

TEACHERS' DEFICIT AND DYNAMIC THINKING  
IN ADVANCED PLACEMENT CLASSES: EXPLORING THE NATURE  
OF TEACHER-STUDENT CLASSROOM INTERACTIONS

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In Partial Fulfillment  
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by  
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## ABSTRACT

Carolyn Callahan and Sara Dexter

Researchers have explored teachers' differential expectations for minority and low-income students in an attempt to explain the achievement gap (Weinstein, 2002). New research uses models of deficit and dynamic thinking to reconceptualize and investigate teacher expectations. This study employs a framework that encompasses deficit and dynamic views of teachers' expectations for students to examine the disparity of student performance among racial subgroups on Advanced Placement (AP) exams. The inquiry into the nature of the differential teacher expectancy is conducted in the context of a large intervention program designed to raise minority students' participation in AP classes and scores on AP exams to better prepare students for success in college. Results from this study indicate that although teachers maintain differential expectations for their students, they are willing to engage in a critical examination of their instructional practices. The findings from this qualitative study can be used as the basis for suggesting ways expectations may shape future teacher professional development that focuses on raising minority and low-SES student achievement. The study specifically cites the contextual factors that lead to student success in AP courses. Ultimately, this line of inquiry could help address the achievement gap for marginalized students.

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APPROVAL OF THE DISSERTATION

This dissertation, *Teachers' Deficit and Dynamic Thinking in Advanced Placement Classes: Exploring the Nature of Teacher-Student Classroom Interactions*, has been approved by the Graduate Faculty of the Curry School of Education in partial fulfillment of the requirements for the degree of Doctor of Philosophy.



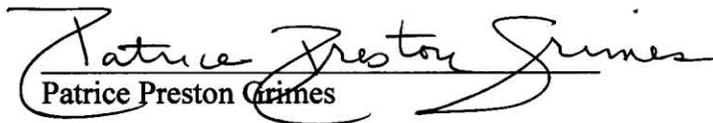
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Patrice Preston Grimes

April 6, 2012

This work is dedicated to my parents:

Robert (Bob) and Marianne Izzo,  
my first, favorite, and finest teachers.

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## CHAPTER 1

### INTRODUCTION AND OVERVIEW OF THE STUDY

#### **Statement of the Problem**

Nationally, research to date supports the existence of an achievement gap at all levels of education (e.g., Bowles & Gintis, 1976; Gay, 1985; Labaree, 2004; Oaks, 1985; Ogbu, 2003; Solorzano & Ornelas, 2002; Valencia, 1997; Zeichner, 2003). The gap is evident across multiple measures of success. Minority students perform less well on high-stakes standardized tests, earn lower grades in high school, and have lower college graduation rates (Solorzano & Ornelas, 2004). A trend of underachievement holds true for minority students in AP courses—both in enrollment numbers and in achievement on AP exams (College Board, 2005, 2006, 2007, 2010; Gandara, 2004, 2005; Greene, 2002; Miller, 2004; National Task Force Report on Minority High Achievement: *Reaching the Top*, 2000; Whiting & Ford, 2009). The nature of minority student underachievement in AP courses can be explained in multiple ways through different theoretical frameworks. Additionally, the problem is multidimensional, hence it is likely that multiple solutions will be needed to increase minority student performance. However, to propose solutions to raise minority achievement in AP classes, researchers must be well versed in the root causes of the problems, based on sound empirical data.

Much of the research on AP courses comes from the literature on gifted and talented students. Few other advanced-coursework options exist for gifted students at the

high school level (Hertberg-Davis & Callahan, 2008; Hertberg-Davis, Callahan, & Kyburg, 2006). For talented minority students who hope to access postsecondary education, opportunities to enroll in—and their associated performance in—AP courses and exams are increasingly important.

### **Benefits of Advanced Placement Courses**

In 2009, more than two thirds of graduating high school seniors entered college (College Board, 2010). However, students who take at least one remedial course during their first year of college face greater chances of dropping out before they complete their degree. In contrast, earning a passing score on an AP exam during high school—a 3 or higher, as defined by the College Board—increases the chances that students will complete a college degree within four years (College Board, 2010).

**Admissions policies.** According to U.S. News and World Report’s college rankings, 7.5% of a college’s rank is based on the percentage of students who graduate in four years. Due to the importance of graduation rates, colleges make admissions decisions based on information that maximizes the number of students who will graduate in four years (U.S. News & World Report, 2010). Leading institutions may be admitting students who take AP classes because they are more likely to graduate in four years.

One of the primary components of the college admissions application is a student’s Grade Point Average (GPA). Typically when students take AP courses, they can receive an additional point on the course grade. The extra point for enrolling in an AP class incentivizes students who plan to attend selective colleges that require high GPAs to take AP classes. Rescaling GPAs to reward students who take AP classes is common nationally (Matthews, 2010). To ensure their university is admitting students

taking the most rigorous classes possible in high school, many institutions recalculate GPAs if the high schools are not already doing so (Solorzano & Ornelas, 2002).

**College credit.** Earning college credit is an important aspect of taking AP classes (Everson & Donnelly, 2010). Students receiving a 3 or higher on AP exams can often earn college course credit. As of 2009, more than 90% of U.S. colleges offered college credit to students who passed their AP exams with a 3 or higher. Students who earn college credit are more likely to graduate from their college in four years (College Board, 2010).

Many minority students lack access to comparable AP course offerings available to their White counterparts in other schools (Solorzano & Ornelas, 2004). The inequity of AP course availability leads to lower minority student enrollment and fewer minorities earning passing grades on AP exams. Schools with greater percentages of minority students are more likely to have fewer AP course offerings (College Board, 2010). Students who attend those schools have fewer AP courses to choose from, decreasing their opportunity to earn college credit while in high school.

However, fewer course offerings do not fully explain why minority students under-enroll and pass AP exams at lower rates than their White counterparts when students do have equal access to AP courses. Many researchers have studied these aspects of the achievement gap and offer a wide range of explanations. One possible reason for under-performance may be due to the behaviors of classroom teachers and the expectations they form for minority students.

## **Purpose of the Study and Rationale**

### **Teacher Expectations**

My study uses deficit and dynamic thinking as a framework for understanding teacher expectations for minority students. The body of research on teacher expectations presents arguments supporting and refuting the lasting effects expectations have on student performance. In Chapter Two, I summarize the literature that frames my study. I will articulate where there is support for or evidence challenging the influences of teacher expectations on student performance. Ultimately, expectancy researchers agree on deficit is applied to some students in schools. My study explores the agreement on deficit thinking in the literature.

### **Toward a Consensus on Deficit Thinking**

Two major problems exist within the literature on deficit thinking. The first concerns the multiple ways different bodies of literature define the term and apply it to students. Definitions of deficit thinking are scattered throughout the literature and used differently across fields (e.g., Ford & Grantham, 2003; Garcia & Guerra, 2004; Trent, Artiles, & Englert, 1998). My study uses the term to reflect culturally laden perspectives articulated by critical race theorists, which will be addressed further in the literature review.

The second major problem with the literature on deficit thinking is that it exists as theory without empirical evidence to substantiate its existence. The empirical evidence gap in the literature has led to the development of my exploratory study to describe the nature of teacher deficit and dynamic thinking.

## **Offering Empirical Evidence**

As noted, there is no empirical evidence that either substantiates the existence of deficit and dynamic thinking in the classroom or describes its manifestation in teaching behavior or student response. One of the purposes of my study is to determine whether dynamic and deficit thinking is manifested in the interactions between teachers and students and whether the study supports the existence of differential teacher thinking about minority students. My study provides descriptive empirical evidence describing teacher expectations about minority student performance within the AP Challenge Program, a large, five-year intervention program conducted by faculty at the University of Virginia. Generating empirical evidence on teacher expectations holds practical significance for teachers, school leaders, and education policymakers. Teachers who form inappropriate differential expectations for minority students may be operating from a deficit perspective. Inappropriate differential teacher thinking may be affecting minority student performance in classrooms and should be addressed if found.

## **Potential Implications**

I sought to conduct this study to provide insight into the nature of teacher expectations. Additionally, my research proposes a possible immediate practical implication showing school leaders that deficit and dynamic thinking is relevant to the achievement gap in schools. Specifically, if teachers are shown to hold deficit thinking for minority students, they may be contributing to the achievement gap. Acknowledging teacher expectations will potentially lead to the development of future staff development program designs that target dynamic and deficit thinking in schools.

Deficit thinking is an extremely challenging topic to study because teachers only discuss race within acceptable social norms. Teachers are unwilling to express beliefs about race that may be considered inappropriate by their peers or supervisors.

### **Policies**

My hope in conducting this study was to produce information that will impact research on the design of future teacher professional development strategies targeting teacher deficit and dynamic thinking. Understanding deficit and dynamic mindsets may enable school leaders to better work with teachers and change the way teachers form expectations for minority students. The achievement gap is a multifaceted and complicated problem in education that is exacerbated by poverty and cultural issues. As policymakers at all levels of school governance learn of expectations for minority students, they can shape initiatives that support future study and development of teacher training programs.

### **Overview of the Methodology**

In my study, I followed four teachers from the larger AP Challenge Program study for approximately three months. During the study, I observed classroom interactions during the school year. Additionally, I interviewed teachers about their expectations, specifically targeting beliefs and attitudes. I analyzed the data through an interpretivist paradigm using deductive (Vazou, Ntoumanis & Duda, 2005) and sequential (Pope, Ziebland & Mays, 2000) analysis. The results are presented in case studies that describe the nature of each teacher's expectations and their relationship to behaviors for minority students.

## **Definition of Key Terms**

Articulating the key terms used throughout my study minimizes ambiguity. Many of the key terms may be used in multiple ways in different bodies of literature and are defined individually to provide clarity.

**Teacher expectations.** Teacher expectations, simply stated, are the inferences teachers make about students' potential performance based on their current perceptions of the student (Good & Brophy, 1994). My study uses teacher expectations as self-fulfilling prophecies for students (e.g., Merton, 1948; Weinstein, 2002). In educational terms, self-fulfilling prophecies occur when teachers make judgments about students, form expectations, and communicate those expectations to students whose classroom performance is subsequently affected. Teacher expectancy theory is discussed in detail in chapter 2.

**Achievement gap.** In the broadest terms, the achievement gap is the disparity in performance between White and non-White students in the United States. The minority group of non-White students considered in discussing the achievement gap typically does not include Asian students. Differences in performance are apparent in standardized test scores, dropout rates, and the ethnicity of students taking AP and gifted courses (Ladson-Billings, 2006). However, not all minority students under-perform in AP classes (College Board, 2010), which justifies a closer look at the different minority groups represented in schools. Some researchers argue that the differences in performance between minority groups justify a critical analysis of their inclusion or absence when analyzing trends in education (Ogbu, 2003).

**Minority students.** The term minority students in my study includes those racial groups that are part of the national achievement gap, including Black, Latino/Latina, and American Indians. When combined, these minority groups comprise a substantial percentage (30%) of the U.S. population. The minority population percentage of the U.S. for each of these groups is derived by the U.S. Census Bureau's 2000 categories and 2009 statistically extrapolated estimates, where respondents self-identified their race on the 2000 U.S. Census (U.S. Census Bureau, 2009). Because many authors and government reports that cite educational achievement follow the racial categories from the U.S. Census Bureau, I also use them in my study.

However, thinking of minorities as a singular entity is misleading in many ways. Often used as a singular construct in research, each of these racial minority groups has unique characteristics that present differing opportunities and challenges for the students who identify themselves—or are identified by their teachers—as belonging to one or more of these categories. Although my study uses “minority students” as a singular term, it is important to consider how these groups are different.

**Black students.** Black students, specifically those of African descent, are the second largest minority group in schools, with a minority population estimated to account for nearly 13% of the total U.S. population (U.S. Census Bureau, 2009). The term “Black” is used to be a more inclusive label than African American, a more restrictive classification. Both African American and Black are defined as a race by the U.S. Census Bureau's most recent classification system (U.S. Census Bureau, 2011). During my study I will reference African American and Black. Although these two racial labels

are not necessarily equivalent, they are frequently interchanged in the literature based on the historical and theoretical contexts of different research.

Black students are represented across multicultural literature and frequently referenced in critical race theory literature (e.g., Herrnstein & Murray, 1994; Ladson-Billings & Tate, 1995; Ogbu, 2003).

**Latino/Latina students.** Latino and Latina students are the largest minority group and are estimated to account for nearly 16% of the U.S. population (U.S. Census Bureau, 2009). The U.S. Census Bureau has led a major initiative to define a term to represent non-White Latino or Hispanic people residing in the United States (U.S. Census Bureau, 2011). Latino students are disproportionately underrepresented in AP courses in urban and low-income schools, leading to a gap in the number of students who graduate from a four-year college and making them an important minority to consider in studies of influences on achievement (Solorzano & Ornelas, 2002).

Latino and Latina, often referred to by the male variation, is also referenced as Chicano/Chicana and Hispanic in different literature sources. However, Latino is the preferred term among many researchers (e.g., Solorzano & Ornelas, 2002; Valencia, 1997, 2010). While each of these labels carries different historical and cultural meaning, they are frequently used interchangeably within multicultural research (Chapa & Valencia, 1993). The literature on critical race theory also offers substantial references to the Latino minority subgroup (e.g., Solorzano & Ornelas, 2002; Valencia, 1997, 2010). In my study I use label for Latinos as a term to represent the many terms used interchangeably, unless it would change the meaning intended in the original study.

**American Indian students.** American Indians are the smallest minority group of minorities (1% of the U.S. population) included in the achievement gap. The U.S. government classifies American Indians as those people who are among the recognized tribes in the continental U.S. and Alaska (U.S. Census Bureau, 2009). Often an afterthought in studies on minority students, American Indians by themselves are referenced the least in multicultural studies. However, they are referenced frequently in the critical race literature and will, therefore, be included as a minority subgroup for deficit and dynamic thinking.

**Other minorities.** To suggest that these three minorities are the only groups represented in the achievement gap would be misleading. However, the bulk of literature underlying my study identifies these three groups most often without reference to other racial minority groups. My study uses the term *minority* students to include Black, Latino, and American Indian unless otherwise noted.

**Multicultural education.** Multicultural education can best be described as a field of study with the major aim of creating equal educational opportunities for students from diverse racial, ethnic, social-class, and cultural groups (Banks & Banks, 2004; Gay, 1994). Within the field of multicultural research, several theories exist. I focus on critical race theory and deficit and dynamic thinking below.

**Critical race theory.** In the 1970s, scholars sought to provide an alternate explanation for minority student underachievement in schools. Emerging from legal scholarship (e.g., Bell, 1976) and stemming from Marxist and neo-Marxist theories of social construction, critical race theory emerged as a tool scholars used to explain race as a contribution to minority underachievement in education in the United States (e.g., Ladson-Billings & Tate, 1995; Tate, 1997). Critical race theory is a counter narrative scholarship that challenges White experiences and judgments as the normative means of controlling the discourse in education. I use critical race theory to present alternative explanations that may explain the achievement gap from different perspectives found in the literature on minority students.

Critical race theory asserts that the texts of law, society, and culture are subject to critical analysis or an alternative way of looking at a phenomenon, which suggests that researchers can examine problems with theories that account for race (Tate, 1997). The broad operational definition to be used in my study was framed by Solorzano and Ornelas (2004): “CRT consists of basic insights, perspectives, methods, and pedagogies that seek to identify, analyze, and transform those structural and cultural aspects of education that maintain subordinate and dominant racial positions in and out of the classroom” (p. 17). Bell referred to this counter narrative as “interest convergence” (1987).

**Deficit thinking.** Deficit thinking is a social construct of negative differential expectations based on race. The theory of deficit thinking may be situated in critical race theory as a means of considering how teachers contribute to minority student underachievement. The term is used differently in special education and multicultural education literature. In special education, student deficits are recognized and embraced

to allow teachers to move toward appropriate instructional strategies (e.g., Kaufman, 2010). In multicultural literature, deficit thinking is based in the social construct of racism, which blames the student for lacking skills necessary to succeed in school (e.g., Blumenfeld & Raymond, 2000; Garcia & Guerra, 2004).

I use deficit thinking as defined in the multicultural literature, specifically a six-part construct of deficit thinking that includes: (a) blaming the victim, (b) oppression, (c) pseudoscience, (d) temporal changes, (e) educability, and (f) heterodoxy (Valencia, 1997, 2010). Each of these components is explained in detail in Chapter Two.

**Dynamic thinking.** Dynamic thinking is the conceptual opposite of deficit thinking (Ford & Grantham, 2003) and is manifested when teachers form expectations for minority students with the understanding of the social challenges minority students encounter in racist social systems (Valencia, 2010). Those who do not engage in dynamic thinking may be operating from a deficit perspective. There is no clear definition of dynamic thinking consistently used in the literature on multicultural education. My research study identifies the related research on the concept of dynamic thinking and organizes it into a coherent conceptual framework.

**AP Challenge Program.** The purpose of the *AP Challenge Program* (APCP) is to increase the participation and success of minority and low-income students who are enrolled in AP courses and foster their success in college. The program has two primary components: (a) support structures for students and (b) training for AP teachers and school counselors.

The program provides students with support structures that include a week-long pre-AP residential summer program at the University of Virginia, structured peer-study

groups, and access to online AP curriculum resources. Students work with school counselors who offer additional academic advising and support on a regular basis throughout the year.

The second programmatic component provides training for teachers and counselors at workshops designed to support and challenge students enrolled in AP classes. The APCP investigates whether “organized academic support structures impact the participation in and success rate of minority and low-income students in AP courses and in college” (AP Challenge Program, unpublished manuscript, University of Virginia, Charlottesville, VA).

### **Limitations of the Study**

#### **Context**

My study is set within the larger APCP research study. Although the larger APCP study affords many advantages, which include access to participants and sites and a pool of project researchers and resources associated with the University of Virginia, the substudy is subject to the goals and constraints of the larger study. To ensure that the integrity of the larger study would not be compromised, the principal investigators of the APCP limited the scope, participant selection, and methods used in my study as needed. One such example of this limitation was to only allow access to the first cohort of teachers who are no longer actively involved in APCP in order to avoid confusion among teachers who are still being observed as a component of the larger program.

#### **Small Pool of Possible Participants**

The participants for my research study come from the first of four total teacher cohorts; each cohort entered during a different year in APCP. My sample of four

participants was drawn from 13 teachers from the first cohort who have completed their involvement with APCP. I administered a short survey on teacher characteristics that measured the teachers' tenure in the profession and experience working with AP students, with the intent to select a broad range of teachers. Once these teachers were identified, they were recruited to participate in my research study via a formal invitation to participate. The small number of teachers may prohibit a diverse representation of teacher views on expectations for their minority students.

### **Organization of the Dissertation**

My dissertation is organized into ten chapters. The first chapter, an introduction and overview of the study, familiarizes readers with the larger problem of achievement gaps in the U.S., including the gap in minority student participation and achievement in AP classes. I present a rationale for asking two research questions about the nature of teacher expectations for minority students and define the key terms used in the research study.

The conceptual underpinnings of my study are presented in chapter 2. Exploring teacher expectations through critical race theory allows me to make conceptual connections between deficit and dynamic teacher thinking and expectations for minority students.

Chapter 3 introduces the methodological process of exploring the nature of teacher deficit and dynamic thinking. By viewing teacher interactions through an interpretivistic paradigm—which includes ontology, epistemology, and hermeneutics—my study addresses the research questions with methods appropriate for apprehending

teacher meaning-making. In chapter 3 the reader is also introduced to the APCP and research participants.

Chapter 4 presents a contextualization of the research setting, including the schools, teachers, and interactions observed during the data collection period. This chapter also establishes many of the necessary parameters before presenting the collected data.

Chapters 5 through 8 are case studies on the four teachers in my study, and chapter 9 presents a cross-case analysis of the data collected. In these chapters, I present the data collected and establish a foundation upon which I can analyze data using the theoretical lenses of teacher expectancy theory and critical race theory.

Chapter 10 reports the analyzed results, findings, and implications for future research. In this chapter I also defend the theoretical and methodological analysis of the collected data that led to my conclusions, which will expand knowledge of teacher expectations and contribute empirical evidence to deficit and dynamic thinking in classrooms.

CHAPTER 2  
REVIEW OF THE LITERATURE

**The Problem at Hand**

In 2000 the National Task Force on Minority High Achievement released *Reaching the Top*, a report drawing attention to the underrepresentation of Black and Latino students among students taking Advanced Placement (AP) courses and going on to college. The 2010 College Board *AP Report to the Nation* affirmed these findings and stated that while a gap still exists, Advanced Placement Black and Latino students' participation in AP classes is on the rise. However, performance of Black and Latino students on AP tests has not improved. The absence of improved performance on AP tests is of concern because success in postsecondary education is not tied to enrollment in AP classes; rather, it is success on AP exams that ensures students are equipped with skills for higher education (Geiser & Santelices, 2004). Additionally, admission to college depends in part on AP scores, as many public universities weight AP courses when calculating high school grade point averages (Matthews, 2010; Solorzano & Ornelas, 2002).

Reduced access to AP classes and lower performance on AP exams are symptomatic of factors influencing the achievement gap between White and minority students. Traditionally, many social scientists have attempted to explain the achievement gap with the implicit assumption that educational opportunities and conditions are the

same for all students in elementary and secondary levels. Educational opportunities are not the same for all students (Garcia, 2001; Moreno, 1999; Oaks, 1985; Solorzano & Ornelas, 2002; Valencia 2010). Although legislative (e.g., Civil Rights Act of 1964) and judicial (e.g., *Brown v. Board of Education*, 1954) mandates require equal access to the same quality of education through desegregation, minority students face a number of challenges, many of which can be attributed to dominant/subordinate racial positions in and out of the classroom (Matsuda, Lawrence, Delgado, & Crenshaw, 1993; Solorzano & Ornelas, 2002). The landmark U.S. Supreme Court case, *Brown v. Board of Education* (1954), argued that access to resources in name does not equate to access to equal resources in practice. The argument put forth in the case holds still, as evidenced by the persistent achievement gap in the United States. Some schools that sort minorities into lower-level ability groups justified by test scores, grades, and other criteria of academic merit create a self-fulfilling prophecy for minority students (e.g., Bowles & Gintis, 1976; Labaree, 2004; Oaks, 1985).

### **Teacher Expectancy Theory**

Teacher expectancy theory, a concept with elements closely related to deficit thinking, has been used as a conceptual framework in much of the relevant research. The theory offers a potential lens appropriate for examining teacher deficit thinking. In a review of literature, Weinstein (2002) offers a compelling argument for the influence of teacher expectations on students. Even scholars who question the statistical and practical influence of teacher expectations on student performance agree there is some influence of expectations on minority student achievement (e.g., Jussim, 1998).

In addition to the legal, social, and historical constructs of critical race theory, the researcher must consider psychological aspects of teacher beliefs, attitudes, and values (Ladson-Billings, 1995). Understanding how teachers make meaning of social situations and how they translate these psychological components into the social settings of their classrooms is important. Shulman (1987, 2007) has considered the philosophical and psychological perspectives of novice and experienced teachers. His work mentions the importance of knowledge of educational contexts; however, it minimizes the culturally based analyses of teaching by focusing solely on speech and language interactions rather than embracing the broader societal contexts of Black students' communication patterns. An effective model for culturally relevant pedagogical practice would address student achievement and affirm students' cultural identities by developing critical perspectives of school inequities (Ladson-Billings, 1995). Understanding the psychological underpinning of teacher interactions with students is important, because the verbal and nonverbal communications and behaviors teachers exhibit in the classroom may not be completely congruent with their beliefs, attitudes, and values (Ford & Milner, 2005). It is imperative that teachers be able to communicate appropriate beliefs and values that allow them to teach various groups of students in different educational contexts through their behaviors and interactions with students. Whether or not teachers believe what they ultimately convey to students through behaviors may not be as important when implementing culturally relevant pedagogy.

### **Teacher Expectations**

W.I. Thomas, a sociologist who was an earlier researcher of teacher expectations, wrote, "If men define situations as real, they are real in their consequences" (as cited in

Merton, 1948). Merton used this quote to explain the implications of a statement on the implications for understanding the workings of society. Thomas's words are a reminder that one's response to the objective features of a situation may be secondary to the meaning behind them. Many researchers argue that the same principle holds true for classrooms (e.g., Erickson, 1986; Ladson-Billings, 2005, 2006; Valencia, 1997, 2010). One such example of the meaning behind objective features in classrooms is the symbolic expectations that are manifested in the relationship between teachers and students. A wide and complex body of literature explores the influence that teacher expectations, conveyed in numerous ways, have on student performance.

### **Defining Teacher Expectations of Student Performance**

Good and Brophy (1994) offer a comprehensive definition of teacher expectations as “the inferences that teachers make about future behaviors or academic achievement of their students, based on what they know about these students now” (p. 83). Teacher expectancy theory is deeply intertwined with a wide array of student performance measures. A broad definition of student performance would include individual assessment mechanisms that span a spectrum of formality. Examples of these assessments include high-stakes standardized tests (e.g., Hoge & Coladarci, 1989; Weinstein, 2002), teacher-developed reading instruments (Ross & Jackson, 1991), and assessment of math ability (Jussim, 1989; Jussim & Eccles, 1992).

Self-fulfilling prophecies are also manifested in more complex and subtle ways. When Rosenthal and Jacobson (1968) wrote about the students in the Pygmalion study, they included a unique perspective on student performance encapsulated in the theory of self-fulfilling prophecy. The self-fulfilling prophecy is a form of student outcome

containing longitudinal data obtained through formal methods, such as student IQ tests and informal methods that include descriptive characteristics provided by teachers. Weinstein (2002) highlights less traditional measures of student performance—such as the degree of participation in activities and growing talents of students—when describing school efforts to improve teacher expectations. In this study, I consider teacher expectations to be influences that may generate self-fulfilling prophecies in students.

A review of the literature includes the theme of researchers presenting dichotomous positions on the influences of teacher expectations on student performance. My search strategy for the literature review began with searching academic databases for key words including “expectations” and “expectancy theory.” From the results of this initial search, I selected the most-cited articles as a starting point and branched out into the bibliographies. My search yielded a large number of articles and books authored by Weinstein, leading me to contact her via email to ask her about the current landscape of teacher expectations.

Weinstein and colleagues claim teacher expectations have robust and statistically significant effects on student performance, while Jussim presents a counterargument. The two research camps agree that teacher expectations do affect student performance for minority, low-socioeconomic status (SES), and female mathematics students. The literature presents several theoretical frameworks for these populations when addressing self-fulfilling prophecies, including stereotype threat (Steele, 1997) and deficit thinking (Valencia, 1997, 2010). While there are theoretical constructs run parallel to many arguments presented here in terms of references to race, I limit my discussion to literature on teacher expectations affecting student performance, acknowledging other tangential

theories as they emerge. The root of teacher-expectancy research—from which so many other theories emerge—lies in the field of self-fulfilling prophecy research.

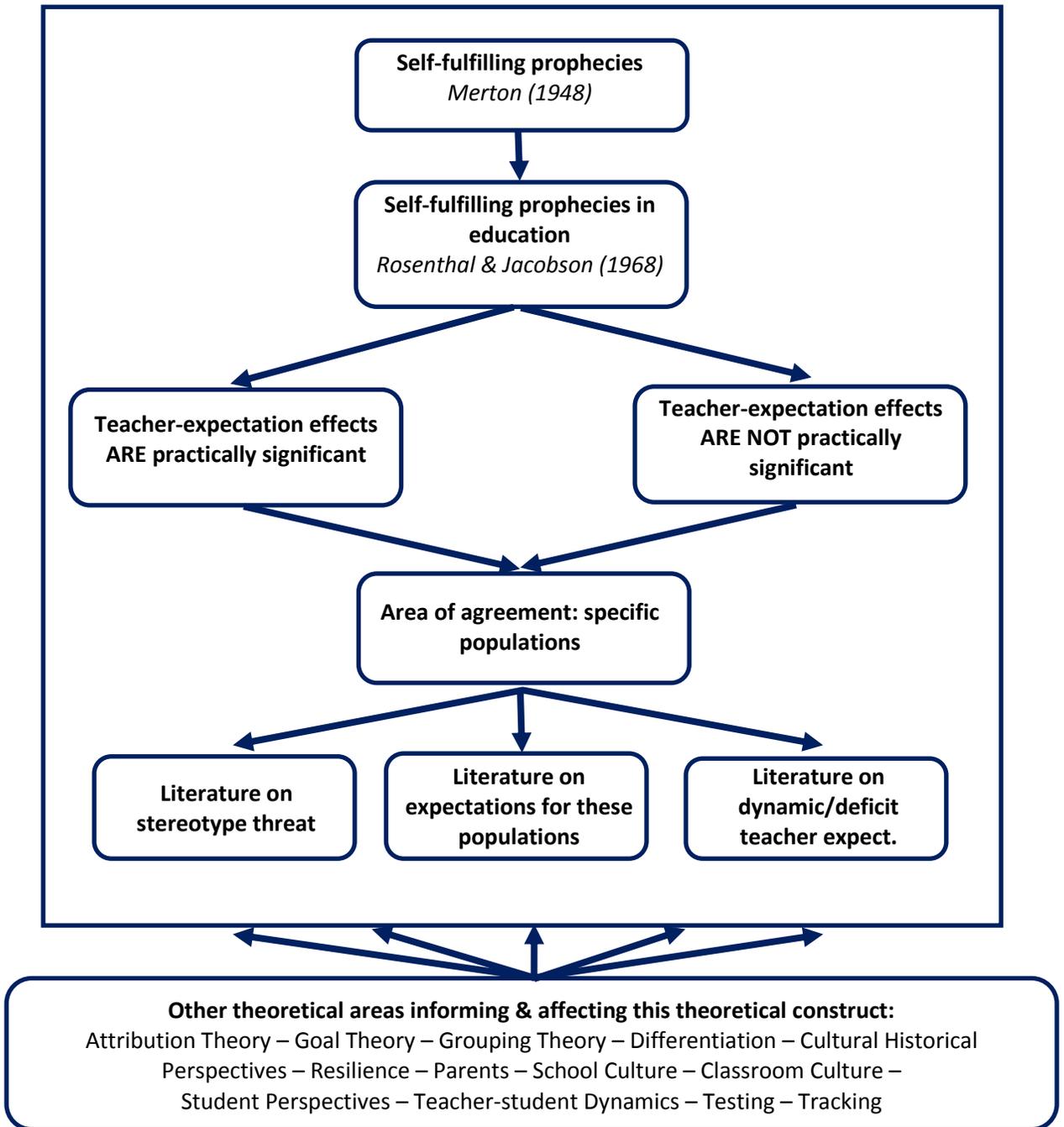


Figure 2.1. A Model of Teacher-Expectancy Literature. This figure shows the relationship of important expectancy authors.

## **The Self-fulfilling Prophecy**

In the Greek myth, Pygmalion's love for the statue he sculpted brought Galatea to life. These positive effects were contrasted by Babad with the Hasidic myth of the Golem, in which a mechanical creature is brought to life by its creator. The Golem develops into a monster, runs amok, and must be destroyed. (Rosenthal & Babad, 1985)

When taking the Galatea and Golem metaphors into education, the teacher becomes Pygmalion, who either produces Galateas or Golems with differential expectations. Studying the influences of teacher expectations on student performance first requires an understanding of how researchers conceptualize teacher expectations.

The first documented instance of self-fulfilling prophecies in the literature is Merton's (1948) seminal work. He hypothesized that a person's false beliefs about one's abilities could affect behavior and, subsequently, confirm those beliefs. Rosenthal & Jacobson (1968) brought Merton's concept of self-fulfilling prophecies into the educational literature with *Pygmalion in the Classroom*, which examined the role of teacher expectations in creating self-fulfilling prophecies for students' achievement.

The roles assigned to the players in self-fulfilling prophecies can be related to those in education. In a self-fulfilling prophecy, perceivers make judgments about people and convey expectations to them. In the context of teacher expectations, teachers are the perceivers who communicate, either verbally or nonverbally, their expectations to their students.

## **Teacher Expectations and the Self-fulfilling Prophecy**

When Rosenthal and Jacobson (1968) published *Pygmalion in the Classroom*, they set off an argument about the practical significance of their findings. In their study, the treatment group identified as “late bloomers” gained 4 points more on an IQ test than the control group of students. Although the late bloomers’ scores increased as a result of the differential teacher expectations, all students’ scores went up during the experiment, leading to a small experimental-effect size. The statistics in the study stimulated a large number of articles in response to what was seen as a seminal study (Weinstein, 2002), dividing the field of research on teacher expectations into diametrically opposed groups: those who see practical significance in the findings of the Pygmalion study and those who do not.

**Small effect sizes: Big coincidence.** As one of the most prominent investigators of teacher expectancies, Brophy (1983) concluded that “teachers’ behavior is generally accurate, reality based, and open to corrective feedback” and that it is mostly “appropriate reaction to the differences among students” (p. 631). Brophy attributed no more than 5%–10% of variance in student performance to teacher expectations (Brophy, 1998; Hall and Merkel, 1985; Meyer, 1985). Ultimately, Hall, Merkel, and Meyer (1985) agreed with Brophy, arguing that the impact of teacher expectancies is minimal or even negligible.

A large number of scholars criticized the body of research on teacher expectancies by claiming that the effects from Rosenthal and Jacobson’s seminal work (1968) are quite small (e.g., Brophy, 1983; Brophy & Good, 1974; Cooper, 1979; Jussim, 1998; West & Anderson, 1976). Criticism included arguments that methodological procedures were

inappropriate. For instance, the IQ test used in the study was not normed for young children, and young children have lower mean IQs; thus, the large gains for the younger elementary students were artificially inflated (Jussim, Smith, Madon, & Palumbo, 1998). Other criticisms targeted the strong effects that have resulted from experimental studies rather than context-laden naturalistic studies, and many researchers are especially critical of the methods and meaning of these studies (e.g., Devine, 1995; Fiske & Taylor, 1984; Gilbert, 1995; Jones, 1986, 1990; Miller & Turnbull, 1986; Snyder, 1984).

Others countered that the strong relationship between teacher expectations and student performance boils down to the simple assumption that teachers are typically correct when predicting student ability (Doherty & Conolly, 1985; Hoge & Butcher, 1984; Hoge & Coladarci, 1989). Student achievement may affect teacher expectations (West & Anderson, 1976). The notion that teachers accurately predict student capabilities at the time of expectancy induction and are capable of differentiating instruction early in the academic term has been extensively researched (e.g., Jussim, 1989, Jussim & Eccles, 1992; Jussim et al., 1998; Raudenbush, 1984). The authors contend that the small effect sizes seen in Rosenthal and Jacobson's study (1968) were merely coincidences resulting from teachers' ability to predict student ability and not due to teachers' communication of expectations for student performance.

In sum, the criticism of the Pygmalion study and subsequent research falls into three areas: (a) faulty methods, (b) the interpretation of effect sizes as a means of conveying the practicality of the studies, and (c) teachers' ability to accurately judge student ability early in the school year. For each of these arguments, a counterargument

is made a group of researchers who view the teacher expectancy phenomenon as mattering quite a bit.

**Small classroom effect sizes: Large practical impact for individual students.**

Strong evidence supports the rationale for teacher expectations as a significant contributor to student performance. In the existing literature, self-fulfilling prophecies are presented as occurring in education and as having effects that are practically important for students (e.g., Rosenthal, 1963; Rosenthal & Fode, 1963; Rosenthal & Jacobson, 1968). The greater the differential treatment a child reports in the classroom, the greater the gap on a range of critical competencies, both academic and social (Weinstein, 2002). The effects of these differential treatments on student performance is well documented (e.g., Babad, 2005; Babad, Avni-Babad, & Rosenthal, 2003; Weinstein, 2002).

Many researchers claim that expectancy effects are quite strong (Brattesani, Weinstein, & Marshall, 1984; Kulinski & Weinstein, 2001). However, these effects are debatable. Proponents of teacher expectations as a significant contributor to student performance argue less about the size of the effect statistic on groups of students in classrooms and more about the practical significance of its effect on the performance of individual children. The arguments against practical significance in terms of these statistics rest on averaged effects over short periods—not individual children—and are devoid of context:

Researchers have wrongly focused on averaged effects, which tell us little about individual children, the variation with which expectancy effects are accentuated

or minimized in a complex world, and the potential for better outcomes  
(Weinstein, 2002, p. 288).

Weinstein argues that by shifting the focus to the contextual factors that affect teacher expectation, the small effect size statistics matter less and researchers can focus more on how contexts of classroom dynamics influence student performance. The critical argument that Weinstein (2002) makes about the importance of teacher expectancies is in the contextual factors of the classroom. By broadening the lens to include institutional and historical contexts, researchers can consider the interactions between “individuals and environment, across grades, levels of the education system, home and school, and multiple players” (Weinstein, 2002).

A number of researchers (Darley & Fazio, 1980; Weinstein, 1976, Weinstein & Middlestadt, 1979) have extended Rosenthal and Jacobson’s work by using increasingly complex sociocognitive-perspective models for the mediation of expectancy influences in classrooms to support the argument that children’s awareness of teacher behaviors leads to confirmation of differential expectations. In doing so, these scholars account for the role of student awareness and understanding, as well as considering broad sets of student processes and outcomes.

**Agreement on the effect of teacher expectation on student performance.** The literature presents little debate on teacher expectations in two areas: (a) the context-free environment of experimental studies, and (b) the naturalistic influences on specific populations in education. Specifically, authors who challenge the magnitude of influences found in the relationship between teacher expectations and student performance acknowledge that circumstances may create practically significant findings,

but these challengers of the importance of the findings generally argue that only under laboratory conditions do researchers find connections between teacher expectancy and student performance (e.g., Jussim & Harber, 2005; Raudenbush, 1984; Rosenthal & Rubin, 1978). Although modest concessions do not fully reconcile the differences in findings for each of these groups, researchers generally agree that ignoring the variability found in naturalistic classroom settings allows for stronger connections between teacher expectations and student performance. The second area of agreement—and perhaps a more meaningful one to practitioners—concerns stigmatized social groups such as Black students, students who are from a lower socioeconomic status than their White counterparts, and all races of females in math (Jussim et al., 1998). The research on expectations based on student characteristics is deep and is connected to many other bodies of literature. The influence of teacher expectations on race, socioeconomic status, and gender is discussed in detail later in this chapter.

### **Contextual Factors**

The body of literature that describes the contexts in which teachers convey expectations to students, and the subsequent influence of expectations on performance, is extensive and yet lacks a clear direction or conclusion. The comprehensive literature reviews and meta-analyses provide little clarification to a field where researchers utilize multiple conceptual frameworks to explain the influence of teacher expectations on student performance. Contextual factors related to teacher expectations affecting student performance can be organized by focusing on teacher characteristics, student characteristics, student perceptions of teacher behavior, and classroom structures.

**Teacher characteristics.** The literature frequently identifies teacher characteristics as a source of differential expectations toward students. However, there is little direct evidence linking the characteristics that may influence teachers to convey a specific type of expectation. The literature does, however, indicate specific trends and themes that emerge as salient contributors to these expectations and subsequent student performance.

For example, teacher personality characteristics play a role in explaining why some teachers are more likely than others to convey differential expectations to students. Two types of personality dimensions are identified, including (a) teachers with an authoritarian cognitive style who may accept biased information while resisting alternative information, and (b) teachers with an expressive and powerful communication style when transmitting expectations to students (Babad, 1993). Another teacher characteristic that appears in the literature identifies a teacher's susceptibility to expectancy influences. Specifically, a susceptibility characteristic refers to the likelihood that a teacher would demonstrate expectancy-related differential behavior. Additionally, research on the length of teacher tenure reveals that teachers with more experience have a predilection for developing differential expectations more so than their less-tenured counterparts (Babad, 1977; Kruglanski, 1980; Rosenthal, 1979).

Many of these teacher characteristics that lead to differential teacher expectations for students were found to relate to the teacher's adherence to "dogmatism and susceptibility to biased information" (Babad & Inbar, 1981, p. 560; see also Babad, 1973, 1985, 1993; Babad, Bernieri, & Rosenthal, 1989; Babad, Inbar, & Rosenthal, 1982a, b). For teachers with these characteristics, strong school leadership may help

minimize negative differential expectations. The literature suggests that school leadership can play a strong role in fostering positive teacher expectations. Specifically, research on school leadership suggests that effective schools feature positive teacher attitudes towards students and establish positive expectations for students of all abilities (Brophy, 2001). Knowledge of what causes these school-level influences remains an area for future exploration.

**Teacher expectations based on student characteristics.** Teachers bring an understanding of the broader cultural context in which they operate to their classrooms. Teachers view individuals from different ethnic and SES groups as exhibiting different levels of talent (Bobo, 2001; Dovidio & Gaertner, 2004). The expectations teachers form about these individuals from different groups influence the way they influence the way they communicate with them as targets of those expectations (for reviews, see, Brophy, 1983, 1985, 1998; Good & Nichols, 2001; Jussim & Harber, 2005; Rosenthal, 2003; Weinstein, 2002). One area in which researchers who argue about how the effect size of teachers' expectations affects student performance come together in agreement is group characteristics. The literature identifies three primary areas where students are treated differently by group affiliation: gender, race, and SES or class (e.g., Weinstein, 2002). Additionally, other less prominent categories arise, which are briefly addressed in this review of the literature.

**Gender.** The research on differential teacher expectancies for student genders is mixed, with research that supports stronger influences for each gender in specific content areas (Alvidrez & Weinstein, 1999). For example, research on the decline of girls' enthusiasm for math is often cited in teacher expectation literature (e.g., Eccles &

Midgley, 1990; Graham, 2001). Conversely, boys are typically rated lower in reading than girls (e.g., Doherty & Conolly, 1985; Jussim, 1989; Jussim & Eccles, 1992).

Palardy (1969) found that when teachers believed—with or without justification—that boys had lower abilities in reading than girls, boys performed at a lower level on reading tests.

However, the influence of gender on student performance is not consistent at all grade levels; findings suggest that influences on elementary and middle school students' performance are less certain (Dusek & Joseph, 1983, 1985). Although gender is included in the literature, it is studied with far less frequency than race, class, and socioeconomic status.

**Race.** In a review of literature, Weinstein concluded that negative teacher perceptions of ability are stronger for race and socioeconomic status than for gender (2002). Multiple studies have documented differential teacher expectations for Black, Latino, and American Indian students—often including special needs children—while setting these expectations apart from differential expectations based on gender (e.g., Deyhle & Swisher, 1997; Fischer, Hout, Sanchez, Jankowski, Lucas, Swidler & Voss, 1996; Jussim, Madon, & Chatman, 1994; Moore & Johnson, 1983; Safford & Safford, 1996; Sanchez-Jankowski, Lucas, Swidler, & Voss, 1996; Steele & Aronson, 1995; Valencia, 1991). The findings of these reports suggest that certain groups of children are at greater risk for lower academic expectations from teachers.

In a meta-analysis published in 1983, Dusek and Joseph explored these differences across 77 studies and found none in which Black students had been targeted with more favorable teacher expectations than their White counterparts. Baron, Tom, and

Cooper (1985) and Weinstein (2002) have also found that race is an important area in which differential teacher expectations occurs in classrooms, and also focus on other key areas such as gender and socioeconomic status. These comprehensive literature reviews support a consensus that race plays a critical role in the formation of negative teacher expectations. Research on the role of race further substantiates these differentials when expectation influences are directed toward classrooms of students rather than an individual student. Teachers have lower expectations for students in college prep classes when Black students form the predominant group than in advanced courses where students were predominantly White (e.g., Haller, 1985; Leacock, 1985; Ogbu, 2003; Rist, 1970; Steele, 1997).

Although research on expectations and race is well documented, the importance of these expectations is not so clearly documented or agreed upon. Some scholars argue that when teachers form expectations inappropriately, students may be harmed. Gilbert (1995) and Jones (1986, 1990) cite evidence that teacher expectations are a powerful force on the creation of social inequities, because they reaffirm existing stereotypes. More specifically, by focusing on race, the characteristic may become a damaging label for students. The research on labeling draws attention to the destructive influence that differential teacher expectations may have on minority students, and how the influences of labeling on these teacher expectations may lead to lasting systemic influences. My study explores whether teacher expectations for minority students, conceptualized as a deficit perspective, exist in classrooms.

*Class and socioeconomic status.* Rist (1970) asserts that class is a separate category apart from race and, therefore, may be a target for differential teacher

expectations independent of race. Findings of significant correlates of academic achievement with social class in Rist's seminal study launched additional investigation into the root causes of differential behaviors that convey expectations. Building on nearly three decades of expectancy research, Entwisle, Alexander, and Olson (1997) found that lower-SES students were perceived differently from their peers and were placed in lower ability reading groups, faced more frequent grade retention, and had greater inclusion in special education classes.

However, the research on differential teacher expectations and class is not clear. Differential teacher expectations based on class differences are not frequently explicitly integrated into the body of literature on teacher expectancy theory (Weinstein, 2002). Some researchers have conducted studies where they have not disaggregated race and class. In these studies, the evidence supporting race and class as a combined area of research is also relatively weak (Dusek & Joseph, 1983, McKown et al., 2010). Research on teacher expectations suggests that class influences interfere with race influences. The research in the area of class and SES as an area of teacher expectancy theory is inconclusive, and requires more work to determine influences of teacher expectations on student performance.

*Other.* Several authors have noted other categories as targets of differential teacher expectations. Physical attractiveness, attentiveness, neatness, and independence are all characteristics that cause teachers to differ in their expectations beyond the primary categories of race, gender, and socioeconomic status (Dusek & Joseph, 1983; Pedulla, Airasian, & Madaus, 1980). Even aspects as relatively unimportant as a student's level of tidiness appear to make a difference in teacher expectancy theory

(Doherty & Conolly, 1985). The literature indicates that the number of student characteristics influencing teacher expectations are numerous and important. However, considering every possible characteristic as a source for differential expectations is overwhelming, leaving most authors to focus on the broad categories where research substantiates their decisions to limit a student's group membership to three broad categories. The more recent research appears to focus on gender, race, and SES/class as targets for intervention. Many studies also cite research on students with disabilities; however, including descriptions of these well-researched student characteristics is beyond the scope of this literature review.

While my review has focused on teacher perceptions that inform differential expectations, there is also literature that explores how students perceive these expectations. Considering teacher expectations from the other side of the desk is important for gaining perspective about the influences of differential expectations.

**Student perceptions of teacher behavior.** Researchers have conducted multiple experimental studies describing the manner and extent to which students are capable of detecting differences in teacher behavior (e.g., Babad, 1993; Babad, 2005; Babad & Tayeb, 2003; Fraser & Walberg, 1991; Weinstein, 1983). In these studies, students perceived differences in verbal and nonverbal cues in context-rich and context-free environments. A logical conclusion from these findings is that teachers should be cognizant of how they convey expectations to students. Also, an interesting response occurs when students believe that (a) teachers hold negative expectations and (b) these expectations are unjustified. Under these conditions, students work to disconfirm the negative expectations (Hilton & Darley, 1985), yet rarely resist positive ones (Swann,

1987; Swann & Ely, 1984), indicating that differential teacher expectations elicit differential student responses. Further, these studies capture the subtleties of a complex relationship in the classroom.

Student reactions to both overt and subtle teacher signals are a prevalent topic in the literature on teacher expectancy. Research in the area of student perception is broad, covering psychological concepts such as ability mindset (e.g., Dweck, 1983; 1988; 2006) and attribution theory (e.g., Kruglanski, 1980; Weiner et al., 1971). These theoretical constructs explore how students' perceptions of their own abilities operate in relation to teacher expectations. Weinstein (2002) affirmed these observations with a broad statement: "Elementary school children, even young ones, know that teachers, on average, treat high and low achievers differently within the same classroom" (p. 110). A review of the psychological perspectives does not fit my study design, as I target how teachers communicate expectations to students and not how students perceive their teachers' expectations. Acknowledging that students are capable of perceiving teacher expectations is an important assumption to acknowledge, however, when considering the multidimensional nature of student-teacher relationships.

**Classroom structures.** The diverse structure of classroom contexts present in naturalistic studies decreases the generalizability of teacher expectations about student ability and potential for achievement (e.g., Marshall & Weinstein, 1984, 1986; Rosenholtz & Simpson, 1984). However, the consideration of elements found in naturalistic studies grants a great deal of credibility to expectancy theory findings in the context of teacher and student interaction within the confines of environmental conditions. This credibility is derived from researchers' acknowledgment that their

findings are bound by contexts and should not be blindly applied to other expectation studies without careful consideration of all the contexts presented in a study. Many of the contextual factors that arose in naturalistic studies have been alluded to in the literature on classroom structures. The numerous references to tangential literature on classroom structures that were frequently made in discussions of teacher expectancy theory are important to consider in my study. These related classroom structure topics include teacher evaluation and assessment structures, classroom competitive practices, student grouping and seating arrangements, and teacher-student fit. These classroom structures influence teacher expectations and subsequent student behaviors. The literature indicates that students may engage in competitive practices—instances where students compete for the teachers' attention—when teachers differentiate their expectations (e.g., Ames, 1992; MacIver, 1987). These competitive practices are the result of student reactions to teacher expectations. The literature on teacher expectancy theory suggests that competition among students occurs most commonly in grouping practices (Ames, 1992).

The act of grouping students by ability is also a widely studied aspect of teacher expectancy theory (e.g., Ames 1984; Anastasiow, 1964; Weinstein, 2002). Students are well aware of the symbolism of grouping within classes and at the school level (Gamoran, Nystrand, Berends, & Lepore, 1995). Grouping can become tracking if the practices are based only on teachers' beliefs about students' intelligence (Oakes, Wells, Jones, & Datnow, 1997). The teacher beliefs that justify tracking are often based on a socially constructed perception rather than through evidence-based practices that measure student intelligence (e.g., Rosenholtz & Simpson, 1984). This assumption that some students in a class are more intelligent than others, based on nonscientific practices, leads

to institutionalized tracking and, ultimately, increased inequalities of academic performance (e.g., Findley & Bryant, 1971; Gamoran & Berends, 1987; Murphy & Hallinger, 1989; Rosenbaum, 1980).

Instructional grouping and institutionalized tracking does not always represent inappropriate teacher expectations. A meta-analysis of student grouping studies found small benefits of the practice, and the benefits were strongest among high-ability learners (Kulik & Kulik, 1982). Grouping students by grade level may lead to more rigid and unwarranted teacher expectations for lower-ability students, resulting in self-fulfilling prophecies (Eccles & Wigfield, 1985; Jussim, 1986, 1990; Oakes, 1987; Weinstein, Soule, Collins, Cone, Mehlhorn & Simontacchi, 1991). Additionally, tracking predicted academic achievement in students, as demonstrated by test scores and grades (Adelman, 1999, Cappella, & Weinstein, 2001), warranting strong consideration of grouping as a component of teacher differential expectations.

