        | 0.40     | 2.59      | 0.15    | 0.88|
| Unexcused Absences 06              | 0.34     | 1.53      | 0.23    | 0.82|

*Values that are statistically different at the 95 percent confidence level using a two-tailed test are bolded and asterisked.
Confronting the Challenges of Student Engagement

Table A5.3 Outcomes for Model Matching SES, Grade Level, Baseline GPA, Baseline Math and English-Language Arts Citizenship Marks, and Baseline Disciplinary Frequencies

| Outcome                  | Estimate | Std Error | t value | Pr>|t| |
|--------------------------|----------|-----------|---------|------|
| Classroom Suspensions 06 | 0.22     | 0.36      | 0.61    | 0.55 |
| CST English-Language Arts 06 | -0.17   | 0.27      | -0.64   | 0.52 |
| CST Math 06              | 0.01     | 0.18      | 0.05    | 0.96 |
| Detentions 06            | 0.66     | 1.55      | 0.42    | 0.67 |
| GPA 06                   | -0.63*   | 0.14      | -4.43   | 0.00 |
| In-school Suspensions 06 | 0.36     | 0.29      | 1.22    | 0.23 |
| Language Arts Citizenship 06 | -0.05   | 0.37      | -0.12   | 0.90 |
| Language Arts Grade 06   | -0.60*   | 0.16      | -3.74   | 0.00 |
| Language Arts Work Habits 06 | -0.58*  | 0.26      | -2.23   | 0.03 |
| Math Citizenship 06      | -0.64*   | 0.31      | -2.08   | 0.04 |
| Math Grade 06            | -0.82*   | 0.27      | -3.06   | 0.00 |
| Math Work Habits 06      | -0.97*   | 0.28      | -3.50   | 0.00 |
| Piers Harris-School Status | -0.69  | 0.91      | -0.76   | 0.45 |
| Piers Harris Total (post) | -2.58   | 2.55      | -1.01   | 0.31 |
| QSL-Classroom            | -0.46    | 0.53      | -0.87   | 0.39 |
| QSL-School               | -0.50    | 0.43      | -1.16   | 0.25 |
| QSL-Teacher              | -0.44    | 0.69      | -0.64   | 0.53 |
| QSL Total (post)         | -1.39    | 1.36      | -1.02   | 0.31 |
| Saturday School 06       | 0.02     | 0.32      | 0.05    | 0.96 |
| Suspensions 06           | 0.67     | 0.52      | 1.30    | 0.20 |
| Tardies 06               | -0.73    | 3.94      | -0.19   | 0.85 |
| Total Absences 06        | 0.56     | 2.71      | 0.21    | 0.84 |
| Total Discipline Actions 06 | 1.92   | 2.51      | 0.76    | 0.45 |
| Unexcused Absences 06    | 0.32     | 1.58      | 0.20    | 0.84 |

*Values that are statistically different at the 95 percent confidence level using a two-tailed test are bolded and asterisked.
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References

Chapter One


Confronting the Challenges of Student Engagement


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Chapter Two


Confronting the Challenges of Student Engagement


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Confronting the Challenges of Student Engagement


Chapter Three


California Department of Education, Test and Accountability, downloaded on 10/24/06 from http://dq.cde.ca.gov/dataquest.


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Chapter Four


Chapter Five