The physical proximity of teacher and students also plays a strong role in communicating expectations. Seating arrangements are seen as important characteristics of the classroom environment, due to ease of communication with the teacher (Babad, 1993). These assignments also may provide an opportunity for teachers to develop expectations about students based upon the self-selection of the location of a seat in the classroom (see also Rist, 1970). The work of Babad and Ezer (1993, as cited in Babad, Avni-Babad, & Rosenthal, 2004) suggests that students perceived teachers' "pets" and high achievers as those who tended to sit in the front of the classroom and thus are able to have more interactions with teachers (Babad, 1993). Students may see differential

treatment as preferred treatment, which is interpreted as a negative aspect of classroom climate (Fraser, 1986).

### **An Assumption within Teacher Expectancy Theory**

My literature review has not yet formally addressed the assumption that teachers should not hold differential expectations for their students. Teachers are often faced with a paradox: They must treat all students equally, yet differentiate instruction based on student ability (Babad, 1993). The underlying assumption of teacher expectancy theory is that teachers should treat students equally so as not to foster negative expectations toward any student. However, equal treatment for all students only holds when applied to expectations and not to differentiated instruction for diverse learners (Kulik & Kulik, 1992).

### **Methods of Inquiry**

The methods employed in the literature on teacher expectations are as diverse as the perspectives of the researchers who study the topic. The following section reviews elements of seminal works, along with various methodological approaches and critiques by researchers.

**Research perspectives.** Researchers often select one perspective to study when approaching teacher expectations. Cooper and Good (1983) noted rare occurrences in the literature of simultaneous perception comparisons for students, teachers, and classroom-level factors, and no new research has emerged to study these perceptions. Additionally, researchers tend to conduct studies either under experimental conditions or in naturalistic classroom settings, and the debate regarding which of these methodological approaches is most effective in measuring expectation influences is often contentious.

**Methodological approaches: Laboratory versus naturalistic.** One argument over the effects of teacher differential expectations lies in the contextual factors under which the research is conducted. Rist (1970) followed a classroom of kindergarten reading groups for a year and observed teachers treating students differently based on their reading level. Group membership remained static as students in lower groups were never moved to the highest level group. The study was based almost entirely on Rist's observations and provided no evidence that his findings were powerful or pervasive. However, his inquiry created a foundation for future studies and is widely regarded as a seminal study that describes differential expectations in naturalistic environments (Jussim & Eccles, 1995). Researchers later employed quasi-experimental studies in the naturalistic environment.

Many research studies that followed, which found statistically larger and practically meaningful effect sizes, were conducted in a context-controlled experimental environment. When researchers conducted naturalistic studies with no artificial research conditions, effects were mixed, smaller, or nonexistent (Brattesani et al., 1984; West & Anderson, 1976; Williams, 1976). However, several approaches to studying teacher expectations lend support to the argument that naturalistic studies can address the moderating effects of teacher expectations. Palardy (1969) used a pool of 42 first-grade teachers divided into two groups based on the teachers' stated beliefs about girls being able to read faster than boys or boys and girls reading equally well. End-of-year testing scores were then submitted to a two by two analysis of covariance (student gender by teacher expectancy group). The analysis found that gender and teacher expectancy groups interacted and there was little difference between boys' and girls' reading scores

for teachers who believed both genders read equally well, whereas teachers who believed girls would outperform boys created a self-fulfilling prophecy. The results of the Analysis of Covariance (ANCOVA) were statistically significant, with a small effect size of .14. Although Palardy found no medium or large effects, the well-designed quasi-experimental study showed that mediating influences can be kept to a minimum.

Palardy's (1969) study prompted a follow-up study by Doyle, Hancock, and Kifer (1972) that hypothesized that (a) 11 teachers of 245 first-grade students would have higher expectations for girls than boys, (b) the expectations would not be congruent with student assessment data, and (c) the teachers' misconceptions of the students' abilities would result in self-fulfilling prophecies. When the researchers ran an ANCOVA where the main variable was reading achievement scores and the students' IQ scores were used as a covariate, they found that all three of the hypotheses were supported. Teachers had based their perceptions on estimated student IQ scores that had underestimated the IQs of boys and overestimated the IQs of girls. The statistically significant medium effect size of .30 showed that quasi-experimental naturalistic studies could produce effect sizes comparable to those studies conducted in laboratory conditions. In years that followed, several other quasi-experimental naturalistic studies found medium to large effect sizes (e.g., Seaver, 1973; Sutherland and Goldschmid, 1974).

In addition to the quasi-experimental naturalistic studies that demonstrated that teacher expectations can have important effects on student achievement, researchers also used path analysis studies that allowed for much larger samples of teachers and students, enhancing statistical power and generalizability. The use of path analysis allowed researchers to consider a wide array of student variables, controlled for accuracy, and

accounted for more than one teacher variable. A study by Williams (1976) assessed beliefs about students' potential performance based on previous cognitive data and found clear evidence of statistically significant correlations that represented teachers' perceptual bias for 20%–40% of the students in the sample. West and Anderson (1976) used a model with naturally occurring teacher expectations and achievement data for 3,000 high school students. Although their study did not present much detail as to the timing of the collected assessment data or what data were used, their conceptual path for teacher effects on student achievement laid the foundation for other researchers to follow with large datasets of teacher expectation data and student performance data. Studies by Parsons, Kaczala, and Meece (1982), Brattesani, Weinstein, and Marshal (1984), Jussim (1989), and Jussim and Eccles (1992) all used datasets of 234 to 1,700 middle and high school students to find statistically significant correlations for perceived differential expectations on student performance. In addition to the many quasi-experimental studies and path analyses conducted over the last 40 years, several researchers have called for more research in the area of naturalistic studies, specifically citing a need for longitudinal studies of low-SES students (e.g., Weinstein, 2002).

However, naturalistic research in teacher expectancies does not always yield results that follow a pattern. For example, Smith, Jussim, and Eccles (1999) tested carryover effects of self-fulfilling prophecies on standardized math scores in a seven-year longitudinal study. Their results for middle and high schools students found no accumulation in student gains on standardized tests. These contrasting findings indicate that the debate over self-fulfilling prophecies remains unresolved. Researchers must continue to search for expectancy effects.

**Measurements.** Measurement methods span both high- and low-inference forms of data collection and analysis and are conducted in elementary, secondary, and postsecondary grades. They consist of questionnaires, surveys, video observations, classroom observations, and interviews (Babad et al., 2003) and are interpreted through numerous analytic frames. One of the most common methods of capturing teachers' transmission of expectancies is also a simple one. Babad (1990) argues that the crux of teacher expectancy lies in the affective domain. Babad et al. (2003) followed the work of Harris and Rosenthal (1985), which demonstrated students' ability to perceive negative affect in isolated, extremely brief video clips depicting teachers' facial expressions. These clips, known as "thin slices," reveal expressive behavior that researchers coded reliably (e.g., Ambady, & Rosenthal, 1992; Babad, 2005). Babad et al. (2004) argued that these thin slices carry rich psychological information that is especially easy for student observers to process. Research on teacher behaviors in the area of expectancy research highlights 11 different teacher behaviors that significantly affect student perceptions of teacher expectations (Babad, 1990). Researchers have used student perceptions to interpret teacher expectations (Babad, 1993; Fraser 1986; Fraser & Walberg, 1991; Walberg, 1976).

The literature uses student reactions as a valid medium for interpreting teacher expectations (e.g., Brophy, 1983; Cooper, 1985), and student reactions to thin slices are systematically investigated to explain teacher differential expectations conveyed through their behaviors toward students (e.g., Brattesani et al., 1984; Marshall & Weinstein, 1984, 1986; Weinstein, 1976, 1983, 1985, 1989; Weinstein, Marshall, Brattesani, & Middlestadt, 1982; Weinstein, Marshall, Sharp, & Botkin, 1987; Weinstein &

Middlestadt, 1979). The literature supports using student perceptions of teacher expectations as a mean of comprehending differential teacher expectations toward students (McKown, Gregory, & Weinstein, 2010). Others, including Harris and Rosenthal (1985), explored methods to study expectations through mediation theory. Harris and Rosenthal use two dimensions consisting of teacher affect, conveyed both verbally and nonverbally. Their framework, similar to the thin slices explored by Babad, allows researchers to establish qualitative protocols through observation of naturalistic classroom settings. Students' reactions to teacher expectations provide a vitally important connection for measuring the teacher expectations in the classroom.

Weinstein and other researchers (e.g., Brattesani, Weinstein, & Marshall, 1984; Marshall & Weinstein, 1984, 1986; Weinstein, 1976, 1983, 1985, 1989; Weinstein, Marshall, Brattesani, & Middlestadt, 1982; Weinstein, Marshall, Sharp, & Botkin, 1987; Weinstein & Middlestadt, 1979) found that children are highly sensitive to their teachers' differential behavior and describe their reactions consistently. By using 15 teacher expectancy-conveying behaviors that students consistently described in the studies by Weinstein (e.g., 1976; 1983; 1985; 1988; 1989), Babad (1990) provides a framework for researchers to observe teachers communicating their expectations in classrooms. The relationship of teacher beliefs about student ability, teachers' behaviors in the classroom, and student perception of those expectation-conveying behaviors can be conceptualized using Bronfenbrenner's ecological model. The ecological paradigm targets understanding teachers' and students' complex and multilevel interrelationships. These relationships convey how the proximity of different environmental influences affects how students learn (Bronfenbrenner, 1979, p.3). The theoretical assumptions manifest in the

ecological paradigm were expressed by Bronfenbrenner (1979): “What matters for behavior and development is the environment as it is perceived rather than as it may exist in ‘objective reality’” (p. 4). The key element of the environment in the case of this study is how teachers convey expectations through classroom behaviors. The perceived relationships between a student and the teacher’s expectations for him or her are reciprocal in nature and have a greater impact the closer and more intense the expectations are to the student. Teachers form favorable or negative opinions of how students will perform on a given task, based on the perceived qualities of that student (Pryor & Pryor, 2005), and students respond in kind (e.g., Babad, 1990; Brattesani, Weinstein, & Marshall, 1984).

The methodological approach to observing teacher behaviors as a proxy for students’ perceptions of teacher expectations has been vetted by numerous researchers over four decades of study. Researchers today have a set of observational tools they can use for the next generation of studies on teacher expectancy theory.

### **Negotiating the Complexities of Expectancy Theory**

The literature on teacher expectancy theory presents a story of complex relationships between teacher expectations and student performance; yet key themes emerge and support a tenable connection between the two concepts. Empirical studies based on a wide array of conceptual frameworks, methodological approaches, and research interpretations simultaneously attempt to advance and mitigate the influences of teacher expectancies on student performance.

Most research appears to document the notion of self-fulfilling prophecies in classrooms. However, the extent to which they are attributed to teacher expectations

remains up for debate, as teacher behavior is complex and not fully understood. The research on teacher expectancies has revealed two distinct perspectives on effect sizes and the methods under which the empirical studies are conducted. Weinstein (2010) and Jussim and Harber (2005) debate whether teacher expectancies are a threat to student performance due to the effect sizes presented in earlier literature. These two research camps also do not agree on the extent to which contextual factors affect expectancy influences beyond the control of the methods employed in most studies. Finding a common ground may prove impossible, as each of these researchers draws on different interpretations of the Pygmalion study and the practical influences of the Pygmalion effect. However, they do agree that teacher expectations play an important role in shaping performance for students based on gender, race, and SES. With a clear consensus on expectancy effects for these students, researchers can explore new methodological approaches to studying the phenomenon in classrooms that will uncover and explain rich contextual factors and identify intervention programs that will impact student achievement.

### **Critical Race Theory**

Using critical race theory as a theoretical lens provides the conceptual foundation to explain the achievement gap in schools using expectancy theory. Critical race theory serves as an analytic tool in the field of education, offering critical perspectives on the manifestations and consequences of race, racism, and inequality, and the dynamics of power and privilege in schooling (Taylor, Gillborn, & Ladson-Billings, 2009). Critical race theory was born of new epistemological approaches, which differ from positivism and empiricism. In critical race theory the scientific work and the theoretical foundations

are linked, yet the approach does not cast aside the need to obtain and analyze data (Torres & Mitchell, 1998).

Critical race theory (Bell, 1987, 1992; Crenshaw, Gotanda, Peller, & Thomas, 1995; Delgado, 1995) emerged from the critical legal studies movement (Crenshaw et al., 1995) in the early 1970s (Matsuda, Delgado, & Crenshaw, 1993). Bell developed critical race theory as a response to *Brown II* (1955), the U.S. Supreme Court case that ordered school desegregation with “all deliberate speed” (Bell, 2004). Many Southern states and school districts used “all deliberate speed” as an excuse to resist, delay, or avoid integration of schools. Bell transitioned the legal strategy used by the National Association for the Advancement of Colored People (NAACP) into a theory that could be used in schools to ensure that Black children would receive the same education as White children (Bell, 1976). Bell’s legal challenge to court cases and petitions aimed at slowing or stopping school integration was based on Supreme Court Cases in the 1950s and 1960s. His legal scholarship was accepted in decades of subsequent cases throughout the Civil Rights Movement, as racial equality as it “ought to be” (Bell, 1980, p. 523). In practice, the *Interest Convergence Dilemma*—the question of how to get Whites to support integration—concerned convincing those with power that children would be better served through an integrated system that supported the Southern economy.

Whereas Bell is credited with bringing the legal construct of critical race theory into education, Crenshaw, Ladson-Billings, and Tate (1995) worked to expand critical race theory to research in education (Ladson-Billings, 1998). A parallel theory to critical race theory, LatCrit, follows the critical analysis of the challenges faced by Latino students in education (Solorzano & Delgado-Bernal, 2001).

Most educational problem-solving in the 1970s, 80s, and 90s ignored the culture-based structural problems in education (Comer, 1997). Critical race theory presents a paradigm shift on racism in education that transforms the argument about the structural and cultural aspects of education into an analysis of dominant and subordinate positions in and out of the classroom (Solorzano & Ornelas, 2002). Ladson-Billings and Donner argued, “The United States has been constructed as a nation of white people whose public policy, politics, and culture are designed to serve the interests of whites” (2005, p. 286). Furthermore, “Race and racism are endemic to U.S. society,” creating deeply embedded problems in U.S. education (Leonardo, 2009, p. 4).

Using critical race theory as a theoretical reinterpretation of the causes of the achievement gap leads the discussion in different directions from traditional explanations of the achievement gap by considering new theories and procedures (Gay, 1985; Ladson-Billings & Donner, 2005). Critical race theory provides new direction for understanding cultural reasons for the achievement gap. Deficit and dynamic thinking are a narrower version of teacher expectancy theory, useful for investigating the achievement gap by considering teacher expectations as a contributing factor to minority student underachievement. Specifically, teachers hold that their minority students will perform worse in the classroom than their majority counterparts because they lack the skills to succeed.

### **Deficit Thinking**

In the 1950s and 1960s, a socialization theory known as *acculturated environmental deficits* dominated much of the policy and practice concerning minority student academic abilities (Bernstein, 1958, 1959, 1960; Hess & Shipman, 1965) and

became the heart of the Great Society programs (Pearl, 1997). The underlying theory of the liberal answer to a genetic defeatist thinking argues that the lower classes have lived without access to necessary intellectual stimulation. This absence of books in school libraries and limited exposure to adequate language promulgated deficit thinking. Many scholars embraced the theory of acculturated environmental deficits and argued that through development of children's cognitive abilities, they could achieve at the same level as those students who had had access to adequate educational resources from an earlier age. However, researchers employing a deficit thinking theory do not claim to account for other influences on a child that include prenatal care, nutrition, and other factors affecting development.

Acculturated environmental deficit theories met serious criticism in the 1970s from researchers who argued these *deficits* were actually *differences* (e.g., Labov, 1970). The movement away from focusing on student inadequacies was led by Bernstein (1970), as he realized his work had been used to defend compensatory education practices. The movement toward recognizing student differences marked the first time deficits were countered with a more progressive perspective (Pearl, 1997).

Deficit thinking is a conceptual theory used in multiple areas of education and has several different definitions. In a comprehensive review of the literature, Valencia (2010) offers a conceptual definition, simply stating that deficit thinking “is a pseudoscience founded on racial and class bias” (p. xiv). The operational definition of deficit thinking offered by Valencia (1997) comprises six elements based on a system of power in schools that places blame on the students and remains unchallenged by any form of critical

analysis. The systemic elements that allow for deficit thinking are based in the deep cultural contexts of racism.

Schools are not venues of equal opportunity. As Bell, Castaneda, and Zuniga (2010) state, “Racism is the set of institutional, cultural, and interpersonal patterns and practices that create advantages for people legally defined and socially constructed as ‘White,’ and the corollary disadvantages for people defined as ‘non-White’ in the United States” (p. 60). Leonardo (2009) contends that racism is a socially constructed concept—when operationalized in a Marxist conceptual manner—where all social relationships are “socially constructed and reproduced in specific historical contexts and that those relationships are therefore in principle alterable by human agency” (p. 5). Defined this way, racism remains a pervasive element in schools across the country, leaving many researchers to argue that it impacts student performance (e.g., Ladson-Billings, 2004a; Solorzano & Delgado-Bernal, 2001). It is not that any given teacher or school administrator is racist per se, but rather that—by the very nature of being in a school in the U.S.—he or she is mired in a historical context of racism.

The historical elements of constructing the concept of racism affect the structural elements of modern education. In the 1950s, professors from Southern states argued there were major differences in learning ability patterns among races and that these differences were inherent (Valencia, 2010). During the 1960s, the Pioneer Group, a politically motivated organization, emerged to combat racial integration in schools through the advancement of genetic intelligence based on race. While preparing information to argue against school integration legislation, the Pioneer Group produced substantial evidence to legitimize and reinforce differential learning abilities through

research—often at major Southern universities (e.g., Herrnstein, 1971, as cited in Valencia, 1997, 1973; Shuey, 1966). Some research published within the last 20 years continues to substantiate these beliefs (e.g., Lynn, 2006, 2008; Rushton, 1995, 2000). Perhaps the most influential and unchallenged study was carried out by Shuey (1966) and reached a conclusion that “inevitably point[s] to the presence of native differences between Negroes and whites as determined by intelligence tests” (p. 521). With these studies, proponents citing intelligence as a genetic trait influenced social science research for decades (Valencia & Solorzano, 1997).

However, just as racism was socially constructed, it can also be deconstructed through social interactions. Literature published in the last two decades on deficit thinking supports the deconstruction of racism in schools through an analysis of social interactions. However, this literature presents no clear conceptual opposite for deficit thinking (e.g., Gay, 1994; Ladson-Billings & Tate, 1995).

### **Dynamic Thinking**

In a review of the literature, there is little mention of a conceptual counterpart to deficit thinking. Valencia (1997) juxtaposes *differences* with *deficit thinking*, and in more recent deficit literature (Valencia, 2010) uses the terms *anti-deficit* and *democratic* to describe the opposite of deficit thinking. Ford & Grantham (2003) mention *dynamic thinking* as an antonym for deficit thinking, which has been used in subsequent research. However, there is no empirical evidence to support these theoretical postulates.

Teacher expectations for minority students, a theoretical construct that may be viewed as a social construct filtered through critical race theory, provides decades of empirical research that argues teachers can affect minority students through teacher

expectations. The body of literature on teacher expectations is sharply divided between researchers who argue for the influence of expectations on student performance for all students and those who dispute this position. However, researchers agree that differential teacher expectations do affect student performance for specific groups, including minority students (Weinstein, 2002). Specifically, when teachers hold differential expectations for students, student performance reflects these expectations. The theory of self-fulfilling prophecies is at the heart of the conceptual framework that links differential teacher expectations to student achievement for minority students. Valencia (2010) articulates the concept of deficit thinking as a critique of racism by arguing that “racialized opportunity structures lead to racialized academic achievement patterns” (p. 3).

A challenge to overcome is the lack of consistent methods for altering teacher expectations for students. Weinstein (2002) offers the most conclusive review of programs and asserts that most have weak and short-term influences.

### **Theories of Dynamic and Deficit Thinking**

Teachers form differential expectations as a means of addressing the varying needs of Black and White students. These differential expectations have both appropriate and inappropriate forms that influence student performance. Studying the positive and negative aspects of differential expectations affords researchers another look into the way teachers may affect the achievement gap. Deficit thinking can be viewed as a form of racially contextualized inappropriate teacher expectation that negatively influences minority students’ performance in classes.

Valencia (1997) defined deficit thinking as a negative teacher mindset couched in the historical construct of the achievement gap—a negative position that places minority students at a deficit when compared with majority students (1997). The deficit mindset has historically impacted generations of minority students and harmed their ability to have an education equal to their majority counterparts.

### **Deficit Thinking in Context**

It is important to explicitly define *deficit thinking*—a term that has different meanings in multiple areas of education—in the context of my study. My use of deficit theory is in contrast to the literature on special education, where educators accept students' deficits as characteristics appropriately countered with modifications and adaptations. However, when student abilities are tied to an unfair assessment based on race, gender, or SES without empirical evidence, deficit thinking becomes an untenable construct (Menchaca, 1997).

It is impossible to consider deficit thinking without giving consideration to the contexts in which the theory arose. Valencia (2010) cites decades of reforms that targeted raising minority student achievement. These policies targeted minority groups through a process that has been repeated with little change. Valencia identifies a process that typically follows four steps: (a) Policymakers identify social problems and (b) conduct a study to determine differences between minority and majority students. (c) Once differences have been identified, they are targeted as social problems, and (d) governmental interventions are put in motion to mitigate the differences.

The process Valencia (2010) describes targets groups of students rather than the structure of the system. Using teacher expectancy theory as a means for understanding

differences in student performance approaches the problem from a different perspective. Much of the literature on teacher expectancy theory focuses on student-teacher interactions. Conceptualizing the gap in performance as an area for change in teacher behavior—rather than for change in student behavior—is fundamentally different from the reasoning behind many current policies. Focusing on teacher behavior avoids the mindset within the current system that students need to be “fixed”; such a mindset typifies deficit thinking and is tantamount to blaming the student for his or her characteristics that lead to lower performance. Placing the blame on minority students’ inability to score on par with their majority counterparts as they arrive in the classrooms does not accurately account for underperformance (Ladson-Billings, 2006). Rather than placing blame on students, researchers should explore the root causes of this underperformance within the educational system and develop approaches to address the underlying problem.

### **Two Antithetical Theories**

Racism is the reason multicultural education scholars unilaterally cite deficit thinking as a negative construct in literature (Menchaca, 1997), as race and intelligence are seen to be genetically correlated and lead to unchangeable student outcomes. The conceptual opposite—a theory based in the positive social construction of multicultural education—is *dynamic thinking*. The literature presents no single definition of dynamic theory. In fact, scholars have yet to assign a uniform name to the concept. An internal outcome of my study is to describe these two theories and add some clarity to the field by naming dynamic thinking as the most appropriate term, based on recent literature, to describe the conceptual opposite of deficit thinking.

My study proposes a framework to explain how teachers have misunderstood student qualities, words, and behaviors and how that misunderstanding has led to misconceptions about minority students' performance in the classroom. In deficit thinking a construct exists for explaining how these false beliefs about student ability advance the education debt. According to Ford and Grantham (2003), "Deficit thinking exists when educators hold negative, stereotypic, and counterproductive views about culturally diverse students and lower their expectations of these students accordingly" (p. 217). This definition is not consistently used in educational literature. In fact, many scholars within multicultural education offer different perspectives on how the concept of deficit thinking is used. Because of the disagreement both within and outside the field of multicultural education, it is important to carefully define how the term is used. In my study I use Ford and Grantham's definition and organize the relevant literature to expand on incomplete definitions.

### **Systemic Factors**

My study considered deficit and dynamic thinking from three perspectives: (a) as a social construct perspective that is based in racism, (b) as a psychological construct laden with attitudes, beliefs, and values, and (c) as a form of differential teacher expectations for minority students.

The achievement gap as a historical process of blaming students, highlighted by many critical race scholars in my literature review, has led other researchers, such as Ladson-Billings (2006), to reframe the achievement gap as an *education debt* to describe inequalities that have always existed in schools. However, the education gap is concerns more than resource inequities (Coleman Report, 1966); the concept includes decades of

historical, economic, sociopolitical, and moral components—all of which have led to lower achievement by minority students. The education debt considers the longstanding inequities as a failure to address the judicial and congressional legal mandates issued during the Civil Rights Movement (Bell, 1973, 1976, 1980). Ignoring these mandates has accrued to a sizeable debt owed to minority students in the classroom. Inequities are evident in standardized test scores, dropout rates, and which students take AP and gifted courses (Solorzano & Ornelas, 2002). All of these indicators point to a problem for minority students, and using critical race theory to examine the achievement gap offers new insights.

Researchers can use Ladson-Billing's (2006) education debt as a new perspective on the performance levels of minority students to focus on exogenous factors for student achievement. Weinstein's review of the literature (2002) indicates teachers' expectations for students can play a significant role in achievement on tests. Research suggests that looking at the classroom teacher as a contributing factor to minority students' lower achievement may be an appropriate next step (Bruner, 2008).

The focus on classroom teachers and their impact on student achievement requires a frame for analyzing the problem. Traditional explanations for the education debt for minority students have focused on teacher preparation. Darling-Hammond (2006) suggests that teachers in urban and low-income areas are disproportionately novice and poorly trained teachers (Boyd, Lankford, Loeb, Rockoff, & Wyckoff, 2008; Darling-Hammond & Berry, 2006; Lankford, Loeb, & Wyckoff, 2002) and that teachers who are less prepared to teach will negatively influence student achievement..

However, in keeping with the critical analysis the education debt, there may be alternative interpretations of the root causes of the achievement gap. As Ogbu (2003) asserted in his examination of a high-performing, nonurban school, an education debt persists among students taught by highly qualified teachers in affluent school systems. If teacher quality, abundant resources, and opportunities are all present in classrooms with minority students, something else must be contributing to the education debt. Teacher expectations arise throughout the literature on the achievement gap as an explanation for lower minority performance in classes (e.g., Delpit, 1988; Gay, 2000; Zeichner, 2003).

### **A Deficit Framework**

Valencia (1997) introduces a framework that is useful in considering the context for differential expectations for minority students. When viewed through a critical race theory lens, deficit thinking is conceptually similar to literature on teacher expectations specific to student race. Negative differential teacher expectations are similar to deficit thinking, and positive differential teacher expectations are similar to dynamic thinking. Valencia's framework considers the contextual factors students face in schools. The six-part framework consists of: (a) blaming the victim, (b) oppression, (c) pseudoscience, (d) temporal changes, (e) educability, and (f) heterodoxy.

These components in Valencia's framework rest on three broad assumptions. The first is that deficit thinking is a teacher-centered explanation of school failure. The second is that teachers have different assumptions about the process of individual meaning-making about students' abilities that alleges students have different motivational and characteristic deficits. The third is that school resources and institutional structures are held free of blame (Valencia, 1997). In my study, I grant Valencia's first two

assumptions while accepting the third for what Valencia intended: hyperbole to make a point.

These assumptions are included to reveal the limitations of the deficit frame. Although individual teachers still construct deficit thinking locally, the school setting plays an important role as an element that influences teacher meaning-making. Considering the contextual elements a teacher faces is consistent with a symbolic interactionist approach (Erickson, 1986), which premises that people make meaning of interactions with one another and their environment. As teachers are inexorably linked to their historical and social contexts, my study adapts Valencia's framework to include these factors and presents an ecological model in the next chapter to capture the teacher meaning-making process.

**Blaming the victim.** Placing blame on minority students for arriving in classrooms without prerequisites for courses is equivalent to blaming them as victims of the historical contexts (Ladson-Billings, 2006; Valencia, 1997). Something as rudimentary as the discourse a student uses when he or she knows no other way of communicating may be cause for blame (Delpit, 1995). Blame has an influence on students that can pass a deficit mindset from teachers and institutions to the students in the classroom.

Steele (2003) researched *stereotype threat*, premising that students may view themselves through a negative stereotype that, in turn, can lead to an apparent confirmation of the stereotype. The existence of stereotype threat has led some Black students to perform worse than they do under circumstances that lack the threat (Miller, 2004). For high-achieving minority students, learning that they are expected to perform

to a lesser standard than their majority counterparts is damaging to their performance in school. Literature on stereotype threat and self-fulfilling prophecies run parallel, in some instances, and offer researchers an additional means of arguing that minority students may be more susceptible to inappropriate differential teacher expectations (Brophy, 1983; Harber, 2005; Jussim, 1986; Merton, 1948; Rosenthal & Jacobson, 1968).

**Oppression.** The critical race theory literature is based in a historic system of oppression of Black people by White people (e.g., Bell, 1976). School desegregation was meant to address inequalities in racially divided schools. However, the policy faltered, and schools remain segregated—and in many capacities, unequal (Ladson-Billings, 2006).

**Color-blindness.** Color-blindness is the downplaying of race and can prevent people from addressing racial inequalities (Leonard, 2009). Color-blindness is discussed in the literature on critical race theory as a means of avoiding inequities in opportunities (e.g., Culp, 1991; Tate, 1997), and would be considered an element of deficit thinking when described in schools. School leaders are often faced with changes in demographics among students in their schools. In a study by Evans (2007), some principals reacted to change better when experiencing demographic shifts in the school's student body. One of the principals least apt to make meaning of the change in a way that would alter the norms of the school took a position of color-blindness. In doing so, he ignored any tensions that could possibly be created by shifting demographics. Failing to deal with these factors can lead to a system that ignores harmful influences on students (Ladson-Billings & Tate, 1995).

**Pseudoscience.** According to Hilliard (1996), “The problem of how to know about human potential [...] largely left to the tinkering of the psychometrician and statistician” (p. 3). An example of principals’ failure exists when standardized tests and normal curves are used to categorize children without regard for complex contextual factors (Gipps & Murphy, 1994; Menchaca & Valencia, 1990; Valencia, 1997). A recent emphasis in education has been on the intelligence of the child—specifically, how intelligent and which intelligences (Gardner, 1993). Hilliard (2000) does not seek to redirect research away from intelligences; he argues instead that the focus is misdirected. However, intelligence differs from achievement, and minority students are not achieving in the classroom. The argument should instead focus on the contexts of IQ and achievement to understand the root causes of the achievement gap between minority students and their majority counterparts.

**Temporal changes.** Deficit thinking has been influenced by the ideological and research climates of the time (Valencia, 1997). The roots of deficit thinking, for instance, are entwined with the literature of the Civil Rights Movement addressing intelligence, biological and inheritance traits, and a historically acceptable notion of differences between races (Crenshaw et al., 1995). Researchers in the past have attributed minority underachievement to inferior genetics (Ford, 1996; Valencia, 1997). Today, deficit thinking continues to be influenced by more modern ideologies, such as home environments and access to resources in schools. The ideologies that affect deficit thinking and its influence in schools can be found in all areas of education, from teachers to education researchers.

The individual, influenced by societal ideologies, is considered as the source of deficit thinking, and that person can be a teacher, family member, or some other transmitter of expectations (Ford & Grantham, 2003; Valencia, 1997, 2010). Because deficit thinking changes with those people involved in advancing the research on deficit thinking, Valencia (1997) refers to a “changing nature of the scholarly and ideological spheres” (p. 7). In his framework, he allows for the inclusion of historical and societal contexts as part of deficit thinking, and thus current events can be adapted to better capture the nuances of race in schools. For researchers considering critical race theory, looking at historical and current alternative explanations for lower minority student performance should be part of the approach to closing the achievement gap (Ladson-Billings, 1990a).

**Educability.** The deficit thinking model is a component of critical theory (Valencia, 1997) and seeks to describe, explain, predict, and modify behaviors as a theory in the behavioral sciences. Although deficit thinking typically refers to a description of behaviors—whether they are deficits, deficiencies, limitations, or shortcomings in students—it also incorporates other nonbehavioral theories for poor minority student performance, encompassing many aspects of education policies for minority students and their education.

Adults who either teach or make education policy are quick to blame students for student failures and claim credit for student success. Some researchers would argue that educability is largely dependent on individual, genetically endowed intellect and social, political, and economic factors unrelated to differences in student performance based on race (Pearl, 1991; Valencia, 1997). The emphasis on the learner and not the learning

environment allows for the perpetuation of deficit thinking when teacher expectations are communicated to minority students, who may come to believe that they are the sole reason for their underperformance (Gandara, 2004; Weinstein, 1989). Failure to intervene in a cycle of negative teacher expectations can create a self-fulfilling prophecy of minority student achievement.

**Heterodoxy as class domination.** As early as the fourth grade, students begin to see the signs of inequality and the expectations of those who work in schools that the students will not succeed (Kozol, 1991, 2005). Students learn to perceive the meaning of expectations their community holds for them when their school facilities and resources lag behind those for White and higher-income students.

### **Transition from the Deficit to the Dynamic Paradigm: Transforming Ideologies**

While far-encompassing, the deficit framework proposed by Valencia (1997) is not a complete array of theories about deficit thinking. In fact, its choice of terminology remains a challenge. The *achievement gap* can be renamed *education debt* to shift the focus toward questioning a system rather than blaming a student (Ladson-Billings, 2006). Words have power, and using them to advance a critical examination of teacher expectations for minority students is an important part of understanding how deficit and dynamic thinking are related.

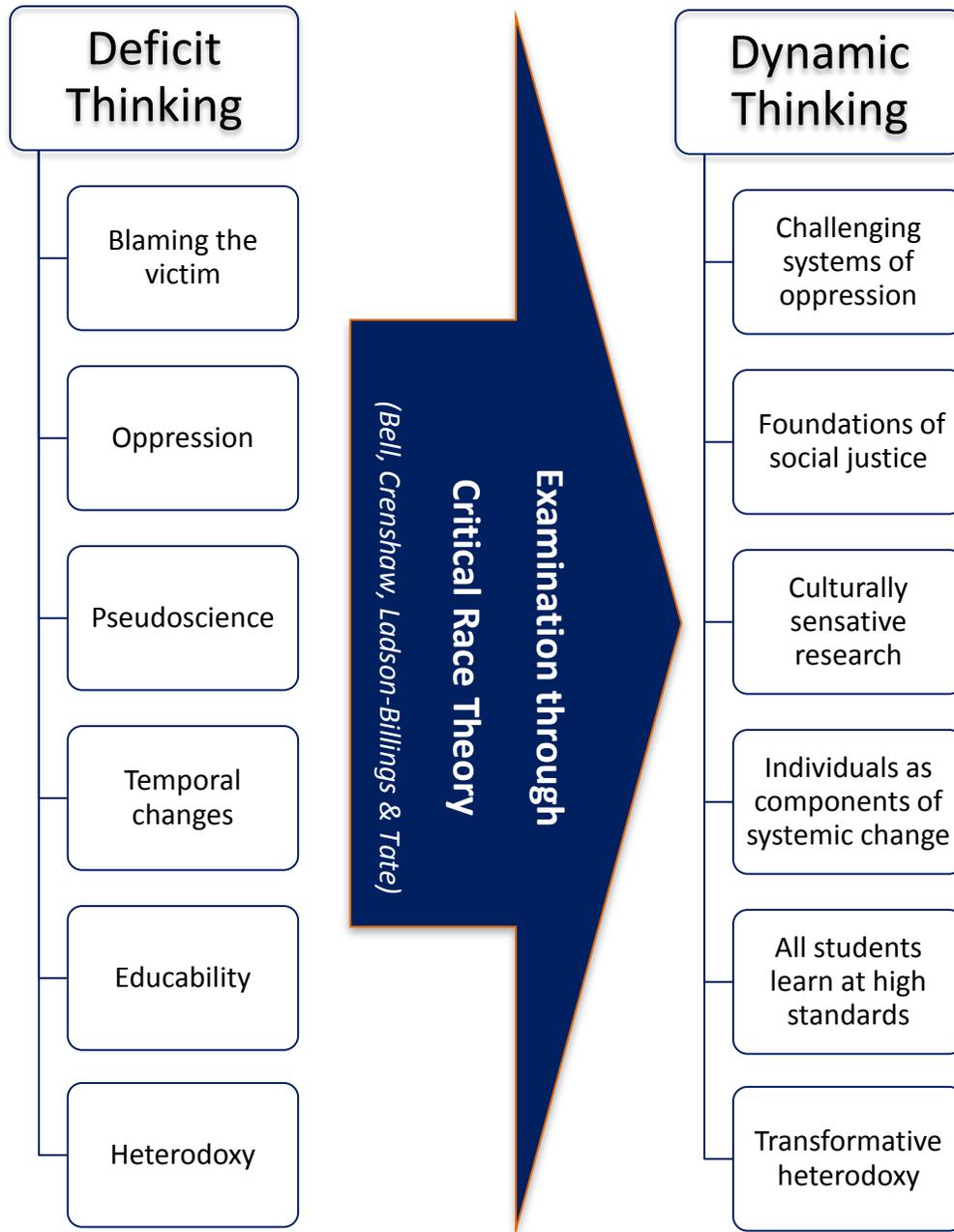
The opportunity to transform the language is a critical reason for identifying a conceptual opposite for deficit thinking. Ford and Grantham (2003) use the term *dynamic thinking* to indicate juxtaposition with *deficit mindsets*. By consistently using dynamic thinking in future literature in conjunction with deficit thinking, researchers will be better able to capture teacher expectations for students in a contextually relevant way

that accounts for the context-laden interactions that occur between teachers and students. By using the term dynamic thinking as a conceptual opposite to deficit thinking, researchers can consider how teachers are make meaning of race in their classrooms as they encounter students and circumstances that defy deficit thinking.

However, a clear gap in the literature exists in terms of how a teacher might undergo such a transition. Meaning-making is a subject studied by both psychologists and sociologists; however, it has not yet been applied to a transformative experience that moves a teacher from deficit to dynamic thinking.

### **A Framework for Dynamic Thinking**

A framework for operationalizing dynamic thinking follows and is constructed in a similar manner to Valencia's (1997) framework. The six components presented in the deficit framework have conceptual opposites scattered throughout the related research and partially define dynamic thinking. My study proposes a new framework that organizes a conceptual opposite to Valencia's (1997, 2010) deficit thinking. It is important to keep in mind that the framework I am attempting to establish to conceptualize dynamic theory is theoretical. Valencia (2010) aptly described deficit thinking—and, implicitly, dynamic thinking—as, “a model founded on imputation, not documentation” (p. xiv).



*Figure 2.2. A Framework for Deficit and Dynamic Thinking, This figure shows Valencia’s deficit thinking framework (1997) moving toward a proposed dynamic thinking framework through critical race theory.*

## Blaming the Victim: Challenging the Systems of Oppression

Racism is discrimination based on race (Blumenfeld & Raymond, 2000; Garcia & Guerra, 2004). It is a systemic problem that has ties to historical systems of power and access to resources—including education, as argued in critical race theory (e.g., Bell, 1976; Ladson-Billings, 2006).

Lynch and Baker (2005) pose that eliminating systemic racism in the form of an unequal balance of power in schools requires a holistic and integrated approach, which includes equality of educational resources, power, respect, and recognition. More specifically, focusing on the equality of respect and recognition requires an analysis of schools' organizational cultures, curriculum, pedagogy, and assessment systems. These factors all have the capability of allowing a person working with minority students to operate from either a deficit or dynamic perspective.

**Oppression: Creating a foundation for social justice.** Pharr (2000) states, “Like power, liberation cannot be given; it must be created” (p. 88). The advancement of social justice must come through the presentation of new research.

**Tracking: Teacher expectations.** From the Pygmalion study to random control experiments, teacher expectations play a pivotal role in student achievement (Weinstein, 2002). In dynamic thinking, teacher expectations are identified through critical racial consciousness and targeted for change through racial identity reflection, awareness of inequity, and challenges to engagement (McDonough, 2009). If not addressed, teacher expectations can begin to create even broader inequities to be faced by minority students. Specifically, teacher expectations can both directly and indirectly create a system of detrimental tracking into lower-level classes for these students. Ogbu (2003) cites two

primary means of informally tracking students: standardized test scores and teacher recommendations for class placement. Teachers directly affect students by referring them to specific classes. Often, race and social class are major considerations for class placement (Wells & Oakes, 1998). Additionally, research shows that teacher expectations influence standardized tests for students through student self-fulfilling prophecies (Weinstein, 2002). Because teachers control the rigor level of coursework for students, teachers also control the classes students will take by communicating expectations for students on standardized tests. According to Ogbu (2003), the practice of teacher-recommended class placements for minority students has created a situation in which minority students frequently take classes that are less rigorous than their abilities might warrant.

**Pseudoscience: Culturally sensitive research.** It is important to remember that racial categories are social constructions, not biological divisions; there are no clear delineations that show where one race ends and another begins. In fact, research shows that genetic variation is greater within “racial” groups than between them (Espinoza & Harris, 2000; Goodman, 2008; Lopez, 2000a, 2000b). Teachers allow the misconception of these differences to extend into classrooms, for instance, every time they consider a student’s physical appearance to be a proxy for intelligence. When teachers do not challenge misconceptions, they tacitly advance a culture that assumes intellectual differences exist among races and that harms minority students (Pollock, 2008).

**Temporal changes: Individuals as components of systemic change.**

Advancements in theoretical paradigm of critical race theory have allowed for nuanced approaches that are fully capable of considering historical, social, and psychological

aspects of minority student achievement. The current landscape of multicultural education has resulted from a maturing collection of research approaches that have shifted and caused some previously held theories to be reconsidered, challenged, or refuted (e.g., Banks & Banks, 2004; Valencia & Solorzano, 1997; Weinstein, 2002). As deficit thinking was shaped by research of the 1970s, dynamic thinking is influenced by more current theoretical work.

Researchers challenge literature that asserts students intelligence is fixed (e.g., Dweck, 2006; Tatum, 2007). Teachers have the potential to become powerful agents in raising student ability to high levels despite poverty, bilingualism, and other student factors (Hilliard, 2000; Weinstein, 2002).

**Educability: All students can learn at high standards.** Hilliard's (1996) criticism of the bell curve as a harmful tool is based on a theory that student performance is not predicted by IQ. Hilliard (2000) challenges Herrnstein and Murray's (1994) writing on the bell curve by arguing that standardized tests are misused as a panacea for identifying static intelligence and have the potential to lock low-income minorities into a state of neglect. Researchers posit alternative explanations for intelligence (e.g., Gardner, 1993, 2006; Sternberg, 2011) and dispute using IQ tests as proxy for intelligence (Sternberg et al., 1995).

In equating intelligence with IQ, the bell curve's supporters discount teachers' ability to affect students through instruction by, instead, presenting correlational evidence to support arguments that high IQ equates to success (Sternberg et al., 1995). Herrnstein and Murray (1994) argue that a class system based on genetic intelligence is emerging that drives many of the social problems in schools. Although intelligence plays a role in

the education of all students (e.g., Sternberg, 1984; 2005), researchers in this area have challenged genetic intelligence as a relevant factor in educating students based on race (e.g., Sternberg, Grigorenko, & Kidd, 2005; Tishkoff & Kidd, 2004). The quality of teachers and the instruction they deliver are the most important factors affecting student outcomes (Clotfelter, Ladd, & Vigdor, 2006; Ford & Millner, 2005; Goldhaber, 2002). The teacher effectiveness research argues that an effective teacher is better able to raise student achievement by as many as 1.5 grades in a one-year period (Goldhaber & Anthony, 2007) by and 50% over three years (Koppich, Hough, & Humphrey, 2006).

As a sociologist, Hilliard conceived of student achievement from a perspective that “all children are born with an innate capacity to learn and a unique spirit to be developed” (Lee, 2008, p. 797). Researchers should be careful to acknowledge that high expectations for student performance can be variable based on demonstrated student ability from assessments and classroom interactions (Kaufman, 2010). If research on teacher effectiveness posits that teachers are the greatest influence on students in a school and teachers can set reasonably high expectations for student performance based on demonstrated evidence of student abilities, then ensuring that all students have access to effective teachers who set high expectations should help all students learn at high levels. However, the teacher is not the only influence on student performance in the classroom. Even with effective teachers, students face larger contextual factors that affect their relationships with teachers.

**Heterodoxy as class domination: Heterodoxy as a transformative system.**

Inequalities are combined into psychological constructs for student achievement that are the result of scientists’ failures to control for cultural inequalities (Hilliard, 1996). One

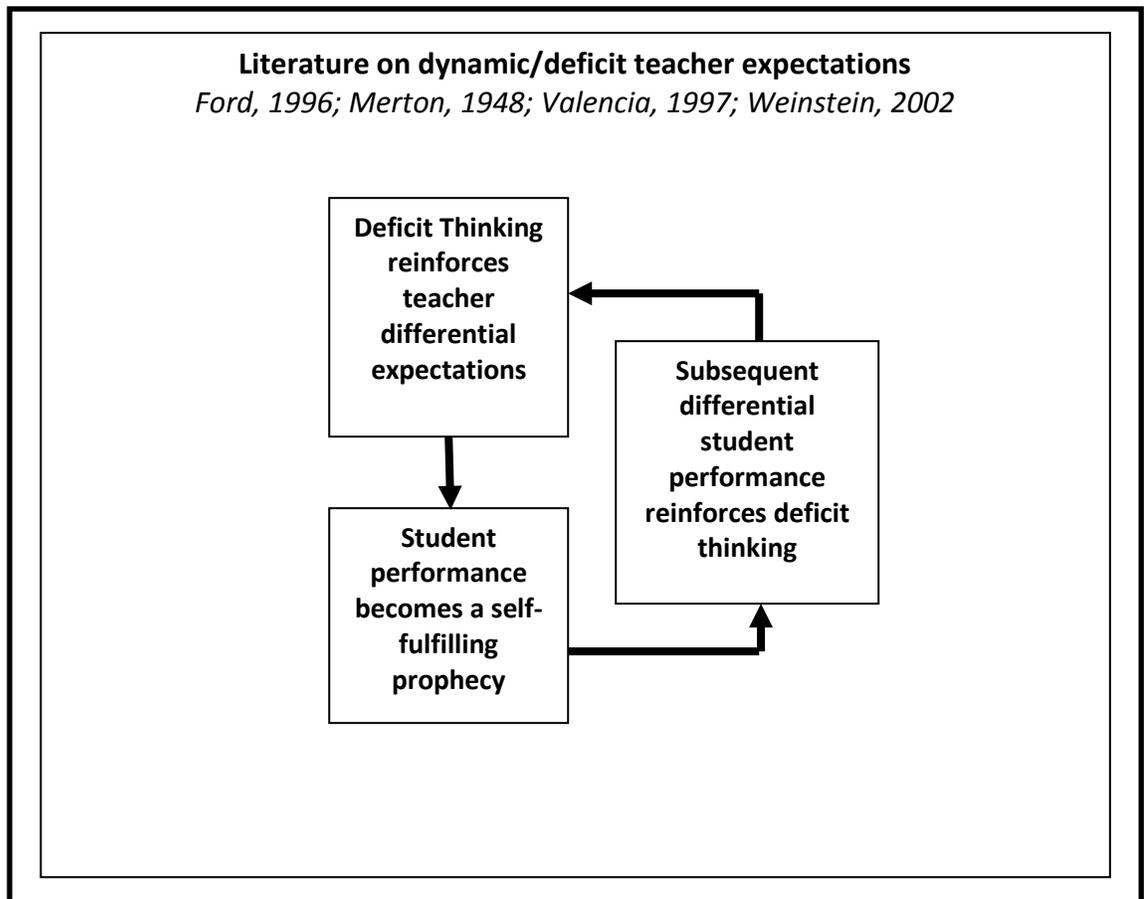
means of addressing the inequities students face in the course of bringing all students to an equal starting position is to examine how race and class impact teacher interactions with students (Kinchloe & Steinberg, 2007). One such account documented the pathway from deficit thinking to dynamic thinking and to critical consciousness for a first-year teacher (McDonough, 2009). As the first-year teacher became aware of race in her classrooms and grappled with the implications of race on instruction, she engaged more students through her classroom discourse. By using a framework of *critical race consciousness*, McDonough (2009) examined how a teacher who lacked racial training during preservice education became aware of school structures she considered detrimental to students' learning. McDonough's framework utilized three themes of teacher actions: racial identity reflection, awareness of inequity, and challenges to engagement. Ladson-Billings (1994) highlighted similar teacher experiences in her research on how teachers discover culturally relevant conceptions of knowledge for the first time. Ladson-Billings posits that as teachers conceptualize how their own cultures interact with students' cultures, they are able to make changes in their teaching practices so as to become more culturally sensitive. Some teachers blame minority student underachievement on parents, communities, or students (Hilliard, 2000).

A threat to social justice emerges when teachers and researchers identify students only by socioeconomic status and race rather than as multidimensional (North, 2006). Attributing the characteristics of a larger group to individuals leads to systemic oppression for minority students. Delpit (1995) premised a framework for understanding power in schools that can assist in creating a culturally relevant and empowering curriculum for low-income and minority students. Delpit's framework fits with dynamic

thinking by explaining why teachers must be familiar with multicultural education that embraces a critical analysis of structures in education.

### **A Conceptual Model for Deficit and Dynamic Teacher Expectations**

This literature review has highlighted the parallels between differential expectations for minority students and deficit and dynamic thinking. By conceptualizing these theories in such a way, researchers may draw from both bases of literature to study minority students' lower performance relative to their majority peers in classrooms. With a conceptual understanding of the theories, researchers can work from a new model that incorporates both theories. The influences of deficit thinking on teacher expectations can be examined as a potential influence on students' underachievement that then confirms the existing teacher expectations about the minority students. Researchers must consider whether deficit thinking affects minority student performance and, if so, what cause the influences.



*Figure 2.3. Literature on Deficit and Dynamic Thinking. This figure is derived from the writings on expectations and self-fulfilling prophecies (Merton, 1948; Weinstein, 2002) and deficit thinking (Ford, 1996; Valencia, 1997)*

### **The Psychology of Teacher Expectations and Deficit Thinking**

Changing teacher mindsets regarding the expectations they hold for students requires researchers to understand how expectations are formed and displayed in classrooms. Expectancy effects are now acknowledged to be more complex than first thought, in the wake of, for instance, the Pygmalion study (Rosenthal & Jacobson, 1968). Since the Pygmalion experiment, hundreds of naturalistic studies have reaffirmed the strong evidence for expectancy effects in multiple domains (e.g., Brophy, 1985, 1998;

Good & Nichols, 2001; Jussim & Eccles, 1995; Kuklinski & Weinstein, 2000; Weinstein, Marshall, Brattesani & Middlestadt, 1982).

One view among psychologists is that humans form representations of the external world that serve as mediators for experiencing and responding to reality (Wehling & Charters, 1969). Research dating to the 1940s suggests that people form beliefs about the social world and then ensure that the world conforms to those beliefs, regardless of their veracity (e.g., Merton, 1948). Later researchers posited that teachers' interpersonal beliefs about, or expectations for, students' performance are likely to evoke results consistent with the teachers' expectations (e.g., Brophy & Good, 1974; Darley & Fazio, 1980; Rosenthal & Jacobson, 1968). Still later research argued that teachers' behaviors were key mediators for communicating expectations to students (e.g., Brattesani, Weinstein, & Marshall, 1984; Weinstein, 1976, 1983, 1985, 1989; Weinstein, Marshall, Brattesani, & Middlestadt, 1982; Weinstein; Weinstein & Middlestadt, 1979). To understand the dynamics between teachers and students, researchers must be able to isolate the communication of expectations by observing classroom behaviors.

**Measuring and observing expectations for students in this study.** The work of several researchers (e.g., Babad, 1985, 1990, 1993, 2005; Babad, Bernieri, & Rosenthal, 1987, 1989a) suggests that teachers may communicate their expectations for students without realizing what they are doing. Research identifies behaviors teachers perform in the classroom that affect student performance to degrees that are both practically important and statistically significant. These actions are divided into three expectancy categories: (a) learning support, (b) emotional support, and (c) pressure (see Appendix B). Each of these categories contains actions that have been tested in thin-slice

experiments to test for teacher bias toward ethnic minority students. In the experiments, 11 actions were shown to significantly convey expectations despite the instructional strategies used (Babad, 1990).

Although it is a less developed body of literature, teacher behaviors that convey deficit or dynamic thinking are presented as theory in the literature. One prominent example is the assimilationist versus pluralistic philosophies of teaching (Ford, 1996; Ladson-Billings, 1990a, 1990b). In the assimilationist philosophy, students must adapt to the teacher and classroom environment. In the contrasting pluralistic framework, the teacher allows for variation in classroom instruction and culture (Grant & Ladson-Billings, 1997). The framework contains three domains of teacher beliefs: (a) conceptions of self and other, (b) social relations, and (c) conceptions of knowledge (see Appendix C). No research yet exists that applies Ladson-Billing's (1990a) frame in an empirical study.

**Attitudes.** As teachers engage in activities in which they convey differential expectations for minority students, it would be helpful for researchers to understand the psychological and sociological underpinnings of these actions. Attitudes can be defined as “general evaluations that people hold of themselves, other people, objects, and issues” (Petty, 1995). Attitudes can be based on affects or feelings, cognitions, behaviors, or some combination of these components. My study will use all three aspects of attitudes to explore teacher expectations. In the affective substructure of attitudes, Bronfenbrenner's (1978) ecological model will illustrate why teachers may have preconceived notions about students. The cognitive substructure will evaluate how teachers use their knowledge of students to develop expectations. Finally, studying

teacher behaviors, such as interactions with students in the classroom, will illustrate the behavioral substructure (Petty, 1995).

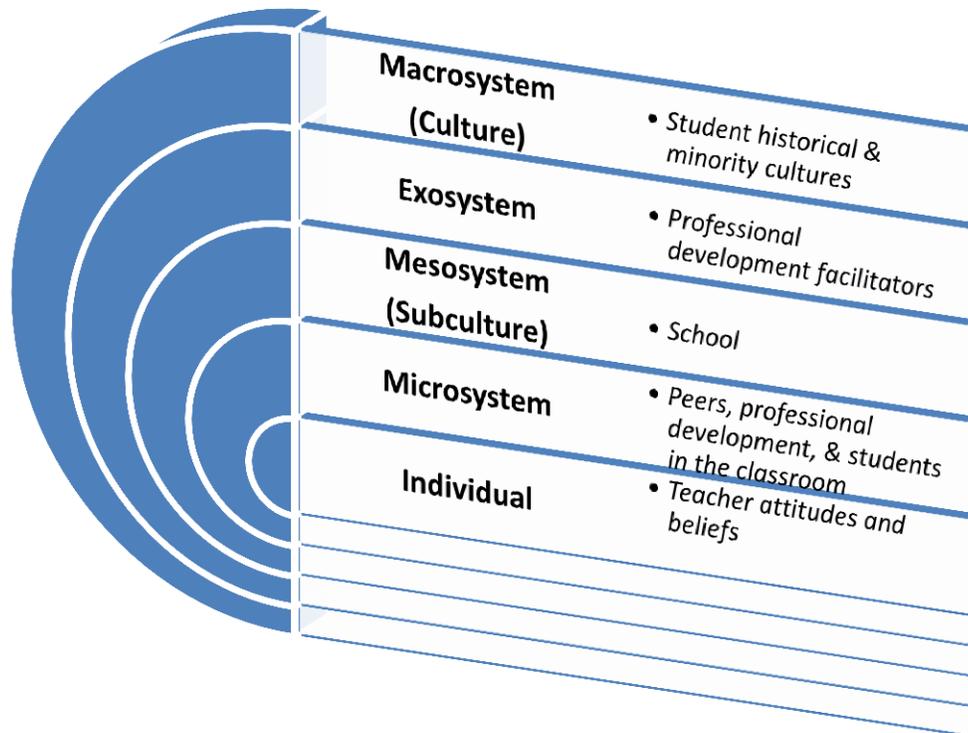
***Expectancy-Value Theory.*** My study requires an examination of attitudes and how they inform beliefs about an attitude object—the student—to influence teacher expectations, forming a teacher’s evaluation of the student. Pajares (1992) differentiates beliefs from attitudes by assigning a more evaluative role to the cognitive domain of teacher beliefs. *Expectancy-value theory* is a psychological approach for understanding whether the object will be related to important values or produce positive or negative consequences (Peak, 1955 as cited in Petty, 1995). Expectancy-value theory describes the process by which teachers come to anticipate students’ success in classes based on some understanding of student characteristics.

The literature on teacher expectations identifies student race characteristics as factors for differential teacher expectations (e.g., Jussim & Harber, 2005; Weinstein, 2002). These race characteristics may hold positive or negative connotations for teachers and will determine how teachers form expectations about students according to expectancy-value theory. Different expectations teachers may hold are based on student characteristics and have not developed in isolation, but rather from teachers’ understanding of their social world.

**Ecological model: Informing the sociological construct.** The ecological orientation work of Bronfenbrenner (1979) is useful for considering how teachers form expectations for students in the affective domain. The importance of the conditions, individuals, environments—and their interactions—under which differential expectancy effects occur must be observed in real-world settings (Weinstein, Gregory, & Strambler,

2004). Bronfenbrenner's model is frequently likened to a pair of nesting dolls, by which a person experiences some sort of interaction with an event in the setting. Expectancy effects are nested in environmental contexts (Weinstein, Gregory, & Strambler, 2004). With deficit thinking, teachers may not perceive minority-student cultures, which in Bronfenbrenner's conceptual model means that teachers never allow cultural information to permeate their immediate environment, represented by the inner-nesting doll.

Applying Bronfenbrenner's (1979) model to differential expectations involves understanding how perceptions may not mirror objective reality. Bronfenbrenner argues that within a culture or subculture, settings tend to be alike, while between cultures the settings may be different. Teachers understand what they know and may have a hard time perceiving cultures that are different from their own: Again, they never bring others' cultures into their immediate environment. Without an understanding of minority cultures, they use what they know to mediate relationships with minority students. A teacher's projection leads to deficit thinking when students' abilities do not match up with the expectations teachers hold for them.

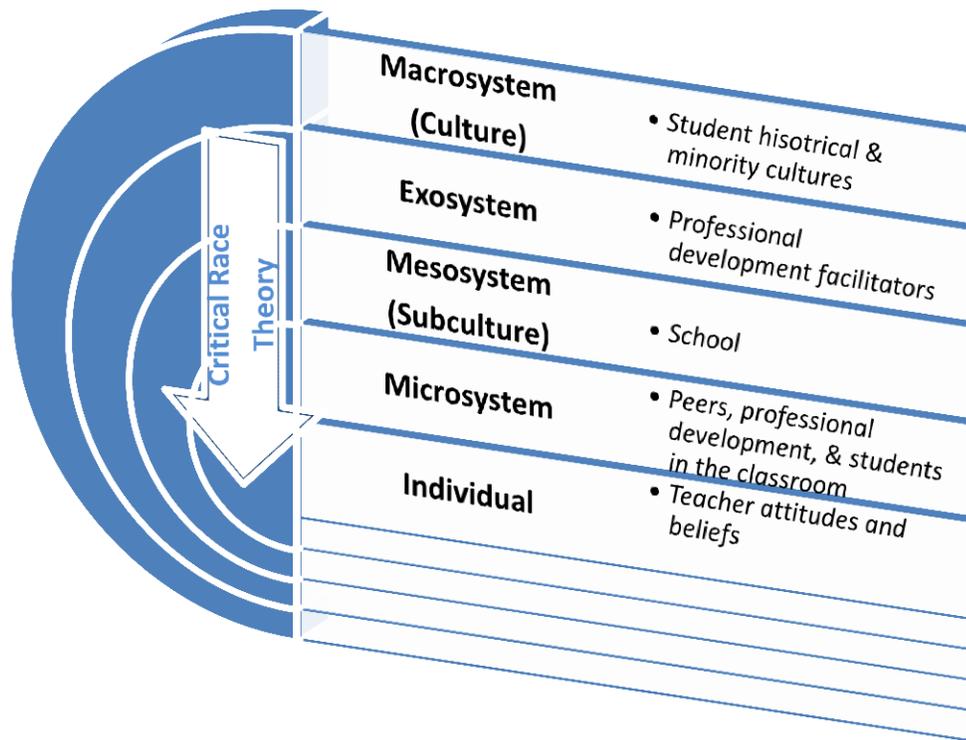


*Figure 2.4. An Ecological Model for Teacher Expectations. This figure shows Bronfenbrenner's ecological model applied to teacher professional development in schools.*

The ecological model assigns labels and relative positions to the contexts of social interaction (Bronfenbrenner, 1978) with a social psychology model for understanding teacher expectations. With the ecological model, the individual may rarely consider anything in the macrosystem; this may be the case for teachers interacting with and forming expectations for minority students.

Expectancy-value theory can explain how teachers form expectations for students based on values they consider important. When considering what teachers believe to be important, Bronfenbrenner (1978) argues that “[t]he detection of such wide-ranging developmental influences becomes possible only if one employs a theoretical model that

permits them to be observed” (p. 4). Critical race theory allows the researcher to inquire into the areas that a teacher rarely considers directly—the macrosystem of student culture. A critical approach might utilize teacher interviews and classroom observations to create a bridge across multiple levels of settings and provide a link between attitudes and the actions that they influence. It follows, then, that critical race theory may be an appropriate means for understanding how teachers determine the importance of student characteristics such as race and SES.



*Figure 2.5 An Ecological Model for Teacher Expectations Using Critical Race Theory. This model shows Bronfenbrenner's ecological model (1978) with critical race theory moving down from the outermost level to the inner individuals to influence attitudes and beliefs.*

Critical race theory allows the researcher to consider the teacher's macrosystem and attitudes held about minority student cultures that affect the development of expectations. As students' cultures in the classroom are brought into direct contact with the teacher through the ecological model, employing critical race theory to confront teacher beliefs through a meaning-making process may allow for understanding how teachers form expectations based on race.

## **Conclusion**

Although there is no universal agreement as to the influence of teacher expectations on student performance, researchers agree that differential teacher expectations can magnify or diminish expectancy influences for students. When these expectancy influences for students are considered through the lens of critical race theory, they become the conceptual equivalent of deficit and dynamic thinking. Therefore, the literature on differential teacher expectations for minority students serves as a broad base for consideration of deficit and dynamic thinking.

The literature for deficit thinking contains a range of theoretical positions that postulate how minority students respond to challenges in the education system. However, a thorough review of the literature reveals little empirical evidence describing deficit and dynamic thinking. Additionally, there is no well-defined conceptual opposite of deficit thinking in the literature to which researchers can attach empirical evidence.

The overarching goal of my study is to contribute to the empirical evidence describing the nature of teacher expectations for minority students. Specifically, my study explores how race informs or does not inform teachers' expectations for students in AP classes, and how these expectations are situated or are not situated within the cultural frame of deficit and dynamic thinking.

## CHAPTER 3

### RESEARCH METHODOLOGY

My project identifies the nature of teacher expectations for minority students in Advanced Placement (AP) classrooms. Working within an interpretivist framework, I identify expectancy themes that emerge from teachers' interactions in their classrooms.

My research questions are the following:

1. What are the expectancy themes that emerge from teachers' sense-making of their interactions with students in the classroom?
2. How do teachers manifest differential expectations for students through classroom interactions?
3. Are these expectations situated in the conceptual frameworks of deficit and dynamic thinking and critical race theory?

My study examines the meaning of interactions in classrooms between teachers and students and shows these meanings to be representations of teacher beliefs about student abilities.

#### **An Interpretivistic Approach**

A researcher's ontological, epistemological, and methodological premises can be referred to as the researcher's paradigm—a core set of beliefs that guide the researcher's actions (Guba, 1990). The interpretivist paradigm is well suited to capture teacher

meaning behind classroom behaviors, because it makes the invisible visible, presenting the symbolic meaning behind interactions (Erickson, 1986). Specifically, the study will determine how teachers made sense of instructional strategies and later applied these strategies in their classrooms with their students—both minority and non-minority. These interactions between teachers and among teachers and their students contain context-laden behaviors. My research study sought to make meaning from these interactions.

### **Interpretivistic Paradigm**

The interpretivistic paradigm conceptualizes three different forms of meaning. The first form premises that local meaning of the participant is context-laden for both place and time, as well as how the person attributes meaning to contexts. The second form of meaning is what the researcher ascribes to the action observed. The researcher is placing his or her understanding of the action in the meaning-making process. The third form of meaning occurs when reading the final research report and making meaning from the findings. It is the final form of meaning that is considered the target for qualitative researchers and once made, these interpretations are taken as real.

The data for my study are qualitative and will be analyzed through an interpretivist lens utilizing symbolic interactionism (Erickson, 1986). Erickson's approach uses symbolic interactionism (Blumer, 1986), examining everyday patterns and occurrences for causal linkages and universals. In education, researchers study the instructional practices and interactions in classrooms and their accepted meanings through a negotiation of meaning between the researcher and participants. The need for joint negotiation stems from Erickson's belief in the difference between behavior and

action: Behavior is some physical act, while action has meaning behind it. The researcher must account for the joint negotiations of beliefs through the meaning-making process.

No common denominator exists for the meaning behind participants' actions; however, patterns of behavior can lead to an understanding of meaning. To best capture the meaning of actions, I used a variety of techniques to establish trustworthiness, including documenting the process, capturing participant quotes, writing vignettes and analytic memos, and keeping a reflective journal. Each of these analytic tools helped me test assertions and manage disconfirming evidence while collecting my data and after I left the research site. My deep understanding of the research site led to internal validity.

I collected data and made assertions (Erickson, 1986), and explored the assertions with further data collection. After leaving the field and during analysis, I continued to make assertions and analyzed data to support or disconfirm them.

### **Interpretivistic Assumptions**

The interpretivistic paradigm hinges on three philosophical underpinnings: ontological, epistemological, and hermeneutical assumptions. These comprise the rationale for the methodological approach to collecting, analyzing, and presenting data. Capturing the context-laden reality for research participants requires a philosophical belief that human interactions have symbolism behind them. I explicitly state my understanding of the nature of knowledge.

**Ontological, epistemological, and hermeneutical assumptions.** Ontology is the reality and nature of being. In my study I consider how both my participants and I make meaning of the world through locally constructed meaning-making. Epistemology is the

nature of knowledge and what counts as knowledge in the view of reality that one holds. In my study I consider how teachers make meaning of their experiences in the classroom and make sense about our reality. Hermeneutics must drive a research approach that collects data that accurately represent the research participants' reality. My study requires an understanding of the meaning of the context-laden interactions of participants. I worked to establish a deep understanding by spending prolonged time in the environment, studying the participant interactions, and sought to collect rich, descriptive data that supported the assertions in my study while presenting disconfirming data with equal emphasis. These assumptions are statements that outline my system of beliefs and provide the conceptual underpinnings and assumptions of my study

### **Validity**

Broadly stated, there are three forms of validity in qualitative research: (a) the factual accuracy of the account as reported by the researcher, (b) the degree to which participants' viewpoints, thoughts, intentions, and experiences are accurately understood and reported by the researcher, and (c) the degree to which theoretical explanations developed from the study fit the data and are defensible (Milinki, 1999). In Erickson's approach (1986), multiple participants may represent multiple views of reality. Therefore, the researcher must attempt to view knowledge in the contexts of how the research participants understand reality at any given point in time. My approach to validity stems from the understanding that meaning is constructed locally and co-constructed between the participant, researcher, and reader. Objective reality cannot ever be captured (Denzin & Lincoln, 2005). In my study, to establish credibility with the reader—which is a form of external validity—I rely on multiple means of data collection,

but mostly observations and interviews. In most instances, interviews with participants served as an opportunity to corroborate what I had observed.

### **In Context: The AP Challenge Program**

My study fits within a larger, multiyear intervention study designed to raise minority student AP test scores. The AP Challenge Program (APCP) is a comprehensive study collecting both qualitative and quantitative data on multiple facets of the multiyear experience.

The overarching goal of the APCP is to increase the participation and success of low-income and minority students in AP courses and in college. My study targets minority students, specifically Black and Latino. These students are performing below their majority counterparts, as identified by the 2010 College Board Report. Schoolwide data that indicate Asian-American students are not performing at the same low levels as other minorities. Additionally, data either do not include or include extremely low numbers of American Indian students. Therefore, these populations are excluded from my study.

The APCP is a multiyear study in which, at the time of this study, 110-120 students, 35-40 teachers, and counselors had participated in a wide array of intervention strategies. The strategies for teachers included scaffolding, differentiation, and engagement techniques and were delivered at workshops for teachers that occur three to five times per school year. The focus of these workshops is the development and assisted implementation of teacher instructional practices appropriate for minority students who lack the same academic preparation as traditional AP students. Instructional approaches presented encouraged teachers to scaffold their instruction to meet the needs of each

student and indirectly create a supportive and engaging environment (Kyburg, Hertberg-Davis, & Callahan, 2007). The goal was for teachers to actively engage their students in learning and to build a system of support structures that the project researchers anticipated would have positive impacts on AP scores.

### **AP Challenge Program Setting**

The APCP project is set in Bartlet Public Schools, a large, urban school system in a mid-Atlantic state. The student bodies of the participating schools are made up of 44% minority students, with 27% of students from low-income families. Principals selected the teacher participants of the APCP. These teachers participated in an intervention program that spanned two academic years and included 10 workshops and participation in two week-long residential summer programs for students.

Throughout the intervention program, the project team has interviewed teachers and observed in participant teachers' classrooms and at training sessions in the schools and at the host university. In addition, the project has accumulated student outcome quantitative data. The school system has provided three years of historical AP exam score data for each program teacher, College Board instructional planning reports for the teachers, and AP scores for all control, experimental, and general-population students at the six participating schools.

Studying the nature of teacher expectations for minority students fits within the scope of the larger research program. Specifically, one of the 11 research questions asks, "In what ways do AP teachers in treatment and control schools adjust their curriculum and instruction to meet the needs of minority and low-income students within their courses?" My dissertation research questions are more focused in scope, specifically

examining how teachers make meaning of the curriculum adjustment process, and thus contribute to the broader research on the APCP.

The examination of teacher curriculum and instructional change in the APCP warrants close examination of the process teachers undergo as a result of the intervention program. My study examined the meaning-making process through an interpretivist lens, observing teacher interactions with students and analyzing them for symbolism. Within symbolic interactions in the APCP, teachers are conveying expectations to students that affect student performance. The literature base on teacher expectations can be understood through the self-fulfilling prophecy framework, and indicates that minority students are especially susceptible to these negative differential expectations.

## **Design**

### **Pilot Study**

During the fall semester of 2009 and the spring semester of 2010, I undertook a pilot research study to explore whether teachers in the APCP operated from a deficit or dynamic perspective. The initial findings from my pilot study led me to revisit the conceptual underpinnings of the study. During the pilot study I observed teachers interacting with students, colleagues, and program staff members. I was able to watch the teachers in a variety of different contextual environments. The findings of the study identified teacher actions and comments such as discussions with students in the classroom, interactions with other teachers in workshops held in the school system, and participation in instructional seminars with APCP staff. To capture the internal processing of teacher meaning-making, I employed methods that examine teacher interactions with students, APCP staff members, and other teachers.

The data from my pilot study indicated that teachers may hold deficit and dynamic beliefs. However, placing them on a continuum of positive dynamic beliefs to negative deficit beliefs was difficult because of confounding contextual factors. Specifically, I had trouble grappling with the difference between deficit thinking and unrelated bad teaching practices. While teachers might believe in the tenets of dynamic thinking and hold appropriate expectations for minority students, they may be unable to convey these beliefs due to poor teaching abilities. I asked teachers which concrete student visual and audio cues inform instructional practices that convey expectations (Babad, 1990) and combined these responses with teacher perceptions of specific students' abilities. Before I could begin quantifying degrees of teacher beliefs, I had to understand the nature of these beliefs, about which there is a gap in the literature. I sought to explore that gap. With my current study, I drew on a framework from the literature that focuses on interviews and observations to provide empirical evidence about how teachers' expectations are influenced by their beliefs regarding minority students' abilities and how these in turn translated into instructional practice.

### **Conceptual Framework**

The nature of qualitative research necessitates explicitly stating the conceptual framework, as it creates the analytic context in which the researcher collects and analyzes data (Erickson, 1986). My study employs a three-part theoretical framework informed by the literature on differential teacher expectations and deficit and dynamic thinking, augmented by insights gained during my 2009–2010 pilot study.

The first part of my conceptual framework is that teacher expectations for minority students are formed in the context of social situations occurring in classrooms

and the community. To explore these contexts, I employ critical race theory, a neo-Marxist approach of social construction (Ladson-Billings & Tate, 1995). Through the theoretical lens, I view teacher expectations as ecological social constructions of beliefs and attitudes (Weinstein, 2002, p. 61) formed under a system of racism (Garcia & Guerra, 2004).

The second part of the conceptual framework is based on the assumption that teachers and students interact in a classroom laden with historical elements of racism: deficit thinking. I premise that deficit thinking, when viewed through critical race theory, is equivocal to inappropriate teacher expectations for minority students, whereas an appropriate form of differential expectations for minority students is captured in dynamic thinking.

The third part is contingent on the assumption that teacher expectations are a significant factor affecting student performance. The evidence to support the assumption is explicitly presented in Chapter Two (e.g., Jussim & Eccles, 1995; Weinstein, 2002). By granting the third assumption, I present the third part of the conceptual framework, specifically that teachers hold appropriate and inappropriate expectations for minority students.

### **Operationalizing the Conceptual Framework to Address the Research Questions**

For each research question, I explicitly stated the theories, data, and analysis used to prevent ambiguity. I used sequential analysis to investigate both research questions. The sequential analytic process allowed me to deductively guide my initial work during observations and interviews, drawing from established instruments and constructs found in expectancy and deficit and dynamic literature (Vazou, Ntoumanis, & Duda, 2005).

Sequential analysis then allowed me to inductively refine questions and “pursue emerging avenues of inquiry in further depth” (Pope, Ziebland & Mays, 2000, p. 114).

**Differential teacher expectations.** Using research on the 11 teacher behaviors that significantly affect student performance, I identified teacher behaviors in the classroom during observations and followed up with the teacher through interviews. During the interviews, I used an ecological approach to probe the teacher’s understanding, using expectancy behaviors (Babad, 1990) to identify specific attitudes teachers held. The behaviors identified in the literature (Babad, 1990) served as deductive codes during the start of my study. However, I approached these interactions with an “open lens” when exploring the meaning behind each expectancy behavior and any possible deficit or dynamic behaviors uncovered in the classroom.

**Deficit and dynamic thinking.** Given that the literature base for deficit and dynamic thinking is less developed than the theoretical and empirical evidence for teacher expectancy literature, by merging the two areas, I identified specific attitudes and beliefs through the same ecological perspective used to answer the first research question. The proposed conceptual framework comprising deficit and dynamic thinking theories exists as differential teacher expectations and can be observed in classrooms through the use of protocols that can be derived from the work of Babad (1990) and Ford (1996). The belief that I might find differential and dynamic thinking in classrooms is the root of the third research question. The conceptual framework I have proposed proved to be appropriate to explain teacher expectations based on race. I used inductive analysis within the teacher expectation codes consistent with sequential analysis (Pope, Ziebland, & Mays, 2000). The 11 teacher behaviors that were found to significantly convey

teacher expectations to affect student performance became the basis for my deductive coding process. These codes were:

Table 3.1

*Expectancy-conveying Behaviors (Babad, 1990)*

<b>Factor 1: Learning Support: The teacher:</b>	
Behavior #1	approaches child to observe work
Behavior #2	approaches child
Behavior #3	sees to it that child will learn without interruption
Behavior #4	gives child opportunity to think long enough before answering
Behavior #5	helps child to answer questions
Behavior #6	explains child's mistakes and how to correct them
<b>Factor 2: Emotional Support: The teacher:</b>	
Behavior #7	praises child in the classroom
Behavior #8	gives child a lot of attention
Behavior #9	is warm and supportive to child
<b>Factor 3: Pressure: The teacher:</b>	
Behavior #10	addresses difficult questions at child
Behavior #11	is very demanding of child

I worked from these 11 teacher behavior codes when making assertions about teacher behaviors and classroom interactions.

In addition to the metrics of measuring teacher expectations (Babad, 1990), I also employed the assimilationist versus pluralistic framework (Ford, 1996). The newly derived framework combining the work of Babad (2000) and Ford (1996) allowed me to identify specific categories of deficit and dynamic teacher behaviors in the classroom and in interviews.

## **Methods**

I observed classroom interactions to provide context for follow-up interviews and discussions with teacher research participants. Understanding the significance of the

theoretical sense-making process is critical to understanding the reality of the research participants and how they make meaning of their work to improve minority student AP exam scores.

**Sense-making theory.** Sense-making about classroom practice is shaped by two factors: (a) a teacher's patterns of interactions, including the setting and discussion participants, and (b) the nature of a conversation's structure that allows for reflection (Coburn, 2001). Coburn employs sense-making theory with institutional theory. My study examines teacher sense-making theory within classroom-situated systemic and cultural influences. Weick (1995) defines sense-making simply as making sense of sense. Through Erickson's (1986) interpretivist paradigm, studying the interactions between teachers and exploring the sense-making process with the APCP is appropriate, because its research methods examine the ways teachers attribute meaning to new instructional strategies in their professional practice in the APCP.

McDonough (2009) offered an examination of critical consciousness in a participant case study where the researcher observed a new elementary school teacher come to terms with confronting racism in her classroom. The researcher utilized a participant case study to produce an ethnographic narrative that captures the meaning-making process in the teacher's classroom. Hunsaker and Johnson (1992) examined co-constructed meaning-making through a four-year study of a master's degree student and her professor. The strengths of the findings in these studies are derived from the methodological approach, which provided for extended interaction between the researcher and the participant, so they could co-construct meaning during the sense-making process.

The approaches used in these two articles undergird the methodological approach for my study, whereby I observed interactions between teachers and students in classrooms and spent extended time interacting with them over several months. My approach garnered copious data for each participant, who became the unit of analysis. During the study each teacher became the subject of a case study on the meaning-making process. The case study method allowed me to explore the teacher sense-making process in depth, accounting for the interactions with students in the classroom. The nature of case study research allows for deep analysis of a research event to establish the why and how of the event (Yin, 2010, p. 8).

**Case studies.** Case studies are an appropriate method for studying the presence of a circumstance or phenomenon in a social context (Yin, 2010, p. 4), and when little is known about the phenomenon, case studies allow for exploration (p. 29). Case studies allow for the explanation of a phenomenon—ideal for observing the subtle teacher interactions that communicate expectations for students. To fully contribute to the data that allowed me to write rich descriptions with strong supporting data, the two primary forms of data collection for my case studies were direct observations and interviews (Yin, 2010, p.11).

In my study, the teacher was the unit of analysis because the research questions target teachers' thinking and expectations. These aspects of deficit and dynamic thinking are specific to an individual teacher and must therefore be studied and contextualized for each person to highlight the meaning behind classroom interactions (Yin, 2010, p. 17). Because the data for my study was about individual teachers and these teachers' interactions with other people, it was appropriate to go to the teachers to collect data as

well as observe the teachers interacting, forming, and conveying expectations for students (p. 89).

### **Participants**

The teachers in my study came from the first cohort of the APCP, numbering 14 teachers. During the beginning of the APCP, the principal investigators identified six schools in the Bartlet Public School system that met the criteria for significant populations of minority and low-income students. For the first two years of the project, three of these schools were randomly assigned to the intervention group, while the other three represented the control group. The 38 teachers from the first three cohorts of the APCP are from 10 different AP subjects, including science, social sciences, and English.

**Teacher participants.** I selected four Advanced Placement teachers from APCP. Of the 14 teachers in the first cohort, five responded that they would like to participate in my study. The school system district office granted access to two of the three schools, giving me a sample size of four teachers. Refer to Appendix A for the APCP research intervention strategy timeline and more details about teacher participants.

Having four teachers in my research study allowed for variation of beliefs and attitudes. The APCP directly addresses many aspects of multicultural education. Some of the teacher cohorts, including Cohort 1, have read articles such as those on deficit thinking. In order to ensure that I had a varied sample, I constructed a matrix of teacher characteristics and selected teachers late in the spring semester of 2011. The characteristics matrix identified teacher gender, race, age, and years of experience, along with many other teacher attributes I collected about teacher experience in AP courses. All of these characteristics were identified in the literature on teacher expectancy theory

as potential influences on how teachers form expectations for their students. I consulted several gifted and talented teacher information surveys produced by the National Research Center for the Gifted and Talented at the University of Virginia to consider other teacher characteristics that might influence teacher expectations in AP classes. Once I had compiled a list of characteristics, I consulted my dissertation committee for feedback.

I intended to select four teachers with the goal of identifying the most diverse sample possible. However, the pool of available, willing teachers limited the sample. As it turns out, I did not have much choice as to which teachers were in my sample. The following table presents basic demographic information about the four teachers in my study.

Table 3.2

*Teacher Participant Characteristics*

Teacher number and Name assignment	Race	Years in the teaching profession	Years teaching AP courses
Sam	White	17	14
Erin	White	14	12
Donna	White	6	3
Claudia	Multiracial	10	6

Two of these teachers had participated in the pilot study I conducted from September 2009 to May 2010. Historical data from the APCP and the pilot study include my initial observations and interviews determining how teachers made sense of their experience of the program and were making sense of working with students in their classrooms.

## **Teacher Profiles**

*Sam.* Despite Sam's role as the only male participant in this study he shared many characteristics with the other three teachers. He earned a bachelor's degree in history and has been certified to teach his subject area since he became a teacher nearly two decades ago. He was pursuing a master's degree in educational technology leadership during the time I observed and interviewed him, which he mentioned frequently during our conversations, but not appear to alter his classroom instruction. In 2005 was trained by the College Board to be an AP teacher and referred back to that training experience as his primary means for understanding how to prepare students for the essays on the AP exam. In addition to pursuing a master's degree and his previous College Board training, he has been involved in two district-wide professional development programs for social science teachers. The only characteristic that set Sam apart from the other teachers in the study was that he graduated from Hoynes High School and upon completing his college degree, returned as a teacher and has been there ever since.

*Erin.* Erin differentiated herself from the other teachers with the longest list of credentials and teaching experience. A white female and the oldest of the four teachers, she earned a bachelor of arts in political science and history and held a master's degree in education. Teaching was a second career for Erin who retired from the Navy after twenty years of service. Like Sam, she was certified to teach all social science subjects and completed the College Board's AP training. However, she was the only teacher to have completed three separate instances of the training in 1999, 2001, and 2006, where she received additional instruction on scoring essays. In addition to her College Board

training, she had extensive national professional development experience where she attended seminars as well as presented at different venues that included the National Council for Geographic Education and the AP Human Geography Workshop for Teachers (College Board). In addition to her national professional development experience, she has attended numerous state and local conferences and seminars. She also served as a consultant for vertical teaming in Social Studies with the College Board and authors the virtual AP Human Geography course curriculum for the state. Finally, she taught online courses for the school district as well as a large land-grant university located in the southwestern United States.

*Donna.* Donna was both younger and had the least experience of the four teachers in my study. She was a white female who grew up in a predominantly, white, working class community in the southwest portion on the state and did not experience a diverse classroom until she began her teaching tenure in Bartlet Public Schools. She earned her bachelor's degree in biology and earned a master's degree in education, which enabled her to teach any science course. In addition to having attended the College Board AP training in 2008, she has also participated in a College Board workshop for inquiry-based science instruction. She was participating in a national initiative at the time of the current study to increase minority student performance on AP exams by paying them and providing after-school resources.

*Claudia.* Claudia differed from the other three teachers in this study in more ways than her race. Although she was a self-identified mixed race female, who identified as part Black and part Asian American. Her education – a bachelor's degree in English and a master's degree in English language and literature completed before she began

teaching – did not set her apart from the other teachers in the study. She completed her College Board AP training during the summer of 2009 and had attended the annual AP English conference within the last five years. With similar credentials as the other three teachers in the study, I sought to understand what else set her apart in her classroom instruction.

**Student participants.** Teachers were the primary focus of inquiry for my study. However, the students for whom these teachers designed instructional materials were also an important consideration. The APCP targets students who do not “fit the typical Advanced Placement student model.” The typical model—a perception teachers have that their students are homogeneous gifted learners—might include students who have been enrolled in gifted classes and who have received top grades up to the point of AP classes (Hertberg-Davis, Callahan, & Kyburg, 2006). APCP sought students, as identified by counselors, teachers, and other school system personnel, who had above-average grades—typically a B average with no failing grades—and were minority or low-income and did not fit the typical profile. All students in the APCP are minorities. While acknowledging that an interaction of the student characteristics of class and race may exist, the focus of my study remained on the meaning-making processes of teacher for their minority students. An awareness of the student characteristics and the possible effects on teacher meaning-making was considered during the construction of observation and interview protocols when appropriate. However, the focus of my study was on teachers and not the students.

## **Role and Access**

As a member of the APCP research team, I had access to the sample of teachers and schools. The APCP research team has access to teacher participants and classrooms in accordance with the policies and procedures mandated by University of Virginia's Institutional Review Board and Bartlett Public Schools' Department of Research, Evaluation, and Assessment. To recruit teachers to the program, I contacted teachers from Cohort 1 through emails.

After selection, but before any formal data collection began, I planned to establish trust with each teacher participant. However, due to a lengthy approval process imposed by the school system, my trust building occurred largely via short, casual email conversations. Once I moved into classroom observations at the start of the new school year, I believe trust increased. I saw examples of trust in my after-class conversations when teachers initiated conversations about their expectations for students and sought feedback on the instructional strategies they were using in classes. During interviews, teacher responses to questions were longer and they made reference to sensitive student information. I believe that these behaviors indicated teachers offered candid and truthful responses to questions during observations and interviews. Creswell (2005) cites trust as a key factor in obtaining data that were of use for my study.

## **Data Collection**

My data collection plan attempted to make the invisible visible in identifying the significance of actions from the participants' points of view (Erickson, 1986). The primary form of data collection required to answer the research questions was interviews conducted with teachers. However, in holding with Erickson's (1986) interpretivist

principals of symbolic interactionism, interactions between teachers and students were the focus of interviews. Thus, I used prolonged observations, to identify the classroom interactions upon which to focus in the interview. My approach entailed looking for classroom interactions that occurred that may have revealed some indication of teacher expectations. Through noting these behaviors, I derived multiple interview protocols for each teacher in the study and explored the symbolic meaning behind classroom interactions.

I went into each classroom with an observation protocol developed using the works of Babad (1990) and Ford (1996; see Appendix H). From the start I followed the three different parts of my conceptual framework to identify any trends that emerged. My process was iterative and reciprocal in that the observations served as a starting point that led to subsequent interviews and further observations. Through follow-up interviews, I asked the teachers about the intent behind their behaviors, thus determining over time why a teacher communicates and teaches in a specific manner. The iterative process enabled me to look at everything that goes on in the classroom and filter the behaviors with intent from those classroom behaviors that stem from bad or unintentional teaching practices. Initial findings from the first six weeks of carefully following the observation protocol influenced the direction of my data collection, as I moved to collect data to substantiate the assertions I began to generate. I continued to use my observation protocol in part until I had completely answered the three research questions. However, any data that did not fit within my assertions are presented with equal weight as disconfirming evidence. No data were forced to fit an assertion that could not be substantiated.

**Historical data.** I drew on interviews and observational data for Cohort 1 teachers collected over nearly three years in the APCP, from 2008 to 2011, to help me situate how teachers may have changed as participants in the APCP. The APCP collected teacher interviews and classroom observations during the 2008-2011 school years. During that time, the project researchers observed several hundred hours of instructional time to identify relevant APCP teaching strategies. The data provided direction during many aspects of my research study, directing the selection of teachers, the development of observation protocols, and preliminary data analysis by informing my initial questions and focusing my observations. Specifically, I looked at previous interviews when teachers had been asked about minority students in their classrooms. The data may not have directly informed my analysis, but it did direct where I looked when I went into classrooms and began interviewing teachers. For example, Erin had previously stated during the pilot study that I conducted in 2009 that Filipino boys performed poorly in her classes, so I paid attention to her interactions with these students. Additionally, Sam had stated that he attended Hoynes High School as a student and the demographic changes had shifted in the decades since he attended. I wanted to understand if he believed the demographic shift had any implications for how minority students performed in his classroom. My knowledge of these teachers from my previous work informed my classroom observations and teacher interviews.

**Direct observations.** The study used direct observations to provide direction for interviews. Direct observations occurred when I visited the study site to observe interactions as they happened (Yin, 2003). Observing teachers' instructional practices and interactions with students provided a means for me to shape interview protocols that I

developed as a result of what I saw in the classroom. I observed to get firsthand data regarding of the interactions between teachers and students. These accounts were useful for me in generating questions and assertions. A disadvantage of direct observations in my study was that my presence may have changed how teachers behaved in the classrooms, affecting what I was able to observe (Yin, 2010, p. 102). I address my effects on a classroom in the presentation of my data.

The classroom observations occurred in Bartlet Public School teachers' high school classrooms during the early fall of 2011. The observations in the Bartlet schools included one AP class per teacher. The typical two-week observation schedule involved a rotation between an alternating block schedule.

Table 3. 3

*Sample Two-week Observation Schedule*

Week 1	A-Day Schedule Donna/Bio 7:30-9:00 Claudia/Eng 12:30-2:00	B-Day Schedule Sam/U.S. HIST. 7:30-9:00 Erin/CGov 12:30-2:00	A-Day Schedule Donna/Bio 7:30-9:00 Claudia/Eng 12:30-2:00
Week 2	B-Day Schedule Sam/U.S. HIST. 7:30-9:00 Erin/CGov 12:30-2:00	A-Day Schedule Donna/Bio 7:30-9:00 Claudia/Eng 12:30-2:00	B-Day Schedule Sam/U.S. HIST. 7:30-9:00 Erin/CGov 12:30-2:00

During the study, I observed teachers for 10 weeks. The full observation schedule can be found in Appendix G.

I conducted 51 observations in APCP teacher classrooms. My observations employed a protocol that is based on the work of Babad (1990) and Ford (1996) and embedded in the Spradley matrix (1979; see Appendix H). Emerson, Fretz, and Shaw (1995) argue that the methods and findings cannot be disjoined, and it is, therefore, important not to let one unduly influence the other. I kept detailed field notes detailing

instructional practices and interactions with students based on the protocol informed by Babad (1990) and Ford (1996). Field notes served both as a source of data and an audit trail to identify what I had observed. I drew upon a variety of elements found in protocols used in the APCP or in a number of qualitative methods guidebooks (e.g., Emerson, Fretz & Shaw, 1995; Marshall & Rossman, 2006; Yin, 2010). After each observation, I spoke with teachers for 5 to 10 minutes after the students left the classroom. I sought to ask teachers about behaviors I had observed and whether they had formed expectations for students' probable performance on the AP exam. My questions were recursive in nature and informed by what you had observed during the class period. These brief discussions comprised hours worth of informal interview data essential to my analysis. As the study progressed I formally interviewed teachers regarding classroom interactions based upon observations that focused on emerging areas of interest.

**Interviews.** Interviews were the primary data for making sense of teachers' beliefs about student abilities and ultimately determined whether they were operating from a deficit, dynamic, or some other perspective. Talking with participants allowed me to address the interpretation of meaning of observed classroom interactions (Kvale & Brinkmann, 2009).

For the interviews used to explore participant sense-making, I employed the research on teacher expectancy behaviors (Babad, 1990) and assimilationist and pluralistic beliefs (Ford, 1996). Because no instrument exists that can accurately identify teacher deficit and dynamic beliefs, I referenced the work of Babad (1990) and Ford (1996) in my first interview protocol (see Appendix D). The primary purpose of my first protocol was to identify teacher thoughts about the expectancy-conveying behaviors. My

second interview explored four areas of teacher expectations: (a) expectations for student performance on AP exams, (b) hypothetical and actual scenarios of expectancy-conveying behaviors from classroom observations, (c) perceptions of gender, race, and socioeconomic status, and (d) teacher-specific questions to support the assertions I began to generate about each teacher. I employed a new interview format that addressed the expert cognitive functioning of teachers (Feldon, 2007) that was preventing them from being able to answer my questions about their intent behind classroom behaviors. My third interview targeted specific information to help me substantiate my assertions in five key areas: (a) the meaning making process explored through reflective practice (Schön, 1987), (b) teacher-specific instructional practices that influence teacher-student classroom interactions, (c) teacher meaning-making of interaction patterns from classroom observations, (d) teacher perception of the minority student achievement gap, (d) and an open-ended opportunity for teachers to respond to any aspect of my study.

The three interview protocols underwent a process by which they obtained face validity by review of my four dissertation committee members—who are professors at the University of Virginia Curry School of Education with methodological expertise in qualitative methods and cognitive functioning—and my peer debriefer.

For interviews following classroom observations, I used a relatively flexible format for the coding process. I began with Miles and Huberman's (1994) structured data analysis process and added codes derived from Babad (1990) and Ford (1996). I allowed for new themes to emerge from the data corpus, and derived interview protocols from initial inferences made with the data collected during observations. The interviews used throughout the study were conducted from a scripted instrument based on the work

of Babad (1990) and Ford (1996) and were scheduled or held informally at the teachers' convenience at the beginning, middle, and end of the data collection period. Determining the most appropriate time to conduct the data collection process during an interview was critical, as I had to quickly work to develop a rapport with teachers and gain trust so that their answers would be open and honest. I allowed teachers to select the times of day when I conducted the interviews in addition to selecting the location where we would talk. Most of my interviews were held before or after school in teacher classrooms, but during the third interview, I made accommodations to Erin by meeting her at her house to speak with her. The environment may have added a level of comfort that influenced what Erin opted to share with me. As a result, she offered frank answers to sensitive topics that I present in chapter 6.

Table 3. 4

*Interview Schedule*

Teacher	Interview #1 Date	Interview #2 Date	Interview #3 Date
Sam	September 12, 2011	October 25, 2011	December 6, 2011
Erin	September 15, 2011	October 26, 2011	December 7, 2011
Donna	September 12, 2011	October 25, 2011	December 7, 2011
Claudia	September 13, 2011	November 11, 2011	December 7, 2011

I relied upon the literature on differential teacher expectations, deficit and dynamic perspectives, observation notes, previous interviews, dissertation committee faculty members, peer reviewers, and my analytic journal to construct and administer the interviews (see Appendices D, E, and F). Any informal interviewing did not make use of any developed protocols but led to subsequent formal interviews and additional interview protocols. I constructed a second and third formal interview to be administered around

the midpoint and end of the data collection period. I shared these interviews with my dissertation co-chairs, committee members, and peer debriefer.

Throughout the multiple interviews I conducted in my study, the purpose was to apprehend teachers' meaning through precise descriptions of what they experienced, felt, and acted in the classroom. One interview per teacher participant was not sufficient to generate enough data to study the meaning-making process. I formally interviewed each teacher three times during the observation period, recording each session, and later transcribed the recordings.

As interviews were transcribed I provide copies of the transcripts to the participant for review to serve as a member-checking process. Member-checking ensured the interviewees were free to delete sensitive material while verifying the accuracy of their statements.

I provided interpretations of behaviors that stemmed from interviews and observations to my peer debriefer. Every time I made a judgment while analyzing the data, I recorded it and shared it with the debriefer. An audit trail of judgments and how I handle them ultimately kept my biases in check as I developed assertions and substantiated them with evidence.

**Timeline.** I spent three months in the classrooms collecting data. The specific schedule depended on when each teacher offered his or her AP courses. The extended timeline helped to build trust and rapport with teachers who were reticent to offer their beliefs on a sensitive topic to someone they did not know well. Additionally, the extended time allowed me to understand routines and idiosyncratic behaviors in the classroom. Spending ample time in the field was an important step for making the

invisible visible (Erickson, 1986) so that I could determine which actions were purposeful and the meaning behind behaviors.

Table 3.5

*Study Timeline*

Timeline Items	Completion Dates
Participant Selection	
Dissertation Proposal Defense	March 16, 2011
Participant Selection	
Select teachers for study	April 18 – 28, 2011
Teacher participants invited to participate in study	
Observation schedule arranged with teacher participants, school principals, district leaders, and APCP Principal Investigators	August 12 – September 6, 2011
Data Collection	
Begin classroom observations	September 7, 2011
First round of teacher interviews	September, 2011
Second round of teacher interviews	October, 2011
Conclude observations	November 10, 2011
Third round of teacher interviews	December 2011
Enter data analysis phase	November 11, 2011

**Data Analysis**

**Methods for data analysis.** Sequential analysis allowed me to move between deductive and inductive analysis (Pope, Ziebland, & Mays, 2000; Vazou, Ntoumanis, & Duda, 2005). I began with deductive codes derived from the literature that include deficit and dynamic thinking as well as appropriate and inappropriate teacher expectations (Miles & Huberman, 1994). I tested whether data were consistent with my assumptions based in the deficit and dynamic literature (Thomas, 2006). The process for sequential data analysis in my study included five steps: (a) searching the data corpus, (b) making

assertions and establishing evidentiary warrants through inductive analysis, (c) using specific but flexible lines of inquiry to produce evidence that confirms and disconfirms assertions and warrants, (d) testing these assertions against data during data collection and after leaving the research site, and (e) evaluating discrepant cases, presenting them alongside assertions if they cannot be explained in the evidentiary warrants (Erickson, 1986, p. 148). These five steps are typically associated with analytic induction; however, in my research study, I embedded the process within the constraints of deductive a priori codes. Allowing for an inductive process to occur within the parameters established by the literature on each of my codes guided my data analysis as data emerged that did not fit the existing coding scheme. Moving between a priori codes and the inductive codes I generated throughout the study was consistent with sequential analysis (Pope, Ziebland, & Mays, 2000). Based on my review of the literature, I decided to employ deductive analysis utilizing the following codes: *deficit thinking*, *dynamic thinking*, and *teacher expectancy behaviors*.

Erickson (1986) asserts that all acts are intentional and researchers may understand these actions by examining their sequence and contexts. The interpretivist paradigm premises that meaning and symbolism are present in all interactions. I was capable of comprehending the meaning through prolonged observation and interviews with participants. I did not wait for all data to be collected before starting the analysis. Theory drives data collection and analysis through an iterative process that could not be disjointed (Coffee & Atkinson, 1996). I began making sense of the data during the initial data collection period. From the start of formal data collection, the data collection and

analysis phases were iterative in nature. The five-step process is well documented and remains a rigorous and appropriate method for conducting research (Erickson, 1986).

Consistent with research conducted in the interpretivist paradigm, I employed a coding system and entered the data analysis process with a priori codes to guide me through the process. These codes emerged from the literature review, my conceptual framework, and the interviews used to select participants, and focused me as I analyzed the data. Throughout the data analysis I went back to my research questions to focus my perspective. Throughout the data collection process and subsequent data analysis phase, I read the data corpus repeatedly, reducing data to themes. I then used these themes to develop codes and naming conventions to advance through the formal data analysis phases of the project. These inductive codes augmented the a priori codes I derived from the literature. My coding approach was applied to all data collected, including interview transcripts, classroom observation notes, and research documents, to assist me in analyzing teacher interactions and teasing out the meaning behind these actions.

I used three analytic tools to help me make sense of the data, including codes, journals, and memos. These documents and tools organized ideas and made connections, helping me make meaning during the coding process.

***Computerized data analysis software.*** I used NVivo8 to organize my data so that I could manually code and analyze data in accordance with an interpretive approach to sequential analysis (Pope, Ziebland, & Mays, 2000). The primary use of the software was to organize all data from the research study rather than to perform analysis. The software was a dynamic tool, allowing me to import documents of transcripts, observation protocols, pictures, and nearly any other type of data collected during the

five-step process. I also included my memos and journals among the files imported into NVivo8. Once the data had been imported into the software, I manually indexed and coded the data with a variety of techniques common to qualitative data analysis and appropriate for an interpretive paradigm. I manually analyzed the collected data, made assertions, tested the assertions against the data, and, in an exhaustive iterative process, repeated the process until I was satisfied that the data supported the assertions or were to be presented as disconfirming evidence.

*Analytic journal.* I created a running commentary that started in August of 2009 and continued through May of 2010 during the pilot study. My journal contains reflections on participants, descriptions of the data collection process, and responses to different analytic techniques as to how these tools impact the study. The journal allowed me to record significant events, such as my judgments of teacher behaviors, and processes for analysis. The journal of the research process incorporated reflexivity into data analysis by specifically tracking how I moved through each of the five steps of the data analysis process (Erickson, 1986). The journal as a reflective tool was also the primary mechanism for me to confront bias that may have been brought to the research study. Every person carries biases and assumptions that may affect the way he or she views the world and processes data (Erickson, 1986). Using the journal as a formal tool for reflection during the research process enabled me to spot trends where bias and assumptions were present. In the end, the journal also serves as an audit trail of the study (Maxwell, 2005).

*Analytic memos.* Throughout the research process, I needed to make sense of the data collected and the data analysis. Analytic memos served as a tool to systematically

engage an assertion made of the data site. The memos were written up immediately after data was collected to move me from the conceptual nature of data collected in the classroom or during interviews to the theoretical application of teacher expectations. I employed memos as a component of the five steps of data analysis and used them to generate assertions, substantiate them with evidence, and test them against the data I collected. Research by Charmaz (2006) and Strauss and Corbin (1990) indicate the importance of analytic memos in helping to move a researcher from data collection to drafts of the study. Erickson (1986) indicates memos are an appropriate forum from which to reflect on biases and make corrections that (a) organize thoughts, (b) make connections between interviews and observations, and (c) clarify themes emerging from the data. The memoing tool was used frequently to ensure the trustworthiness of my study.

**Changes in data analysis.** I made every attempt to craft a data analysis plan that best fit the proposed conditions of my research study. I did not change the coding scheme I proposed. However, I did rely more heavily on the 11 teacher behaviors than the four broad codes of appropriate and inappropriate differential expectations and deficit and dynamic thinking. I use the expectancy-conveying behaviors as more specific instances of evidence observed in classrooms and discussed during interviews and align them with the broader codes during the cross case analysis.

### **Trustworthiness**

Qualitative research is an objective account of subjective data and analysis (Kirk & Miller, 1986). The reader must evaluate my research through the quality of my data collection and analysis processes. Marshall and Rossman (2006, p. 200) provide a four-

part construct to evaluate the research presented and address assumptions through (a) credibility, (b) transferability, (c) dependability, and (d) confirmability. I structured the data collection and analysis in such a way that it communicates the highest amount of trustworthiness.

**Credibility.** Research is credible when the reader grants plausibility to an account of the findings. Erickson (1986) identifies three aspects of interpretivist research that should be considered to ensure research is credible: (a) provide a sufficient amount of data, (b) diversify the kinds of evidence presented, and (c) present disconfirming evidence alongside evidence in support of assertions with equal weight.

To provide a sufficient quantity of data, my study had a data collection period that spanned four months, collecting scores of hours of observations and interviews to analyze. My plan called for rigorous and systematic fieldwork to collect data, consistent with Erickson's (1986) methods of qualitative research design. I exited the research site only when enough data had been collected to answer the research questions. I presented raw data in the final study write-up when it added to the credibility of the research.

**Triangulation.** The research plan called for interviews and observations as the primary kinds of data collected in my study. I made use of historical data—collected personally and from other researchers—and documents produced by teachers in classrooms. The spectrum of data provided the ability to triangulate findings in data by searching the data corpus for trends and supporting those findings with multiple instances that suggest that the interactions were a part of the participant's normal behavior and not an isolated event. Throughout the project, I used the analytic journal as the primary

source of triangulation, making notes when different sources of data revealed patterns of interactions.

***Disconfirming evidence.*** I searched the data corpus when confronted with disconfirming evidence. Several connections in the evidence do not fit with the assertions I am making. Therefore, I present the inconsistencies alongside the data used to substantiate an assertion in both the case studies and cross-case analysis. The disconfirming evidence is presented with the same weight as the supporting evidence for all assertions.

***Member-checking.*** In my role as the researcher, I employed a member-checking technique to all interviews and for observations when they contained data that might warrant further explanation. I provided all interview transcripts to the participant and allowed him or her to make corrections and offer explanations or thoughts as needed. Developing a relationship with the participant based on trust was crucial to obtaining accurate data from interviews and observations.

***Peer debriefer.*** Throughout the study, I analyzed the data and made sense that led to assertions. A peer debriefer served as a check on the interpretation of data and analysis as I began to make sense of the data. I employed the same peer debriefer who had served in that capacity during the pilot study. She was familiar with the conceptual underpinnings and methodology used in both the pilot study and my study. As an advanced doctoral student who has taken three qualitative methods courses at the University of Virginia, she was a capable and trusted source of open and honest criticism. I met regularly with the peer debriefer, who acted as a sounding board for reflection and as someone who could challenge the interpretation of data. In addition to meeting

regularly to discuss observation and interview data, she joined me for the eighth week of observations at the research site. During the visit she checked the assertions I had made against her own observations and provided additional data that I used in my study.

**Transferability.** Ultimately, it is the reader of my study who must make meaning of the findings and determine how they might apply to another situation. A deep connection to the literature grounds the methods and findings of my study so that the reader will be able to determine the usefulness of my study to other research and practice (Marshall & Rossman, 2006).

The literature review from Chapter Two contains a comprehensive examination of the relevant literature and establishes a lens through which the data collected and analyzed in the study can be viewed. As I make connections between the literature and assertions, readers of my research can form their own conclusions about teacher expectations for minority students.

**Dependability.** Dependability is the construct that attempts to capture the ways the research study changes the research setting and the corresponding changes in design I used to compensate (Marshall & Rossman, 2006, p. 203). Dependability was accounted for in my study through the maintenance of an analytic journal, analytic memos, and peer debriefing. I checked for changes in the research setting frequently and maintained a record of how each tool was used to write a research study that maximized dependability.

**Confirmability.** In the post-positivist paradigm, researchers believe that they can confirm findings and reach some central understanding of how people make sense of the findings (Lincoln & Guba, 1985). Confirmability exists in a different form in interpretivistic qualitative research. In qualitative research, a study's reader must

determine whether the findings make sense and can be applied to another research setting. My role in the study was to create a sound methodological approach to study the problem and remain objective while taking notes, conducting interviews, and analyzing data (Marshall & Rossman, 2006).

Together, credibility, transferability, dependability, and confirmability comprise trustworthiness and add to the strength of my qualitative research study. Combined with the awareness that I brought personal biases and assumptions to the research study (Erickson, 1986), I have a number of ontological and epistemological tools to convey the findings of my study in a manner the reader, hopefully will find believable.

### **Researcher as Instrument**

As qualitative research employs the researcher as the primary instrument for data collection and analysis, biases must be addressed. I made assumptions based on these biases that could directly affect each stage of the research process. Erickson (1986) states that the researcher should directly address these biases.

The characteristics I brought to my research were likely as important as those of the teachers and students who were the targets of my research. As a white male entering a diverse school, I brought my experiences as a teacher to my own classroom as well as those in the current study. The school system in which I taught was one of the fifteen largest in the country, experiencing a consistently large growth rate for three decades. Many of the new students who moved to the school system were Black and Latino and were moving from larger and more crowded metropolitan areas like those of New York City and Washington, DC. During the four years I spent teaching high school technology courses, I saw a 40 percent increase in minority student makeup of my school. Although

many of the students succeeded in my class, a primarily project-based technology class, they struggled in their core academic courses, especially English and math. I was troubled by this pattern of student performance and it influenced my decision to engage teachers of minority students in the current study.

My training and experience in teacher training also influenced how I viewed the four teachers during classroom observations and interviews. I graduated with a master's degree in education in workforce education. I spent three of my four years as a teacher adjunct instructor in the college of education at a large public research university teaching technology courses to pre-service teachers and two years teaching professional development courses on effective ways to implement technology into instruction. My professional lens focuses on teacher instruction with technology and how teachers respond to diverse classrooms and influenced how I viewed the instructional interactions of the four teachers in my study.

Throughout the study, I engaged topics of particular significance where bias was introduced into the writing. One prominent area where bias was likely to occur was with my strong desire to pursue social justice. The readings from the critical race theory literature are laden with philosophic ideas that call for social justice.

My pursuit of social justice led me to believe that deficit and dynamic thinking are components of every teacher's interactions with students. Reflecting upon my own experience as a classroom teacher, I knew that I was not aware of race as a factor influencing my instructional practice. Throughout my data collection and analysis, I remained aware that I cannot expect to find deficit and dynamic thinking in classrooms

all of the time. I relied heavily on my peer debriefer, analytic journal, and dissertation committee to check for bias in my study.

I also believe some teachers are more effective than others and that teachers operating from a deficit mindset must change or leave the profession. My beliefs about teacher effectiveness presented challenges as I attempted to remain objective during data collection and analysis. If judgments about the teacher were presented rather than objective accounts of teacher expectations, the assertions and findings would be severely weakened. I struggled to remain objective in Erin's classroom. According to what I know about "effective classroom instruction" and appropriate teacher behaviors, I found her to be ill-prepared and generally unpleasant with students. I relied heavily on my peer debriefer to help me focus my assertions and analysis on teacher interactions. Any criticisms of instructional strategies that I include in the presentation of the data are required to accurately portray the effect of the instructional strategies on a teacher's ability to interact with her or his students.

During the last four years, I have worked as a researcher on the APCP. Much of my understanding of the nature of high achieving students and their teachers comes from the scholarship of the APCP's principal investigators. Their scholarship has shaped the APCP and my role within the program. As the primary person responsible for program logistics, I have frequent interactions with all program participants. These interactions shaped the views that any teacher participants of my study had of me.

I could not disjoin my previous relationships with teachers or the views I hold about education, nor should I have wanted to do so. These views informed and strengthened my role as a researcher. I sought a fair appraisal of all possible results of

my study by maintaining a close relationship with a peer debriefer who checked for instances of bias in my analytic journal and memos. The frequent communication helped keep me focused and as objective as possible.

### **Guiding Assumptions**

**Teacher expectations are significant.** The underlying assumption that presupposes every aspect of my study is that teachers form differential expectations for students. The extensive review of the literature finds two distinct beliefs about whether these influences exist. Ultimately, the research agrees that teacher expectations magnify achievement for minority students among other groups. Teachers are creating these differential expectations whether or not they acknowledge them.

**Teachers with underperforming minority students operate from a deficit perspective.** Teachers with inappropriate differential expectations who are considering the race of the student rather than assessment student skills are operating from a deficit mindset. The achievement gap is a multifaceted and complex phenomenon that has many root causes. I believe that deficit thinking contributes to the gap by communicating to minority students that it is acceptable for them to achieve less because they bring some sort of fault to the classroom.

**Teacher self-efficacy.** Teachers believe that they have the ability to convey positive expectations for minority students. Bandura (1991; see also Lock & Latham, 1990) argues that in goal aspirations, a component of self-motivation theory, that people choose what challenges to undertake and how much effort they are willing to endure in the face of difficulties. Those who doubt their abilities will turn away from goals, while those who have strong beliefs about their capabilities will redouble their efforts to master

the challenges (Bandura, 1999). Therefore, teachers who participate in the APCP intervention and stay in the program may be more likely to believe they can raise student scores.

**Movement in deficit and dynamic beliefs.** While I was primarily interested in the nature of teacher expectations, there was room for understanding how teachers deconstructed or reconstructed the expectations they hold for minority students. I assume that teachers can move from deficit thinking toward dynamic thinking as they make sense of the intervention program or some other influence that causes some sort of challenge to their beliefs. The development of teachers moving from deficit to dynamic thinking, first addressed in the pilot study, remains an area of interest for me.

It is important to note that the APCP intervention was not designed to measure any aspect of deficit or dynamic thinking. Similarly, it was not designed to move teachers from deficit to dynamic. However, I believe teacher movement may have happened due to some of the intervention strategies that cause teachers to critically examine their relationships with minority students.

**Apprehending deficit and dynamic thinking.** Deficit and dynamic thinking can be apprehended through sense-making theory (Coburn, 2001). To best capture teacher understanding of their expectations for minority students, I came to understand the nature of these teachers' interactions with their students and how they conveyed expectations. I then inquired how teachers determine their perceptions of students and how these expectations influence student performance. By spending extended time in the field observing and following up with teachers about what was observed, I explained these expectations through an ecological model (Bronfenbrenner, 1979).

## Considering Teacher Cognitive Processing

Before addressing the research questions and the supporting data, however, I will briefly describe a few of the unforeseen methodological challenges of assessing intent behind teacher behaviors that emerged during after-class conversations and interviews with participants before I address themes across all four teachers' case studies. In this chapter I will also discuss the nature of the trust that I built with teachers who provided information that was often both candid and unsolicited. Before I established trust and received information openly from my teacher participants, I spent several of the first weeks getting teachers to overcome the cognitive obstacles necessary to explain the intent behind their interactions.

The first and perhaps most perplexing methodological challenge I encountered once I entered the classrooms was getting teachers to communicate the intent behind their behaviors which I explain in detail throughout the current study. The nature of the research questions I asked as a part of my study required me to understand the meaning-making behind teachers' interactions with students. Although I had anticipated the possibility that I would need to establish trust with the teachers so that they would feel comfortable talking with me, I had been unprepared for each teacher's apparent inability to articulate the intention behind his or her instructional behaviors. To address teachers' inability to describe the intent behind their behaviors, I explored possible methodological approaches in the literature on cognitive expert function.

**Expert function.** Both behaviorists and cognitive scientists have explored mental and behavioral processes that take place in humans without deliberation (Feldon, 2007; Wegner, 2002). Because of limits in people's working memory, researchers posit that

some teaching goals are pursued through nonconscious mechanisms (Feldon, 2007). This suggests that teachers' information processing occurs on parallel paths of cogitation that employ both conscious, controlled thought and unconscious, automatic thought.

When I spoke with teachers before and after class, as well as during my initial interview, they had a hard time articulating responses to my questions, as many of their choices appeared motivated by automatic cognitive processes (Wegner, 2002) that had occurred unconsciously. My assumption that teacher behaviors were based on deliberate cognitive processes had thrown a wrench into my approach to apprehending teachers' meaning-making about their expectations. In response, I consulted with my dissertation committee, as well as a cognitive psychologist and qualitative methodologist, to help me develop new tools and interview protocols that eventually elicited responses from teachers based in the conscious and deliberative domain of cognitive processing. Below, I will briefly describe two of the more effective interview tools that I employed during data collection.

**Cognitive analysis.** To address the challenges of moving past teachers' expert cognitive functions (Feldon, 2007), I met with a cognitive psychologist to consider methods of obtaining data from teachers to help me understand their sense-making about expectations for students. Cognitive task analysis, a method by which the individual teacher selected a pattern of behaviors for me to focus on and provided feedback after a lesson, proved to be particularly helpful (Schraagen, Chipman, & Shute, 2000). For example, when I approached my teacher participants to determine whether they would like any feedback on their teaching, one, Donna, asked me to track the students to whom she was addressing questions and the frequency with which she interacted with students.

I therefore recorded all teacher-student interactions and reported my data back to her during our third interview.

Selecting specific instructional behaviors on which to focus helped teachers examine their conscious efforts to interact with students as well as the unconscious patterns they employed in the classroom. Because the behaviors I tracked were also linked to teacher expectations, I was able to get teachers to react to data that were consistent with the notions they held about their interactions with students or to discuss surprising trends. Teacher reactions to their behaviors appeared to be authentic and provided an opportunity for teachers to discuss their behaviors with reference to how they might improve their practice. The success of the reactions associated with cognitive task analysis led me to explore other, more direct means of probing teachers' perceptions of their practice, as described next.

**Reflective practice.** My success in getting teachers to respond to patterns of interaction with students led me to explore reflective practice as a method for constructing deeper explanations of more complex behaviors. The third and final interview protocol I developed contained multiple opportunities for each teacher participant to respond to events I had observed in his or her class. During the development of interviews, I relied heavily on the theory of reflective practice, which uses an iterative process of observing behaviors and making sense of those behaviors through reflection (Schön, 1987). During the final interviews, I used teacher responses from previous interviews about when they approach students combined with several weeks' worth of interaction patterns to provide the medium for reflection. In additional sections of the interview, I pointed out specific instances and patterns of interactions that

seemed to be related to the race or gender of the student. The result of this interview strategy yielded the longest and most substantive interviews with each of my teacher participants. The results of this final interview are presented in this chapter, which compares responses across the four teacher participants in my study.

**Teacher interview responses.** My second and third research questions explored teachers' sense making of expectations for their students. One of the challenges I foresaw and hoped to overcome in my study was the authenticity of teacher responses. If my questions were structured improperly, teachers might rationalize the intent behind their behaviors, lie to me about their thoughts about particular students, or deflect my questions with educational jargon. To combat the possibility of inauthentic responses, I employed a prolonged period of data collection as a method for establishing trustworthiness.

A prolonged period of time working with my teacher participants was one of the critical design elements of my study. Part of the justification for this prolonged data collection period was to provide ample opportunity to observe the normal classroom interactions between teachers and students and fully capture the ebb and flow of lessons during the initial weeks of the school year as teachers formed or renewed relationships with their students. Spending this longer period of time also allowed me to see which behaviors remained stable over 10 weeks versus those that changed.

A secondary justification for spending 10 weeks with teachers was to establish a relationship based on trust. As I formed relationships with teachers, they began opening up about their teaching. Each of the four participants began to offer insights about their intent behind their behaviors during conversations from previous class. I was invited to

stay in the classrooms after classes, and in several instances teachers sought feedback from me about their instruction. The relationships based on trust that I developed with my teacher participants allowed me to observe interactions and gather data that were useful in understanding what these teacher-student interactions meant to the teacher.

### **Methodological Limitations**

Although I have made every attempt to craft a study with sound methodological approaches to answer the stated research questions based in relevant literature, my study is not without its limitations.

**Sample size and lack of generalizability.** The APCP constitutes the parameters of my study, both in the population and in methodological scope of designing research. Because I worked with a four-teacher sample from two schools within one school system, generalization to a larger population was not possible for a number of reasons. However, generalizability is not typically an element of concern with interpretivist research. Consistent with qualitative research conducted with Erickson's (1986) interpretivist paradigm, the reader will need to make meaning of the study in the context of her or his own understanding. Instead, the research attempts to explain how these interactions are representative of other actions that may occur elsewhere.

I used a variety of methodological approaches such as an analytic journal to serve as an audit trail, analytic memos to structure my meaning-making process, and a comprehensive account of the data collection, analysis, and findings to produce a final report. Using case studies to describe the nature of teacher expectations for minority students was an appropriate method because of the level of detail in the study required to convey the research findings.

**Contexts.** Conducting my study within the contexts of the APCP offered many advantages. An appropriate pool of participants was readily accessible, and all agreed to the terms of the intervention program. Working with teachers on the research questions for my study fell under the purview of the approved IRB protocol and required only minor modifications to increase the number of interviews and observations that could be conducted in a calendar year. Working in these contexts presented challenges as well.

The primary challenges my study faced were in the form of the constraints of conducting a study within a study. Because my study fell within a larger study, access to teachers was limited per agreement with the school system, and APCP principal investigators had to approve all aspects of my study. Examples of these limitations include the population of teachers and topics that could be addressed. Specifically, I had far less freedom to select participants because the population of teachers available in the APCP has been identified. Additionally, I had less freedom in the scope and depth of questions that I could ask teachers, as the APCP researchers did not wish to risk a participant's deciding to leave the project. The sensitive nature of how teachers interact with their students was an area that required a relationship of trust between the teacher participants and me, as well as careful analysis of teachers' comfort with participating in both my research study and the APCP.

**Teacher characteristics.** Teachers who agreed to participate in my study may have been more inclined to operate from a dynamic perspective than those teachers who were not invited to participate or who may have refused and never joined the project. When the teachers are identified for the APCP, they are informed of the two-year intervention commitment as well as the substantial efforts required to complete their

participation in the intervention program. Teachers who are willing to engage in such an undertaking may have characteristics that are not indicative of the general teacher population at the participating schools or in a larger population.

These limitations should be viewed as areas to consider when conducting the research and not as factors that will lessen the rigor or influences of my research study. At the completion of the data collection period, I wrote a contextualization of the research site to establish a conceptual framework for how teachers make sense of the intervention program and teacher expectations. This description of context is presented in chapter 4.

## CHAPTER 4

### A PORTRAIT OF CONTEXTS

#### **Introduction**

My study examines the sociopsychological components of teacher expectations in the context of race. Accurate portrayal of the formation of expectations for students of the four teachers studied requires a full description of the context in which the teachers and students operate. The characteristics of the school system, schools, and students should be considered in the examination of potential factors that impact the formation of teacher expectations. Chapter Four describes these characteristics of the school system, schools and students for the data on the four teachers in the study. Sam and Donna are teachers at Hoynes High School, and Erin and Claudia are teachers at McGary High School. I will present the data I collected on each teacher in Chapters Five through Eight.

#### **Description of Bartlet Public Schools**

The Bartlet Public School System (BPS) is a large urban school district that serves students from a military base, among others from the local community. The school system has a high proportion of minority (46.9%) and low-income students (29.9%). The achievement gap exists in AP exam performance between majority and low-income minorities in both Hoynes and McGary High Schools. No district-wide programs designed to raise minority students' achievement in AP classes were mentioned by

teachers or students. Although several schools were participating in state and nationally funded professional development programs, which I will discuss in this chapter, few perceivable district-level influences on teacher instruction and interactions with students permeated into the classrooms I observed. Descriptions of the contexts in this chapter, therefore, will focus on both the student and teacher population in the school system. I will then discuss the contexts of two schools and their students and teachers in more detail, as well as professional development programs that may have caused teachers to behave in the manner I observed in their classrooms. All district-wide student and teacher data in this chapter are from the 2009-2010 school year unless cited differently, which is the most current available and comes from the BPS website.

### **The Educational Mission, Philosophy and Vision of the Bartlet Public School System**

BPS presents a multifaceted mission statement for its students. At the top of the district's webpage is prominently displayed, "The [Bartlet Public School System], in partnership with the entire community, will empower every student to become a life-long learner who is a responsible, productive and engaged citizen within the global community." The BPS has developed a strategic plan, easily accessible on the school system's website, where school leaders target five key areas to guide programs and school initiatives in realizing the mission statement. The school system's seven-year strategic plan lays out five strategic objectives and measures to accomplish an overarching goal of having a 100% graduation rate by 2015: (a) engage every student,;(b) implement balanced assessment: (c) improve achievement for all student groups: (d) create opportunities for parents, community, and businesses: and (e) optimize the

competencies of school resources. Encouraging teachers to engage in initiatives like APCP and other interventions designed to increase minority student achievement helps teachers to advance several of the school system's strategic objectives, but especially the third objective, which reads, "Each school will improve achievement for all students while closing achievement gaps for identified student groups, with particular focus on African American males." BPS's commitment to closing the achievement gap for identified groups extends to the gap in performance by minority and low-income students on many of the AP exams.

For BPS to achieve the goal of addressing the achievement gap for all student groups, the school system presents multiple suggestions for improving student learning. BPS is especially interested in designing and implementing processes to ensure that its students are prepared for transition to the next school level. This means ensuring that graduates have a solid foundation for college success. Success on AP exams is one efficient means of accomplishing this aspect of their strategic goal (Geiser & Santelices, 2004).

Not all student populations experience the achievement gap in AP classes equally and the school system is diverse in its overall makeup of students. In the following sections I will address characteristics of the student population and teachers in the school system.

### **The Bartlet Public School System's Student Population**

The students of the BPS are diverse. The literature review in Chapter Two revealed that race, gender, and SES were the student characteristics most likely to be

susceptible to differential teacher expectations (Weinstein, 2002). I highlight each of these characteristics as well as three related characteristics in the sections that follow.

**Race.** Forty-four percent of the students in BPS are minority students.

Table 4.1

*Racial makeup of the Bartlet Public School System*

Race	Percentage
White	53.1%
Black	24.6%
Latino	8.8%
Asian	5.6%
Native Hawaiian/Pacific Islander	0.5%
American Indian/Alaska Native	0.4%
Mixed Race	7.1%

Overall, the schools in my study are far more diverse than the district average. The racial data for Hoynes and McGary High Schools have nearly 60% of their students identifying as minority. The students in each of the four teachers' classes that I observed reflect the overall demographic representation of each school, making it an important student characteristic to consider when examining teacher expectations (e.g., Haller, 1985; Leacock, 1985; Ogbu, 2003, pp. 286-287; Rist, 1970; Steele, 1997).

**Gender.** According to the literature on expectations, gender can play an important role in specific subject areas (e.g., Eccles & Midgley, 1990; Graham, 2001). The decline of girls' enthusiasm for math is often cited in the literature (e.g., Doherty & Conolly, 1985; Jussim, 1989; Jussim & Eccles, 1992), while boys are typically rated lower in reading than girls (Palardy, 1969). With observations in class where reading played a central role in instruction and some teachers mentioning gender as a

characteristic that may affect instruction and teacher expectations, noting gender in the classrooms becomes a relevant characteristic in theory and practice.

Table 4.2

*Gender Makeup of the Bartlet Public School System*

Gender	Percentage
Female	48.9%
Male	51.1%

The percentage of gender in Table 4.2 was not reflected in the four teachers' classes I observed, which averaged just 43% males. In fact, the AP Human Geography class was disproportionately male (71%), and more advanced courses with older students tended to have more female students, with the highest percentage of females occurring in the AP Comparative Government class at 75%. During the course of my study, I was able to track information about race and gender during interactions between students and teachers.

**Socioeconomic status.** Race and gender are relatively easy to note when observing classrooms. Identifying students who are from lower-SES families is more difficult to identify. BPS has a wide range of students from diverse economic backgrounds, with 27% identified as low-income students, McGary and Hoynes High Schools have relatively similar numbers of economically disadvantaged students, with 31% and 22%, respectively. State ranks for the percentage of students receiving assistance are not important in their own right, but they provide a frame of reference for considering how a high percentage of low-income students may affect students at Hoynes and McGary High Schools.

Overlap between those students classified as racial minorities and low-income may overlap. Student SES information is considered confidential by the school district, and identifying specific students who are low income at that point in the school year was not possible for me. However, teachers learn which students are low-income in the early spring, when students register for AP exams because the state pays for students who qualify for federal Free and Reduced Lunch programs. Teachers are told which students will not be required to pay for their own exam registration fees. From that point in the semester until students take the AP exam, teachers interact with students knowing who is labeled low-income.

I was unable to specifically account for other student characteristics that may have been important as well. In addition to race, gender, and SES, other student characteristics may make a student susceptible to teacher expectations in AP classes.

**Other student characteristics.** Although my dissertation focuses on student characteristics that may cause student achievement to be affected by teacher expectations, several other factors may also play some role in student performance on AP exams. I will briefly discuss each of these student characteristics to give additional context to the student makeup of the school system.

Table 4.3

*Other Characteristics of BPS Students*

Characteristic	Percentage
Limited English Proficiency	1.6%
Migrant	<0.1%
Military Family	~25% <sup>a</sup>
Gifted	12.0%
Students with Disabilities	10.9%

<sup>a</sup> Military family membership percentage is only publicly available for Hoynes High School.

Limited English Proficiency students are classified by the district as those students requiring structured language support that is not associated with a learning disability; this represents a very small percentage of students. Additionally, the number of migrant students in the school district—a population of students typically associated with English Language Learners—is negligible in the context of my study, as I saw no instances of students classified in either category in any of the AP classes I observed.

Conversely, military family status was commonly and openly discussed by teachers and students in the schools I visited. Membership in military families is often associated with low-income status, as students receive additional types of federal aid through various school programs.

AP courses often represent the de facto gifted curriculums in many high schools, which was the case for each of the high schools in my study. The teachers in my study were often aware whether students were formally classified as gifted and were quick to point it out to me when explaining their expectations for students. Conversely, teachers did not indicate that any of their students had been formally classified as having learning

disabilities. Two of the teachers even mentioned that they typically did not have any students with learning disabilities in their AP classes.

Although identifying specific students with each of these characteristics was not possible in my study, teachers were aware of the needs their students might face. During interviews and after class conversations with teachers, I heard comments regarding student characteristics that might affect how teachers convey expectations. I address several of these instances in the case studies in the following chapters.

**Advanced Placement exams.** Bartlet Public Schools is located in a state where the number of Latino and American Indian students who took AP exams was recognized by the College Board. The recognition was in response to the state's initiatives in 2010 that increased the number of minority students who took AP exams proportionate to the number of students in the racial minority groups who graduated from the BPS each year. The percentage of Black students who did not take the exam is the same proportion as other minorities. However, these other minority groups were signing up for the exam in higher numbers compared to a decade ago.

Students in the BPS took 7,212 AP exams in 2009-2010, up consistently in each of the past ten years. The school system does not report specifics on minorities who take the AP exam, but based on historical AP exam information obtained by the APCP, Hoynes and McGary high schools have modestly increased the number of minorities taking the AP exams in 10 subject areas over the past five years. The minority students passing the AP exams in these same 10 subject areas have also shown modest increases over the past five years. However, a majority of minority students are not receiving passing AP exam scores.

## **Bartlet Public School System Teacher Population**

Although the BPS teaching workforce has some racial diversity, it is not reflective of student racial diversity. Of the 5,742 teachers in the BPS, nearly three quarters are White.

Table 4.4

### *Teacher Racial Characteristics in the BPS*

Race	Percentage
White	74.99%
Black	18.53%
Latino	2.46%
Asian	3.50%
American Indian	0.53%

Although demographic data are not specifically available for each school, an examination of faculty racial characteristics would indicate that the district-wide demographic statistic is comparable to the demographics for the schools I studied. Three of the four teachers in my study are White.

## **District Programs for Addressing the Achievement Gap**

The BPS has stated it holds a deep commitment to addressing the achievement gap and helping all of its students prepare for success after high school. The third strategic planning goal targets the achievement gap among different student groups. One key student demographic that is specifically highlighted in the school system's strategic planning objectives is Black males. Multiple assessment briefs that were produced by the BPS Department of Research, Evaluation, and Assessment (DREA) and posted on the BPS website focus on the potential influences of teacher expectations and perceptions for addressing the achievement gap. Specifically citing literature on expectations and related theories, such as stereotype threat, the school system acknowledges that expectations

based on race may be a problem. District assessment briefs posted in the spring of 2009 also addressed teacher quality and lack of culturally responsive instruction as educational components within the school system that affect the achievement gap. After accounting for teacher characteristics, expectations, and instructional strategies as factors that may be contributing to the school system's achievement gap, the DREA recommended that changes be made to the expectations, standards and instructional strategies.

**High standards and high expectations for all students.** In an assessment brief published in 2009, BPS specifically cited programs targeting Black males. Although the district did not include teacher expectations in the report, they did address expectations as the school level. In the brief, the school system recommended participation in PSAT and AP courses. In addition to increasing access to AP classes, they recommended support programs such as study circles to help address the disparity in enrollment and performance on AP exams. The recommendations for increased enrollment with added support structures match the goals of the APCP. No other programs are listed on the school website, suggesting that the school system is targeting the achievement gap in AP classes.

**Instructional strategies.** District leaders also acknowledged the disproportionate ratio of minority teachers to minority students, which suggests that Black students are unlikely to come into contact with Black teachers who might understand the cultural challenges that Black students face. Citing relevant literature for culturally responsive instruction (e.g., Howard, 2001) the school system recommended that teachers make efforts to align their lesson plans to incorporate cultural discourse patterns, phrases, face-to-face interactions, and vocabulary. Adapting instruction to include culturally

responsive instruction has led to closing the achievement gap in high-performing, high-poverty schools (e.g., Carter, 2000; Mathis, 2005) and the school system hopes programs addressing changes to instruction in the BPS will have similar effects. However, the school system does not have any programs listed on its website that suggest that such culturally relevant instruction programs are being implemented.

The BPS lists all research-based programs on the school system's website and includes program evaluations when available. After reviewing the programs listed for the 2008-2011 school years, I noticed that very few directly affected either Hoynes or McGary High Schools. Several small-scale reading programs were in place at McGary and Hoynes's feeder schools. One program at a feeder elementary school for McGary High School that had a high degree of racial diversity and large low-SES student population employed a researched-based reading initiative called Fluency Reader's Theater during the fall of 2008. The intervention program was an eight-week intervention requiring 45 minutes of class time for fourth-grade students designed to raise reading scores.

The BPS conducts several program evaluations each year through the DREA. Evaluations of the district's gifted program, middle school academic support program, and other academic support programs all found that Black males and students receiving federal Free and Reduced Price Lunch assistance were generally underserved through the district programs and recommended changes to address the districts achievement gap. In addition to these specific programs, the school system released an update of the district's progress in closing the achievement gap for Black males. During the 2011-2012 school year, the scores for high school Black males had increased on end-of-course assessments

by 0.5% over five years. However, dropout rates in the district rose from 2% to 3.3% during the same period. BPS stated on the district website that the increase in dropouts may have been related to the Annual Yearly Progress (AYP) benchmarks for Black males, which dropped from 100% in the 2006-2007 school year to 51.9% in the 2011-2012 school year. However, an increase of 5.2% in high school Black males' AYP reading assessments indicated that the reading programs offered in schools may be effective.

BPS granted me access to the teachers in the first cohort of APCP but specifically denied permission to speak to school administrators or other teachers, severely limiting my ability to gather information about programs. Because my access was limited, I relied on information about school programs provided by teachers and the information I was able to obtain from publicly available sources. I found the majority of publicly available information on academic programs designed to address the achievement gap in AP classes or related programs on the school website.

The number of district-wide programs, as well as programs offered at the school level designed to address the achievement gap—especially for Black males—indicates that there is a commitment at all levels of the BPS to close the achievement gap. These programs are designed to create a cultural, linguistic, and socioeconomic process for pursuing the strategic objective of equity in the BPS.

One such program is the Critical Conversations about Race (CCR) program that is run by the BPS Office of Equity Affairs. The staff members of this office moderate discussion among faculty at various schools around the district about racial issues within the buildings and across the division. Community organizations work with the school

district to provide services for Black males who have had trouble in their respective schools. The school system is developing a Response to Intervention Plan (RTI) with training initiatives for school personnel. As a tiered approach, the RTI will provide students with interventions and support in academics.

In addition to programs operating alongside the research-driven CCR, the district has also initiated outreach and mentoring programs such as “Men of Faith,” a program targeting Black males in elementary grades who have been suspended for poor behavior.

Along with programs designed to close the equity gap, the school superintendent created an Office of Equity Affairs and hired a full-time director. This person plays a major role in shaping the strategic plan to address equity and closing the achievement gap in the BPS. During her three-year tenure as the head of equity affairs, the director initiated the CCR program and established the BPS Equity Council, an organization that works with the district human resources department recruit and retain a diverse workforce.

Although the district teacher, student, and academic program information paints a broad contextual picture, a close examination of each high school will provide more relevant information as to influences on teachers and students.

### **Hoynes High School**

As an older school, Hoynes High School has seen years of gentrification. Sam, one of the four teachers with whom I worked, attended Hoynes as a student 20 years ago and described it during its “golden years” as high-achieving in academics and athletics. Sam’s perception is that the ensuing years have seen a decline followed by a recent resurgence in the school’s belief that success is possible in academics and extracurricular

activities. When I walked by the trophy display cases in the main lobby of the school, many were from several years ago. The school's mission, which is posted on the school's website, states, "Our mission at [Hoynes] High School, in partnership with students, parents, and community, is to provide a safe and nurturing environment which fosters both educational excellence and the development of 21<sup>st</sup> century learners and citizens." The atmosphere in the school appears to support the notion that teachers and school leadership are focused on increasing academic achievement.

Hoynes seems to focus on building the academic success of its students rather than celebrating extracurricular activities. The information presented on the front page of the school's website highlights PSAT scores, programs to help students in AP English, and programs to get students involved in vocational and music classes. When students, teachers, staff, and visitors walk into the school, they are greeted by an enormous poster from the College Board recognizing the school for its participation in AP classes. Schoolwide announcements occurring after the first class period consist of as many announcements for after-school study sessions and teachers who will be staying after to facilitate them as reminders of sports and club activities: Academics are emphasized first, followed by extracurricular activities.

Both Sam and Donna stay after school each day to support students who require extra help on assignments. They are both teachers in my study from Hoynes are heavily involved in extracurricular activities as well as teaching AP classes. Both Sam and Donna commented during interviews that many of their subject-area colleagues were coaches and student organization sponsors. Walking through the hallways and listening to teachers, administrators, and staff speak with students, I observed multiple examples of

school employees working to build a positive school climate. Students are allowed to enter the school building 20 minutes before the start of the school day. The female staff member in charge of greeting and registering visitors cheerfully spoke with students when they entered the school. As students walked by her desk, she greeted many students by name and commented that she was glad that they were at school.

Administrators walked through the hallways as students spent the time before the first class socializing with other students. One administrator near the entrance of the hallway where Sam's classroom was located interacted with students. He asked students how they were performing in their classes, whether they would be attending the football game that week, etc., and made more general inquiries into the students' moods. Most teachers stood outside their doors and greeted students as they entered classrooms and appeared to establish a positive tone for starting the school day. All of the school personnel appeared to be out in the hallways and interacting with students to establish a positive climate.

### **Significant Recent Events**

When I visited the teachers at Hoynes High School, I was interested in observing interactions between teachers and students. Every school has a number of contextual factors that influence the interactions of teachers and students. However, I was focused on factors that appeared to have some sort of impact on the frequency and manner of teacher-student classroom interactions. Two significant events occurred during the 10 weeks I was present in the schools that required additional attention: the integration of new classroom instructional technology and the school's membership in a small cohort of schools joining an initiative to increase minority student achievement.

**Technology.** During the week before the new school year began, all teachers received Promethean smart boards in their classrooms, which disrupted the instructional practices of many teachers. Both teachers at Hoynes High School that I observed struggled with the boards' technical aspects worked to identify ways to incorporate the technology's capabilities into their instruction.

Throughout the 10 weeks of observation, only one of the teachers, Sam, used the integrated multimedia elements of the Promethean board. Donna occasionally used the smart pen to write on the board, but for all other instruction, she used the technology as a fancy means of displaying PowerPoint presentations in support of existing course lectures.

**Minority Student Achievement Initiative.** Hoynes High School was one of three high schools in the country selected as a site to test an initiative designed to increase minority students' achievement in schools with a high proportion of students from military families. The program offered additional funding to the schools for professional development and equipment and provided cash incentives to students and their teachers who performed well on AP exams. The high profile program was championed by Michelle Obama and Jill Biden and funded through the National Math and Science Initiative (NMSI), a private agency that awarded funds and instructional support to schools with high numbers of minority and low-income students.

Donna was the only teacher in my study who was also participating in the NMSI initiative. She had created online lessons for students to complete at home, offered time for students to work on AP assignments two or three days per week after school, and attended Saturday professional development sessions once a month. However, there was

no direct mention of the program during the 10 weeks I observed her class, and in private conversations after class she expressed resentment for being included in another professional development commitment. The professional development opportunity draws teachers' attention to the student demographics at Hoynes High School by encouraging minority students to take AP classes and pass the AP exams.

### **Hoynes High School Student Demographics**

Data from the APCP Program shows that the pass rate on AP exams for minority students at Hoynes High School is well below the national and state averages. Multiple reasons can be offered for the gap in performance. The theoretical frame based in critical race theory would suggest that students' race and socioeconomic status may be components leading to lower performance on AP exams. The high proportion of low-income minority students in the classes I observed provided a suitable sample to examine interactions situated in the context of race.

**Racial makeup of Hoynes High School students.** Hoynes High School's student body includes 58% minority students.

Table 4.5

*Hoynes High School Students by Ethnicity*

Race	Number (Percentage)
American Indian	8 (0%)
Asian	119 (7%)
Black	823 (45%)
Latino	101 (6%)
White	718 (40%)

The large percentage of Black students in the school, along with smaller percentages of Latino and Asian students, points to important racial considerations.

When defining races in Chapter One, Asian students were not included among the

minority students who were associated with the AP achievement gap when looking at national performance figures. However, data collected by the APCP suggests that the population of Asian students at Hoynes may not be achieving at levels equal to national averages; most Asian students at Hoynes who were in the first cohort of the APCP scored a 1 (out of 5) on the AP exam. Race is an important factor to consider when examining the achievement gap in AP classes.

**Socioeconomic status of Hoynes High School students.** Calculating the SES for schools can be difficult because there are few indicators publicly available. One indicator commonly used is the number of students qualifying for Free and Reduced Lunches (FRL; Virginia Department of Education, 2012). These statistics tend to be more accurate at elementary schools, where there is less social stigma associated with registering for the program (New America Foundation, 2012).

Information on which students are considered to be low-SES cannot be disaggregated from student race due to privacy laws. However, the high percentage of students who are classified as being from low-income families is important to consider when studying the achievement gap.

Table 4.6

*Hoynes High School, Feeder Middle Schools, and Feeder Elementary School Students by Lunch Assistance*

Service	Number (Percentage)
Hoynes Free Lunch Eligible	401 (22%)
Hoynes Reduced-Price Lunch Eligible	160 (9%)
Hoynes Combined Free or Reduced	561 (31%)
Hoynes Rank in State: 40 of 313	
Hoynes Feeder Middle School #1 Combined Free & Reduced Lunch: 36%	
Hoynes Feeder Middle School #2 Combined Free & Reduced Lunch: 42%	
Hoynes Feeder Elementary School #1 Combined Free & Reduced Lunch: 47%	
Hoynes Feeder Elementary School #2 Combined Free & Reduced Lunch: 51%	
Hoynes Feeder Elementary School #3 Combined Free & Reduced Lunch: 65%	
Hoynes Feeder Elementary School #4 Combined Free & Reduced Lunch: 36%	
Hoynes Feeder Elementary School #5 Combined Free & Reduced Lunch: 64%	
Hoynes Feeder Elementary School #6 Combined Free & Reduced Lunch: 62%	
Hoynes Feeder Elementary School #7 Combined Free & Reduced Lunch: 19%	
Hoynes Feeder Elementary School #8 Combined Free & Reduced Lunch: 49%	
Hoynes Feeder Elementary School #9 Combined Free & Reduced Lunch: 52%	
Hoynes Feeder Elementary School #10 Combined Free & Reduced Lunch: 45%	
Hoynes Feeder Elementary School #11 Combined Free & Reduced Lunch: 35%	

*Note.* Some elementary schools feed into multiple high schools.

Although the percentage of students requesting federal assistance through the school lunch program is less than one third of the high school enrollment, it could be considered a large percentage of students. The decline of students requesting services is often attributed to the social stigma of FRL, which becomes more important to older students (New America Foundation, 2012), and the schools in my study seemed to follow this trend.

Considering the student and teacher characteristics of Hoynes High School will be useful when discussing the two teacher vignettes presented in Chapters Five and Seven. Although McGary High School has many similar school, teacher, and student

characteristics, considering how the schools differ is important to establish contexts for the two McGary teacher vignettes described in Chapters Six and Eight.

### **Description of McGary High School**

In contrast to Hoynes High School, McGary High School is in its 11<sup>th</sup> year; it has a modern building located in a residential area that is still being heavily developed. As a larger school with 700 more students than Hoynes, McGary has earned many recent athletic championships and has higher student achievement at all levels. The main lobby is filled with bulletin boards that highlight student scholarships, class members of the week, and recent awards and honors. When I arrived at McGary, the entrance was lined with signs that celebrated recent district and state championships in athletics and academics. The school's mission statement emphasizes a balance between academics and extracurricular activities:

The mission of [McGary] High School, in partnership with family and community, is to provide a balanced and diverse educational experience, through the integration of academics, electives, and technology to allow students to discover and develop their full potential for performance and success.

The school website boasts McGary's status as being named by *The Washington Post* as one of the top 6% of all U.S. high schools in 2011, although no other mention of academic or other school achievements is listed.

In addition to school events and characteristics, the students in the school have a different demographic breakdown, which includes a greater proportion from higher-income families, as defined by students who receive FRL funding. Like Hoynes, events

that occurred at McGary during the school year that included my study are important to consider when establishing contexts for teacher-student interactions.

### **McGary High School Student Demographics**

McGary High School has the same overall percentage of minority students as Hoynes, but upon closer examination, the student populations are not equivalent. I will briefly describe the student characteristics at McGary to establish how the contexts of teacher-student interactions may differ between the two schools.

**Racial makeup of McGary High School students.** Although the racial makeup of McGary High School has the same percentage of minority students as Hoynes High School, only 46% of the total number of students in the school are Black, Latino, or American Indian, which are the groups typically associated with the achievement gap. Although the Black and Latino student populations are roughly the same, Asian students at McGary do not come from the same countries as Hoynes and on average, score higher on AP exams than their Asian counterparts at Hoynes High School. I was unable to obtain data that would report scores for Black and Latino students at Hoynes and McGary High Schools; the school system will not release schoolwide data on specific AP courses because that would identify the performance of individual teachers. Data from 2009-2010 for the six experimental and control high schools participating in the APCP reveal disparities between Latino and Black students on AP exams. However, I could not disaggregate the data any further, based on the reports issued by the school system.

Table 4.7

*McGary High School Students by Ethnicity*

Race	Number (Percentage)
American Indian	9 (0%)
Asian	283 (13%)
Black	872 (40%)
Latino	134 (6%)
White	880 (40%)

Considering the subtle differences in student populations is important, because both teachers in my study from McGary High School have large numbers of Asian students in their AP classes. Erin, for instance, frequently drew attention to a specific group of Asian students in her classes. This attention has important implications for the interactions between Erin and the students in her classroom. In addition to student race, the subtle difference in socioeconomic status also plays a role in establishing the contextual factors for each high school.

**Socioeconomic status of McGary High School students.** The SES of students at McGary is slightly higher than the students at Hoynes. Although McGary is only a few miles away from Hoynes, the newer high school is in an area filled with new housing developments; it seems evident that McGary is located in a more economically vibrant community.

Table 4.8

*McGary High School Students by Lunch Assistance*

Service	Number (Percentage)
McGary Free Lunch Eligible	317 (14%)
McGary Reduced-Price Lunch Eligible	164 (7%)
McGary Combined Free or Reduced	481 (22%)
McGary Rank in State: 48 of 313	
McGary Feeder Middle School #1 Combined Free & Reduced Lunch:	31%
McGary Feeder Middle School #2 Combined Free & Reduced Lunch:	27%
McGary Feeder Elementary School #1 Combined Free & Reduced Lunch:	13%
McGary Feeder Elementary School #2 Combined Free & Reduced Lunch:	55%
McGary Feeder Elementary School #3 Combined Free & Reduced Lunch:	65%
McGary Feeder Elementary School #4 Combined Free & Reduced Lunch:	8%
McGary Feeder Elementary School #5 Combined Free & Reduced Lunch:	15%
McGary Feeder Elementary School #6 Combined Free & Reduced Lunch:	62%
McGary Feeder Elementary School #7 Combined Free & Reduced Lunch:	49%
McGary Feeder Elementary School #8 Combined Free & Reduced Lunch:	39%
McGary Feeder Elementary School #9 Combined Free & Reduced Lunch:	13%

*Note.* Some elementary schools feed into multiple high schools.

The higher proportion of students coming from families who are not reliant on FRLs is an important factor to consider for the context of student-teacher interactions in AP classes.

### **Description of Students in the Study**

#### **Racial Makeup**

I observed one AP class for each of the four teachers in my study. The racial makeup of students in these classes was somewhat representative of the larger racial compositions in schools. Both Sam and Erin’s classes were representative of their schools’ respective demographic breakdowns, while Donna and Claudia’s classes were quite different, with lower percentages of White students than in the student body as a whole. I also identified the gender of students in the event I observed teachers interacting with students differently based on whether a student was male or female.

Table 4.9

*Teacher's Student Participant by Ethnicity (number and percentage of students in observed classes)*

	Sam U.S. History		Erin Human Geography		Donna Biology		Claudia English Language	
Asian Females	0	0%	1	4%	0	0%	5	20%
Asian Males	1	6%	2	8%	1	5%	6	24%
Black Females	5	31%	3	12%	8	38%	2	8%
Black Males	1	6%	6	24%	4	19%	0	0%
Latino Females	1	6%	2	8%	2	10%	3	12%
Latino Males	1	6%	1	4%	3	14%	1	4%
White Females	4	25%	2	8%	2	10%	4	16%
White Males	3	19%	8	32%	1	5%	4	16%
Class Totals	16		25		21		25	

The difference in proportion of minority students versus the school percentages mattered very little. Data from the College Board (2010) indicate that three of these courses were among the most common AP courses taken during the 2009-2010 school year: AP U.S. History (#1), AP English Language (#3), and AP Biology (#6). At Hoynes High School, only one section of AP Biology was offered, a low figure in contrast to the high national enrollments. AP Human Geography was taught multiple times a day in both Hoynes and McGary High Schools, yet was not recognized as a high enrollment AP course.

Table 4.10

*National Student Participation by Ethnicity*

	U.S. History	Human Geography	Biology	English Language
Asian	12.1%	10.8%	18.7	11.2%
Black	7.6%	10.4%	6.9%	8.6%
Latino	12.6%	13.1%	10.5%	14.5%
White	60.3%	57.5%	56.4%	58%

*Note.* Data from the College Board, 2011b.

Table 4.11

*National Student Participation by Gender*

	U.S. History	Human Geography	Biology	English Language
Females	54%	55%	58%	63%
Males	46%	45%	42%	37%

*Note.* Data from the College Board, 2011b.

Making direct comparisons between the classroom and national participation figures is not possible for two key reasons: (a) the College Board does not release raw numbers of students categorized by race and gender in their annual report and (b) the student participation data for Hoynes and McGary high school only represent the classes I observed and not all demographic information for the school, which is not publicly available. The data presented in Tables 4.10 and 4.11 allow for a rough approximation for who took the courses nationally and how they compared to individual classes at Hoynes and McGary. This demographic information informed my study, which focused on teacher interaction with minority students; the diversity in each classroom was sufficient for me to observe a wide array of classroom interactions.

## **Teachers' Prior Experience with Students**

Three of the teachers I followed had previously taught a majority of the students in the AP classes I observed. Sam had taught all but six students in his AP U.S. History class. Erin had taught all but three students in her AP Comparative Government class; two of the latter traveled from a neighboring high school, and the third had not taken the prerequisite AP Human Geography offered at McGary?, which is also taught by Erin. Donna had taught all but four of her students in the general biology course the year before. Accordingly, those teachers were able to consider instructional assessments from the previous year when interacting with the students for the first time in their current classes; interactions between students and teachers who know one another are different from interactions between people who do not. During the first weeks of school I talked to each teacher to determine which students they had worked with before. For some teachers, it was apparent they had taught some of the students before, but the familiarity teachers enjoyed with some students was not apparent with all of the students they were teaching for a second time.

For example, when I observed Erin's AP Comparative Government class, she stated that she had taught all but three of the students during the previous year in AP Human Geography. During the fifth week of my time working with Erin, she asked me to begin observing her AP Human Geography Class instead of the AP Comparative Government class. In her AP Human Geography class, all of the students were ninth graders and all were new to her. The switch from Erin's Comparative Government Class to one of her AP Human Geography classes was the only switch and allowed me to observe a group of Comparative Government students whom she knew from teaching the

previous year and a group of Human Geography students she was teaching for the first time.

For the first time, Sam was only teaching AP U.S. History. In previous years, however, he had also taught AP Human Geography students, who often continued into his AP U.S. History classes, which was the case for many of his students during my study. Similarly, Donna had taught many of her AP Biology students in the regular biology class the year before. Only Claudia had a class of entirely new faces on the first day of school. To learn more about her students' writing and reading comprehension abilities, Claudia spoke to the 10<sup>th</sup>-grade English teachers about students' performance. Claudia believed that understanding which students struggled with reading in writing in 10<sup>th</sup> grade might help her understand their struggles in the 11<sup>th</sup> grade, when they would take AP English Language and Composition. Whether a teacher knows her or his students before the first day of class she or he may have different teacher-student interactions.

### **Description of Teacher Characteristics in the Study**

The teachers' characteristics are important factors to consider in the context of my study. In the following sections I briefly describe subject areas for each teacher, list the corresponding years of experience for each teacher, and then consider how each these teacher characteristics present important contextual considerations.

### **Diversity of Subjects Taught**

When recruiting teachers from the 13 teachers in Cohort 1 of the APCP, I was unsure who would volunteer. After asking teachers to volunteer if they were interested in being a part of my study and sending out a survey to the five who volunteered, I got

responses from science, social studies, and English teachers. On being granted access by the school district leadership to only two of the three high schools from the first cohort, the number of teachers in my study was reduced to four teachers in five different subject areas.

Table 4.12

*Teacher Subjects Taught*

Teacher Name	AP Class(es) Taught in Fall 2011
Sam	AP United States History
Erin	AP Comparative Government & AP Human Geography
Donna	AP Biology
Claudia	AP English Language & Composition

The diversity of subject areas provided an opportunity to observe different curriculums and instructional strategies specific to the different disciplines. Observing in Sam’s class when he was telling stories about U.S. History versus watching Donna manage students in a biology lab allowed me to emphasize the various types of classroom interactions in the vignettes in Chapters Five through Eight.

**Diversity of Teacher Experience**

All four of the teachers in my study could be considered veteran teachers by many research metrics (Clotfelter, Ladd, & Vigdor, 2006). Observing only teachers who have been in the classroom for a long enough period of time to refine their instructional approaches helped me to ask teachers questions about their instruction with the underlying assumption that the teachers were acting intentionally in the classroom. Although accessing the intentions behind instructional behaviors proved to be challenging at times, each teacher was eventually able to draw on both current and past

experiences in the classroom. Their depth of experience helped me apprehend teacher meaning-making as a gradual process with years of input rather than as a partially developed string of thoughts about classroom interactions.

Table 4.13

*Teacher Experience*

Teacher Name	Years in the teaching profession	Years teaching AP courses
Sam	17	14
Erin	14	12
Donna	6	3
Claudia	10	6

During my data collection period, I encountered several instances in which teacher experience may have hindered their interactions with students. I include both positive and negative contributions to teacher-student interactions as appropriate in each teacher's vignette.

Whenever possible, I tried to inquire about what professional development opportunities were available to teachers at each school. Donna discussed her involvement in a program designed to raise AP scores among racially diverse students along with the substantial time commitment, which frustrated her at times. None of the other three teachers mentioned any sort of professional development activities and I saw no evidence of what professional development might entail at the school.

**Additional Contextual Considerations**

Throughout the initial planning phases for my study, several theoretical challenges were made to my conceptualization and subsequent study design of my study that helped me to understand teacher expectations affecting minority student performance in AP classes. The first consideration was that teachers may be affecting one another,

and isolating their individual beliefs might be hard, as they would talk with one another. The second consideration targeted the intent versus observed behavior of teachers. Teachers might be developing positive expectations for students, but be unable to convey them due to an inability to effectively deliver instructional strategies. I explore both of these considerations in the following sections.

### **Teachers Affecting One Another**

Teaching is a social profession. Teachers interact with one another, affecting not only their instruction but also development as people. In addition to working with another teacher at the same school, at least two teachers talked to one another about participating in my study. Immediately before administering the second interview for the study, Erin, from McGary High School, told me that she had recently attended a social studies professional development activity and spoke with Sam from Hoynes High School. They discussed my first interview and the transcript that I emailed to them a few days later. The two teachers were disturbed by the casual nature of the language they had used during the interview.

In addition to the two social studies teachers talking with one another during professional development, teachers may have spoken with the other participants at their school or with other APCP teachers who, while not involved in my study, were familiar with many of the topics I explored. As I describe each teacher in the following vignettes, I attempt to remember that teachers may be continually making meaning about their interactions with students. This “on the side” meaning-making that teachers engage in by interacting with one another poses minor threats to my study, as I was not able to capture thoughts on interactions. Teachers’ conversations with one another, however, is a

relatively minor challenge compared to disaggregating good and bad teaching from intents behind interactions.

### **Good and Bad Teaching Versus Dynamic and Deficit Thinking**

One of the most substantial findings from my pilot study was that dynamic and deficit thinking can easily become commingled with good and bad teaching if the observer's focus shifts from expectations to instructional practices. For any observer with a background in pedagogy and teacher evaluation, observing a class can quickly transform into a critical evaluation of the instructional practices a teacher employs. Evaluation of this nature is irrelevant to the current study, for the most part. However, overlooking instruction that produces few interactions between the teacher and her or his students could lead to incorrect assertions about the nature of teacher-student interaction. I found the consideration of the quality of instructional practices to be a challenging component of my study. When I discuss the quality of teacher instructional strategies affecting classroom interactions in the vignettes, I employ descriptive observation data to keep my analysis as objective as possible.

A key set of instructional practices that continued to catch my attention during observations included those that had been discussed as core elements of professional development in the APCP. During the 10 weeks that I spent in each of the four teachers' classrooms, I noted that they employed very few of the strategies discussed during the APCP. After nearly two years of intervention training, teachers were not using the strategies that they had learned in their classrooms.

## **Conclusion**

These contextual factors in which teachers and students interact with students in their classrooms are critically important. The commingled racial and socioeconomic teacher and student characteristics inform the direct student-teacher interactions that occur in classrooms. As I describe each of the four teachers in the chapters that follow, I draw on the contextual data presented in this chapter.

## CHAPTER 5

### SAM, THE STORYTELLER

In this case study, I describe Sam's expectancy-conveying behaviors and interactions, as observed during his classes. These observations informed interview questions which examined Sam's intent behind those behaviors. During formal and informal interviews, I asked Sam how he perceived race, socioeconomic status, and gender as characteristics influencing student performance on AP exams. Thus, observations of classroom interactions gave me a platform for asking questions during interviews to answer my three research questions.

The primary purpose of my study was to explore whether teacher differential expectations were situated in the conceptual frameworks of deficit and dynamic thinking and critical race theory. However, during classroom observations, I was unable to discern whether teacher behaviors were clear indicators of deficit or dynamic thinking. In Sam's classroom, I observed interactions he had with students to determine how race might be influencing his differential expectations for students. However, I could not find any support that Sam, or my other participants, interacted with or assessed students differently based on race, socioeconomic status, or gender. Equal treatment for all students does not translate to equitable treatment of students; therefore, the absence of

differential treatment for students based on these characteristics (i.e., race, gender, SES) may contribute to the achievement gap.

### **Expectancy-conveying Behaviors from Sam's Classroom Interactions with Students**

To answer the first research question regarding expectancy themes, I describe Sam's instructional behaviors as well as his sense making of those behaviors.

### **Stated Expectations for Students' High Scores on the AP Exam**

Sam was an engaging teacher to observe. During each class period, Sam incorporated alternative narratives as key elements to connect with students. Sam helped students forge connections to history by telling entertaining stories and connecting those stories to events that occurred in the local community. To assess student comprehension of the course content, he interacted with students through frequent content-driven questions about their understanding of history. Sam frequently mentioned his desire to instill a love of social studies in all students. His passionate and entertaining stories about historical figures were compelling and engaging. Students leaned forward in their desks, took copious notes, and remained alert during lectures. Several students asked questions about his account and offered their own anecdotal stories about their knowledge of these figures. While trying to infuse his students with a passion for learning history, he continued to measure achievement by their scores on the AP U.S. History exam. His stories contained the historical facts that students would need to know to earn at least a 3 on the AP exam.

During the first several AP U.S. History class session of the new school year I observed Sam making frequent reference to what students needed to do to succeed on the AP exam, telling students that they should listen to lectures and take notes, read their

textbooks, purchase an AP exam study guidebook, look at old AP U.S. History exam questions, and read source documents. He has structured his classes around lectures with interspersed question to help students learn the content necessary for the AP exam and around essay-writing activities designed to familiarize students with the format and strategies to help them respond to difficult prompts. Sam wants each of his students to succeed on the AP exam. He explained to me that he interacts with students so he can recognize when they are struggling and how to best help them with the material.

When the school year began Sam saw potential for some of his students to make 5s based on their ability level--although only one student has ever made a 5 on the AP exam in the 14 years he has been teaching AP courses. He also stated at that point in time that most students could earn a 3. But later, after the first seven weeks of classes, when I asked Sam about his expectations for the class as a whole and expectations for specific students' probable performance on the AP exam, he had already begun to sort students differently -- indicating more students would score below a 3 :

I think there will definitely be some 4s and some potential 5s in there. And granted, I think they are going to come from the students who are already solid writers before they enter the class. There are some 1s in there. I know that based upon what I have seen in seven weeks, the effort is not there out of class to do what is required, the independent work that is required to succeed. And there will be a ton of 2s for sure. It will be a mixed bag. I would say the majority will probably be right on the border between a 2 and a 3 (Interview, 10-25-2011).

In his initial interview Sam had predicted student performance on the AP exam based on his assessment of student abilities coming into the class. In the second interview he

offered expectations for performance based on instructional assessments that he conducted during class and through test as well as his perception of student effort expended during those first seven weeks. He continued to expect that some of his students would earn a 4 or 5, but most would struggle to reach a 3.

During the second interview Sam indicated which students he expected would earn at least a 3 on the exam based on their assessed performance on instructional questions, sample essays, and unit tests. Sam pointed to seats around the classroom, indicating which students would earn at least a 3 on the AP exam based on students' writing ability, coupled with their mastery of the historical content. I saw no pattern that would indicate Sam had stated lower expectations based on the race, socioeconomic status, or gender of his students. Overall, he said that the reading comprehension and writing abilities of some students were currently only just adequate to earn a 3 on the exam and not sufficient to excel and score a 4 or a 5.

I think the bottom line is the majority of them will be at 2s. I think most of the students we have here at Hoynes come in with the skills and the reading comprehension levels of getting a 1. I think in a year, I can get them to a 2. And sometimes a 3, depending on if the student really, really commits. I feel like in a year, I can move a student from wherever they are at least one number up. So, if they come in at a 3, I can get them to a 4. If they come in at a 2, I can get them to a 3...so I think the majority will still be at 2. There will be a fair share number of 3s, and then we will have some 4s and maybe a 5. In 17 years of teaching at Hoynes...there has been one 5 (Interview, 10-25-2011).

To explain the trend of low scores and his inability to facilitate higher scores, Sam pointed to current levels of reading comprehension and writing ability.

If Sam believes reading comprehension and writing ability are the root causes of students' failure to earn a 3 on the exam, then one would expect him to establish clear instructional goal for his students that target these skills. These goals on improving reading and writing should be based on his assessment of students' deficiencies early in the school year followed by instructional activities designed to support students' movement from where are to where they need to be at the end of the year. Yet, a disconnect exists between Sam's stated expectations for student performance and the instructional strategies he uses in class to improve on their readiness to take the exam. For all of his students to earn a 3 on the AP exam, he would need to use instructional strategies that support higher-order thinking. His use of lower-order questions for recall rather than analysis is an example of a missing component of his instruction. This instructional disconnect lies in the fact that although Sam took into consideration how his students had performed in class, many of the daily assessments came from recall questions during lectures and essay-writing activities that required him to construct the analysis and higher-order thinking for his students. I discuss how doing the analytical work for his students during his lectures leaves his students unprepared to earn at least a 3 on the AP exam in the next section.

### **Disconnects between Instructional Behaviors and Expectations**

Sam clearly stated his expectations for student performance on the AP U.S. History exam in terms of general class trends and specific knowledge of students' classroom performance. He identified students' probable scores based on instructional

questions, unit tests, and practice essay assessment data from the first several weeks of the school year, all of which remained consistent for the entire time I observed his class. All of these instructional assessments continued to inform his expectations and when he saw a student struggle, he attempted to address the problems they had with understanding the material. During our first interview, he spoke of his instruction:

I feel like I teach my class in such a way that it is understood by everyone. It is going to be rare that somebody does not get the content. And so with respect to instructional things, they know if they raise their hand, if they have a question, if they are not getting it, I am going to call on them and try to explain it (Interview, 9-22-2011).

Sam had set high goals for every student to earn at least a 3 on the U.S. History AP exam. He was able to articulate the analytic reading and writing skills necessary to succeed on the exam, but he was unable to modify his instructional strategies to address the individual students' needs to acquire those skills when he later found them lacking.

My observations of Sam's interactions with students hone in on four possible areas that may be his instructional shortcomings. The observations also illustrate his disconnect between his expectations for students and the instructional behaviors that could help students meet them: doing all of the critical analysis in his stories for the students, the manner in which Sam uses questions as an instructional tool, the resulting praise offered to students, and how he accepts student ideas as a part of his overall instructional narrative.

Sam's initial instruction is focused on telling stories which have all of the analysis already worked out for students. He did not do anything differently in his instruction

from the time at which he expressed high expectations for everyone at the beginning of the year to the time he said that some students probably would not earn a 3. This failure to adapt his instruction represents the disconnect.

In the following sections, I outline how Sam creates a supportive classroom environment. Behaviors described illustrate Sam's expectancy themes and illustrate some of the challenges that he creates when preparing students for the AP exam.

**Creating a supportive classroom environment.** Although most of the interactions between Sam and his students occurred during the lecture in the form of question-and-response instruction, Sam also interacted with students during the portion of his class that students wrote essays. Through his interactions with students Sam illustrated his understanding that not all of his students engaged with instruction in the same way. For example, Sam recognized that some students preferred to engage with him through nonverbal communication, and he demonstrated how he was able to fully embrace this preference.

Natasha is the perfect example of that . . . I have taught Natasha for a couple of years, and that is just her nature. That is who she is. She is quiet and she does have a lot of good things to say. And she says them in writing. And she says them with her close friends. And she will talk when called upon. But she does freeze up a little bit. She is a lot smarter than her answers appear, because sometimes we do those one-question quizzes. She gets a hundred on every one of her quizzes, but when we do an oral quiz, I do not know if her body just freezes up and she stresses and she cannot think of it (Interview, 10-25-2011).

During the previous academic year, Sam had approached her by asking her a question and then seen her freeze up. Accordingly, he followed up his question with multiple hints to get her talking, which did not change her behavior. In response, Sam stopped asking her questions in class in front of other students, and allowed her to communicate in writing instead. He had to give extra attention to her writing to compensate for the lack of verbal communication, but he was able to maintain demanding standards for her. During the time I observed Sam in the classroom and recorded the frequency of interactions with his students, he interacted with Natasha twice in front of other students. All other interactions with her occurred during the time when students worked independently on essays. This is just one example of a supportive environment in which Sam accommodates his students during instructional questioning, essay-writing, and class discussions, so that they can succeed in his class with a few minor adaptations. Throughout my observations, I saw him vary his interactions with students during each instructional strategy; he told me that he believes his proactive approach to adapting instruction helps him engage students with the AP material. However, even these adaptations and engagement strategies do not incorporate strategies that ultimately will help students succeed at the highest levels of AP exam performance.

**Bridging student connections: From recalling facts to conducting critical analysis.** Over the course of 10 weeks, I observed class after class of engaging lectures. However, I noted that throughout his storytelling it was Sam who carried out the analysis and provided it to students, and as a result there was little room left for students to use critical thinking skills with the course content. Students did not move past basic recall during Sam's questions at any point in the semester that I observed, which limited their

practice in analyzing historical contexts and synthesizing information for the practice essays.

Sam makes AP U.S. History interesting and relevant by telling captivating stories. With each historical account, Sam compared history to current events, creating a discourse to which students could relate. The historical accounts were both interesting to students and culturally relevant to students. Sam has been telling stories in history classes for 18 years, and he tells stories to convey historical facts because he feels like he needs to make students love history. Each summer he reads new biographies so he can discuss interesting anecdotes about historical characters alongside the required AP U.S. History content. Accounts of historical figures who lived only a few miles away from Bartlet Public Schools provide connections between abstract historical places to concrete locations the students recognize. In 10 weeks of observations in a 7:30 a.m. class, not one student fell asleep or was disciplined in class. During lectures, many of which were longer than an hour, students took copious notes while presenting body language such as leaning forward in their chairs and making eye contact with Sam that communicated active listening and engagement. However, nearly all of the questions that Sam asked his students were basic recall of facts. Few instances of questions that targeted higher-level thinking occurred during the lectures. Despite this basic focus on recall, Sam was aware of student body language and the levels of classroom engagement as he related historical events to the students. "I try to observe everybody. I mean, at some point in the block, I try to engage with almost every student on a daily basis" (Interview, 9-29-2011). During most observed class periods, Sam checked in with each student to gauge comprehension and engagement with the material in the lesson plan.

Sam does not assume that students engage with his lectures because they love history; they engage because he presents a positive classroom climate in which it is both safe and supportive for them to participate actively. Sam praised students every time they talked in class. He listened to the anecdotal stories students shared, even if they were merely tangential to the topic at hand. Again, when students spoke up in class, Sam typically offered praise, only redirecting student comments back to the instructional topic when time was close to expiring. However, student thoughts and opinions rarely became part of the story; Sam was the storyteller and decided which alternative narratives would be used. Student thoughts and opinions appeared to be valued, but ultimately, they were not part of the alternative narratives.

**Asking questions as an instructional strategy.** Sam used questions primarily as a means of checking for comprehension and recall of basic facts to be used as evidence on the AP U.S. History exam. His lectures are interspersed with interactions in the form of questions. On some occasions, I observed Sam targeting specific students with specific questions. However, a more common approach was for him to ask a question to the class at large and accept responses from students. Sam acknowledged students' responses as they answered questions, both correct and incorrect, with some sort of positive affirmation. Perhaps the most prominent characteristic of Sam's questions was the type of questions asked. Nearly all questions required only lower-order recall information (Bloom, 1956). I only heard him ask one question that required higher order level of response (analytic or complex reasoning); that particular question had been previously typed into the PowerPoint presentation and struck me, because I had not heard a question of this nature before.

Sam's questions rarely moved past lower-level thinking, which was consistent with his stated intent:

The questions I ask for sure are just knowledge questions: recall and comprehension. And the questions I ask for quizzes are all knowledge-based questions. The essays that we are doing are analysis, synthesis, comprehension, evaluation, and the tests that we use are analysis, comprehension, and evaluation (Interview, 12-6-2011).

Sam therefore geared his questions toward preparing students for what he perceived as the comprehension and analysis questions on the AP U.S. History exam. In fact, I observed only one instance of his asking a higher order question in his class. This question was pre-written on a PowerPoint slide and asked the students to discuss the relative advantages and disadvantages of revolution (Observation, 11-8-2011), a question that required students to employ higher-order thinking such as synthesis to draw in arguments supporting pros and cons and facts discussed in previous classes. This example of a higher-order question is more closely aligned with the Free Response Questions (FRQs) and Data-based Questions (DBQs) found on the AP U.S. History exam each year. The relative absence of these types of questions in Sam's lectures may be part of the reason many students were not earning at least a 3 on the exam or why only one of Sam's students had ever earned a 5 on it.

When Sam employed the higher-order question, he was surprised by the responses students gave:

It was fascinating because we moved into bias and we moved into point of view and that kind of stuff and I remember the conversation went in another direction

in another class in a direction I would have never seen and it was pretty cool  
(Interview, 12-6-2011).

Because Sam was such a dynamic storyteller, he took control of the direction in class, articulating how the story is constructed and making connections and pointing out the significance of each element of the story. For Sam, it was the student's job to recall facts and absorb the content. Once the students transitioned to a daily activity where they were required to write an essay that used higher-order thinking, many frequently stalled and asked Sam to assist them in developing their essays. In his use of questions, Sam was conveying his expectations to students by not being demanding of them by asking questions that engage higher-order thinking.

Sam's questioning during lectures differed from the questions he asked during the portion of each class period dedicated to practicing essay responses. The essay questions I observed Sam asking his students were open-ended-essay questions from a data-base and of previous AP exams. The College Board's curriculum guides for U.S. History state that typical questions asked on exams are exclusively from the higher levels of Bloom's Taxonomy of learning and represent analysis, synthesis, and evaluation (1956). As students wrote essays during class, Sam moved around the room and stopped to speak with almost every student during each class period. I observed him help students comprehend the question's components, identify data sources, and use the material covered in class to answer the question. Based on the amount of time and how frequently Sam interacted with his students during his lectures compared to during essay activities, students appeared to be having a harder time answering essay questions than lecture

questions without assistance. However, throughout the entire class period, Sam provided positive reinforcement for students that shaped their interactions.

**Engagement and praise.** One way Sam engages with students involves praising them in the classroom, which is a major part of the safe and positive classroom environment he works to establish. Because he has created an environment where students personally connect with him and the subject material, he had the opportunity, unrealized, to communicate positive expectations for students by demanding that they perform at high levels. He monitored student progress each day I was present so that he could intervene when someone was struggling. Because students knew that an incorrect answer to a lecture question or partially formed response to an essay was likely to draw positive reinforcement as well as gentle corrective guidance in a few instances, most students appeared to have little apprehension about volunteering in class. Although some students were very quiet and only responded when called on, many students volunteered responses and openly admitted when they were unsure of an answer. During oral quizzes, Sam offered extensive help to students to all students when he called on them if they were unable to answer a question immediately.

These occasional one-question quizzes targeted every student in the classroom and were relatively low in demand because he offered so many hints to students. Sam asks questions that address students' recall from the reading assignments assigned for homework and are rarely delivered without a string of contextual clues. Sam said, "I always help. I mean, it is just in my nature. I do not know that I can just let a question go" (Interview—9-22-2011). Sam also offered hints when assigning an essay prompt. He talked students through the course content they had covered, explained how to

structure thesis statements, and suggested possible ways to lay out an argument. However, by offering hints and scaffolding essays, he was taking on a portion of the intellectual load for students and limiting their opportunities to struggle in class. What was designed to help support students may have limited the higher-order thinking students might otherwise have done. Although Sam's praise directed toward students is consistent, I very rarely saw any corrective comments when students answered questions incorrectly during his lectures. When students offered incorrect information, Sam either redirected the question to another student whom he believed could offer the correct answer or he answered the question for the student. The absence of corrective action may indicate Sam has low expectations for the students who could not answer the question.

In the 10 weeks I spent observing Sam, I could not find one instance in which he did not respond positively to a student who answered or attempted to answer questions. When students were entirely incorrect, he often thanked them for trying to answer the question, even when he had specifically targeted them to provide the answer to it. Sam's behavior in the domain of emotional support behaviors was the highest of any of the four teachers and was apparent in the classroom relationships he had with each student. Although he was not engaging each student every class or asking higher-order questions, he was friendly with each student and made sure that they knew he was supporting them.

**Student ideas and Sam's historical narrative.** As Sam delivered his lectures, he encouraged student participation. During a typical lecture, several students responded a dozen times. Other students participated only once or twice, but Sam usually involved every student at least once during each of his classes. As each student responded, Sam typically followed each response with a quick compliment along the lines of "Good,"

“Nice,” or “Right.” When students offered stories that either fit with the lecture’s topic or were tangential, Sam always offered affirmation. Examples from class included: “Very good—come on up and see the bonus points you got from that;” “Interesting, interesting. I like that answer, Johnny; very good answer to evolution versus revolution,” and “That is really good, Mike; that is really good.” The same pattern of responses was observed when Sam moved around the classroom while students were working on essays. During every observation I recorded Sam giving positive feedback to students who answered questions or offered stories for the class. However, after several weeks, I began to notice a pattern that guided how much of a response a student might receive.

If students offered a response that fit with Sam’s historical narrative, the student was much more likely to have a prolonged interaction. If a student offered a response that deviated from what Sam appeared to be accepting, the student could expect a short positive response, such as “Good” or a reaffirmation of Sam’s narrative. One example from the observation I conducted on 10-25-2011 focused on Sam’s description of Andrew Jackson as the “greatest of the American Presidents.” Sam had offered a long list of positive character traits and presidential accomplishments. When one student raised her hand and said that she was one eighth American Indian and that Andrew Jackson was also responsible for the Trail of Tears, Sam responded with a list of positive attributes about the President. Sam’s exchange with the student was not negative, but he did dismiss her counter-argument and may have been perceived by the student as insensitive. The student who made the comment did not speak again for the remainder of the class. During the final weeks I observed Sam, I noticed a trend of accepting some student responses more enthusiastically than others. Sam’s acceptance of some

alternative narratives, such as emphasizing Black and female heroes, appears to be at odds with his exclusion of other alternative narratives, such as American Indian stories that may challenge his perceptions of Andrew Jackson or his other historical heroes. Sam's historical narratives are broad in that they include many historically marginalized groups, but are also rigid in that he does not incorporate students' alternative narratives when they differ from his perspective of historical events. The teacher and student reaction to alternative historical narratives and the resulting student engagement influences the classroom interactions.

Although Sam forms expectations based on student assessment, he lacks ability to use instructional strategies to intervene in the areas in which he perceives them to be deficient and help them prepare to earn at least a 3 on the AP exam. His use of lower-order questions, offering of praise regardless of student response, and occasionally rigid interpretation of historical narratives may be preventing students from forming the skills necessary to earn at least a 3 on the AP exam. Despite the difficulties that Sam faces in preparing his students for the AP exam, at the very core of his motivation for teaching lays the desire to tell captivating historical stories, a skill he has mastered.

### **Summary**

This section explored Sam's expectancy-conveying behaviors from classroom interactions with students. Sam seemingly communicates high expectations for students by stating to the students expectations for high scores on the AP exam. Yet a disconnect exists between this verbal assertion and the behaviors he exhibits in class and the expectations he has stated for each student. Despite using instructional questions and essays as assessments to inform him of student progress, he is unable to help students

build a bridge from basic recall of facts to higher-order critical analysis. His use of generic engagement and praise may be preventing students from hearing the corrective feedback they require. Finally, student ideas that do not fit within Sam's historical narrative are often rejected which leaves Sam as the sole storyteller and responsible for all critical analysis in the classroom.

Manifesting appropriate expectations for students requires that a teacher consider student performance. However, this disconnect between Sam's expectations and past student performance generates inappropriate expectations. In the following sections I explore how Sam forms expectations for students. By asking him to analyze his interactions and examine his practice, I sought to make sense of his classroom behaviors.

### **Manifesting Differential Expectations for Students in the Classroom**

In Chapter 2 I explored expectations and discussed how teachers form appropriate and inappropriate expectations. Much of the discussion centered on whether teachers used information garnered from student performance to form appropriate expectations or, in contrast, were basing expectations on student characteristics not associated with performance in class. By examining Sam's interaction patterns of expectancy-conveying behaviors directed toward students, we can come to understand how Sam manifested expectations for his students and answer the second research question.

### **Interaction Patterns**

In this section, I present major interaction patterns for Sam that reflect one or more of the 11 expectancy-conveying behaviors (Babad, 1990). These interaction patterns were used to derive prompts that were designed to elicit reflective responses from Sam during our third interview.

During most of the class periods that I observed, Sam called on every student at least one time while he lectured to the class. Nonetheless, Sam unknowingly engaged with some students more than others. Students who offered information in class and shared personal details seemed to receive more interaction than those who do not speak up in class. When Sam initiated interactions with students, the pattern was equal across race and gender. However, when students initiated interactions, White students interacted more frequently. During the ninth week of class, Sam created a new seating chart that was designed to enable him to interact with those students who he thought needed more in-class interaction. He moved several Black and Asian students from the middle to the front of the classroom. His decision to move these students was based on his perception of student-initiated participation rather than any data-driven method during the seventh and eighth week of class. My analysis of the pattern of interactions that followed indicated that Sam continued to interact with the same students irrespective of the new seating arrangement. The same five students—an Asian-American male, White female, Latino male, and two Black females—with whom he had previously interacted only once per class period remained on the periphery of his attention.

In the case study describing Sam's interactions as a dynamic storyteller, he said that "I feel like at some point I am going to hit everyone. But if there is a student that has his head down or a student that has a look on their face or is just putting off a particular energy...then I might be attracted to that" (Interview, 9-22-2011). Although he was interacting with all students at least once per class, the students he knew from previous classes and who made an effort to communicate with him received the bulk of his attention in class. The distribution of classroom interactions that I noticed in class was

not representative of how Sam believed he was interacting with students in the classroom. His reaction to the pattern revealed to me that he knew he needed to change the way he interacted with students.

### **Teacher Reaction to Interaction Patterns**

Sam's initial reflection regarding the interaction chart I showed to him was straightforward and critical of how he interacts with the students in his classes: "The kids who are in the front row, I end up interacting with sometimes somewhat differently. Sometimes you can form a relationship with a kid in the front row a little bit differently" (Interview, 12-6-2011). Following up on how he interacted with students, I pointed out that students who did not initiate interactions with him subsequently had fewer or no classroom interactions with him, to which he responded, "Yeah, the quiet students are neglected" (Interview, 12-6-2011). Sam noted a several students with whom he had a large number of interactions.

I am surprised at the amount of interaction with Charlie. In my head, I do not see myself talking to him as much. Yeah, I guess it is not too many teacher comments. It is his...student comments. Yeah, so it is him a lot (Interview, 12-6-2011).

Sam's reaction showed that he had a different understanding of his classroom interactions than the account of interactions that I showed to him. Pointing out this difference helped me capture an initial instance of Sam's sense making about his interaction with his students.

During the eighth week of school, I observed that Sam intentionally tried to limit or shorten interactions with students that differed from the instructional topic so that he would be able to cover all of the required course material by the AP exam in May.

I do think that a lot of it is them and their engagement. Like Ginger, is non-stop. She is always kind of wanting to go [into her own direction away from the topic we are discussing] ...It is hard for me to even pull it back sometimes to embrace the curriculum in some way. So I said, "If you have a comment or question that will kind of edify the class or enlighten us in some way, but not just the personal theories and that kind of stuff." (Interview, 12-6-2011).

Sam was aware that his interactions may have slowed down the pace at which he could cover material for students to be prepared to take the AP exam, and he experienced a conflict about limiting comments students can make in class. My observations of classroom interaction patterns, however, indicated that he limited the responses of only a few students who dominated discussions and not the other students who may have participated less or not at all. Because Sam felt pressured to move through the course material at an accelerated pace during the final weeks of my observations, he initiated fewer interactions.

### **An Assumption that all Student are Capable of Succeeding in AP**

Interview questions that presented Sam with a situation where a student was not comprehending course material caused him to quickly turn the responsibility for a student learning inward:

I would say to myself, what am I doing wrong here? If he is not performing at that level in my class, we need to figure out why not. Is it something that I am doing

that I can change, or a combination of the two between us? But if I heard that he was excelling in all of his classes, I would definitely try to figure out what can I do to alter either his assignments or alter my expectations or alter our interactions so that he can thrive in my class or at least say we approached, you know, gave it a good try to figure out why you are not succeeding (Interview, 10-25-2011).

Sam's explicit assertion that if students do not succeed, it must be something that his instruction is not accomplishing was a consistent theme in my interactions with Sam. He believed that given some improvement in his instruction, he could ultimately move all students toward earning at least a 3 on the AP exam. To test Sam's notion that all students could succeed I asked him what conditions would be needed for all students to earn 5s on the AP U.S. History exam, he responded, "I consider myself a pretty hopeful and positive person, but I just do not see that ever happening. Not here. And I feel terrible saying that" (Interview, 12-6-2011). Sam thus differentiates success on the AP exam into two categories, earning a 3 and scoring at highest levels of earning a 4 or 5, which appears to indicate that he holds differential expectations for his students.

### **Summary**

This section explored how Sam manifests differential expectations for students in his AP class. His classroom interaction patterns indicate that Sam communicates with some students more than others, and during instructional periods he was not aware of these patterns. He stated that he would like to spend more time with all students in the classroom, but feels pressure to cover all of the material for the AP exam. Because Sam's interactions are his primary method of assessment of student comprehension of class materials, the unequal distribution of interactions is problematic for ensuring that all

students are prepared to earn at least a 3 on the AP exam. Finally, I addressed the assumption that all students are capable of succeeding in AP in Sam's class. Although he indicates some students may only earn at least a 3 on the exam while others may earn 4s and 5s, he does believe that many students are capable of earning a 3 on the exam while others will earn a 1 or 2, showing that he holds differential expectations for his students.

### **Sam's Interactions Situated in the Conceptual Framework of Critical Race Theory**

During interviews Sam indicated that he believes his differential expectations for student performance on AP exams are influenced by the intertwined student characteristics of race and socioeconomic status. Differential expectations based on these student characteristics can be considered through the frameworks of deficit and dynamic thinking and critical race theory.

"I just do not think it is race at all." I had asked Sam if he thought race was playing a role in his minority students' performance on the AP exam. During my interview with Sam on 10-25-2011, he consistently rejected race as a factor affecting teacher planning or student performance in AP U.S. History. His comments appear to be in conflict with many other aspects of his teaching that do consider race, especially the extensive focus on the shift in student demographics at Hoynes High School, alternative narratives, and thoughts on how socioeconomic standing may be commingled with race. During the interview on 12-6-2011, Sam considers race and socioeconomic status together as influences on AP exam performance. His perspectives on student characteristics influencing performance on AP exams have been shaped by his experience through his 4 years as a student at Hoynes High School and 18 years as a teacher at Hoynes High School. These experiences combined with his perspectives on race,

socioeconomic status, and gender help me answer the third research question in my study.

### **A Hoynes High School Alumnus**

Sam graduated from Hoynes High School more than 20 years ago and recounted stories from his time as a student to both his students in class and to me during interviews. When he was a student in high school, the sports teams were winning state championships, students had a strong focus on academics, and the student body looked very different.

When I was a student here, it was very different than how it is now. But it is starting to get a little bit more like the old days. There were 3,600 students here. It was the biggest school in [the state]. We won state championships in sports, and there was this whole winning mentality [in] every aspect in school life. And there was positive peer pressure. I mean, there were plenty of things you could do to get in trouble, but there was a sense [that all students would be] going to college, because all my friends were. So, it was a total joy to be able to come back here and just be on this journey of ups and downs with the school because it has gone through a lot of interesting times (Interview, 9-22-2011).

During several classes, Sam alluded to the changes in student demographics over the years, noting that he believes the school is on a positive trajectory in all areas of student achievement. The changes in Hoynes over the last two decades have informed how Sam approaches the historical content in class. He repeatedly stated that a key to earning at least a 3 on the AP exam is to look at history from an alternative perspective. These beliefs filtered into Sam's AP U.S. History curriculum selections as evidence by

inclusion of culturally relevant alternative historical narratives for minority and female students.

### **Alternative Historical Narratives**

Sam's emphasis on examining history from a different perspective, which he established on the first day of class, led him to emphasize alternative historical narratives. He stated that the AP U.S. History curriculum presents a traditional account of events, and promised that in his class, he and his students would look at each historical account critically.

The rationale he gives for emphasizing alternative accounts is twofold. First, he believes the approach will produce students who can examine history critically, a crucial skill for earning at least a 3 on the AP U.S. History exam. Second, and more importantly for Sam, was the belief that alternative historical accounts would resonate with the large numbers of minority students in his class. However, during at least the one instance when, he ignored the *Trail of Tears* when describing Andrew Jackson, Sam did not consider how his narrative might affect students. Sam typically considered the race and background of each of his students in the context of learning U.S. History. "We will be looking at American diversity," he stated in one class. "Hoynes High School *is* diversity. We do not see people who all look just like us" (Classroom Observation, 9-9-2011). Further emphasizing Sam's focus on minority perspectives, his classroom is decorated with images of prominent minority figures such as Malcolm X, President Obama, and Muhammad Ali. On the first day of class, Sam introduced historical narratives of individuals in the American Civil Rights movement, Muhammad Ali, and President Obama. The historical stories came alive for the students who related to the characters.

I asked Sam how he helped reach out to students to engage them through alternative narratives. Sam responded,

That is where the emotional connection comes in, you know? I know my students' past. I know what broken homes they come from. So, anytime I can find a story that is about struggle and resiliency, and overcoming the odds, then I do focus on that. I also try to focus on—and it is harder the first half of American history than it is the second half—but any time I can talk about an African American's achievement or connection to history that we traditionally only heard of another way, I try to make those connections for the kids, you know (Interview, 10-25-2011)?

Each time I asked Sam about the alternative narratives he used in class, he always named race and gender as the two key considerations for highlighting a group of marginalized people in history. In addition to the efforts he made to discuss Black Heroes along their White counterparts, he also dug through historical accounts to find marginalized stories of Black figures. Sam articulated how and why he focuses on these marginalized minority figures during our second interview:

Anytime there's a decent story about an African American, a Native American, or a woman in this time era that we are in right now and coming up, I definitely try to mention it. I do believe that it is important to make these kids realize that it is not just about the old dead white guys. We have heard that so much, but these kids, I think ever since kindergarten, they have had teachers who have been focused on diversity in the history curriculum. They are aware that this is how history is, about these dead white guys, and they have heard of other people by

now. And I want it to be that way. History is the story of the American people, and we are diverse and have a lot of different stories to tell (Interview, 10-25-2011).

The alternative narratives that Sam selected and highlighted for his students were deliberate and appeared in each of his lectures for African American and female students, but not any other race. In addition to searching for heroes and prominent figures, he worked their stories into his narrative as major themes. In some cases, the alternative narratives were minor or tangential, and Sam had to dig for historical facts that might have otherwise been ignored.

For example, take York [an African American slave], from the Lewis and Clark Expedition. That is a story that is virtually unknown. I do not think it is anywhere before the 1960s and 70s. Nobody is even talking about this guy. My version of history probably does put some things a little bit out of whack from a truly objective historical viewpoint, because there were probably moments in the expedition where York was the center of attention for particular reasons, but the way it is presented in my class, York is like the third guy on the Lewis and Clark Expedition. So, sometimes pulling it out to mention it sometimes gives it more authority than it would necessarily have in the real world or how it actually occurred, which is tough. But, you know, any emotional connection or any story of positive character strengths, I try to focus on (Interview, 10-25-2011).

Not only was Sam considering alternative historical narratives based on the race of his students, he was going to great lengths to present them. The depth and detail of his alternative narratives considered race directly Sam stated in interviews and after class

discussions that it is important for him to delve into alternative narratives, because it helps his students connect history to their lives.

### **Considering what students are going through**

By interacting with his students on a regular basis—before, during, and after class and, often, over more than one AP course—Sam learns a great deal about his students. Although Sam always encourages students publicly, in private he expressed some concerns to me. When asked which students would struggle to earn at least a 3 on the AP exam, Sam responded,

Dominique, for sure. And she probably should not be in the class. She has had a lot of stuff going on. . . She needs to get her schedule about as easy as possible. She has had tremendous personal things happening, like you cannot even believe. I mean the thought of a 16-year-old girl going through what she has had to go through is just mind-numbing (Interview, 10-25-2011).

Sam considered each student individually. When a student had tremendous extracurricular obstacles to overcome, for instance, he adjusted his expectations for the student accordingly. This consideration for a student's context outside of school was perhaps one of the more compelling reasons behind his differentiation of expectations for students and motivated him to engage all of his students through a curriculum that considered more than one perspective. When discussing these alternative perspectives, Sam emphasizes the importance of relating the course content to the lives of his minority students.

## **Race**

Sam included the topic of race in his teaching through multiple avenues. The first and most striking to me was his consistent use of alternative narratives to emphasize the historical significance of minorities. Sam made a painstaking effort to include historical elements that both reinforced and challenged traditional historical paradigms because, he stated, he believes he can better engage the diverse population of students at Hoynes High School by relating the course content to the students' lives. Throughout the many conversations I had with Sam, he frequently mentioned student diversity as a challenge that could be embraced within the content taught in AP U.S. History.

At the same time, Sam also offered what appeared to be potentially conflicting statements on race as a contributing factor to minority student underachievement:

I do not think it is race. I think if you are quantifying it, you may say, okay, the Black students are under-performing. The Asian students are getting better results. But I do not think it is race that does it. I think it is family situation, I think it is socioeconomic background that is doing it (Interview, 10-25-2011).

In this statement, Sam appeared to be saying that race is merely correlated with performance and is not necessarily the cause, making socioeconomic status the causal link with student performance. In a later interview, he further discussed how students from low-SES homes were affected in the AP classrooms:

I think they just lack a foundation of so many things...of reading comprehension skills, writing skills, and emphasis of education at home...work ethic...time to actually do the work. And I do think that those are all factors that could be remedied. It is not something that cannot be fixed, but it is a difficult problem. It

is hard to get into the home life, and it is hard to do everything else in just an hour and a half every other day...I think that some of them have all those things. Some of them have a parent that put a book in their hand when they were 3 or 4 and took them to the library and they are well read, and they get it. When they read the textbook, they comprehend it. Some of them have a really motivated parent at home who is spurring them who is telling them, “do not live like us,” “do not live paycheck to paycheck,” “come on, you have to take it to the next level for us” (Interview, 12-6-2011).

The use of parental involvement to predict performance is also an assumption about the student that might be described with either race or SES as the prevailing characteristic influencing student performance. Teacher expectancy researchers use literature to point to both the race and SES of students when discussing the achievement gaps in schools.

During the second interview Sam rejected race as a contributing factor in student performance on AP exams, indicating that he believed students’ SES was the characteristic affecting performance. However, Sam began referring to race as a characteristic affecting performance on AP exams during the third interview. His conflicting statements may indicate he was struggling in finding ways to discuss the achievement gap without incorporating race as a characteristic:

I guess I am having a hard time with the word race. Just because...it seems like it is an antiquated term that is more sophisticated than that. For me, when I hear race, I am still thinking skin color. And I just do not think that anybody thinks, and maybe they do. Maybe there are some people that still think that way. But if you ask me, “Are students or teachers thinking about the African American

population and the differences in their cultural values, compared to some White students, do some take that into consideration?” I would say absolutely and I would...focus on oral history...on the story-telling aspect because I know that in that culture, that is something that is meaningful. That is something that is strong (Interview, 10-25-2011).

Sam’s struggle with race and use of the descriptor “antiquated” is perhaps a sign that he is uncomfortable attributing the failures of students to such a monolithic term. It appears that Sam does not want to load blame solely on race, though he clearly considers race in some form as a contributing factor in student achievement because he discussed it openly during other interviews and after-class discussions. During the third interview, Sam voiced no objections to discussing race as a contributing factor for the underachievement of minority students in AP classes compared to their White counterparts. Part of the reason that Sam felt more comfortable discussing minority students the second time around may stem from my presentation of race as a value-neutral component of the AP Challenge Summer Program experience for some of his AP U.S. History students. Despite Sam’s comments that race is not a contributing factor, he frequently discussed race, often in conjunction with socioeconomic status, as a student characteristic that he considers.

### **Socioeconomic Status**

During Sam’s second interview, he had a hard time associating the underperformance of his students with a racial characteristic and fell back on socioeconomic status, citing the absence of resources and parental involvement as two of the primary reasons why some students were underperforming at his high school. He

acknowledged that low income may be a factor for students who were not able to succeed in his AP class:

I think I mentioned before that so many kids are busy working or partly providing for themselves because their parents cannot provide for them. I do not think it is necessary to give money to keep the water bill paid, but the parents are working so much to keep those bills paid that they do not have anything to give to their kids, so they want normal things and they have to get it themselves (Interview, 12-6-2011).

As noted, Sam typically tried to consider what he could do to help his students become more successful on the AP exam, and when I asked Sam, what he could do in an ideal teaching situation to help minority students achieve higher on the AP U.S. History exam, he responded,

I think a practical thing is that is that I could look to get funding so that everyone of them has a *Five Steps to a Five* or a Princeton Review book in September as opposed to half of them never getting it and some of them getting it in March (Interview, 12-6-2011).

In this comment, Sam acknowledged that a student's socioeconomic status may play a role in her or his ability to be successful on the AP exam.

### **Gender**

Unlike race and socioeconomic status, Sam did not consider gender as a student characteristic that may affect students' performance on the AP U.S. History exam. His classroom interaction patterns did not indicate that he targeted males more than females with his behaviors, rather students who initiated interactions with Sam received more

attention in class. Because males initiated interactions more often they received more attention. Sam did offer alternative narratives that emphasized the role of women who were marginalized by stories of men throughout history, but he did not directly attribute students' performance on exams to their gender. In the interview during the sixth week of school, he listed the students who were likely to earn a particular score on the AP exam. These predictions offered no distinguishable pattern where women were expected to over- or under-perform compared to their male counterparts.

### **Conclusion**

Sam offered contradictory beliefs at times. He did not adapt instruction for individual students; however, he maintained a structure for making sense of student abilities and performance in his class, and considered their contexts outside of class, including race, gender, and socioeconomic status. He asked low-level questions to all of his students and typically accepted responses to questions from students who volunteered an answer. Only occasionally did he call on students who are not answering. He accommodated students who do not like answering questions in class by not calling on them unless he is asking every student a question during oral quizzes. However this attention to the social emotional components of the classroom is undermined by his inability to break down the analytic reading and writing skills needed for performing well on the AP U.S. History exam. Sam's inability to use instruction that targeted higher order thinking may have been due to his ineffectiveness as a teacher and not because of any racially motivated intentions.

## CHAPTER 6

### ERIN, THE VETERAN TEACHER

I began my observations of Erin's classroom instruction in her AP Comparative Government class. This was Erin's first time teaching the course. After five weeks of observations, she told me that my presence was making her feel self-conscious, and she asked me to observe in a class she was more comfortable teaching. I agreed to observe her AP Human Geography class which Erin has taught for 11 years, and I continued my observations with the same focus I had been using in the other class. In this case study I will provide examples from both the first and the later class in which I observed her, because in both she taught and interacted with students in a similar manner.

Erin stated during interviews and informal discussions that she considers herself a veteran teacher and cited her fourteen years of experience teaching AP classes and how other teachers in the district come to her for advice on how to teach their courses as evidence of this status.

A salient expectancy theme inductively emerged from analyzing my observations: that her students' prior academic experiences in AP classes and interests affected her expectations. I only observed that her interactions were based on race and influenced her expectations, when specifically directed toward Filipino students. For all of her other students, she expected them to pass the AP exams. During classroom observations, I

looked for evidence of her differential expectations of students using the frameworks of critical race theory and deficit and dynamic thinking. Just as in Sam's class, I was unable to find observable evidence that suggests Erin was differentiating her expectations for performance on the AP exams based on student characteristics most frequently associated with teacher expectations: race, socioeconomic status, and gender, with the exception of a few instances of classroom interactions and interview comments about Filipino students. In this chapter I explore expectancy themes in Erin's classroom, how she manifests differential expectations for her students, and how these differential expectations—including those for Filipino students—are situated in the frameworks of critical race theory and deficit and dynamic thinking.

### **Expectancy Themes from Erin's Classroom**

Through formal and informal interviews, as she explained and justified her interaction with students I learned a great deal about what and how Erin thought. Erin openly shared information on sensitive topics and these interviews, rather than observational data, provide much of the substance necessary to determine how student characteristics influenced her expectations for student performance on AP exams. This section explores Erin's expectations for her students on the AP exam and how this affects her instructional behaviors, and thereby presents the evidence to answer my first research question. In providing the data for the expectancy themes emerge from her sense making, I demonstrate how her behavior influences student preparation for AP exams.

### **Stated Expectations for Students' High Scores on the AP Exam**

During our first interview, Erin predicted that all of her comparative government students would earn a 3 or higher on the AP exam that year because they were seniors

and wanted to be in the class (Interview, 9-15-2011). She communicated this confidence on the first day of class, telling students that, despite not having textbooks, she would provide them with necessary materials to earn 5s. So Erin was similar to Sam, in that she initially held high expectations for all of her AP Comparative Government students to score at least a three on their exams. Erin also conveyed to me this high expectation for all students in both her AP Comparative Government class and AP Human Geography class during our after-class conversations and interviews.

Erin's actual expectations for students were at odds with the outcome of all students earning 3s. Her previous experience teaching students in prerequisite courses for her AP courses appeared to be one of the primary means she used for making predictions of the students' likely success on the AP exam. Erin believed if students were unfamiliar with rigor, they were likely to score below a 3 on the AP exam, a generalization that extended to her perceptions of minority and low-income students who she generally felt were also unfamiliar with rigor and were only in her course because a guidance counselor recommended they take it.

Erin's perception that students' past academic experiences influenced test performance was a major factor in how she formed her expectations. Students' prior academic experience deflated her expectations in the human geography course and inflated her expectations for the comparative government students. She claimed that her human geography students had not earned at least a 3 on the AP exam because they were young and this was their first AP class.

Erin told me repeatedly that she was prepared to structure her class for younger students. She wanted to open AP Human Geography up to ninth graders so that they

could gain the experience of taking an AP class early in their high school experience. However, she wanted to be sure that she had some control over the types of students in her class, so she spoke with the middle school guidance counselors about her class and who might be a good fit. In her interview she explained how the students who should be let into the class were those she considered to be a good fit for it:

The middle school counselors were not choosing the students correctly. And I think that now that [has stopped]...We are going to have more freshmen than sophomores; those guidance counselors have finally realized that we have spoken with them enough that they realize who should be in there and who should not be in there (Interview, 10-26-2011).

Curious as to who might be considered a good fit for her class, I prompted Erin to discuss specific student characteristics.

Well, first of all, they should not have failed their SOL in social studies last year. They should not have had a D or an E or a C. They should probably be in Honors English or be taking high school credits in middle school...Spanish, Earth Science, and Algebra 1. Those are the ones; they are advanced. They are a little more proactive with their grades. So, that gives you an indication that those should be the students in there. But we have open enrollment, so ... (Interview, 10-26-2011)

Erin believed that she had a large number of students who may have been tracked into her class. When asked why she thought her students had been tracked, Erin replied, "You can just tell by the students in the...class, they do not seem to be as motivated, and it is just different. But it really is based on their schedule. You can look at their schedule

[of the other classes they are taking] and tell (Interview, 10-26-2011). Erin believed the low-functioning tracked students who have a less demanding slate of classes are generally less prepared because guidance counselors did not consider how students' academic experiences with rigorous classes might help them prepare for an AP class.

According to Erin, there are two types of students: those who have been prepared academically for an AP class and those who have not. Therefore, having guidance counselors select students with a specific set of previous academic achievements and experiences would influence Erin's expectations.

Erin held inherent contradictions about the purpose of her AP Human Geography course. She dichotomized her students into those who are ready and those who "do not yet get it" when forming predictions for success on AP exams. When she encountered students without study skills in her AP Human Geography classes, her strategy is direct:

Usually those students, you try to encourage [them] to drop, because they will do better in a core class. And you do not want them to waste any more time in that class if they cannot handle it. Sometimes they just cannot handle it. Sometimes they are just not ready (Interview, 10-26-2011).

If Erin was encouraging students to drop from the class, I did not observe any instances of these behaviors. She was willing to provide scaffolding for these students and support that will help them access the curriculum. I observed examples of these support structures when she used the scaffolding strategy with students' skills on writing essays.

Erin was prepared to accept that any one of her students may not earn a 3 or higher on the AP exam, but rather stated multiples times during that her objective is to expose students to the rigorous AP coursework:

Maybe they will not earn a 3 or higher on the AP exam. But they will be more ready when they are sophomores. And maybe they will be [more] successful [taking an AP class] now [rather than] if they had [waited] until they are sophomores to take this class” (Interview, 9-15-2011).

Erin equivocated whether to expose students to AP rigor or to equip them to earn a 3 or higher on the AP exam. Her perceptions of the course’s purpose as a “trial run” for some students may have influenced her formation and communication of expectations for students on the AP Human Geography exam. Although Erin believed that many students could benefit from taking an AP class despite not earning a 3 or better on the exam, she maintained that some students were capable of taking an AP class while others were not. With this belief, Erin expressed that she was unwilling to take responsibility for developing some students’ skills.

By comparison, all of Erin’s AP Comparative Government students had previously taken other AP courses and she initially predicated their success based on the effort required for students commuting from a nearby high school to take the course. Erin felt this desire and commitment trumped a student’s prior experience in an AP class. Each time she mentioned the additional effort of commuting, she included a comment about the age and experience of the students which she believed affected student performance. Despite early confidence regarding performance (3 or higher on the AP Comparative Government exam), Erin later indicated that some students would probably not score at least a 3 due to poor writing skills and their inability to grasp the course content, including two students she previously taught in AP Human Geography (Interview, 9-13-2011). This pattern of initially forecasting success for all followed by

decreased confidence about students' future performance on AP exams based on current class experiences proved to be a common pattern of equivocating her expectations of students.

Erin's expectations for students' performance on the AP exam focused on two areas: prior knowledge of the course content and writing abilities. She believed these two student characteristics were related to the students' experience upon enrolling in her human geography class. She was able to identify the students who would score well on the AP exam based on specific characteristics of students' in-class assignments:

You could just tell by the way they write their essays, they do not skimp. They do not write one sentence because they have so much more to say; because they retain the information. They pay attention because you have freshman in that room who are in there and they can do all the work and manage to get a C . . .

(Interview, 12-7-2011)

Because her younger students were all ninth grade students, who needed help writing essays, Erin employed scaffolding, working from simple essays up to the more complex forms of essays found on the AP exam by the end of the year. For example, to scaffold students' essays early in the year, she helped students create an outline and provided the necessary evidence so students were able to focus on the structure required for the AP Human Geography exam. Writing well was a skill Erin mentioned repeatedly as an indicator for success on the AP exam. With her frequent use of essays, Erin could determine which students had strong writing skills.

Erin believed that students' performance on AP exams is related to prior academic experience; therefore, she deemphasized her instruction as essential to student success.

Her statements of having high expectations for all of her students contradicts her belief that students' success stems directly from their age and prior academic experience, remaining outside her influence on student learning. Like Sam, Erin does not consistently consider classroom performance when manifesting expectations for students. She vacillated between using students' assessment data and relying on students' prior academic experience to make predictions for performance on the AP exam. This disconnect between her students' assessment data and her expectations for students generates inappropriate differential expectations for her students.

### **Disconnect between Instructional Behaviors and Expectations**

Erin holds a belief common to other teachers in my study: It is a student's responsibility to understand course material. However, her behavior embodies this belief more strongly than with the other three teachers and Erin will not help all students who struggle with the course material. To better understand this belief, I asked Erin a series of hypothetical and data-driven questions during the second interview. I asked Erin what she would say to a student who performed well in his or her other classes but not AP Human Geography. Erin responded that the student would need to figure out what he or she was doing wrong in her AP class: "How come you are totally getting it in your other classes, and you are not getting it in here? What is the problem? What are you doing? Tell me what you are doing, and then maybe you can figure it out" (Interview, 10-26-2011). Erin places the responsibility to perform well in her class solely on the student. When a student falls behind in her class, she is not responsible for altering the student's course trajectory. She expects that the student will fail because they "just do not get it."

Erin stated she determined who was “getting it” by looking at test grades and student participation during PowerPoint activities. When the students missed simple questions, she said, “It is an indication that they just do not get it.” However, the overall level of challenge in a student’s academic course load, or schedule, provided further evidence of their preparedness for her class. Students with only a few advanced courses may not have the foundational skills for her course.

During our conversations, Erin frequently referred to students who were stronger than others. Erin expected that some students were going to learn the content and earn a 3 or higher on the AP exam, while others would not. When pairing students, she kept students with lower course grades apart from those with higher grades: “I am not [pairing] “amoebas” and “parasites,” That is what I call them” (Interview, 10-26-2011).

The pattern of disassociating students into groups (or grouping students of like abilities) follows a classic theme in the expectancy literature. Erin’s strategy was to keep students who are performing well from those who might hinder their progress. During the eighth week of the school year, I witnessed an instance of this behavior when she rearranged the students’ seats to separate the students who were distracting the students who were on task. Erin stated that the best way to prevent having students who “just do not get it” in her class is for guidance counselors to “correctly” choose the students who take AP Human Geography.

On one hand, Erin explicitly states high expectations for all students in both of her AP classes; on the other, she feels experience determine students’ success on AP exams. Expectations based on students’ age and experience can be categorized into two themes: why some students will not perform well on AP exams and how she determines which

students should take AP courses. The influence of students' prior academic experience carried more weight because of a seeming disconnect between her instruction and expectations; however, there was some evidence suggesting that her expectations were informed by student interactions. Observation data of Erin's interactions with students point to possible areas where her instruction affected her expectations. The student interactions used in the classroom conveyed and formed expectations inconsistent with previous statements regarding her high expectations for student performance.

Additionally, her use of several instructional behaviors also influenced her expectations: (a) answer questions, (b) praise and punishment, (c) Erin as the holder of knowledge, and (d) classroom climate and rapport.

Erin equates her own teaching success with students earning 3, 4, and 5s on the exam. She thinks students need prior experience in AP classes in order to be successful in the AP classes she teaches, which implies her assumption that students' gaining experience in the teacher-constructed classroom environment is key. Yet, she describes students' own efforts and attitudes as paramount and her teaching efforts. Her lack of clarity about her role in preparing students is evident when she argued that some students were going to "gain experience" by being in an AP class versus her developing students' skills to be successful on the AP exam. She equivocated about her role as an AP teacher by stating that she provides support to students through instruction, but in all of the instructional activities, she considered that some students are present in her class only to gain AP experience. With this belief, she was not required to deconstruct the feedback she received from students' responses to instruction and instead operated from the

assumption that some students would not perform well in the class simply because they were enrolled to gain experience in AP.

**Answer questions.** During my observations I observed a pattern of questioning that determined whether or not she would answer student questions, which appeared to stem from whether the questions fit some frame of what she considered an acceptable line of thinking. During one class Erin was discussing pop culture in developing countries. A student raised his hand and told Erin that he had had a conversation with an African while playing Xbox and asked if that counted as a pop-culture example (Classroom Observation10-2511). Erin responded by dismissing the student and telling him Africa was not a country. Erin's comments on responding to questions that seem "ridiculous" fit with the behaviors I observed in class.

So I will answer a few questions. And then if he continues on and it is just ridiculous, then I will shut him down. And you know, that negative reinforcement—I can do that well. So, even with just a look, I can stop them in their tracks. And then I will take them outside. I have no problem taking a student outside. I will just take them out and say, "Listen, I am not going to play this game." And I am really straight with them. I do not pussyfoot around. ...My students pretty much know what I am feeling, always. So, if they are being obnoxious, then I do not have the patience for that and I shut it down pretty quickly (Interview, 10-26-2011).

Erin was quick to interrupt a student whom she felt was off track with a response to a question. She also ended conversations between students who were discussing classroom assignments and chastised students who stood up in class, even when they were planning

to get a textbook from a nearby cabinet. I followed up with Erin to be sure that she was not referring to a few students' "obnoxious" behaviors out of context. I wanted to know what she would do for a student who legitimately needed help. Erin explained, "If you sincerely need help, I will tutor you, but you are not going to play around in class and expect me to reteach everything because you cannot pay attention in the first place" (Interview, 10-26-2011). Erin redirected students back to the instructional activity if she perceived them to be off task. I observed this corrective behavior most during her lectures. She stated, "I do not lecture if they are talking," she said (Interview, 9-15-2011). Classroom management affects both the instruction used in the classroom and a teacher's interactions with students.

**Praise and punishment.** Erin told me that she offered praise to her students. However, during 10 weeks of classroom observations, I only noted a handful of instances where she offered any positive affirmation to students. During most instances when students responded to questions, offered a story, or turned in work, she either did not acknowledge the student or incorporated the response into her own narrative about comparative government or human geography. The strongest pattern I noticed was that Erin's concept of offering praise was tied in with a student's behavior in the classroom. Well-behaved students were more likely to earn praise. I asked Erin to describe the type of student likely to score well on the AP exam at the end of the school year, to which she responded:

There is a boy who sits in the first row...he follows all of the directions. He gives me more work than I ask for. He is thorough. And he is competent. He knows what he is talking about. He knows what he is doing. He is very conscientious.

And he worries about when things are due. And he comes up and talks to me.

And those students, you get an idea earlier on that they are probably going to do well. (Interview, 10-26-2011)

Erin believed the student would follow directions and behave in class, which fits in with larger themes I observed in class. Her belief that students are responsible for following directions and paying attention while receiving no positive reinforcement are counter to her stated beliefs that she praises students. Although it was the student's responsibility to pay attention and focus on the instruction, Erin remained the sole figure who directed what information would be discussed.

**Erin as the holder of knowledge.** Like Sam, Erin also incorporated questions into her lectures. And also like Sam, her questions required lower-order thinking (Bloom, 1956)—typically, the recall of facts from textbooks and previous class lessons. Her tests usually had a vocabulary-matching section and a map-labeling component. The only higher-order questions I observed during assessments in the class came in the form of essay questions taken from previous AP exams. The disconnect between the lower-order questions asked in class and the higher-order questions drawn from AP exams may help explain, in part, why Erin did not have many students who earned at least a 3 on the AP Human Geography exam.

Erin chose what content counted as correct information in her class. Although to some extent, setting parameters on what constitutes knowledge is appropriate for any teacher, limiting this knowledge to the teacher's perspective limits students' ability to think critically. When an alternative explanation was offered in class, Erin summarily dismissed it. During a lecture on pop culture, she dismissed numerous student responses

to questions because they were not the answers she was looking for at that moment. Rather than incorporating student responses by following up with some affirmation that they were on the right track, Erin jumped in with the correct answer and moved to the next topic. The lack of positive support and the failure to help students answer questions are behaviors that communicate expectations to students. Much of the rejection of student responses may be related to a key aspect of designing a learning environment that Erin believes will help students learn best.

**Classroom climate and rapport.** A major theme of Erin's sense-making about her class structure stems from a relaxed-versus-structured mentality. She said of her classes, "I am pretty structured. I think there is a world of difference in the way I teach AP Human Geography and how I have just been floating through the world of Comparative Government" (Interview, 10-26-2011). Erin structured her AP Human Geography class rigidly because she believed that additional course structure will help her ninth-grade students in the class who are younger and who have never taken an AP class.

Conversely, the students in AP Comparative Government are almost all seniors, and each student has taken at least one AP class before. Erin believes that the older students will benefit from a class that is focused less on formal structure and more on informal discussions about advanced coursework. When I discussed the intent behind the format of this class with Erin, she mentioned that she was more open to moving away from her prepared lesson toward facilitated discussions because she wanted to be relaxed with the older students:

...most of these kids have all taken AP classes, they are not in here just because they love me...it is not a love fest. So, how are we going to operate is so I am

more relaxed. It is fourth block. You cannot expect seniors [to sit quietly] who are choosing to be here (Interview, 9-15-2011).

She did not explain why seniors were incapable of sitting quietly. I observed her initiating many of the conversations with students who were off-topic and creating other non-instructional conversations among students in the classroom. The more relaxed atmosphere in the comparative government class than the human geography class was apparent.

Another difference between her planning for the AP Human Geography course and the AP Comparative Government course emerges from Erin's having taught the former for many years; in contrast, she was teaching the latter for the first time when I observed her. She had fine-tuned the pacing for the AP Human Geography course and worked with teachers new to the subject to design pacing guides. Conversely, because she was teaching the AP Comparative Government for the first time, she was determining how much time to spend on each topic as she encountered it. The combination of an initial encounter with a curriculum and the little time she put into planning for her new course preparation resulted in teacher-student discussions that deviated from the course material for large portions of the class time. Erin's interactions with the older students during these discussions had characteristics similar to those she had with her younger AP Human Geography students: she determined what counted as acceptable topics, as well as right and wrong answers.

In the classes I observed, Erin frequently used prepared lecture as instructional format. Erin said she tried to avoid lectures only for both classes because it is an ineffective instructional strategy: "You cannot just say, 'Here is a PowerPoint. I am

going to lecture and this is it,' because it is tedious and it is boring and no one will take notes" (Interview, 10-26-2011). However, during the five weeks I observed Erin's AP Human Geography, most of the instructional activities I observed were PowerPoint lectures; during three weeks of the AP Comparative Government class, instruction was limited to lectures and note taking. Regardless of whether Erin was lecturing or employing some other instructional strategy, her manner of communicating expectations remained constant within and between the two classes I observed.

Throughout observations and interviews, Erin formed differential expectations for students. Not all of these expectations were informed by teaching students in previous classes or assessment data in the current year's class. Her expectations were also informed by whether or not students were older, with prior experience taking AP classes, if they asked just the right amount of questions to convey interest, or if they were currently taking other AP or advanced classes. These specific expectations are related to her teaching experience. Erin noted that AP students were likely to succeed, forming expectations accordingly for future students who fit this profile. Because Erin believed the type of student (e.g., age, prior academic experience, and interest) is more of a determining factor for who will earn at least a 3 on the AP exam than what she does instructionally with students, she did not change how she interacted in the classroom as observed through observations and interviews.

### **Erin as a Veteran Teacher**

With 14 years of experience Erin considers herself a veteran, and expert, teacher. This self-perception of being an expert caused her to forego instructional planning until the planning period before each of her AP Comparative Government classes, which

appeared to contribute to lack of tying her instructional strategies and behaviors to students' performance. On some days her limited amount of instructional planning, which she believed creates a relaxed environment, allowed portions of the class period to go by without her using any expectancy-conveying behaviors. It also led to her to rely on previously used PowerPoint presentations and a lecture-driven approach, which tended to limit both her consideration of her current students' skills and learning needs and her information and communication of her expectations for students. Her magnified expectations of how her students' would perform favorably on the AP exam emerged from her self-perception that she was an expert teacher who does not need to rely on interactions to know how her students are responding to instruction. In the following sections I describe how she perceived herself as an expert and the implications this perspective had on expectations through student interactions.

**A self-perceived expert.** With 14 years of public school teaching experience, Erin was the second-most veteran participant in the study, but the most credentialed of the other the four teachers. She had bachelors and masters degrees in social studies, had attended AP training courses three times, and had presented on teaching strategies for AP social studies classes. In addition, Erin taught online geography courses for a major land grant university in the Southwest.

When she discussed her credentials, Erin manifested high self-efficacy. Although she expressed reservations about working with APCP students, she was confident in her ability to teach AP courses. Her self-efficacy was further bolstered by being one of two teachers in the school district teaching AP Comparative Government, a relatively new AP offering and a highly sought after class. She communicated high self-efficacy when

speaking about the credentials and experience she has as a teacher. However, she contradicted these perceptions of high self-efficacy when she discussed her ability to increase minority and low-income student performance. For all of the experience she has, she does not know how to help students like those identified by the APCP. Her experience as a teacher was limited in other ways in addition to not knowing how to increase the test scores of minority and low-income students.

**Lack of planning and its consequences.** Despite Erin's experience in teaching AP courses, she had never taught high school seniors before. She recognized that the nature of the class would be different with older students and strove to make it more relaxed for them. Erin's believed that her expertise as a teacher justified her lack of planning for the comparative government class. However, based upon observations it appeared that her inconsistent attention to planning resulted in lessons that were only partially focused on the course curriculum. I observed how her interruptions to teaching the course material led to even her older and more experienced seniors not being able to stay on task. Her frequent interruptions to her curriculum class resulted in slowed pacing of her course materials and also appeared to lower demands by Erin of her students. .

In her Human Geography course Erin did little preparation, instead using the same PowerPoint lectures each year, with the same examples and instructional handouts. Erin explained that this re-use of instructional materials and not introducing new instructional strategies was of benefit to her. For example in AP Human Geography Erin started the year with material she knew well to create a foundation for her classes: "I really started with demographics—a lot of geography, because that is my strong suit" (Interview, 10-26-2011). She felt this allowed her to focus on interacting with students

and thereby start the year on a positive footing and since the class consisted mainly of freshmen, to also focus on creating structure.

### **Summary**

This section explored Erin's expectancy-conveying behaviors from classroom interactions with students. Erin's self-concept as an expert teacher, her belief that some students were better positioned for success than were others, and her differential expectations posed challenges for students who were not among those she expected to succeed in AP classes. Earning a 3 or higher on the AP exam would be difficult for these students based on Erin's perceptions of their experience. Erin believed that students' success on the AP exams was tied to their experience prior to arriving in her classroom rather than to how she interacts with them. Her stated objective to create a relaxed environment in the comparative government classroom affected how she communicates with students by limiting the number of instructional interactions and increasing the amount of noninstructional discourse. Her prolonged discussions that were tangential to the comparative government curriculum occurred with just a few students while the other students engaged in their own noninstructional conversations. Thus, this relaxed environment did not translate into instructional seminars. She also spent less time planning before class and more time improvising instruction in the classroom, which further limited the quality and quantity of her classroom interactions.

### **Manifesting Differential Expectations for Students in the Classroom**

Like Sam, Erin's behavior appeared to reveal differential expectations for her students. However, when pressed during the eighth week of school to make predictions about how her students would perform on the AP exam, she was unwilling to do so, saying that she

waits until February to make judgments about a student's potential performance on the AP exam.

I had a student who wrote the worst essay in December, and he made a 5 on the AP exam. It takes a little time sometimes. Sometimes you can see them get it clearly...but sometimes it takes longer, so I do not make any kind of judgment, because you have to collect the [AP exam] money in March. You have to decide [whether a student will take the exam] in March. So in February, I look at [the student scores]. (Interview, 10-26-2011)

When pressed to select the students who were performing well in the class, Erin named the students she thought would earn 3s or better on the exam and those who would fail. When I asked her to explain her projections, she was unable to produce any specific reasons other than, "They just get it" (Interview, 10-26-11). When talking to students about signing up for the AP exam, she emphasized that a passing grade in the class does not guarantee a 3 or higher on the exam. However, if a student's grade in her class is not a good predictor for how prepared a student is for the exam, then Erin's assessments may not be aligned with those of the AP exams. The pattern of questioning that Erin used in class revealed that she was not interacting with all of her students. For students who "get it," Erin did not know why or at what point the student learned the content because of their classroom interactions. Examining these patterns of differential expectations will provide the evidence to answer my second research question.

### **Interaction Patterns**

Erin's instructional behaviors limited her interaction patterns in the comparative government and human geography classes, but for two different reasons. In the

comparative government class, her relaxed preparation approach led to fewer interactions with students. Whereas in the human geography class, that Erin has taught for more than a decade, she does not require much instructional planning time.

**Interactions patterns in comparative government.** Erin's approach to planning the AP Comparative Government class was evident in that she planned for and prepared its materials during the planning period just before it began. The result of a relaxed preparation approach yielded multiple portions of the period when Erin had to gather her thoughts about content or prep materials and as a result afforded less time for student interactions. During these gaps in instruction, students often talked among themselves and to Erin. Because she believed they did not have to take her class, Erin had more non-instructional conversations with her Comparative Government than with her AP Human Geography students. Many of these conversations involved only a few students at a time. Students not directly involved with Erin engaged in their own conversations. Although the non-instructional conversations could convey expectations if they had included Erin, they resulted in a reduced the number and frequency of instructional expectancy-conveying behaviors because she was not interacting with students.

The result of her more relaxed approach for the older students in AP Comparative Government was that she was effective in responding to interactions with most of her students because she did not limit student-initiated interactions. When students initiated a conversation, Erin was quick to abandon her planned lesson. I observed instances (9-21-2011) where she stopped her PowerPoint lecture on forms of government to engage a student who mentioned freedoms for countries in the Middle East, a topic that was largely outside the scope of the course curriculum. During these instructional tangents,

she talked with some of the students in the class but not to all. Again, the students with whom she interacted were those seeking to engage her. In contrast, I observed a few students who would either fall asleep, such as one White female who was not disturbed for 45 minutes, or sit quietly and not engage in the discussion, as was the case for a Filipino student.

**Interaction patterns in human geography.** The highly-structured human geography class prevented Erin in effectively responding to interactions with most of her students because she limited student-initiated interactions. Erin consciously practiced stricter control over when students were allowed to talk in class, limiting student-initiated interactions and maintaining a training mentality for her human geography students. Of the younger human geography students, Erin says, “From the beginning. I tell them they are AP in training when I first start my class” (Interview, 12-7-2011). Because she limited interactions in the human geography class, students interacted less frequency and therefore seemed less prepared to Erin for success on the AP Human Geography exam.

### **Teacher Reaction to Interaction Patterns**

Erin does not recognize that she influences her interaction patterns. When I showed Erin the pattern of interactions emerging from the data in her AP Human Geography class, her responses tended to center on what the students were doing to influence those interactions. Her initial response was to account for the smaller number of interactions with only a few students, claiming, “They are talking to each other but not to me... I had to move some back because they change once you move them” (Interview, 12-7-2011). The interaction pattern I showed her included the altered seating arrangement. She indicated that the change made little difference in which students she

interacted with. When I asked her about patterns with specific students, she commented on why she interacted with some students more than others by citing student attributes:

And I think that another reason why I interact with some of these is because they are the ones who...pay attention, or they are the kids on top. They have the best grades. So they are more interactive with you. It is...not really me thinking about it. It is them responding. (Interview, 12-7-2011)

Erin's comments indicated that she was interacting with those students who exhibited an effort to pay attention to her and had the highest grades in the class. She made no mention of the other students who do not initiate interactions with her.

At an early point in the third interview Erin noted that the younger students in her AP Human Geography class did not know how difficult the course and corresponding AP exam actually were, a point she had also made in in the first interview. Because her students did not know what to expect, she claimed to prepare them for their first AP course. Although she specifically mentioned her frequent use of scaffolding to cover course content and strategies for earning a 3 or higher on the AP exam, this scaffolding was limited to structuring the format on the AP essay.

Erin did not actively involve all students in instruction, leaving her with little notion of the level of student engagement in class. Her frequent comments during interviews that students must initiate interactions when they require help in her class were a better indicator how she viewed her role in engaging students than her comments on changing her instructional behaviors. As student engagement is tied to interaction patterns in her class, the lack of engagement during her lectures influences the way she developed differential expectations for her students. Erin's statements in the final

interview contradicted her comments in the first interview where she said, “You approach a student if they are not focused; if they are talking too much; if they are off task” (Interview, 9-15-2011). In this later interview, I asked Erin if there were any changes she would make to the pattern of interactions allowing her to interact with less engaged students. She responded, “Maybe I could talk more; ask more questions...you know how it is when you are listening to a lecture. If you are not interacting, you go into la-la land” (Interview, 12-7-2011).

### **Analysis of Teacher Interactions**

A principle focus of my study is analyzing student-teacher interactions to understand how teachers convey expectations. Because Erin is not interacting with all students during each class period, expectancy theory suggests that since she is communicating fewer expectations to students they may also perceive lower expectations from her. Her lack of student interactions coupled with limited assessment data from other sources results in her not knowing how much content her students understand at any given point. Erin’s earlier statements about the students who will understand the material because they “get it” shifted the responsibility away from her to some student characteristic (e.g., experience) that she cannot control.. She mentioned course experience prior to coming into her AP classes as a major contributor to students “getting it.” However, she did not articulate how this prerequisite knowledge contributed to students’ success in her AP classes.

Erin’s use of questioning as an instructional strategy somewhat mirrored Sam’s; however, they differed in their uses of constructing essays in class. She often asked lower-order recall questions to some students to “make sure they understand the content”

(Interview, 12-7-2011). Most of her questions were directed to the class at large, and she often accepted the answer from the first student who responded and let that student know whether the answer was correct or incorrect. Although preparing students for the AP exam was the intended end result for Erin, her questions rarely extended into higher-order analysis unless she posed a released AP exam essay prompt for students to respond to in a Free-Response Question (FRQ) or Data-Based Question (DBQ) activity. Yet even these essay activities did not always result in higher order thinking. She described how she once posted an essay on the overhead projector for students to copy verbatim into their notebooks, which took most of the class period. Her intent was to provide students with an exemplar after most of the students in her human geography class were unable to answer the previous DBQ prompt.

Unlike Sam, Erin provided little emotional support to students. I rarely observed Erin offering positive reinforcement for students who offered solicited responses to questions. Rather, she would listen to a student's response and transition to a new topic without acknowledging the student who responded. Additionally, Erin did not offer a measurable wait time when waiting for student responses.

### **An Inconsistent Assertion that all Student can Succeed in AP**

Erin discussed the use of scaffolding as an instructional strategy multiple times. Although she did not employ the technique with consistency across all students in her class, she was aware that some students needed more help to achieve. I asked her a series of questions during the second interview about hypothetical scenarios targeting her perceptions of student success. Her pointed response to the claim that the student in the scenario would never be able to achieve indicated that she disagreed:

Well, I am like, why would he not ever be able to do it? You do not generally get special education students in AP [courses]. You know what I mean? You do not get students who are not ever going to be able to get it. Because they cannot get it as a freshman, they will be able to get it as a junior. (Interview, 10-26-2011)

Erin thus offered a mixed response to the scenario by excluding special education students and younger students as possible examples of students who would never be able to succeed in her AP course. The influence of student experience on ability was a consistent theme during formal and informal interviews with Erin. When I asked Erin what conditions would be needed for all of her students to earn at least a 3 on the AP test, she offered a response that contradicted her previous statement:

I do not think there is a pie in the sky because you are opening [the class] to anyone who wants to be in there. And you are opening it to freshman and ...some of them get pushed in by their guidance counselors in middle school and some of them cannot handle [the class]. So, the only way everybody would pass is if it I handpicked who took [the class]. (Interview, 12-7-2011)

When I pressed Erin to discuss the types of students she would allow in her class, she listed those who could write essays, pay attention, and actively participate in the class. As I continued to discuss the nature of student characteristics and qualifications to take an AP class, Erin discussed race and SES as the deciding factors for students taking her AP classes. In the following section I explore how race, class, and gender may be influencing her expectations for students on the AP exam.

## **Summary**

This section explored how Erin manifested differential expectations for students in her AP class. The observation-based documentation of her classroom interaction patterns indicate that she communicated with some students more than others and the interview made clear that she was largely unaware of these patterns. In one course the pattern of unequal distribution of interactions is associated with her desire to create a relaxed classroom environment for her students. Because instructional questions were her primary method of assessing students' performance her unequal distribution of interactions prevented her from knowing the level of achievement/mastery of content and skills of many students in her class. Finally, I address the assumption that all students are capable of succeeding in AP in her class. Although she stated that all students could earn at least a 3 on the exam, she actually considers the prior academic experience of the students and their general preparedness for her classes to be the main predictors of their success on AP exams.

### **Erin's Interactions Situated in the Conceptual Framework of Critical Race Theory**

More so than any other teacher in the study, Erin opened up about her beliefs on the race of her students and the implications the students' race had in her classes. In the following sections, I discuss Erin's expectations for students in the context of race, then class and gender, to provide evidence for the third research question of my study, which investigates how her expectations are situated in the theories of deficit and dynamic thinking and critical race theory.

## **Race**

Erin stated explicitly that she did not account for race in her teaching when she said, “I have to tell you that when I teach my students, I am not looking at their color” (Interview, 12-7-2011). She added:

But I have always prided myself on the fact that I do not see them as Black or White or Hispanic or Asian after the first couple of weeks. I do not know if I pay that much attention, except maybe the names. I see the names in the beginning, but I do not see that and I am just responding to whoever is responding to me and I am not making the other ones respond (Interview, 12-7-2011).

This claim, however, contradicted other statements made during observations and interviews. For example, I asked Erin whether she thought race played a role in AP Human Geography, to which she responded:

Supposedly Black males score lower in most of the classes. But in AP classes, they are in there because they are bright. So, I do not even look at race or ethnicity. No. I learn their names and I do not really see it. I do not see it after a while. They are just personalities to me. And I know that might sound crazy and people will say that, but it really is true with me. I do not see color after the first week.... They are people. And so, I do not change anything because of their race or ethnicity. (Interview, 10-26-2011)

She stated her understanding of Black males and their achievement gap in most classes, which is based in fact. But the assumption that follows—that being bright equates to success—does not account for the many challenges minority students may face in the classroom. Specifically, teacher expectations have a meaningful effect on student

performance. In fact, all the students she identified as problem students were minority, especially Filipino students, as problem students in her human geography class. Just moments after stating that she did not see race, she began blaming the failures of the AP Challenge Program because students selected for the program were low-income and minority students:

But last year I had five APCP kids and they all got 1s. So I am looking at that going, I did not change anything that I did. I am going to get the 4s, and AP Challenge, you are going to pick these kids who, you know, you are going to encourage them to go into AP and they are going to be poor and a minority, and so, are they going to study? The kids that I had that were AP Challenge were the laziest kids I have ever had in AP. They had no motivation. They had no incentive (Interview, 12-7-2011).

Erin placed the blame for the low AP exam scores of the five minority AP Challenge students squarely on the students themselves. By placing blame for failing the AP exam on student characteristics of race and SES, she absolved herself of responsibility to reach out to students. When I discussed how SES might affect the students in her class, she maintained her position that she does not consider SES as an influence on her expectations for students:

I mean, seriously, what else could I do besides move in with them? . . . First of all I do not know who is low-income. I know who is minority, but I do not know who is low-income. I do not look that up. And then, I do not see them as minority...

The way I look at it is that they are almost all minorities because there are not as

many Whites.... I do not see it... They are people. They are little personalities. I might see this one acts up and this one does not (Interview, 12-7-2011).

Erin's comments contradicted her earlier statement in which she directly blamed the staff of AP Challenge Program for selecting low-income, minority students when they were not prepared. Her statements presents another disconnect: stating that she only saw students' personalities and behavioral challenges yet attributing blame for failure on the AP exam to income and minority status.

By ignoring race and SES, Erin may affect students by creating inequalities rather than preventing them. She acknowledged her minority and low-income students were under-performing when compared to her White and high-income students. By ignoring these characteristics and harboring expectations that minority and low-income students are less prepared, she cannot purposely address the achievement gap on the AP Human Geography exam. In general, her statements about race and class were not as direct as when she discussed Filipino students directly.

### **Filipino Students**

One of the more candid discussions I had with Erin was about Filipino students in both of her AP classes, when she discussed a number of student characteristics that she felt were a result of their race:

I have to tell you that Filipino girls are usually very conscientious, and they are right there. They do their work and they have got that work ethic. Their brothers...Filipino boys, no... and that was a misconception that I had. I just thought that all Filipino children were the model students... Now, I am not saying all Filipino boys, but it seems to be a trend for them...the Filipino boys, they are

just in there playing. ... Last year, I had what I call the “Filipino boys club” in one class. They were silly. They were goofy. They did not do what they were supposed to do. And I am surprised even one or two of them made a 3. Because it was a little gaggle of Filipino boys, and they were just loving life (Interview, 10-26-2011).

Erin’s expectations for Filipino boys were based on her experience outside my observations. Although Filipino students were reprimanded more frequently than other students in her AP Human Geography class, they were not talking more than other students. During the opportunities where I was able to overhear Erin talking to students about their assignments and course grades, no Filipino student ever stood out as one of the students who had failed an assignment. In fact, one of the Filipino boys in Erin’s AP Comparative Government class was the only student to earn a perfect score on the first major assessment.

Interview and observation data demonstrated Erin’s expectations for Filipino males’ and females’ performance in AP classes. Although Erin frequently contradicted herself in multiple areas, her comments on race were very different from those of the other teachers in my study. However, she was like Sam in that she had a hard time disaggregating race from socioeconomic status.

### **Socioeconomic Status**

In contrast to Sam’s comments about SES, Erin was more forthcoming with her comments regarding low-income students in general, usually in terms of how students’ SES may have affected their lives at home. Erin’s comments on parental support differed from her claim of only seeing personality and behavior as factors in her students’ success.

The comments made about students' parents were similar to earlier comments made when addressing race and SES:

I think it has to do with expectations at home. I think when you have parents who do not even know what an AP exam is and they do not tell their kids to study and they do not help them... So if you have someone who is there and supportive. But we have students who come from homes and it is not, their parents do not say, "Which AP classes are you going to take?" they do not even know what an AP class is. So they do not have that support. And they do not have someone saying, why you did not do your homework. What are you not doing this, why are you not doing that (Interview, 12-7-2011)?

Again, Erin placed the blame for students' failing to earn a 3 or higher on the AP exams on student characteristics outside her control. Unlike Sam and Claudia who asked students which AP class they were going to take next year and provided in-class support, Erin placed the responsibility for enrolling and succeeding in AP classes on students, parents, and guidance counselors. Erin never alluded to having any responsibility for the success of minority and low-income students in her classroom, insisting that all students entered her classroom on equal footing.

Erin viewed her insistence on maintaining supposedly colorblind and income-indifference perspectives toward her students as a mechanism by which she created a level playing field for all of her students:

And I am pushing them all equally in my opinion, I have the same expectations... I do not know who has money and who does not have money. I do not know who has a parent who is not supportive and who does not. ... I am coming as the

teacher. I do not want to know. I do not want to act differently. I want to have a level playing field. And maybe I am wrong. And maybe I should not have a level playing field. And maybe I need to say, OK, I am going to give these kids extra attention. But then I think the other kids are going to be like, say, “Hey, why is she giving them extra attention and not me (Interview, 12-7-2011)?”

Erin assumed that low-income parents were not involved in or knowledgeable about their students’ academic courses:

So maybe you have some strong parents. Does socioeconomic status have to do with determining them or not? I mean, you are going to have those parents who are. But maybe across the board you have more of them who are not. But then you have the ones who do, or maybe you have to take into account intrinsic motivation. I mean, some kids just have it. And some kids do not. You know that. Some kids, they want to do well. They like school. They want to get good grades. So they try. They turn in all their homework. They do this, they do that.

(Interview, 12-7-2011)

Erin also made comments about a students’ SES that often intersected with race, as discussed in the previous section. Erin believed SES affected student performance. She consistently attributed students’ motivation based on the characteristics of race and SES. In this way, Erin considered both characteristics when forming expectations for students but did not use assessment data when considering race or SES in any observable way.

### **Gender**

Erin focused mostly on the characteristics of race and class, occasionally interspersing gender with her interview responses. Her beliefs about Filipino students

were differentiated by gender and represented the strongest evidence for considering gender as a characteristic influencing student performance on the AP exam. She said during the second interview that Filipino boys were silly and “just loving life,” but Filipino girls were usually very conscientious. Both her human geography and comparative government classes had at least one Filipino student of each gender. I was unable to determine any difference in the interactions patterns between male and female Filipino students.

I did not observe Filipino boys “acting silly,” but I did observe an interaction in the human geography class when Erin selected a Filipino girl to talk to when chastising several students for talking about non-instructional topics. She told the Filipino girl to stop distracting the other students around her and to work on the assignment. I noted that other students in the classroom were also talking but received no comment from Erin. For the next several minutes, the Filipino girl distracted other students, making rude gestures with her hands whenever Erin was facing away from the students in the class. Later in the class period, Erin called the Filipino girl up to the front of the classroom and held a private conversation with her. I asked Erin about the event in class as well as the private discussion to which she replied that she spoke to the Filipino girl about the incident and told me they were “on good terms.”

I examined Erin’s classroom interaction patterns for more general signs that she interacted with one gender more than the other and was unable to find any conclusive trend. Her comments indicated that, like race and SES, Erin is unable to disassociate race and gender, at least for Filipino students. For these Filipino students, gender may be a characteristic that affects Erin’s expectations for performance on AP exams.

## **Conclusion**

Erin presented herself as a teacher with contradictory expectations for students in a number of ways. She manifests conflicting expectations for her students by offering different types of statements on who should be in an AP class and why they would be able to succeed or not. Erin believed prior academic experience was the most important determinant for students capable of performing well in her AP classes, and de-emphasized the influence of her own instructional behaviors that could have enhanced student performance. The absence of classroom interactions undermined the instruction that students require for earning at least a 3 on the AP Comparative Government and AP Human Geography exams.

## CHAPTER 7

### DONNA, THE FRUSTRATED TEACHER

In the following case study, I consider the nature of Donna's teacher expectancy-conveying behaviors including how her frequent display of frustration influenced her interactions with students. Donna's sense-making of how she evaluates her students' effort, writing ability, and prior experience in AP courses played a key role in determining the students with whom she interacted. The chapter concludes with findings about Donna's perceptions of race, socioeconomic status, and gender as they relate to student performance on the AP Biology exam.

#### **Expectancy-conveying Behaviors from Donna's Classroom Interactions with Students**

In this section I will describe Donna's frustration influencing classroom behaviors as well as her sense making of those behaviors to answer the first research question for my study, which explores Donna's expectancy themes.

#### **Frustration**

Donna began the year frustrated about her school's involvement in yet another professional development program for science teachers and that she would be teaching an AP Biology class nearly double the size of her previous AP classes. She and I had frequent, candid conversations about her frustrations. These frustrations had the effect of

limiting her interactions with students—a pattern of behavior revealing interesting themes about her expectations for students.

**Many talkative students fueled her frustration.** The 24 students in the room constituted the largest AP Biology class Donna had taught since she began teaching at Hoynes High School eight years earlier. Her AP Biology classes are typically between 10 and 15 students per class. The large class size bothered her, but the students' incessant talking frustrated her nearly every class period. She said, "The feel for last year was a little bit different. I just felt like this year, because they are all in one section and they are all friends..." (Interview, 10-25-2011). Donna felt that getting students to be quiet and participate in assignments was more difficult than in previous years' AP classes. The slightest disruptive student behavior, such as a whisper between two students, or a student standing up to sharpen a pencil, got them off task and regaining their focus was a challenge. To try to get them back on task, Donna said, "So, I get it. You are all friends. We are all friends in the class. Those of you chatting the most have the worst grades in this class. It is about the effort you put in in this class. I do not want to have to yell at you, but could you just do the work, please?" (Observation, 10-12-2011).

Donna was unable to mask her frustration with the large number of talkative students in her class. For example, about halfway through one observation, Donna looked up at the ceiling, took a deep breath, and then looked out at the classroom. She was frustrated. Several students were carrying on conversations about homecoming, the merits of the school cafeteria's chicken biscuits, and what nail polish looked the best on a particular student. Most students were ignoring the PowerPoint slide being projected

onto an interactive white board. Her body language in class—slumped shoulders, looking at the floor, and leaning on her podium—indicated her lack of motivation to deliver the lecture’s content. I observed these behaviors multiple times during several different observations. This pattern indicated that the behaviors were not due to the fatigue of delivering 60 to 75 minute lectures but rather to the frustrations she experienced due to students’ talking and disruptive behaviors. Her students picked up on her body language in response by tuning her out.

**Frustration during lectures limited interactions.** Donna relied on lectures for her primary instructional strategy and because she stopped her lectures when she became frustrated by students’ excessive talking, returned to her desk, and did not interact with students for several minutes, she had fewer interactions with students in the classroom, and also covered less content in her class sessions.. It appeared that because the lectures involved students very little, they would begin conversations amongst themselves. I observed this pattern of talkative students, followed by the termination of an instructional activity multiple times.

Donna believed the reason students were not involved during her lectures was due to a lack of rigor in the class. Three weeks into the semester, she realized the need to increase the rigor of her instructional activities with all students to increase scores on the AP exam: “I am probably not demanding enough. Last year I felt like I was not demanding enough, and that translated to poorer scores—or not what I wanted them to be” (Interview, 9-22-2011). Being demanding with students is a positive teacher behavior that communicates expectations for students. However, she limited her demanding behaviors. Instead she asked low-level questions, allowed students to stay

off task, and communicated low expectations. Her explicit low expectations were reinforced implicitly by the lack of instructional behaviors that limited the frequency of expectancy-conveying interactions with her students.

**Frustration reduced as time progressed.** Donna struggled initially with student behavior but over the course of my observation period became more comfortable with the larger class, which had more students than during any other year she taught AP Biology:

I am coming from absolutely no behavioral issues whatsoever. [The students] would come in and they would sit down. They would be ready to learn and I would not have to tell them to be quiet five times and get started five times. So that is a little bit different this year and challenging. It is getting better though... I ... just felt like there were [fewer] kids that were struggling at this point. I think that maybe this year, I have a lot more...first-time AP kids (Interview, 10-25-2011).

Donna frequently mentioned the talkative and disruptive nature of this group of students, many of whom she had previously taught in her general biology class.

Although she was unsure of how many students were taking an AP course for the first time, she could identify at least one student who was in his first AP class. She indicated this student was a good representation of the behavioral problems she observed in class. She attributed his motivation to drop the class to the challenges he faced taking an AP class for the first time. As the school year went on, this student, who had spent the first several weeks trying to transfer out of the class, relented to the idea of staying in the AP Biology class and became less of a distraction to other students:

He spent the first month of school trying to get out of this class, so that very much affected . . . his performance. . . You know, he was just saying, “Well, I am dropping it anyway.” So he was just not trying. But since he started trying, it has gotten a little bit better (Interview, 10-25-2011).

The student’s decision to stay in her class and stop misbehaving reduced her frustrations. Donna’s predictions for this student’s performance, as well as others, were tied in part to her level of frustrations. She stated that like this particular disruptive student, other students engaged in fewer disruptive behaviors during lectures and other class activities. However, I was unable to verify this change in students’ behavior which occurred after I ceased classroom observations.

#### **Stated Expectations for Students’ on the AP Exam**

Donna initially revealed low expectations for her students’ performance on the AP exam. When asked, early in the school year, how she expected her students to perform on the AP exam, her prognosis was grim. When asked why she did not believe that many of her students would earn at least a 3 on the exam, she simply offered, “Look what I have to work with” (Observation, 9-14- 2011). Two weeks later, after the first unit test—which half the class passed—Donna said, “The students that I expected to do well did well. The students I expected to not do well did not do well” (Observation, 9-22-2011). Donna’s expectations for student performance on the unit test may have been based on her frustration with disruptive students rather than on their knowledge of the content. For instance, many of the students who performed poorly on the test sit together in groups at a few tables. These students are generally engaged in conversation unrelated

to course tasks more frequently than other students in the classroom. This group of talkative students was those she expected to perform poorly on the AP exam.

**General predications for student performance.** During formal and informal interviews, Donna expressed how she thought her students would perform on the AP exam with general predictions for student performance. These predictions were based on the general AP exam score distribution of the 24 students' she had taught in the regular biology class the previous year. However, she withheld predictions about specific students' performance in the first few weeks. She indicated that the pacing and content in the AP Biology class differed from the regular biology class and that the students who performed well in general biology might not perform as well in AP Biology (Donna, Informal Interview, 9-14-2011). Her intuition about this was supported when her highest performers from her past regular biology class failed the first unit test in her AP Biology class.

Despite her familiarity with all but four of the students in her class, Donna could not identify which students would earn a 3 or higher on the AP Biology exam after the first two months of school:

I do not have a clue...I mean...every year you want to say, "At least this many will pass." And then they do not. So it is really, really hard, especially now. I feel like in March I could probably say who is going to and who is not better than I could now. I would say that maybe less than 50% will get a 3. That would [mean] maybe, like, six or seven kids [who earned] a 3 or better . . . There are probably five or six students in that class that are very capable of getting a 4 or 5. It is just that I just have not been around them long enough to see if they are going

to put forth the effort all year long to see if they will get the material, but based on their writing abilities and the two tests that we have had, I have seen some good production out of them (Interview, 10-25-2011).

Donna shared with me her opinion that some students were capable of earning a 4 or 5 on the exam; however, she based this on the students' previous experience in the general biology course, not the current year.

**Prerequisite skills predicting success.** Donna's later predictions in the semester for which students would score well on the AP exam were based on those students who asked "good" questions during her lectures. Donna also began to move away from her original prognosis for students' performance on the AP Biology exam. These students are the ones who were "thinking about things constantly...at a higher level...not just trying to memorize the information" (Interview, 10-25-2011). Donna also identified students who would struggle based on the complex level of the course content and the lack of prerequisite skills that included: lack of basic reading comprehension skills, poor writing abilities, failing to complete assignments, and taking AP Biology as their first AP course. She explained:

They do not understand writing prompts and how to respond to writing prompts. Graphing is a big issue. Some times when I am in AP, I feel like I am back in regular [biology] because I am explaining how to make a graph when I probably should have to be explaining a graph to kids who are in calculus...it is basic science skills and a lot of it is sometimes course content...I have to go backtrack and do some of the details that they should already know for AP and then build from there (Interview, 12-7-2011).

Re-teaching content further frustrated Donna. Donna elaborated on the challenges of not having the prerequisite skills necessary to be successful in AP classes:

...at this school...AP classes are almost divided into two groups. There are the kids who really should be AP students and know what AP is and hit the ground running. And then there is the other group that is on the lower end that they are really challenging themselves by taking that AP class, which is great, but they need a bit more scaffolding to get to the level of the higher kids. And some of them never get there, and that is fine (Interview, 12-7-2011).

Donna expressed concern about student performance on the AP exam multiple times during our interviews and after-class conversations. She moved from not wanting to make predictions for individual student performance on exams at the beginning of the year to expressing concerns later in the year for some students who may not score at least a 3 on the exam. Much of her concern was based on her belief that some students would succeed in earning at least a 3 on the AP exam and others would not due to effort. Those students she identified as lacking effort were observed sleeping in class, disruptive during instruction, and worked on assignments for other classes.

### **Disconnects between Instructional Behaviors and Expectations**

In the following sections, I outline the instructional strategies that Donna used in class and discuss how these comprise teacher behaviors that illustrate Donna's expectancy themes.

**Lack of interaction with students.** Donna's reliance on presentation/lecture affected her interactions with students. Because the AP Biology curriculum requires teachers to cover 56 chapters of detailed and high-level information and Donna views

PowerPoint lectures as the most efficient means to communicate that information quickly, she typically used PowerPoint lectures for nearly the entire class period, including to facilitate classroom discussions. However, Donna recognized the lectures are not effective in keeping students' attention in this year's larger class. She explained:

I think it is a little hard to lecture to 24 kids... Last year when there was [sic] only 14 or 15, I feel like it was more of a discussion...and now lecture is a lecture. I am standing up there talking. But last year I felt like I could sit in the middle of the room and we would go through the slides and talk about them. And they would still be doing the same thing they are doing now, you know, sitting there taking notes. But I feel like it was more of a discussion as opposed to "Write this information down." And part of that [is that] I feel like I [have] to keep [this year's students] moving. Because if I [stop] moving then they will start talking to their umpteen friends they have in here. Part of it is just...it is different kinds of kids in here this year (Interview, 10-25-2011).

Donna concluded that students were more off-task when completing worksheets, writing practice essays, and executing lab activities. She also concluded that students were off topic for longer periods of time when she did not stand at the front of the classroom. As described earlier, when students got off task and were loud, Donna stopped interacting with them. She would return to her desk and grade papers or start prepping a lab for another class. Only occasionally would Donna ask questions to students as a means of controlling student talking. She occasionally targeted students who were not paying attention during a lecture with questions designed to embarrass them into paying attention.

Despite two years of professional development designed to offer engagement and scaffolding strategies, Donna exhibited only a few effective instructional techniques for engaging students and scaffolding content in her classes. This limited repertoire of effective instructional strategies that would connect with students and keep them focused on her lectures or tasks such as lab work or practice essays limited her ability to engage her talkative students and, therefore, students did not progress to higher-order questions or comments during the class period (Bloom, 1956).

**Bridging student connections: From recalling facts to producing critical analysis.** Like Sam and Erin, Donna had a problem moving students from basic comprehension and recall to thinking and writing critically about content. Although she had concluded that some students had not encountered challenging coursework before her class, she failed to act in ways that would develop the higher-order thinking required to earn at least a 3 on the AP Biology exam.

I also think Joshua...could also do it [earn a 3] because he [is one of the students who] asks the good questions and the ones that are thinking about things constantly. [They] are the ones [thinking] at a higher level and...can be more analytical and answer questions better and not just try to memorize information. . . Donna stated that Joshua's ability to use analysis in his responses was one way she knew that he was thinking at a higher level. Although Donna was using questioning as an instructional strategy, she was not moving most students to higher-order thinking.

If the question does not look exactly [like] what they memorized, . . . [they cannot make] the connection between the information and the higher-level thinking. Some of the kids are already there with the higher-level thinking, and some of

them just have not even been exposed to that higher-level thinking, and this is the first time they have ever seen that type of question on that kind of level... It is usually the ones that come in that have been in AP classes before... Those kids are probably the ones that are going to be doing a lot better than the other ones (Interview, 10-25-2011).

She expressed concern for most of the students in her class who were not able to employ analysis when answering questions. Donna contrasted these students who could not answer higher-order questions with those that could. Despite her empathy, she did not assume responsibility for teaching students how to think in more complex ways.

**Asking low-level questions as a predominate instructional strategy.** In a similar manner to Sam and Erin, Donna used lower-order questions throughout her interactions with students. The questions typically targeted basic concepts and terminology that students had read about in book chapters or been exposed to in previous lectures. However, Donna believed that she was asking questions with varying degrees of difficulty:

If they are a true AP student, then they will be able to handle the most difficult question. And if they are... just a student who is choosing to take this class [who] would not otherwise be called an AP student, a top-tier student, I will not ask the hardest question because they are going to feel like they failed, or they just cannot get it. (Interview, 9-22-2011)

Donna's assumption that only the smarter students would be able to answer the harder questions was flawed and became even more untenable when she failed to target specific students with any questions at all. By not targeting questions to specific students, she had

little notion of how students — those who could handle the rigorous questions as well as those she perceived could not — were progressing toward understanding the course content.

In addition to targeting lower-order thinking, Donna asked questions broadly to the class and only a handful of students responded. Each time she asked a question, the same students responded to the question while most of the students in the class remained silent. She was aware that only a few students responded to her questions. Part of the reason for the lack of interaction with all students may have stemmed from the number of students in the class this year: “Last year, they would ask more questions and it would spark more discussion. Or they would always try to bring in examples from their real life. And some of them do it this year, but just not as many” (Interview, 10-25-2011).

**Lack of praise.** In addition to asking relatively few lower-order thinking questions each class period, Donna did not praise or reward students for volunteering answers to questions. The lack of positive reinforcement was likely affecting the number and quality of teacher-student interactions. Additionally, the frustration Donna exhibited in the classroom during the first several weeks of school translated to fewer positive interactions with students. When she interacted with students, I rarely observed any positive feedback toward students. I would occasionally hear her say, “Good” or “Nice” when students offered responses to questions, however this was an exception. Donna’s frustration which limited questioning and, subsequently, opportunity to praise resulted in no discernible pattern of praise toward students. However, Donna praised students and their work to me after class and during interviews. She clearly regarded some students’ work, such as summer assignments and in-class activities, as superlative; however, I did

not observe her convey this message to students. The lack of praise and attention communicated expectations to the students that included little emotional support from her. Students may have been unlikely to offer responses to questions if they did not feel the learning environment was an environment where student responses were solicited and respected.

### **Effort, Writing Ability, and Prior Experience**

Throughout the many conversations I had with Donna, three key themes were evident and continued to influence her expectations for student performance on the AP Biology exam: effort, writing ability, and prior experience with AP classes. Her perceptions for each of these themes influenced which students she would interact with and how she decided whether a student had performed successfully in an instructional activity.

**Student effort.** Donna's expectations were shaped by her perception of how much effort students made in completing assignment. The amount of effort a student was willing to put into the AP Biology class was a consistent theme she mentioned to me and to her students.

There are probably five or six students in that class that are very capable of getting a 4 or 5. It is just that I just have not been around them long enough to see if they are going to put forth the effort all year long, to see if they will get the material, but based on their writing abilities and the two tests that we have had I have seen some good production out of them (Interview, 10-25-2011).

She stated that student effort on tests is important and equated effort by the amount of time students spent answering essay questions along with the length of answers they provided.

Students who completed all assignments on time or early to her signaled they were conveying effort. Donna provided students with regular assignments designed to prepare students for the test format and content on the AP Biology exam. One student Donna believed to be quiet, but bright, checked in regularly on assignments and put in more effort than the assignment required. She explained:

She is also one that I would expect to get a 3 or 4 or 5, just because of the work ethic, and she seems to grasp it. Her work ethic is probably the best out of anyone that I have seen. She is turning assignments in way early and emailing me questions about assignments . . . [that] she does not get. And there are questions that are very far beyond what the minimum knowledge is that she needs for stuff. She is really good. Ginger is really good. I would say that there are about seven or eight of them that are really, really good (Interview, 10-25-2011).

Donna interacted more frequently with students who completed assignments outside of class. Of the students she interacted with during class, the students who completed the summer assignment early or who put extra effort into classwork were likely to have additional interactions with Donna.

Donna required all of her students to complete assignments before each unit test; however, the pace at which students completed the assignments was entirely up to the student. Many of the course readings introducing students to the biology curriculum are assessed by an online system developed by the University of Texas and paid for by the

professional-development program that Hoynes is currently using. The online system assesses and provides feedback to the students and reports the students' scores for each student who has completed the assignment. Donna informed students that they would have to exert effort in order to keep up with the pace of the class. During the class period before the first unit test, Donna pressured students who had not been keeping up with these assignments:

An hour and a half is not a lot of time. You need to be doing work outside of class. You have a test coming up. I have only had eight of you sign up for my class on [the University of Texas website]. If you have, great; if not, you need to start working on the assignments. I'm adding another one tonight. They will both be due by Sunday at midnight. Everyone got that? Sunday at midnight (Observation, 9-20-2011)!

To motivate students to prepare for the test and complete these online assignments, Donna told students,

Right now I am a little bit concerned. From some of you I am seeing fantastic efforts. Others—I see you walking through life like, “What is going on?” The tests are really hard. I think some of you will be crying (Observation, 9-20-2011).

The students who exhibited effort were the ones that Donna was most likely to identify with personally. During my first interview with Donna, she stated that she was more likely to relate to students who showed effort, both in class and out of class, because that is what she was like as a high school student.

So, those kids, I can relate to a lot better just because they are kind of like I was. That does not mean to say I do not relate to the other ones. It is just a little bit

more difficult to relate to these kids who are just in school from 7:30 to 2:30 and that is it. (Interview, 9-22-2011)

Donna equates effort with the amount of time they put into her class and into extracurricular activities after school.

**Prerequisite writing abilities.** Donna discussed student writing multiple times in interviews and classroom observations. During interviews, she said her favorite instructional activities were those that started with writing and ended with a higher-order skill activity. However, there was a disconnect between Donna's lectures—a lower-order thinking activity, in which students were not engaged—and the lab activities she employed, which were higher-order activities that students were not able to complete without the prerequisite knowledge.

But I usually like to start off with some kind of writing. I really like the writing piece in the beginning to get them thinking about what we did the previous class, and [then we extract] the information we need from the previous class, and then move into some sort of lecture about whatever we are learning about, and then [go into a] lab [activity] that applies the concepts from the warm-up and the new stuff (Interview, 10-25-2011).

During the labs I observed, students employed multiple ineffective strategies to complete the lab—that is, ineffective in producing learning. These included copying other students' work, making up data and graphs that were not based on any evidence collected in labs, and stalling until Donna went over the lab activity at the end of class. Students struggled to complete the data collection and then were unable to complete the analysis and write-up.

Donna claimed that writing essays in AP Biology is different than in other AP subject areas because students (according to her perception) are able to earn credit on non-science essays without using facts. She explained:

There are kids in here who are great in AP U.S. History and AP English because they are great at spinning essays. But in here, you cannot spin an essay... They are still figuring that out. It takes a whole semester to get out of writing that kind of essay and just . . . giving me. . . facts (Interview, 10-25-2011).

Donna taught students how to write an essay in AP Biology. Although some students were stronger writers than others, she walked all students through exemplar papers and gave students an evaluation rubric for grading their own papers before turning it in for a grade. Donna, like other teachers in my study, knows that teaching students to write essays in her AP subject area is critical for students to be able to earn at least a 3 on the exam.

**Prerequisite AP course experience.** In addition to effort and strong writing skills, Donna emphasized the connection between taking other AP classes prior to AP Biology as a factor predicting success. When asked to describe the students who would most likely perform well on the AP Biology exam, she responded, “It is usually the ones that come in that have been in AP classes before” (Interview, 10-25-2011). She remarked that this is because of the exposure to difficult coursework.

During the same interview, Donna cited several students who struggled to pass her class. She believed the reasons for their failing grades was lack of experience in AP courses or lack of exposure to high-level thinking required to answer test questions on AP exams. Donna made additional comments about exposure to academic content when

discussing minority students who were struggling in her AP course. I explore Donna's perceptions of minority and low-income student under-preparedness later in this chapter.

Donna believed only a few students expended the effort required to perform well in her class. Additionally, only a few possessed the skills necessary to perform well on the AP Biology exam.

### **Summary**

This section explored Donna's expectancy-conveying behaviors from classroom interactions with students. She initially held high expectations for a few of the students she had taught during previous years and stated differential expectations for the class as a whole rather than stating expectations for individual students. In addition to exploring Donna's expectations for students, I described the influences of student success on AP exams. Like Sam and Erin, Donna also experienced challenges of connecting lower-order thinking to the critical analysis necessary for her students to perform well on the AP Biology exam. In addition to analytical skills, she indicated that student effort, prerequisite writing skills, and experience in other AP classes were necessary for students to be successful on the AP exam in her class. Finally, I discussed how her frustrations with students limited her interactions with students. In the following sections I explore how Donna forms differential expectations for students through a detailed analysis of her interactions and an examination of reflective practice.

### **Manifesting Differential Expectations for Students in the Classroom**

Through a close examination of Donna's interaction patterns of expectancy-conveying behaviors directed towards students, we can better understand how she

manifests differential expectations for her students to answer the second research question for my study.

### **Interaction Patterns**

Three themes emerged in my analysis of Donna's pattern of teacher-student interactions. I noted specific influences in her interaction pattern: (a) she used lecture and whole-group questions which limited interactions to only a few students, (b) her physical placement in the room, including proximity to students, drove who she talked to (c) students frequent talking was a cause of her frustration that further limited her interactions.

**Lecture and whole-group questions.** Donna stated that she wanted to use lectures to spark discussion about topics in biology. In classes during previous years, she was able to use PowerPoint lectures to facilitate discussion. I did not observe any discussion during her lectures. Because the lecture activity was not going as planned and she had no means of facilitating discussion or keeping students otherwise engaged in the lecture, she became frustrated and stopped interacting with students.

I frequently observed Donna's students engaging in conversations at their tables or sleeping during her lectures. Donna had the most polarized distribution of positive instructional interactions, with most students engaged in few positive interactions and a very few others engaged in large numbers of positive interactions.

**Proximity to students.** Her proximity to students influenced greatly the students with whom she interacted. For example, one Latino male student received more than one third of the total number of interactions I observed during the data collection process, and a Black female sitting at the same lab table received the second most interactions; their

table was immediately adjacent to the location Donna used most frequently to deliver her lectures. During the four class periods when I recorded all interactions, one third of the students had no participation in a teacher-student interaction. The other two-thirds of students in the class typically engaged in an interaction only after initiating a conversation or volunteering to answer a question directed at the class at large, if they were involved in class interactions at all.

During many of the conversations I had with Donna after class and during interviews, she reported that the size of the class was different than previous years and was subsequently affecting her interactions with students:

I am just expecting a high level of engagement, and if I ask the whole class, then they are all thinking. I treat them like they are a small group of kids and that we are having a conversation. And I think that is why I [ask questions to the class at large] and that is clearly a fault because there are clearly kids who are not engaged and I am only tapping into kids who are listening and the ones who would answer anyways (Interview, 12-7-2011).

In addition to interacting only with students who responded to questions or initiated conversation, Donna inadvertently ignored sections of her classroom by facing away during lectures. While standing at the front of the classroom, Donna faced to her left, ignoring three tables of students. When she was in the back of the classroom, she rarely looked to either side, ignoring four tables of students. Failure to make eye contact with students who were not immediately adjacent to her for a large portion of the class period and not calling on students directly prevented Donna from interacting with a large portion of the class, a pattern of interactions that remained consistent during my observations.

**Frustration limited her interactions.** Donna was often overwhelmed by the large number of students talking in her class, a challenge that hindered her lecture-driven instruction. Her negative attitude, likely stemming from her frustration with individual students, was another key point influencing her interactions with students. During a lecture on 10-5-2011, Donna used sarcasm with the class by saying, “You probably do not remember this” when referring to content from the general biology course and “Do you guys know anything about ferns?” Sarcastic statements are counter to the behaviors that would convey positive expectations to students.

### **Teacher Reaction to Interaction Patterns**

When I showed Donna the chart of her interaction pattern and then spoke with her, she was able to identify two of the three factors influencing her interaction patterns. Although she was able to note how she interacted during lectures and found that her pattern of interactions was skewed toward a few students, she was unaware of how her attitude towards students was influencing student interactions.

During lectures Donna moved between her podium and a table by the back of the classroom. This movement influenced her interactions with students as she primarily spoke to the students at the table in the back of the room. Two of the four students sitting at the table also initiated many interactions during lectures which may have been due to her close proximity to them. Donna stated during interviews that she tends to relate with students who speak up in class and believed that she interacted more with the students at this table because they were initiating conversations with her and she reciprocated by talking with them more frequently.

When I showed her the table of interaction patterns I had collected, Donna noticed the skewed pattern of interactions immediately. She pointed to the table at the back of the classroom and noted that a majority of her interactions were with those students, surmising that her close proximity to the students caused them to interact with her more. She said, “Well, there [are] obviously [those students] that I walk to a lot, which I am assuming is... [looks at chart] Jose and Monica. That is always where I am standing too...so wherever I am standing is who I am talking to more” (Interview, 12-7-2011). Additionally, she offered an explanation for why a handful of students accounted for most of the interactions in the class:

I also tend to gravitate more towards the students that are looking interested in what I am talking about and I think that is what I am getting a lot. I think I just have the mentality that if you are eighteen years old and you are not motivated to learn, then I do not know what else...I need to be better about motivating them. But I like to teach the kids that want to learn and I feel like some of them do not necessarily want to learn every day (Interview, 12-7-2011).

Donna’s comments about the types of students she engaged were consistent with her beliefs about who should be in AP classes. Erin referred to students who were heavily involved in extracurricular activities and those who had taken multiple AP classes as the types of students likely to succeed in her AP Biology class. A little further into the third interview, Donna identified ways her behaviors might be altered to include more students in her classroom interactions. She specifically targeted changes to her lecture activities, which account for a substantial amount of the time she spends with her AP students: “I could move around more. I could stand in different places. I could call on different kids

more. I could single the ones out that maybe are not as into it or are not paying attention” (Interview, 12-7-2011). In addition to targeting students not engaged during class, Donna mentioned that she should also target students who had trouble grasping the course material: “I need to do better about interacting with the kids who are struggling more or who are not paying attention as much. I am interacting with the kids who are paying attention consistently” (Interview, 12-7-2011). Donna interacted with students who had performance higher on assignments in the class and noted that she did not call on students who did not pay attention.

Although Donna noted her interactions during lectures and position in the classroom that skewed pattern of interactions when I showed her my observational analysis, she did not recognize that her own emotional reactions were influencing her interactions. She recounted multiple times that her frustrations were influencing her interactions with the students in this year’s class. However, she failed to note the level of awareness of her frustrations that she showed about the other two patterns. The frustration in class was the most influential factor on her interaction pattern as it frequently caused her to stop interacting with the entire class for long periods of instructional time.

### **Analysis of Teacher Interactions**

Donna’s primary instructional technique was lecturing, and she did not regularly incorporate questions into her lectures. On more than one occasion, I observed a 60-minute lecture during which she did not ask a single question of her students. When I asked Donna about her lecture format during interviews, she alluded to previous years’ classes feeling more like conversations than lectures. The change in the feel of the

lecture aside, she may have assumed that students were still engaged, and thus her relative lack of questioning may have been tied to an assumption that students were listening and comprehending the material. When I asked her when and why she asked questions of the class, she responded,

I think I usually ask the whole class when I want to know if we are on the right track. If I hear a couple of people answer, then I know that we are at least getting somebody who understood it. And again, if nobody answers, then I go back and explain it again or explain it in a different way or something. (Interview, 12-7-2011)

Yet I observed multiple students engaging in behaviors that indicated they were not paying attention to the lecture, such as reading a non-biology book, working on homework from another class, texting, or sleeping. Lack of comprehension was illustrated by lack of participation in the choral-response questions. In addition to asking questions to the entire class, Donna relied on an online assignment system to check for basic comprehension. Each unit contained multiple readings with multiple-choice questions testing for basic comprehension of the material. The deadline for submitting responses to these online assignments was typically midnight before the date of an in-class exam, which did not give Donna sufficient time to work with students not comprehending the content.

In the following section I address her responses to questions about whether all students can succeed in AP classes.

### **An Assumption that all Students are Capable of Succeeding in AP**

Donna immediately rejected the notion that a student would never be able to succeed in the complex task of evaluating data to answer AP Biology exam essays. In comparing her class to AP U.S. history and students ability to pass the complex exam tasks in that subject area, she said:

...in every subject you are evaluating things. In AP U.S. history, you have a DBQ. You are evaluating documents. ... I would try to figure out ... [an equivalent assignment]...In reading a document and analyzing it and see what does he do well at that and how can I take those abilities and try to get that out of him in my class for the same purpose. Because not being able to evaluate data...I think that most kids at some point are able to get something out of data. So, I do not think I would really necessarily buy that if another teacher told me that (Interview, 10-25-2011).

Although Donna offered an unequivocal response that all students can learn in this instance, her comments on student ability with regard to race, gender, and student characteristics raise questions about the consistency of her stated beliefs. Donna's statements were based on her classroom experience that students' prerequisite analytic skills were often helpful, but not necessarily critical, to success in AP courses. When I pressed Donna to discuss conditions needed for all students to earn 5s on the AP exam, she began hinting at a minimum level of intelligence as a critical factor, though she backed away from that statement and left open the possibility that all students could possibly earn 5s:

That is what I am trying to figure out. I do not know. This is the time of the year when I am like, “I do not know what to do,” because I really do not. There is this small group of kids that are really struggling right now... A lot of it is that they are not doing their homework. They are not putting in the work outside of class. But the other side of it is that they really just might not have the intelligence level that...they are just not going to get that far in the next 4 or 5 months. And I am trying to figure out what I need to do for those kids. I guess my answer is, I do not know. I am working on it (Interview, 12-7-2011).

### **Summary**

This section explored how Donna manifests differential expectations for students in her AP class. She communicated with some students frequently and others not at all. She was not aware of these limited interactions or that students had to initiate them. For many students the lack of teacher-initiated interactions led to student conversations with other students and engagement in distracting behaviors, such as texting. Because Donna’s pattern of interactions was so tightly focused on a few students while ignoring other students, I explored whether she thought all students were capable of succeeding in AP Biology. When discussing performance hypothetically she indicated that all students could earn at least a 3 on the AP exam, but when she considered the students in her class she indicated her uncertainty that they would in fact earn 3s.

Donna indicates that she believes the student characteristics of race, class, and gender influence performance on AP exams. In the next section I considered her expectations through the frameworks of deficit and dynamic thinking and critical race theory.

## **Donna's Interactions Situated in the Conceptual Framework of Critical Race Theory**

When I asked Donna for her thoughts on whether the characteristics of race, socioeconomic status, and gender might affect students' abilities to perform well in AP Biology Donna was open and candid. Donna believed that race and gender had a direct impact on students' achievement in science, and that socioeconomic status was contributing to their performance on AP exams. In the following sections I explore the thoughts she had about student characteristics as a manageable or immutable effect on performance. I use these thoughts to answer my third research question which explored Donna's expectations situated in the theories of deficit and dynamic thinking and critical race theory.

### **Race**

Donna had the largest proportion of minority students in her classroom of the four teachers I observed, with 22 minority students. Like the other teachers in my study, Donna made contradictory comments about her expectations for minority students. Her thoughts on how race affected her students seemed to be the least developed of any of the four teachers because she was unable to offer consistent reasons for why race may have been an influence affecting students' performance. She was unable to succinctly articulate responses to questions about race and she comingled her thoughts on race with other student characteristics. When she finished providing responses to interview questions, she often noted that she deviated from the topic and asked if she answered the question that I asked. She understood that some minority students came to school with

different backgrounds than White students. She seemed more comfortable offering additional help to minority students so they would meet high expectations:

But one of our [goals] is [to address] a huge gap between African Americans . . . [and] Caucasians who are passing the [state standardized test]. So we are trying to figure out why and . . . narrow that gap. [Perhaps] not in the way that we deliver content—except for maybe trying to pull in more real world examples to make it more applicable to them—[but] to make them more interested in [science]. Also how we respond to the remediation piece when they are not getting it by offering them extra after-school help [and] allowing them to do test corrections (Interview, 10-25-2011).

Donna contradicted her interview responses during several after-school conversations. These after-class conversations revealed her frustration by having to stay after school to help minority students who needed the extra help. But she did stay out of a sense of fairness to students who needed the extra time with her after school.

Donna did not state that minority students could not learn science to the same standard as their majority counterparts or that inequities were based on some sort of student characteristic. Rather, she was saying that there were contextual factors affecting minority students' performance in advanced science courses.

I do not think [race] plays a role in the science itself, but it plays a role in the kids' background [and] exposure to it, but not [in] any sort of content-based [sense]. It does not matter what race I am teaching to. It is taught the same. But I think the way a kid comes [in] with some kind of predisposition about science or their

exposure or lack of exposure to it is involved, but not necessarily the content itself. (Interview, 10-25-2011)

Donna commented that exposure is not something tied solely to race but is commingled with the SES which she and her fellow science teachers actively considered. She believed race and SES could not be disaggregated. The instructional planning and support that she and the other science teachers at her school employed for race were identical to that used for SES. The most frequent accommodations were in reference to assignments in her AP Biology class:

But I think [race] definitely plays a part, especially when you are assigning projects. If they involve technology or Internet research, you do not necessarily not do those things, but you have got to give the kids another outlet if they do not have access to those things at home (Interview, 10-25-2011).

Many of Donna's assignments required access to computers with connections to the Internet as well as resources to make physical representations of biological concepts. She stayed after school several days a week to ensure students had access to the resources they required to complete assignments. In addition to recognizing a disparity in the access to resources, Donna frequently mentioned highlighting lessons in the curriculum relevant to minority students. However, she only mentioned one instructional strategy used in class:

I try to pull in real-world examples to make it applicable for everybody, not just a certain group. I know that when I do genetics, we always talk about Sickle Cell Anemia. So there are some examples where bring in that, particularly in that unit, but outside that unit, not so much (Interview, 10-25-2011).

A constant theme in my conversations with Donna was that she was learning how to be a better AP teacher for minority students. She reported that between the AP Challenge Program and her current multi-year professional development program, she had gained more ideas on how to better work with a diverse population of students but struggled to implement new strategies. Through her involvement with the AP Challenge Program, she worked with content-area experts to incorporate topics in science that could link the required course content with real-world connections. These strategies were appropriate for all students, including minority students who may not have come into science classes with background information. Examples of these real-world connections include: studying local water sources for signs of human contamination and studying local ecologies around the immediate area where her students live. She added, “I think I could probably use a little bit more of the real-world examples. I mean, it is biology, so everything is real world” (Interview, 12-7-2011).

Donna also commented on the lack of prerequisite knowledge among many of her minority students. She claimed many lacked fundamental skills to be successful in biology and held gross misconceptions about the content and rigors of the course:

I think the reason many students do not succeed on the AP Biology exam has to do with the lack of preparedness for that level; their lack of skill. It has to do with us, too, our lack of getting them prepared for the AP level...I think a lot of the low income and minority kids that come into AP just have no idea... they are just taking AP because this person is taking it... It sounds cool and they want to dissect a pig at the end of the year. And they do not even truly understand what AP is. I think we need to do a better job of exposing them to rigor besides in the

AP classroom, and that is not what we are doing right now (Interview, 12-7-2011).

Donna frequently expressed frustrations that many of her students were not prepared with basic skills required to be successful in AP Biology, which influenced how she expected students to perform on the AP Biology exam. When we discussed which students would likely earn at least a 3 on the exam, many of her predictions were based on strengths students brought to the course. The absence of fundamental prerequisite knowledge limited not only students' success in assignments for which they were not prepared but also Donna's perceptions of their abilities.

Enrollment of students lacking prerequisite skills in AP Biology classes was a problem Donna had experienced for several years and related specifically to minority students in her class. When asked why she thought unprepared students continued to enroll, she attributed the student makeup in her class to poor guidance counseling and advice to minority students:

...or maybe they are in the same classes as everybody else, but they're sort of in the lower end of those classes, so they are just sort of getting pushed along with the flow instead of really moving to the next level.... Sometimes I think they are not placed in the right classes. They are sort of like, lumped into the higher end of kids when maybe they are not really in the higher end of kids and they just sort of make it through these classes when they are not retaining or learning a lot...So then they are just pushed into AP and maybe they are not...not to say they should not be in AP...but maybe they are not as prepared as other kids who are in AP (Interview, 12-7-2011).

These comments about course placement, in the context of a larger discussion about minority student performance in her AP class, reveal Donna's attribution about the causes of minority student underachievement in her class and school. This was also reflected in her comparison between minority students succeeding in her other classes and those struggling in her AP Biology class:

I think that the ones that are doing better maybe are not stretched as much. I think that I have noticed with a lot of minority and low-income students that they try to do all these different activities at school and they have twenty-five-hour work-week jobs because they have got to make their own money or they have to make money to support their own family and they are trying to take an academic work load. Whereas some low-income minority students do not have the work aspect or they are not as involved in activities...it all has to do with time outside of the classroom... It has to do with the work ethic that you are putting in. It [also] has to do with the time...some kids are in the position where they have to babysit their kid. So that is a big factor because then they do not have the time to do the AP work (Interview, 12-7-2011).

Donna's strengths in addressing race manifested as an outpouring of support for her students by accommodating students with after-class study sessions and making sure students had resources available. Yet she was unable to address the needs of her diverse students during instructional time, having a limited grasp on how to adapt her curriculum or adopt relevant examples for minority students. Donna also had difficulty understanding which specific aspects of the curriculum challenged her students because she did not interact with most of the students in the class. This absence of interactions

compounded the issues of helping students overcome instructional hurdles they faced. Additionally, by failing to employ behaviors that communicate positive expectations to students she in fact communicated negative expectations. These challenges of teaching racially diverse students echoed the challenges of teaching students from low-socioeconomic backgrounds.

### **Socioeconomic Status**

Donna associated socioeconomic status with race in responses to interview questions. She associated race and student preparedness because many of her minority students had less exposure to rigorous coursework than their White counterparts. She never really drew a clear distinction between the two student characteristics of race and preparedness. When Donna considered socioeconomic status, she also introduced concerns for preparedness. For example, Donna frequently discussed student exposure to biology concepts before they entered AP Biology. She only addressed SES directly when I asked how being low-income might affect a student in her AP Biology class. She responded:

...I am making an assumption, if they are low SES, then they are going to have a less frequent access to expose themselves to [biology] at home or outside of school...not with the content really, but how they are exposed to it or not exposed to it outside of school. (Interview, 10-25-2011)

Donna attributed a lack of resources (materials, computers) to SES as affecting students in biology. In addition to a lack of resources, she also acknowledged that students came to her classroom with characteristics outside of her control but was ready to

accommodate students and struggled during the initial weeks of the school year. She said:

Asking kids to stay after school is just impossible sometimes, because they have to care for siblings and they are working jobs to contribute to family income. We constantly feel like...it is like a catch-22. We want to have high expectations for the kids, but we cannot have high expectations for some students or we constantly feel like we have to bend the expectations a little bit because of their circumstances outside of school. So it feels like as a teacher, we are constantly making exceptions... for [one student but not] the others so it feels [unfair] and inconsistent (Interview, 10-25-2011).

Donna tried to make sense of what is fair and how to best translate this fairness into instructional practice. I frequently observed her telling students that she would be available after school to allow access to resources, but saw no other indications that she was considering students' socioeconomic status through classroom interactions.

Because of the references to SES comingled with preparedness and race, even when directly asked about the socioeconomic status, a student's SES status did not appear to directly influence how Donna formed her expectations for performance on the AP Biology exam. In addition to race and socioeconomic status, Donna also considered the role of gender in advanced science coursework.

### **Gender**

Donna believes the effects of gender as a student characteristic may be equally as important as the effects of race. Donna considered gender to be an important characteristic attributing to success in science. She explained:

There are always more girls in the class...but the boys perform better than the girls... I am not sure why that is. I think girls just tend to be harder workers that are capable of taking the class. And capable...and even though they are not performing well on the AP exam or the tests, they are still capable of keeping a decent enough grade to keep them in the class, whereas boys are just a little bit...for whatever reason, better at thinking that way. I think it has something to do with...analytical thinking. They are better at [it] (Interview, 10-25-2011).

I followed up with Donna by asking her to expand on her belief that male students were better at analytical thinking.

Yeah, critical thinking, analytical thinking; they can think outside the box more. Where[as] I think females are more like, “Well, I do not know this information.” Instead of trying to think about it and come up with an answer, they are like, “I do not know,” because they did not study it. It is just that girls are...going to keep it more in the box. If it was not something in the textbook or in their notes, then they cannot think about it, whereas boys can [do]—or try to—a little bit better. (Interview, 10-25-2011)

Her response confirmed that she believes females differ from males in this critical aspect, giving her male students an edge when taking the AP exam. Donna believes male students possess a disposition to use critical thinking skills that allow them to come up with solutions to problems that have not been a component of instruction, whereas female students must be taught directly how to approach a problem. Donna did not indicate if she believed if male students’ using analytic thinking was innate or learned. She

indicated that a difference in critical thinking abilities came from her speculation based on gender differences in student test performance.

I have no observational evidence to suggest that Donna acted on these expectations through classroom behaviors. The two students she pointed out as her brightest students, capable of tackling the harder topics in biology, were both female, and she interacted with them regularly; only one male student was identified as a strong analytic thinker.

### **Conclusion**

Donna offered a mixed perspective on her expectations for students earning at least a 3 the AP Biology exam. When she thought of her expectations in general terms, she stated that her students were likely to perform worse than when she named specific students or considered students based on their race. Additionally, talkative students frustrated her and led to fewer classroom interactions. Ultimately, her lack of interactions with students in the classroom hindered her ability to form appropriate expectations that were based solely on assessment data rather than comingling her expectations with unfounded perception. Although she was unable to clearly articulate her stated beliefs, she indicated repeatedly that race, socioeconomic status, and gender were important determinants for students' success on the AP Biology exam.

## CHAPTER 8

### CLAUDIA, THE ORCHESTRATOR

Claudia, an English teacher, differed along many dimension from the other teachers in the study. First, and foremost, she used structured assessment data to understand her students' skill and knowledge level. On the second day of school, she administered a diagnostic test assessing reading comprehension and writing skills. Based on student performance, Claudia implemented instructional strategies that were designed to respond to the level of skill exhibited by the students on the assessments she administered. Second, while the other three teachers established a limited repertoire of instructional activities, Claudia engaged student through a variety of instructional strategies – more than the other three combined. The data from these instructional activities further informed her interactions with students. Third, her race did not appear to contribute to her instruction in any perceptible way. In this chapter, I discuss her instructional approach, use of assessment data, and formation of expectations about students.

#### **Expectancy Themes from Claudia's Sense-making through Interactions with Students**

Claudia's nuanced interplay of assessment and instructional strategies led to expectation themes centered on students' potential performance on the AP English

Language exam. However, after 10 weeks, she was still unable (or perhaps unwilling) to articulate expectations for most of the students who were likely to earn a 3 or higher on the AP exam. She attributed her inability to predict performance on the AP exam to the distinctiveness of the group. She felt, her current students were different than those she had taught in the past. She remarked, “I feel like this year’s class is a weaker class from last year’s class in general” (Interview, 11-10-2011). Claudia identified students’ writing abilities as the single largest contributor to her expectations for this year’s group of students. Therefore, she had high expectations for a few of her students who were her strongest writers. In the following sections I examine instructional interactions with students to address my first research question about Claudia’s expectancy themes for students.

### **Stated Expectations for Students’ High Scores on the AP Exam**

Like the other teachers, Claudia communicated differential expectations for some of her students, specifically those who were strong writers. Of the four teacher participants, Claudia was the only one not teaching students whom she had instructed in previous years, so she relied on data derived from the diagnostic pre-test she administered to all students on the second day of school. She then adjusted her expectations from week to week based on new assessments. She used the results of the assessments to determine adaptations to the pacing of the curriculum and to identify specific student weaknesses. In addition to the pretest, she was the only teacher to repeatedly mention the summer assignment, which she identified as also affecting her initial expectations for her students:

I do not have all the data, but I have already started forming a picture. You know, students who did not complete the summer assignment, who did not make any effort to complete it, even when given an extended deadline...that shows me from the beginning that they might not meet the challenge of the course through the year (Interview, 9-13-2011).

As the school year progressed, Claudia maintained a log of student progress, different from her grade book, to monitor dips and lulls in student performance. When a student stopped advancing at a pace she thought appropriate for succeeding on the AP exam, she would approach the student to determine what was wrong and what needed to be done to raise her/his score (Discussion, 9-20-2011). During our second interview, Claudia identified students who had scored low on initial writing exercises and with whom she had held writing workshops to help them catch up to where they needed to be to perform well on the AP exam. Despite challenges faced by some students with a poor background in writing or reading, Claudia remained optimistic about the progress of students who might not succeed on the AP exam but would continue to develop their skills in college:

Every student has the opportunity for growth. We do not all start at the same place. Sometimes it is that we do not have a culture of reading and learning and education that is instilled to us at home. Sometimes we do not have the background, the prerequisite courses. I had a student one year who told me that it was his first time writing an essay in English class. And he was a junior... Yes, he struggled tremendously during the school year. He did not pass the AP exam. He made a 2. That was a hard-earned 2, and he is now at the Naval Prep Academy

and he has sent me emails that he is helping other students with their English assignments (Interview, 12-7-2011).

Although Claudia's stated measure of success for students was earning at least a 3 on the AP exam, she also saw the larger goal of the AP course and exam as preparing students to be successful in college. Claudia believed some students' may not earn a 3 on the AP exam, but she acknowledged there were still benefits to taking the exam. Preparation for college courses and the advanced writing skills required to succeed in those classes were among the benefits she explicitly mentioned.

Because of her frequent assessments, both formal and informal, Claudia knew her students' levels of performance in reading comprehension and writing. During our after-class conversations, she frequently talked about progress that some of the weaker students had made or how a strong student had experienced writer's block when completing a particularly challenging assignment. When she worked with students to move past their roadblocks, she adjusted her expectations for student performance and stated that she knew students would be better prepared to perform well on the AP exam. These conversations and the interviews revealed a constantly changing set of expectations for a student's specific score on the AP exam. Claudia felt confident that many students would earn a 3 or higher on the AP exam because of her track record of success. She reported that on average, 60% to 70% of her students earned at least a 3 on the AP English Language exam every school year, placing her above the district (51%), state (57%), and national (52%) averages (District Assessment Brief, 2008). She attributed her confidence to knowledge of students' performance and her abilities to target students who she saw struggling with the course content. She constantly monitored

student progress and made adjustments so that each student would be prepared to take the AP exam. Because she believed writing to be a critical indicator for success, many of her interactions focused on developing student writing abilities.

### **Writing**

Claudia believed that effective writing was the single most important ability for a student to possess when preparing for the AP exam. Claudia based her understanding of her students' writing skills on "Looking at all of their work—looking at discussion questions, looking at writing prompts, looking at formal essays as well" (Interview, 11-10-2011). When Claudia discussed how she would sum up the writing abilities of her students, she said:

I think their writing needs to come in higher than it has. Looking at the scores from the initial writing prompt from last year, the students were scoring at least a 3 on their first writing prompt, and the majority of them scored a 3 on the AP test. This year's group, a majority of them scored a 1 on the initial prompt, which is why I predict that [their] scores will be lower (Interview, 11-10-2011).

Claudia provided a number of AP exam prompts to gauge students' progress in writing at the advanced level necessary to score a 3 or higher on the AP exam.

### **The Instructional Orchestrator**

Claudia structured class with multiple activities that supported the overarching course goals: improving student writing and critically examining the content of their writing. Activities ranged from highly structured assessments to moments of creative chaos, but all of them supported the instructional goal of earning at least a 3 on the AP English Language exam in May. She incorporated as many as five activities in a single

class, which often included: lecture, small group discussion, Socratic seminars, in-class reading, quizzes, essay-writing opportunities, debates, and analysis of recorded literary selections.

Claudia first appeared to be a strict teacher with rigid classroom structure. During the first observation, she sat at her podium, watching students sitting at their desks writing essays. A student's whisper was met by a quick “Shhh” and a stern gaze. However, during subsequent observations, Claudia showed a different persona to students. When not giving an assessment, she was quick to offer a big, broad smile to students who shared some tidbit of information with her and praised students for answering questions in class. She explained:

I tell my students on the first day of school that everything we do is to help them. And I try to make that true every day. If I am giving them work or if I am asking them a question, it is because they are going to benefit from it, whether it is on the exam or learning a skill and not just “because.” I want everything to be contributing to the big picture (Interview, 9-13-2011).

Each class contained three to five activities that culminated in a large-group activity. During the culminating activity, Claudia moved around the classroom and talked with students individually or in groups to provide feedback on the assignment. These large-group activities typically occurred toward the end of most classes and required students to synthesize individual work into group arguments that would be used in activities that required students to work together. During the activities, Claudia moved between groups to provide feedback and ask questions to probe for student

understanding. The feedback she provided typically allowed the student to improve arguments or finish group products.

Claudia's movements between groups to talk with students were informed by an underlying understanding of each student's academic competencies. At the beginning of the semester, she administered a diagnostic pretest to provide a detailed portrait of each student's writing skills. Additionally, Claudia monitored student progress through frequent assessments and opportunities to read out loud in class. Monitoring student progress allowed her to approach students to offer additional feedback when needed.

The interactions and subsequent feedback informed appropriate differentiation of the expectations Claudia held for her students:

Even though not all my students are equally prepared, or equally capable. . . I know that I—and I am sure other teachers, too—all [of us] want for all of our students to be successful. And success might not mean passing the AP exam. It may just mean being better off than when they started (Interview, 9-13-2011).

Claudia's continuous monitoring of student performance informed her interactions with students and allowed her to target students and give them attention when necessary. This performance and feedback process required a highly organized and active teacher who could manage the organized chaos of a classroom filled with students of varying writing proficiencies.

One of Claudia's strengths was approaching her students to observe their work and provide constructive feedback. This expectancy-conveying behavior was reinforced by the expectancy-conveying behavior of giving praise to each student. Not only did she assess students' work and offer instruction specific to students on how to improve their

skills but she also communicated simultaneous praise to students. The interplay between assessment and instruction in Claudia's class allowed for the demands placed on each student to be tailored to her or his demonstrated level of performance. In addition, praise was interwoven with the feedback for students, thus conveying appropriate differential expectations. I examined this nuanced interplay of behaviors used during interactive instructional strategies and the assessment feedback loop that she used in her class.

### **Interactive Instructional Strategies**

The wide array of instructional strategies Claudia used also communicated expectations for students. Although at the basic level, she said, "I pick the activities based on the curriculum" (Interview, 11-10-2011), her activities went much deeper than a common selection of an activity to cover the curriculum. For example, when introducing rhetoric, rather than providing a list of terms in a lecture format similar to the other three teachers, she had discussions with students about examples of rhetoric. She then used those examples to provide contexts and incorporated students' comments from the discussion to frame definitions. The activities she used were dynamic, in that they evolved based on student reactions. She extended the activity when students were engaged and terminated the activity when they struggled. During observations, I saw many activities repeated over multiple classes, as well as several activities that were introduced to students as one-time events and were special instances tied to a curricular objective.

**Typical activities.** The multiple activities Claudia employed were connected to expectations. The different activities allowed for a broad array of teacher behaviors that created an engaging classroom environment. These classroom activities establish context for discussing Claudia's behaviors and their expectancy-conveying implications.

***In-class reading.*** Claudia used literature to help students connect to the curriculum by asking questions and using probes designed to get students talking. Naturally, a piece of literature might resonate with some students differently than others. Claudia selected a broad array of literature, drawing connections to all students in the class at one point or another:

Well, many of the stories are firsthand accounts of what has happened in history and that...changes their perspective because they are not hearing it from a historian, they are hearing it from someone who experienced it, and that makes for a different experience (Interview, 11-10-2011).

Literature was frequently read aloud in class so that Claudia could monitor student reading comprehension, understanding of literary and rhetorical tools, and ability to convey thoughts via oral arguments. Ensuring that students comprehended the material was the first critical step, and the different read-along and "popcorn-reading" activities allowed her to observe student work and provide corrective action when necessary.

Claudia employed follow-along reading activities, in which students listened to audio recordings of texts. She engaged students by pausing the recording at frequent intervals and interjecting questions that probed for comprehension. Claudia asked

students to employ a variety of literary and rhetorical devices to explain their thoughts about a piece of literature. She explained:

When we were in the texts, I stopped periodically and we talked about what was going on, so that it was less intimidating [and] so that they could process what they had read before in order to continue on, and then the culminating activity for the day was for them to create their own protest songs, so they are going to have some practice using the rhetorical devices we have discussed (Interview, 11-10-2011).

The song activity was a cumulative experience, requiring students to use higher-order thinking to synthesize rhetorical devices with creative elements. During the class periods devoted to developing their songs, Claudia explored a number of transcendentalist authors and their writings and asked students to interpret the meaning behind the writings as they constructed their own [songs] for class.

Another popular form of gauging student reading comprehension was the popcorn-reading activity in which students read aloud in class and transferred the responsibility to read from one student to the next. Claudia remarked, “You can get an idea whether or not a student reads well, and if the student does not read well, then that sends a signal that perhaps a student needs more assistance” (Interview, 9-13-2011). The activity involved all students at one point or another, so that Claudia had an idea of the students who were mastering reading skills at a particular level and those students who might be struggling.

**Group work.** Group work allowed Claudia to observe all students in an activity in such a way that she could keep students engaged while she moved around efficiently to observe student work.

I tend to join groups. I tell students that when we are doing group work, that I will join their group and I am not Mrs. Claudia anymore, I am a student. So when I join the group everyone should not turn to me and start asking their questions; that I will participate along with them and that I am joining their groups to see how they are doing instead of trying to give them direct instruction (Interview, 9-13-2011).

Claudia would lean in or pull up a chair when visiting with a group. At first, she listened to what the students were discussing and then she would throw out a question or an idea to the group, which might disrupt their discussion. Her questions appeared purposeful and often forced groups to consider the points that Claudia raised when the class reconvened later in the period. Claudia used groups in her classroom to minimize disruptions, create an efficient means to move around the room to observe students, and as a means of interjecting higher-order questions for students that led to critical discussions of the literature.

**Socratic seminars.** Questions played a key role in Claudia's class. Each semester she offered a Socratic seminar as a means of asking high-level questions to students, explaining:

For our Socratic seminar class, I had students who are usually very shy raising their hands and it is because in the Socratic seminar, in order to earn full credit, they have to participate five times and they get a stamp for each time. They have

participated, so we start hearing from all sorts of people we have never heard from before. And the five stamps is also a limit so that no one can overtake the discussion (Interview, 11-10-2011).

Students were responsible for preparing for the Socratic seminar before class so they could answer their five questions. Observing students tackle higher-order questions allowed for assessment that informed teacher expectations based on student ability. The Socratic seminar, an activity based on a questioning strategy, was consistent with Claudia's use of questions throughout all class periods.

**Asking questions as an instructional strategy: Producing critical analysis.**

Claudia's use of questions as an instructional strategy differed from the other three teachers I observed. The differences were more than a judgment of good versus bad teaching; they had important expectancy-conveying implications.

The most apparent implication was that when Claudia asked higher-order questions with structured support to help students produce an answer, she was simultaneously maintaining a rigorous environment while helping students overcome academic hurdles. In the next section I describe how Claudia used questions and supported her students as they produced answers that conveyed a critical analysis of the course material.

***Higher-order questions.*** Asking students higher-order questions requiring analysis, evaluation, and synthesis required additional considerations when students struggled to produce answers. These questions were less likely to have absolute right or wrong answers and more likely to require a teacher to assess student responses, provide feedback, wait for students to formulate appropriate responses, and target students with

questions that are appropriate for their demonstrated level of performance. Claudia's use of higher-order questions required students to state an answer and justify their position. Claudia probed students' understanding with follow-up questions, but rarely refuted student answers right away. Instead, she used students' justifications to determine whether the answer sufficiently conveyed understanding.

*Student ideas fitting with Claudia's narrative.* English is the most subjective discipline I observed. Whereas biology operates within the tenets of the scientific method, which premises one central truth, English as well as the Social Sciences, as taught in the higher levels of student coursework, are very subjective. Much of what I observed in Claudia's class was a teacher asking students to select different literary and rhetorical tools to interpret text. In many instances, a right or wrong answer rarely existed. By asking higher-order questions, Claudia took classroom discussions down avenues that both she and the students might not always have been prepared to travel.

To ensure a safe and supportive classroom environment, Claudia employed a strategy that prolonged interactions when she disagreed with a student's answer. Her initial question was often followed by probing questions targeting how or why students had arrived at their answers. Only when she understood how students had arrived at their answers, which included interpretations, did she offer corrective feedback when the students' answer was not supported with rhetorical examples from their literature. This adaptive approach to accepting answers allowed for feedback in a warm and supportive environment and was used both for questions that are targeted to specific students and those that came from the students.

*Targeted and volunteered responses.* Claudia had two primary approaches to asking questions. The first approach was when she posed a question to the class as a whole and allowed students to volunteer answers. This approach was often used when the intent of the question was to elicit student interpretations or Claudia needed to review basic terminology. The second approach to asking questions targeted a specific student with a question, which Claudia formulated based on the student's skill or knowledge level. This second approach often came with an additional challenge.

Claudia critically examined the content of students' responses, teasing out answers that had at least some correct information from even when they had no idea how to phrase the answer correctly. It also meant being patient and knowing which students might try to pass off randomly-connected content from previous course discussions as a means of getting out of responding. Conversely, Claudia also recognized when students who should be able to answer a question could not because they were unprepared. One such example occurred with a targeted question during the Socratic seminar. Claudia described an instance in which a student had not known the answer to a question: "He was trying to bluff that he had read. He just kept talking and talking and he just looked at me and goes, 'You, know, I am an idiot. I am going to shut up'" (Interview, 11-10-2011). The nuances of knowing why a student could not answer a question at a given point in time came from getting to know the student. Claudia asked questions based on their past performance in class and on assignments.

If I know a student is more academically capable, then I will ask the more challenging question to that student. And then I might have another student—after the more academically capable one has answered—who is not as capable to

follow up, because the follow-up will usually be a reiteration of what the first student said...maybe give a little bit more information, and it makes that second student feel intelligent that they have contributed a little bit to what the more capable student has had to say (Interview, 9-13-2011).

Claudia maintained an academically demanding instructional environment while being supportive of students who needed additional help to answer higher-order questions. If Claudia's assessment of a student's understanding of a topic was close to the student's actual ability to answer a question, then she wanted to be sure that the student answered the question.

*Use of wait time.* When Claudia asked a question, she displayed discipline in her ability to wait for a student to respond. The other teachers I observed waited no more than five seconds, which in a classroom filled with active teenagers can feel like a lifetime. During one instance, I observed Claudia wait 13 seconds for a student to respond to a question that required the student to synthesize her multiple slave narratives into a thematic statement. During those 13 seconds, Claudia maintained her gaze on the student who was supposed to answer the question, while preventing other students from interrupting.

It is important, very important, to give adequate time. If a student knows that you give up and you call on someone else, then the student does not feel the need to answer the question. So I have stood and waited for a minute, at least, which does not sound like a long time but in front of a class that is a really long time to stand there and wait. And after that minute I will try to ask some questions that maybe might help the student. And if the student still is not helped, I will say, "Well So-

and-so, I am going to come back to you, because I know that you want to get this”  
(Interview, 9-13-2011).

Because she waited for students, no one could escape a question by giving up. When Claudia recognized that a student could not answer a question, she supported the student by offering leading question or calling on another student to answer a question that might give context. After the other student had given his or her response, Claudia would return to the original student and see whether she or he could answer the question or additional support was needed.

The underlying assumption of Claudia’s use of questions as an instructional strategy was that she knew the capabilities of her students to answer a question at any given point as they prepared for the AP English Language exam. To appropriately gauge student ability, a teacher needs to assess students. Claudia used an iterative assessment loop comprising short-term and long-term assignments to provide feedback.

### **Assessment Feedback Loop**

When I asked Claudia to describe her curricular focus to prepare students for the AP exam, she told me that AP English Language does not have much content. Aside from vocabulary, the emphasis was on reading literature and learning how to compose an essay appropriately responding to a prompt. Naturally, major assignments for Claudia’s class were practice essays. Providing timely and critical feedback was time-consuming and labor-intensive, especially because she taught multiple sections of the course. Claudia provided feedback early in the year and continued providing it as often as possible. Her feedback typically included praise to maintain an environment where students wanted to participate.

**Summer dialectical journals and the diagnostic test.** Claudia began her feedback for students before the first day of class, when students submitted their summer assignments the week before school started. The assignment, a dialectical journal analyzing the rhetorical components of works by different authors, provided insight into writing skills, vocabulary, student understanding of literary tools, and the ability to apply critical analysis to the course content. She explained:

You know, being an AP teacher has the benefit of looking at their summer assignment and seeing...their thinking process in the form of the dialectical journals. ...I noted some of the students who did not seem to really comprehend their reading based on their journals as well (Interview, 9-13-2011).

By grading and providing feedback on the student dialectical journals at the very beginning of the school year, Claudia began forming expectations for students before the first day of school; she had a starting point upon which she could base additional instruction so that it would be in line with student abilities.

**Constant assessment.** The second component of Claudia's assessment strategy was to provide feedback to students frequently. An effective means of providing this feedback is through a diversified approach to gathering information from students.

***Observation of students working.*** During many instructional activities, Claudia moved around the classroom. Arranged to allow easy access to all parts of the room, Claudia walked up and down a central aisle and around the periphery of the classroom, looking at student work during activities where students were working independently or in groups. She said, "I look over shoulders a lot. If students are working individually, I will look at their papers to see how they are doing" (Interview, 9-13-2011). As she

moved around the room, I observed her frequently saying, “Nice work,” to students or asking questions about what she saw.

**Questions.** By asking questions as soon as she saw something wrong with student work, she was able to refocus the student’s effort based on his or her need at a given moment. I observed questions run the gamut from lower- to higher-order thinking, and they were cornerstones for engaging with students.

**Quizzes.** On more than half of the occasions on which I observed classes began with quizzes. These short assessments provided immediate feedback on a wide range of curricular topics but most frequently targeted vocabulary from rhetorical tools, basic comprehension, and recall from literature to be discussed during the class period.

**Tests and essays.** Claudia’s tests focused on rhetorical and literary tools in part but also emphasized the essay-writing objective of the class. Essay prompts were typically derived in part or in their entirety from former AP exam questions. Claudia emphasized the importance of her feedback by grading essays and tests quickly to give timely criticism of student work before moving on to new topics. The feedback on these major assignments was often highlighted in class, when she publicly acknowledged students who had scored well and read sections of essays as exemplars for the course.

**Writing conferences.** When Claudia noticed that a student was struggling with writing—the skill Claudia had identified as the most critical for success in her class—she would schedule a writing conference with the student. These conferences helped to create a sense in the classroom that Claudia valued students as people, which communicated that students could not opt to fail a class. She explained, “For the writing conference, I meet with students one-on-one and. I talk specifically about their

individual writing, and I also have them reflect and come up with goals” (Interview, 11-10-2011). Ultimately, the purpose of the conference is to “figure out where the disconnect is” between the student and the material.

Claudia’s frequent use of questions as an instructional tool allowed her to probe for student comprehension on a given topic. When a student understood a topic but failed to effectively communicate her or his understanding in writing, Claudia stepped in. With the understanding that her students were in many different stages in their writing development, I wanted to explore how Claudia determined an acceptable writing level, and whether that caused her to manifest differential expectations for her students. She responded:

I am equally demanding. You know, there is not one set of rules for some people and a different set for others. My level of expectation is different, in that I might expect a really great student to do a great job and I might expect someone else not to do a great job, based on performance. But I am not going to say that to them (Interview, 9-13-2011).

Claudia was clearly using her assessments and understanding of student performance in class to develop differential expectations for her students.

### **Summary**

This section explored Claudia’s expectancy-conveying behaviors from classroom interactions with students. Like Sam, Claudia formed and communicated high expectations for students by expecting high scores on the AP exam. However, Claudia tailored learning activities and feed back to the judgments she had made about the types of instruction individual students and the group needed at a given point in time. She is

the only teacher who used instructional behaviors effectively, including asking higher-order questions, incorporating student ideas into her narrative, seeking targeted and volunteered responses to questions, and employing an appropriate use of wait time to inform her of student progress. These instructional strategies helped students build a bridge from basic recall of facts to higher-order critical analysis. Finally, the instructional feedback loop she used in class allowed her to form and adapt expectations based on student performance and provided her with the information she needed to further prepare students for success on the AP English Language exam.

**Claudia: Manifesting Differential Expectations for Students in the Classroom  
Interaction Patterns**

While Donna, Erin, and Sam called on only a small group of students in their classes while, Claudia had a more equal distribution of student interactions. During the first interview I asked all teachers when they knew to approach a student who needed help. Claudia's classroom behaviors aligned the closest with her thoughts on interacting with students displaying some indication that they needed the most help. For example, Claudia mentioned that she looks over shoulders while students write to assess their progress (Interview, 9-13-2011). Because she moved around the classroom to assess student work and monitored the class for students who experienced problems with their assignments, she often knew when a student needed assistance before the student called for her attention.

Perhaps the most apparent aspect of Claudia's classroom interactions was that each instructional activity contained opportunities for assessment through questions and conversations. She incorporated questioning strategies into popcorn reading strategies,

rhetorical analysis, and vocabulary instruction. Claudia moved beyond basic recall questions to higher-order thinking. “I ask them questions that gauge whether they comprehend what we are reading, because before we do more sophisticated analysis, I have to make sure they understand the superficial level...” (Interview, 12-7-2011). As Claudia asked questions during the class period, she monitored student comprehension, which drove the pattern of interactions for the day:

...if students ... look confused or they... put up their hands...then we will stop. And I may not have planned to stop, but I can tell they do not understand, so we will stop and we will discuss what they have read. Or sometimes if a student has said something that I did not think of, we will explore what they have said as well (Interview, 12-7-2011).

My observations indicated that Claudia’s daily pattern of interactions did not remain stable across different class periods. Although some male students sitting in one area of the classroom generally had a larger number of interactions during the day than other students, these students initiated the majority of interactions. The teacher-initiated interactions were more evenly dispersed.

Joining group discussions was a second instructional behavior affecting the pattern of teacher-student interactions in Claudia’s classroom. She used behavior-conveying expectations such as approaching the students to observe work and asking the students difficult questions conveyed expectations. Claudia used these behaviors during her interactions with groups. In some groups she asked questions; in others she would make statements that altered the student discussions and caused the students to ask her a

large number of questions about the new direction of their discussion (Observation, 9-8-2011).

During multiple classroom observations, I noticed that Claudia also did not sit with all groups when observing their work, often passing by groups after checking work over students' shoulders (Observations, 9-8, 9-14, 9-20, & 9-22-2011). During one class I observed her stating to the class that "one group is 100% correct" multiple times (Observation, 10-8-2011) while saying nothing to the class about groups she complimented privately. Another example of Claudia's presence significantly altering the work of students came when she joined a group discussing rhetorical elements. Students had created a plan for analyzing a speech before Claudia joined the group, and when she asked leading questions, they changed their plan, which in turn caused some students to disengage from the activity (Observation, 10-8-2011). Her interaction did not always affect student work. During several group activities, Claudia moved to groups and leaned over student desks with behaviors that did not alter the direction of student work (Observations, 9-14 & 9-20-2011). During many classes, for instance, Claudia observed student discussion and brainstorming before interjecting her comments (Observations, 9-14, 9-20, & 9-22-2011). This pattern of interacting with groups differently fits with her statement that sometimes she felt the need to interject or offer feedback to alter the course of students' work. Although some of these interactions caused a few students to disengage, the overall pattern of interactions suggested that she was able to assess student progress and interact with many students because of her approach.

Claudia was the only one of the four teachers I observed who consistently involved all students in each class. Donna, Erin, and Sam all had patterns of interactions resulting in disengagement by some students in the class at least some of the time.

### **Teacher Reaction to Interaction Patterns**

Claudia's reaction to the relatively even disbursement of teacher-initiated interactions in her classroom focused on refining her assessment mechanisms rather than altering her instructional practices. When I showed Claudia the interaction chart, she immediately identified two students with whom she had a disproportionately large number of interactions during the last class I observed:

...these two particular students like to talk; they like to interact. So I am not surprised there is more interaction with them than with some of the other students. And I think it is more personality based than anything else (Interview, 12-7-2011).

This last class was the only one that had a disproportionate number of interactions to a handful of students. Most of these interactions came at the end of the class period when the two students had become excited about the topic at hand and the rest of the class had begun an independent work activity. Once Claudia accounted for the number of student-initiated interactions surrounding a topic they clearly enjoyed, few other students stood out as receiving a disproportionate number of interactions. Claudia nonetheless identified several female students who might benefit from different instructional behaviors mitigating social pressures not to speak out in class or to account for highly engaged students who may dominate a classroom conversation:

I have considered using these interactive systems that we have in the building where each student gets to type in their response, and I think that is something that I will eventually bring into the classroom. Because it is not that a Mandy or a Jennifer does not know the answer, but they are just naturally introverted and are not as quick to volunteer an answer as someone else (Interview, 12-7-2011).

Claudia referred to her use of small groups as a mechanism to interact with students more frequently: “I think that it shows that there is disparity in what I can gauge in a whole-group discussion. I still feel like, through other types of assessments, I can get a handle on how students are progressing” (Interview, 12-7-2011).

As with Sam’s interview responses, at no point in any of the interviews did Claudia’s comments assign the locus of responsibility for generating classroom interactions to the student. Additionally, both Sam and Claudia tended to offer responses to interview questions that indicated their classroom behaviors were to assess student learning. Erin and Donna also indicated that interactions with students could lead to an understanding of their comprehension of the course content and readiness for the AP exam. However, their responses were oriented toward students following instructions and classroom conduct. The differences in reactions to interaction patterns among the four teachers informed my analysis of how teachers manifest differential expectations for their students.

### **Analysis of Teacher Interactions**

Claudia’s use of questions was somewhat similar to Sam’s in that she targeted specific students during the class and used questions to gauge student comprehension of complex topics. Claudia often started class activities with questions started with lower-

order questions and moved to higher-order concepts as students demonstrated mastery of the concepts. The higher-order thinking often came in what Claudia described as annotations. In questions that asked students to write answers in spaces on handouts next to the text for later use in constructing essays, students drew connections to rhetorical elements covered in previous classes and linked them to a larger thematic element for the paper. For example, in one particular reading, *Shooting an Elephant*, students annotated a poem by comparing and contrasting the British official's experience of shooting an elephant in colonial India with the local traditions of tribesman (Observation, 11-6-2011). The activity began with a series of questions designed to recap the characters and basic elements of the story but quickly transitioned into an analysis of metaphor and comparison of cultures. This particular activity closely mirrored those used in other observed class periods. Claudia's view of the purpose of questioning was to create a continual elevation of student understanding over the course of the year: "But I am hoping that as we progress through the school year, they are going to make progress and to comprehend more" (Interview, 12-7-2011).

Like Sam, Claudia responded to each student with a positive affirmation when a student answered a question. This consistent praise encouraged student participation and perhaps affected the nature of student responses during any one of Claudia's questions targeted to specific students. The overall effect of Claudia's questioning strategy with subsequent student responses was that Claudia could effectively gauge student understanding of course content with great frequency throughout the school year.

### **An Assumption that all Student are Capable of Succeeding in AP**

Claudia was quick to refute the notion that a student would never be able to succeed in her AP class, offering concrete examples of instances of how she worked to identify problems when a student was underperforming in her AP class yet excelling in other classes:

I would never pinhole a student that way. I would never say, “Oh, that student cannot write well.” I asked to see my students’ progress reports and report cards so I can try to gauge whether or not my class is the only class a student is not doing well in. And...if I notice that is an issue, I will speak to the student individually and I will ask the student, “What do you think is going on in this class that makes you not successful in this class versus your other classes?” And the student and I will try to, you know, brainstorm the matter together (Interview, 11-10-2011).

Claudia’s response revealed that she views success in her AP class as a shared responsibility between her and the student. She asked students what they were doing differently in her course, indicating that they may be partially responsible for underperforming. However, she also indicated that she worked with students to address challenges preventing their success. Claudia’s writing interventions are examples of explicit actions supporting her belief that all students can succeed in her AP class.

When I asked Claudia what conditions would be needed for all of her students to earn a 5 on the AP exam, she did not accept the premise that the test parameters would allow for that outcome:

And I do not think that every student can make a five on the AP exam. It is a difficult exam. I think that every student could do well. I think that every student could make a 3. I do not think every student could make a 5, and the test is not set up so that everyone can make a 5 because the passing score is on a sliding scale (Interview, 12-7-2011).

Although she could provide an environment promoting success, she explained the parameters of the exam prevented her from moving all students to the highest levels of achievement. Thus, she believed all of her students could earn at least a 3 on the exam, but she would never have all students earn a 5.

### **Summary**

This section explored how Claudia manifested differential expectations for students in her AP class. The relatively equal interaction pattern indicates that she interacted with all of her students during each class. She was conscious of these interactions and explained why she interacted with a few students more than others. Claudia's interactions were contextualized by a complex assessment system and a wide array of instructional strategies. She stated high expectations for all students. Additionally, she used data to assess student performance and adapted instruction to prepare students for a 3 or higher on the AP exam.

### **Claudia's Interactions Situated in the Conceptual Framework of Critical Race**

#### **Theory**

#### **Perspective as a Minority Teacher**

Claudia was the only minority teacher in my study. During our second interview, she broached the topic of her ethnicity:

[I was] a minority teacher who did not have two parents at home; who did not speak English to me. I had to go to ESL classes, myself. So I know that because I was from a minority family, I struggled more with language acquisition than my peers. And I could see that in some of my students' households as well (Interview, 11-10-2011).

Although her comment did not communicate anything specific about her interactions with students based on race, her background may have had an impact in ways that I was unable to measure.

All four teachers typically hesitated to candidly discuss race in the context of student achievement. Even so, Claudia broached the subject without any previous mention of race or socioeconomic status during our conversation about the use of questioning as an instructional strategy:

They are from different social, ethnic, and class backgrounds. We have the most diverse school in the city. And that is reflected in my classroom. In other classes you would not see as much diversity or as many students who qualify for the free and reduced lunch program (Interview, 9-13-2011).

Race and socioeconomic status played at least a minor role in Claudia's interactions with students. For example, she described her perception of issues concerning low-income minority students that related to parental involvement with homework.

[Low-income] minorities have not had all of the opportunities that everyone else has. And it does not surprise me. You know, parents who work 10-hour days do

not check their kids' homework. I know that firsthand, and that is the same sort of thing that the kids that I teach go through (Interview, 11-10-2011).

I discussed Claudia's experiences as

Claudia related to her students because of her firsthand account as a minority student who also struggled with language acquisition. She also said that students might not have equal access to resources necessary to complete projects and assignments outside of class.

In terms of equal access . . . it is important] that when [English teachers] give a technology assignment, they give lots of opportunities for students of a lower socioeconomic background to go to the library or to go to the computer lab to make sure they have access to the same type of materials that someone from a more privileged household has (Interview, 11-10-2011).

Claudia recognized that low-income, minority students may face additional challenges, but did not stereotype students who were minority or low-income. Instead, she focused on assessing their abilities in class and engaging them in the curriculum.

### **Selecting Content that Focuses on Minorities**

Claudia carefully considered the content she selected for class, believing that a personal connection with the literature resulted in student engagement. She explained:

I think that [using] essays that feature minorities or that are written by minorities, that helps students [in a] largely a minority class to connect with the material that we read. But also, slave stories are just compelling, you know, regardless of race, because of the experiences that are described in them. So, I find that, usually, most students are pretty engaged (Interview, 11-10-2011).

Though she included writing by or about minorities, it was not her only consideration. Claudia also considered how she would explain the material depending on the students in her class.

I would say that I do cover writers from all different backgrounds. And, you know, last year, I had a class that was primarily Asian, so I did not have to give a whole lot of explanation when we were reading a piece that involved Asian culture in that particular class. But when I get to my next class, where it is primarily Caucasian, then I might go back into background information more (Interview, 11-10-2011).

Claudia's consideration for students in her classroom when she selected and discussed literature may come from her own perspective as a minority teacher.

### **Race**

Claudia did not opt for a colorblind approach to working with minority students, but rather acknowledged challenges often associated with racially diverse students. However, she viewed her approaches to help minority students overcome classroom challenges as universal:

... I am not sure if the strategies that I would have employed for minority students are different for my other students. And I really, do not think that they are. I think that the disparity is more of a socioeconomic disparity than it is anything else (Interview, 12-7-2011).

Claudia's school is one of the most diverse schools in the district, a fact that Claudia acknowledged in our first interview. The school also has a higher percentage of Asian students, who are not typically associated with the achievement gap. In the AP English

class I observed, Claudia had more Asian students than any of the other four teachers, and these students were some of the top performers in the class.

Claudia did not see race as a major contributing factor for students earning at least a 3 on the AP exam, possibly because she claimed there was no evidence of an achievement gap in her classroom; only a quarter of her students had not scored at least a 3 on the AP exam in previous years. In her self-report of the data, she did not indicate how the scores were distributed across race, leaving me with no way to verify her claim. However, in the class I observed, minority students were receiving higher scores on essays than many of their White counterparts. She indicated a Black female and an Asian male as two of her best writers and indicated that she had high expectations for their performance on the AP exam.

More so than race, assessment data informed Claudia's expectations. Claudia's reactions to the patterns of interaction and to my interview questions nearly always addressed socioeconomic status along with race, if race was addressed at all. When I pressed Claudia to explain whether race had an impact on her minority and low-income students on the AP English Language exam, she responded:

...we looked at the open argument question and they had to come up with examples. They had a difficult time coming up with the examples because they are not familiar with what is going on in the news ... that is coming from a culture where parents are working all day not reading the newspaper and not discussing the news with their students. Last year, there was a question on the AP test in the Local Food War movement... You should buy foods from the local farmer's market because they are healthier and it sustains the local economy. Well, a lot of

low-income students cannot wrap their head around this whole concept. And when they are given a very limited amount of time when they have to become familiar with an issue, it is a lot more difficult to write an essay than someone who is already familiar with the topic (Interview, 12-7-2011).

When I asked Claudia what she was incorporating into her class to help prepare low-income and minority students to be successful on the AP English Language exam, she said that she covered writers from a variety of backgrounds. Although she tried to include texts by or about minorities, she did not make any mention of how she would choose content for low SES students:

Making sure that if your class is diverse, you are covering diverse selections in terms of the writers and content. I think that [other teachers at McGary High School] do not know how to address enough ...but that it is something that weighs on their minds (Interview, 11-10-2011).

The selection of diverse authors and literary selections represented the most pervasive consideration of race I found in Claudia's classroom. Although Claudia's status as a minority may have affected her interactions with students in her classroom, I was unable to observe such an effect. Claudia's assertion that her system of assessment was the basis of her interactions and expectations for student performance was consistent with observations and interviews.

### **Socioeconomic Status**

Claudia perceived that SES was the primary student characteristic affecting student performance on the AP English Language exam. When I asked Claudia how race affects student performance in her AP class and how she might address the achievement

gap in her school, she considered race, but always moved toward SES as the defining characteristic that she felt needed to be addressed.

Recognizing that low-income students may face challenges that their higher-SES peers are not, Claudia incorporated a discussion of socioeconomic status into her classes. By addressing the elements of low-SES affecting students and how families cope, she introduced positive themes for students from low-income families. For example, when exploring the rhetorical element of an open argument, she introduced a newspaper article that examined extreme parenting and its effects on student performance.

...this is on my mind because it was just in the newspaper, Asian families where you have extreme parental encouragement to do well. Then that makes a difference. Even if your parents cannot give you all the support that they demand and expect it then you are more likely to find a way to do well (Interview, 12-7-2011).

In addition to incorporating aspects of low-income students' lives into classroom discussion, Claudia also considered the challenge that her students may have limited resources to complete assignments. Access to computers and time were the two most common resources that all teachers mentioned when discussing SES, including Claudia:

... resources, certainly. Not as much today as 5 years ago, but there are still students who do not have computers at home, so they do not have Internet access to complete their research or type their assignments. That can definitely hinder a student. Also students who are working 20-plus hours a week to support their families, of course they are going to be more tired during the day and a lot less productive than their counterparts (Interview, 12-7-2011).

Because Claudia considered her low-SES students and planned instructional considerations for them into her AP class, she communicated support to the students, an important component of the emotional domain of expectancy-conveying behaviors. Claudia's interventions when her students needed assistance was another way in which she used the challenges that may be associated with low-income status as opportunities to develop all students.

### **Gender**

Like Sam and Erin, Claudia did not consider gender to be a student characteristic that influenced student performance on the AP English exam. The only concrete indication that she acknowledged gender in her instruction came in the form of the selection of texts in years when a class was disproportionately male or female. At no point did her interaction patterns indicate that she interacted more with males or females aside from one isolated portion of the final class I observed, which was the result of student-initiated interactions. Her predictions for performance during the seventh and tenth week of school did not consider gender at all instead it was related to the assessment data she had for each student.

### **Conclusion**

Studying Claudia's interactions with students offered an in-depth analysis of how a complex assessment and feedback system affected the development of expectations. Claudia made sense of her students' abilities based on their performance, and she considered the contextual elements of race and socioeconomic status that affected students in AP English Language. In chapter 9, I will explore the similarities and differences among all four of the teachers discussed.

## CHAPTER 9

### CROSS-CASE ANALYSIS

The previous four chapters included an analysis of each teacher's differential expectations for students in his or her AP class. These expectations were derived from observing and interviewing each of the four teachers. From this description of specific teacher behaviors, emerged themes describing how teachers made sense of their interactions with students. Further, the ways teachers may be considering race and other characteristics in their teacher-student interactions and during instructional planning were described.

In this chapter, the four teachers' routines are compared and contrasted to identify the similarities and differences in their use of instructional strategies and behavior within the classroom context as well as how they used preparation for AP exams, instructional questions, and interaction patterns to convey their expectations. By comparing their instructional strategies and behaviors, the similarities and differences in expectancy themes and differential expectations for the students in their classes emerge. These comparisons lead to more nuanced understandings of the three research questions investigating (a) expectancy themes teachers form through sensemaking, (b) teachers' manifestations of differential expectations for each student through interactions, (c) and teacher expectations situated in the frameworks of deficit and dynamic thinking and critical race theory.

## **Research Questions 1 and 2: Differential Expectations and Expectancy Themes and the Analysis of Teacher Differential Classroom Interactions**

Instructional strategies and routines combined to form the identified patterns of interactions, which in turn ultimately influenced how much a teacher knew about student abilities. Teacher expectancy themes are composed of and can be described with differential expectations for specific students. By exploring patterns of behaviors, the ways teachers formed their expectations and how these expectations were continually updated as a result of teachers' classroom instructional interactions can be articulated. When viewing these patterns broadly, they describe a larger expectancy theme for each teacher.

Each teacher manifested differential expectations for each student in her or his class. However, when examined through the theoretical lens of the eleven behaviors that convey expectations (Babad, 1990), only one of the teachers used the full range of behaviors to communicate expectations for students in an obvious or perceptible way during classroom observations. In the following section patterns across all four teachers are described.

Two distinct patterns of expectancy-conveying behaviors emerged from the observations. First, all four teachers held the same overarching goal: for their students to earn a three or higher on the AP exam. Teachers' stated beliefs about their students' ability to earn at least a 3 on the AP exam changed as they interacted with their students. Second, these interactions led all four teachers to offer modified expectations for their students' abilities to achieve the goal of earning a 3 or higher at different points across the course of data collection.

The patterns of instruction (i.e., instructional questioning, writing essays, and considering student responses) used by these four teachers to communicate their expectations to students as they prepared them for the AP exam often combined several of the eleven expectancy-conveying behaviors. There was variation among the four teachers in which of the eleven behaviors they combined, how frequently they attempted to convey expectancy through those behaviors, as well as whether they were able to use the behaviors to communicate their expectations to students. This lack of consistency and frequency in using the behaviors to convey expectancy often represented a good intent, but poorly-executed instruction.

Sam used all expectancy-conveying behaviors frequently, but rarely used them consistently (see Table 9.1). For example, he used questions to interact with all students during each class period, but did not use questions to address any level of understanding above lower-order recall. When he introduced essays in class, he allowed ample time for students to craft responses, but he had not given students the analytic tools required to complete the assignment without his assistance. By using these behaviors consistently, without ever adapting how he used these behaviors in class, he failed to differentiate his expectations to all of his students' assessed needs. Therefore, Sam communicated both appropriate and inappropriate differential expectations to each of his students. However, he was not using behaviors from the learning support domain regularly with the students that he believed would not be successful on the AP exam. He mostly used emotional support and rarely used pressure, thereby missing the opportunity to engage students in higher-order thinking.

Erin and Donna had similar frequencies of use of expectancy-conveying behaviors in their instructional strategies (see Table 9.1). Both of these teachers used some learning support and occasionally used pressure behaviors when students were working on essays, but both very rarely used behaviors from the emotional support domain. Although Erin was observed using essays more frequently as an instructional strategy than Donna, the manner in which positive expectancies were conveyed was largely the same for both teachers because they provided very little support to students to complete tasks. Both teachers used instructional questions to test for lower-order recall only, and both were very limited in their use of questions to most students in their classes. Claudia was the only teacher who used all eleven behaviors across all three domains (Babad, 1990) both frequently and thoroughly (see Table 9.1). She interacted with students through the use of instructional questions and essays. Additionally, she considered student responses during instruction and used those responses to assess student abilities. She then used follow-up questions to gather data to inform her about corrective actions necessary for students to improve to a level of understanding that would prepare them for success on the AP exam. The high frequency of use of the eleven behaviors in addition to the incorporation of the assessment data she gleaned makes her use of the behaviors thorough.

Table 9.1  
*Teachers' Expectancy-conveying Behaviors*

Behaviors (and operationalized definitions)	Sam	Erin	Donna	Claudia
<b>Factor 1: Learning Support</b>				
Approaches student to observe work (Physically moves toward the student to observe students' individual work)	Dedicates 30-45 minutes of each class to practice essays that he uses to move around the classroom and talk to students about their essays	Sits at desk and stands at podium.	Sits at desk and stands at podium. Occasionally moves toward one group of students when delivering lectures, but does not observe work.	Allows ample time for students to write essays so she can move around the room to observe students working while constructing essays, she reads students work; considers student responses to essay prompts before offering feedback that is customized to help each student (e.g., offers feedback on student use of literary examples and critiques their interpretation)
Approaches student (Physically moves toward the student or turns toward the student from one location and gives individual attention)	Asks at least one question to each student, approaches each student at least once during essay-writing	Does not approach students.	Only approaches one student table during lectures.	Asks multiple questions to students per class period and moves around classroom during discussion activities and essay-writing; considers student responses to questions she asks before telling the student if he or she is correct (e.g., asks a student follow-up questions about analysis of rhetoric)

Behaviors (and operationalized definitions)	Sam	Erin	Donna	Claudia
Sees to it that student will learn without interruption (Does not allow extraneous conversations or disruptive behaviors that may interrupt instruction)	The classroom is without extraneous interruptions such as non-instructional talking or students working on assignments for other classes during the time Sam is asking questions and when students are asked to write practice essays. Sam structured the class with activities that engaged students and involved them in activities by asking them questions and telling compelling stories.	The classroom is without extraneous interruptions such as non-instructional talking or students working on assignments for other classes when Erin asks questions and students write essays; listens to students' conversations from her desk while they work on assignments in pairs. Frequently stops students from talking about non-instructional topics and occasionally stops students from talking about instructional topics. (shutting down instructional conversation happened twice with one Filipino female); allows students to engage in non-instructional topics only when she is a part of the conversation	Class is noisy; students hold non-instructional conversations during lectures and lab activities. Donna does not intervene, or when she does behavior does not change. She contributes to interruption by continuing with her instruction when several students are carrying on loud conversations about non-instructional topics like the quality of school chicken sandwiches or the probability of the school sports team winning an upcoming game; while students are supposed to be working independently, she often sits at her desk; when students make loud noises during independent work times, she looks up from her desk, but rarely says anything to students	The classroom is without extraneous interruptions such as non-instructional talking or students working on assignments for other classes when Claudia asks questions and students write essays. Claudia structured the class with activities that engaged students and involved them in activities by asking them questions. She also used multiple activities during each class that meant the students completed one activity and then she transitioned them to another, eliminating time when students were not focused on an instructional activity.

Behaviors (and operationalized definitions)

Gives student opportunity to think long enough before answering (Uses context-appropriate wait time after asking questions and sufficient time to write in-class essays)

Sam

Allows several seconds before moving on to another student when asking questions; students receive 30-45 minutes to write essays

Erin

Used entire class periods two times for students to engage in practice essay completion; offers 30-45 minutes of other 90 minute classes to write on AP exam Free Response Questions

Donna

Uses no wait time following a question to the entire class. If a student does not respond, she provides an answer to her own question and moves on.

Claudia

Uses wait time of up to one minute before asking follow up questions or offering a correct response; allows ample time for students to complete essays in and out of class; after waiting for students to formulate a response, she considers student responses before offering corrective feedback (e.g., keeps students assessed needs in mind when offering feedback)

Behaviors (and operationalized definitions)	Sam	Erin	Donna	Claudia
Helps student to answer questions (Offers hints when asking questions and helps students recall facts and construct analysis for essays)	Gives hints when asking questions such as offering ranges of dates, locations, and other related historical figures; helps students form analysis when writing essays by structuring arguments	Does not answer questions for all students, only students she has previously classified as “serious” students. If a student asks too many questions in a row, she will refuse to answer questions and directs a negative comment to the student with the intent of preventing him or her from asking more questions.	Answers students questions about course content during lectures	Does not allow a student to say, “I don’t know; contextualizes questions when a student cannot answer without assistance; calls on other students to answer a related question that may help other students answer questions; offers writing conferences with students who struggle on essays so she can customize support to improve writing; considers student responses as a component of her assessment system; and uses student responses to formulate appropriate responses

Behaviors (and operationalized definitions)	Sam	Erin	Donna	Claudia
Explains student's mistakes and how to correct them (Points out incorrect answers to questions and in essays and offers corrections with correct content and analysis)	Discusses difficult essay prompts with students and helps to form the analysis so students can correctly answer the in-class essays. Asks students to recall facts from the lectures, and then he arranges the facts into a logical argument. Does not consider students' responses to questions and essays that deviate from his historical narrative; treats answers that deviate from his understanding of history as incorrect	Goes over essay responses in class, pointing out correct evidence to use when structuring an argument; often calls students up to her desk one at a time to discuss how students can improve on writing.; does not consider students' responses to questions and essays as correct when they do not fit with her understanding of comparative government or human geography	Goes over essay responses in class, pointing out correct evidence to use when structuring an argument; when soliciting examples from the class during lectures, she does not explain why students' examples are incorrect, rather, she asks for more examples until a student offers a satisfactory response	Asks follow up questions to probe for student understanding before offering a judgment of whether the student's answer was correct or incorrect; when the answer is incorrect, she explains why the answer was not acceptable and offers a correct answer; helps a student structure essays when she notices a problems as she moves around the room (e.g., has students annotate a literary passage to pull evidence and then helps students arrange evidence into a cogent argument, always asks the students to do a task before offering help); considers students' responses to questions and essays when explaining mistakes; often incorporates examples from students' earlier responses to illustrate literary and rhetorical analysis rather than using her own preselected examples

Behaviors (and operationalized definitions)	Sam	Erin	Donna	Claudia
<b>Factor 2: Emotional Support</b>				
Praises student in the classroom (Offers positive and affirming comments to student responses. Acknowledges effort as well as correct responses.)	Offers praise to every student answering questions and essays regardless of whether the student is correct or on track; examples include, “good job” and “nice work”	Does not offer praise.	Does not offer praise.	Often offers praise to students who answer questions with phrases like, “good” or “nice;” provides constructive and positive feedback in written comments on essays; considers student responses to questions and essays and makes comments to students when she sees them making progress on assignments
Gives student a lot of attention (Displays a positive attitude toward all students)	Asks all students questions during each class and moves toward each student’s desk during essays; asks students about their lives outside of class.	Often calls students up to her desk one at a time to discuss how students can improve on writing.	Does not give students individual attention.	Asks students questions about material when she knows they are interested in the topic (e.g., asked a student to analyze the rhetoric of President Obama’s speech when he had expressed an interest in political discourse); encourages students to write essays on topics of interest to them (e.g., encouraged a Black female to write for a minority student essay competition); considers student responses in essays by encouraging students to write about topics that interest them

Behaviors (and operationalized definitions)	Sam	Erin	Donna	Claudia
Is warm and supportive to student (Avoids displays of frustration when students respond with incorrect answers to questions and on essays)	Remains calm when students cannot offer a correct or reasonable answer; offers context clues to help students answer questions; reads exemplary student essays to the class giving praise to the student author	Is not warm or supportive to students. Does not smile when students respond to questions; does not offer context clues when a student struggles to answer a question; cuts off students mid-answer when it differs from the response she is seeking; does not acknowledge correct answers at all	Is only warm or supportive to students outside of class when discussing extracurricular activities; does not acknowledge right or wrong answers; does not smile at students or convey any other cues that convey “warmth”; does not reward student for volunteering responses	Responds with smiles and nodding of her head to students who answer questions with a short positive follow-up like, “Good” or “nice;” gives students positive feedback in their essays when they structure an argument well; makes eye contact with students, especially when they are struggling to explain their responses to let the student know that she is waiting to hear their entire answer
<b>Factor 3: Pressure</b>				
Addresses difficult questions at student (Targets higher-order thinking (Bloom, 1956) with questions and essays )	Uses past AP exam topics for essays	Uses past AP exam topics for essays	Uses past AP exam topics for essays	Asks higher-order questions to students that require analysis, synthesis, or evaluation of literary works or rhetorical examples to answer; uses past AP exam topics for essays; considers student responses when deciding whether to ask follow-up questions to push students who have demonstrated a clear understanding of the required material and would benefit from additional rigor

Behaviors (and operationalized definitions)	Sam	Erin	Donna	Claudia
Is very demanding of student (Requires students to respond to questions and essays. Does not let students offer partial answers or say, “I do not know” to avoid answering questions.)	Essay topics are demanding, but Sam does not require students to respond to essays on their own, rather he supports them by structuring analysis	Requires students to respond to demanding past AP exam essay prompts and will not accept an exam when the student did not follow directions (e.g., format the essay into five paragraphs). The content of the essay is secondary to the format in which students present it. Requiring student to use one structure is a component of how she structures essay-writing activities.	Uses past AP exam essays prompts; she scores student several essays with other AP teachers at teacher professional development activities; provides concrete feedback on how students can improve essay scores (e.g., highlights specific statements that earn students credit)	Does not let a student say, “I don’t know” and requires students to attend writing workshops if they do not demonstrate writing at levels she deems appropriate to succeed on the AP exams; considers student responses to determine why a student is not able to answer a question correctly or write essays at acceptable levels.

For all four teachers the times when they used the most frequent combination of expectancy-conveying behaviors was during the in-class essay-writing opportunities. A probable reason for the prevalent use of essays is that the College Board provides previous years' exam essays and encourages teachers to use them to prepare students for the exam, which all the teachers considered to be the primary obstacle to students' passing the AP exam. In addition to using previous exam prompts, each of the teachers had training from the College Board and through professional development sessions on how to use essays in their classes effectively. Although all four teachers may not be using the College Board's recommended process for teaching essays, they are using some of these practices, such as providing exemplary essays and scoring these exemplars with the College Board's rubrics. However, only Claudia used student responses to the essays in forming her opinion about what students knew about the course content and in responding with instruction designed to help students prepare for success on the AP exam.

### **Regular Interactions are Critical**

The teachers' expectancy-conveying behaviors presented in table 9.1 comprise the essence of teachers' emerging expectancy themes. The data allows for understanding the expectancy themes of each teacher as he or she prepared students for AP exams and considered student progress through various behaviors and assessments.

Sam and Claudia both exhibited classroom behaviors that illustrated expectancy behaviors with students. Sam employed an alternative narrative to reach students and to engage in the course content. By tailoring instruction to themes of race and SES present

in his high school, Sam recognized the influence of school demographics on student learning. He tailored instruction to honor alternative narratives by connecting the AP U.S. History content to the Black and female students in his class. The use of alternative narratives was evidenced by inclusion of York in his account of the Lewis and Clark Expedition and women as prominent historical figures among the Puritans and other early American settlers. The expectation that each student can make a personal connection to history effectively conveyed appropriate expectations through the emotional support domain of expectancy-conveying behaviors.

Claudia, in contrast, incorporated a complex system of assessment and feedback to tailor instruction to specific students to build skills required for earning at least a 3 on the AP exam. Because her feedback was tied to specific performance deficiencies, she was able to convey expectations of success to students in the class. Claudia believed that effective teaching is not about bringing all students up to the same level of performance or expecting that all students will achieve to the same degree but rather about improving student performance based on each student's assessment history.

In comparison, both Erin and Donna struggled to appropriately communicate differential expectations because they had more limited interactions with students. Because Erin opted to forgo instructional planning and moved away from the core course content of AP Comparative Government, she limited her ability to convey high expectations relative to that course content, and therefore, minimized the expectations she conveyed to students. When Donna stopped her lecture to control her frustration in her class, thereby reducing the content-based interactions with students in class, she limited her means of communicating appropriate expectations for students.

## **Use of Multiple Routines**

Using instructional questions in conjunction with a variety of other complementing instructional strategies may be part of effective instructional routines to prepare students for the AP exam. Claudia's use of questioning was a good example of a routine which may have helped her prepare students for the AP exam. But her use of questioning and continuous assessment were accompanied by other instructional strategies appropriate for the entire class. She used the varied instructional strategies to convey expectations when students did not understand the course material. The other three teachers also asked questions, but none employed them so effectively or consistently as Claudia.

The lecture format limited the nature of interactions that Sam, Erin, and Donna had. First, the only questions interspersed in their lectures assessed student recall. Additionally, the lectures of these three teachers typically lasted for the majority of class. During longer lectures fewer students initiated interactions with teachers, and the teachers asked fewer questions as they moved further into a lecture. The use of shorter lectures in conjunction with other instructional strategies such as small group discussion, Socratic seminars, and in-class reading activities increased the number of interactions Claudia had with her students.

The use of multiple routines to include more expectancy-conveying behaviors during each class period influenced teacher communication of expectation in two ways. First, the more frequently a teacher employed these behaviors, the stronger the expectation message. Second, as teachers interacted with students, they were able to assess student learning. The more frequent the assessment, the more likely a teacher

would form appropriate differential expectations. Because Claudia interacted with her students frequently, she knew their level of current performance and conveyed her appropriately nuanced positive, achievable expectations for student performance. Sam, Donna, and Erin interacted with their students with less frequency; therefore, when talking about their students, expectations were not communicated as clearly, and expectations for specific students took longer to form.

In addition to describing teachers' expectancy themes and how they were different, teachers' considerations of student characteristics of race, socioeconomic status, and gender were considered.

### **Research Question 3: Expectations Situated in Deficit and Dynamic Thinking and Critical Race Theory**

The literature on teacher expectations and deficit and dynamic thinking provides descriptions of teachers' behaviors and beliefs. Deficit beliefs, as described in chapter 2, are those associated with: (a) blaming the victim, (b) oppression, (c) pseudoscience, (d) temporal changes, (e) educability, and (f) heterodoxy. The conceptual beliefs that comprise dynamic thinking are: (a) challenging systems of oppression, (b) foundations of social justice, (c) culturally sensitive research, (d) individuals as components of systemic change, (e) all students learn at high standards, and (f) transformative heterodoxy.

Likewise, research on critical race theory presents a paradigm shift on racism in education that transformed the argument about the structural and cultural aspects of education into an analysis of dominant and subordinate positions within and outside of the classroom (Solorzano & Ornelas, 2002). Furthermore, race and racism remain endemic to U.S. society creating deeply embedded problems in U.S. education

(Leonardo, 2009). The scholarship of critical race theory (Bell, 1987, 1992; Crenshaw, Gotanda, Peller, & Thomas, 1995; Delgado, 1995) emerged from the critical legal studies movement (Crenshaw et al., 1995) in the early 1970s (Matsuda, Delgado, & Crenshaw, 1993) and provides a framework in education to examine teachers' expectations as influences on minority students' performance on AP exams.

Consideration of how deficit and dynamic thinking and critical race theory influenced teachers' expectations was explored in this study by examining the ways in which teachers' stated intent may have been guided by student characteristics of race, socioeconomic status and/or, gender. Tables 9.2 through 9.13 are a summary of teachers' stated beliefs. The beliefs are compared and contrasted in the data to identify features of deficit or dynamic thinking through the lens of critical race theory.

Analysis of Sam's beliefs revealed both deficit and dynamic thinking (see Tables 9.2-9.13). As a White male teaching predominantly Black students, he believed that all students could learn at high levels; hence, he offered learning and emotional support for all students. However, he exhibited deficit thinking by failing to challenge students with questions that targeted higher-order thinking and by offering too many analytic frames himself, rather than allowing students to construct those frames. Nevertheless, when applying the expectancy domain of pressure to students, he held a dynamic perspective and challenged all students with rigorous essay prompts, By limiting questions, he reinforced his beliefs that he would be able to increase students' scores on the AP exam by one point. According to Sam's estimates, increasing students' scores would mean that many of his students would only earn a 2 of a possible 5 on the AP exam.

Donna's expectancy-conveying behaviors aligned strongly with deficit thinking (see Tables 9.2-9.13). As a White female teaching predominantly Black students, she interacted with only a few students during any given class period and failed to maintain an environment where students could focus on the course material. She targeted two students directly with questions during classroom observations and did not correct students when they answered questions incorrectly. Her lack of praise or failure to direct attention to each student may have prevented students from initiating interactions in her class. The only dynamic belief she held was to be demanding of students in the expectancy domain of pressure. When Donna assigned essays, she graded them according to rubrics prepared by the College Board and reviewed scored essays with students to demonstrate how to write essays appropriately. However, she did not scaffold the questioning beyond showing exemplars to students.

Erin, a White female teacher, and Claudia, a mixed-race teacher, represented the extremes of behaviors in each of their classes where a majority of their students were minorities. Erin exhibited deficit beliefs for all expectancy-conveying behavioral domains whereas Claudia's stated beliefs behind her behaviors aligned with dynamic thinking (see tables 9.2-9.13). Interestingly, they also held diametrically opposed views on supporting learning, conveying emotional support, and applying expectancy domain of pressure to students. For example, Claudia moved around to all students frequently and maintained a classroom both free of distractions and conducive to students asking questions. She praised students regularly in the classroom while asking difficult questions to assess higher-order thinking. Conversely, Erin rarely approached students as they worked. Students who initiated interactions with her asked questions during class,

but she did not always answer them. She never praised students and did not provide any attention to quiet students during most class periods. Finally, all of her questions assessed lower-order thinking tasks.

Table 9.2

*Summary Table of Teachers' Stated Beliefs Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

	Educability/All students learn at high standards Behavior 1: approaches student to observe work	Heterodoxy/ Transformative heterodoxy Behavior 2: approaches student	Blaming the victim (students)/ Challenges systems of oppression Behavior 3: sees to it that student will learn without interruption	Educability/All students learn at high standards Behavior 4: gives student opportunity to think long enough before answering	Educability/All students learn at high standards Behavior 5: helps student to answer questions
Sam	Dynamic	Dynamic	n/a	Dynamic	Dynamic
Erin	Deficit	Deficit	Deficit	Deficit	Deficit
Donna	Deficit	Deficit	Deficit	Deficit	Deficit
Claudia	Dynamic	Dynamic	n/a	Dynamic	Dynamic

Table 9.13 (Continued)

*Summary Table of Teachers' Stated Beliefs Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

	Educability/All students learn at high standards Behavior 6: explains student's mistakes and how to correct them	Educability/All students learn at high standards Behavior 7: praises student in the classroom	Educability/All students learn at high standards Behavior 8: gives student a lot of attention	Educability/All students learn at high standards Behavior 9: is warm and supportive to student	Blaming the victim (students)/ Challenges systems of oppression Behavior 10: addresses difficult questions at student	Educability/All students learn at high standards Behavior 11: is very demanding of student
Sam	Dynamic	Dynamic	Deficit	Dynamic	Deficit	Dynamic
Erin	Deficit	Deficit	Deficit	n/a	Deficit	Deficit
Donna	Deficit	Deficit	Deficit	Deficit	Deficit	Dynamic
Claudia	Dynamic	Dynamic	Dynamic	Dynamic	Dynamic	Dynamic

Table 9.3

*Teachers' Examples of Stated Beliefs on "approaching the student to observe work" Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

Beliefs	Expectancy Theory	Sam	Erin	Donna	Claudia
Correlated with Deficit or Dynamic Thinking	Contributing to Understanding Deficit and Dynamic Thinking				
Factor 1: Learning Support					
Behavior #1: Approaches student to observe work (Physically moves toward the student to observe students' individual work)					
Sam: Dynamic	When teachers interact with all students, they learn about their students' abilities and can develop and use instructional strategies appropriate for the ability level of each student. Teachers using instructional strategies that are appropriate to students' abilities are more likely to help students learn at high standards.	Moves to all students at least once per class because he understands that not all students learn the same way and he wants to check in on each student in such a way that they are comfortable sharing information with him (e.g., approaches, Natasha, a quiet student, who does not like to speak in front of the class)	Typically interacts with half of the students in the classroom, many of whom are often the same students. These students typically initiate interactions, which is how Erin believes they are "serious" students. (e.g., He knows what he is doing. He is very conscientious. And he worries about when things are due. And he comes up and talks to me.")	Rarely interacts with more than a few of the same students, standing by these students or at her podium. She asks questions to the class as a whole rather than to individual students which further limits her movement towards students (e.g., "I am just expecting a high level of engagement, and if I ask the whole class, then they are all thinking. I treat them like they are a small group of kids and that we are having a conversation.")	Frequently moves around to all students in the class. (e.g., "I look over shoulders a lot. If students are working individually, I will look at their papers to see how they are doing.") She uses her observations to assess student progress and follows up by asking questions to students later in the class period that accounts for the work she observed.
Erin: Deficit					
Donna: Deficit					
Claudia: Dynamic					

Table 9.4

*Teachers' Examples of Stated Beliefs on "approaching student" Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

Beliefs Correlated with Deficit or Dynamic Thinking	Expectancy Theory Contributing to Understanding Deficit and Dynamic Thinking	Sam	Erin	Donna	Claudia
Factor 1: Learning Support					
Behavior #2: Approaches student (Physically moves toward the student or turns toward the student from one location and gives individual attention)					
Sam: Dynamic	Moving towards students allows for opportunities where teachers interact with students and assess work and convey expectations (that students are able to perceive).	States that he checks reading comprehension and recall of facts from stories for each student; states that he wants to engage with students so he approaches them (e.g., "I mean, at some point in the block, I try to engage with almost every student on a daily basis"); perceives equal interaction, but tends to favor students who initiate interactions and accept his historical narratives	Waits for students to approach her. Does not physically approach students; stated intent: she knows students are serious when they approach her.	Moves toward a few students who initiate interactions (e.g., "I also tend to gravitate more towards the students that are looking interested in what I am talking about and I think that is what I am getting a lot."); "think I just have the mentality that if you are eighteen years old and you are not motivated to learn, then I do not know what else...")	In addition to looking over students' shoulders as they work individually, Claudia also joins groups to observe students (e.g., "I tend to join groups. I tell students that when we are doing group work, that I will join their group and I am not Mrs. Claudia anymore ...I am joining their groups to see how they are doing instead of trying to give them direct instruction")
Erin: Deficit					
Donna: Deficit					
Claudia: Dynamic	Teachers who give students attention may be more likely to know about students' assessment and make connections to students' lives outside of class. Connecting with students creates opportunity for dialogue about culture and ultimately using transformative heterodoxy				

Table 9.5

*Teachers' Examples of Stated Beliefs on "seeing to it that student will learn without interruption" Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

Beliefs Correlated with Deficit or Dynamic Thinking	Expectancy Theory Contributing to Understanding Deficit and Dynamic Thinking	Sam	Erin	Donna	Claudia
Factor 1: Learning Support					
Behavior #3: Sees to it that student will learn without interruption (Does not allow extraneous conversations or disruptive behaviors that may interrupt instruction)					
Sam: n/a	Creating learning environment where all students can focus on learning material is a foundational behavior for effective instruction. Donna and Erin blamed students for causing distractions in class (blaming the victim). Both teachers indicated disruptions in the classrooms were major causes for students failing to learn course material.	Did not offer any data on intent for this behavior.	Does not believe advanced learners should be paired with struggling learners; separates advanced learners from those struggling with content to avoid distraction for the advanced students	Wants students in her class to be less talkative; communicated frequent frustration with talkative students; blames students for the loud classroom environment (e.g., "I think it is a little hard to lecture to 24 kids... because if I [stop] moving then they will start talking to their umpteen friends they have in here. Part of it is just...it is different kinds of kids in here this year")	Did not offer any data on intent for this behavior.
Erin: Deficit		am not [pairing] "amoebas" and "parasites"; does not expect seniors to sit quietly (e.g., "You cannot expect seniors [to sit quietly] who are choosing to be here")			
Donna: Deficit					
Claudia: n/a					

Table 9.6

*Teachers' Examples of Stated Beliefs on "giving student opportunity to think long enough before answering" Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

Beliefs Correlated with Deficit or Dynamic Thinking	Expectancy Theory Contributing to Understanding Deficit and Dynamic Thinking	Sam	Erin	Donna	Claudia
Factor 1: Learning Support					
Behavior #4: Gives student opportunity to think long enough before answering (Uses context-appropriate wait time after asking questions and sufficient time to write in-class essays)					
Sam: Dynamic	Teachers' effective use of wait time	Believes that he employs a 5 second wait time	Consistently offers wait time of less than two seconds	Offers wait time according to her perception rather than an	Waits until the student was ready to produce an answer;
Erin: Deficit	communicates that all students can learn at high standards.	(which I did not observe); gives hints when students fail to	and stated that she will not wait for a student to come up with an answer if they do not know how to respond right away. (e.g., "I'm not a very patient person.")	assessment of the student's ability level (e.g., "If I feel like they should know the answer, I'll wait quite a while."); her perception of student ability often differs from assessed ability (e.g., Filipino students)	communicated that she valued the students' responses to questions (e.g., "It is important, very important, to give adequate time. If a student knows that you give up and you call on someone else, then the student does not feel the need to answer the question.")
Donna: Deficit	Teachers who wait for students to form and deliver responses to questions show that they are interested in all students answering questions.	being answering a question immediately after he finishes the question. He states that he wants all students to be able to answer the recall questions he asks in class. He wants to use wait time and hints to help students.			
Claudia: Dynamic					

Table 9.7

*Teachers' Examples of Stated Beliefs on "helping student to answer questions" Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

Beliefs Correlated with Deficit or Dynamic Thinking	Expectancy Theory Contributing to Understanding Deficit and Dynamic Thinking	Sam	Erin	Donna	Claudia
Factor 1: Learning Support					
Behavior #5: Helps student to answer questions (Offers hints when asking questions and helps students recall facts and construct analysis for essays)					
Sam: Dynamic	Assessing student learning to produce data on student abilities is a critical component to forming appropriate differential expectations. No student will be able to answer all questions all of the time. Teachers who helped students answer questions (following appropriate use of wait time) demonstrated that all students can learn at high standards and assessed student abilities.	Stated that reading comprehension is the root of many students' failure to score at least a 3 on the AP exam; he structures his lectures to ask questions that target recall from course readings and provides context clues to encourage students (e.g., "I always help. I mean, it is just in my nature.")	Does not always answer student questions. (e.g., "How come you are totally getting it in your other classes, and you are not getting it in here? What is the problem? What are you doing? Tell me what you are doing, and then maybe you can figure it out"; "So I will answer a few questions. And then if he continues on and it is just ridiculous, then I will shut him down."	Believes some students ask better questions than others (e.g., some students were "thinking about things constantly...at a higher level...not just trying to memorize the information"); believes some students possess an innate understanding of the biology content (e.g., "If they are a true AP student, then they will be able to handle the most difficult question. ")	Scaffolds questions based on assessed ability so that students are capable of responding to questions (e.g., "If I know a student is more academically capable, then I will ask the more challenging question to that student. And then I might have another student—after the more academically capable one has answered—who is not as capable to follow up, because the follow-up will usually be a reiteration of what the first student said...maybe give a little bit more information"
Erin: Deficit					
Donna: Deficit					
Claudia: Dynamic					

Table 9.8

*Teachers' Examples of Stated Beliefs on "explaining student's mistakes and how to correct them" Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

Beliefs Correlated with Deficit or Dynamic Thinking	Expectancy Theory Contributing to Understanding Deficit and Dynamic Thinking	Sam	Erin	Donna	Claudia
Factor 1: Learning Support					
Behavior #6: Explains student's mistakes and how to correct them (points out incorrect answers to questions and in essays and offers corrections with correct content and analysis)					
Sam: Dynamic	Teachers either took time to explain how students made mistakes in their work or did not indicate when students made a mistake. Teachers who corrected mistakes indicated through instruction that students could improve their performance to prepare for the AP exam. This belief indicated that all of their students could learn at high standards.	Knows that his students will make mistakes and he is ready to help them learn the material (e.g., "they know if they raise their hand, if they have a question, if they are not getting it, I am going to call on them and try to explain it")	Expects that the student will fail because they "just do not get it." Will not explain mistakes for some students—typically those who do not initiate interactions with her	Exhibits frustration by refusing to answer a question when she believes the student should already know the answer (e.g., "I feel like I am back in regular [biology] because I am explaining how to make a graph when I probably should not have to be explaining a graph to kids who are in calculus...it is basic science skills and a lot of it is sometimes course content...I have to go backtrack and do some of the details that they should already know")	Helps students correct problems with writing as soon as she notices students are struggling with course material (e.g., "For the writing conference, I meet with students one-on-one and I talk specifically about their individual writing")
Erin: Deficit					
Donna: Deficit					
Claudia: Dynamic					

Table 9.9

*Teachers' Examples of Stated Beliefs on "praising student in the classroom" Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

Beliefs Correlated with Deficit or Dynamic Thinking	Expectancy Theory Contributing to Understanding Deficit and Dynamic Thinking	Sam	Erin	Donna	Claudia
Factor 2: Emotional Support					
Behavior #7: Praises student in the classroom (Offers positive and affirming comments to student responses. Acknowledges effort as well as correct responses.)					
Sam: Dynamic	Praising students seemed to align closest with the dynamic belief that all students can learn at high standards as teachers encouraged students to take risks when answering questions and stay positive when facing challenging course material.	Offers praise readily and states that praise is part of his strategy to engage students	Praises students who follow directions, not those who demonstrate mastery of content (e.g., There is a boy who sits in the first row...he follows all of the directions.")	Does not emphasize praise in the classroom (e.g., "...but I also try to make them feel like they're not, like it's not a big deal for them to get it.")	Strives to offer praise readily (e.g., "I try to give lots of praise. I still use stickers even though it is an advanced high school class and they love it and expect it. I also give verbal feedback.")
Erin: Deficit					
Donna: Deficit					
Claudia: Dynamic					

Table 9.10

*Teachers' Examples of Stated Beliefs on "giving student a lot of attention" Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

Beliefs Correlated with Deficit or Dynamic Thinking	Expectancy Theory Contributing to Understanding Deficit and Dynamic Thinking	Sam	Erin	Donna	Claudia
Factor 2: Emotional Support					
Behavior #8: Gives student a lot of attention (Displays a positive attitude toward all students)					
Sam: Deficit	Giving attention was similar to giving praise in that it correlated with the belief that all students can learn at high standards.	Does not always engage all students, especially if they move away from the historical narrative Sam presents in class. (e.g., "She is always kind of wanting to go [into her own direction away from the topic we are discussing]"); emphasizes his historical narrative over that of his students	Does not provide extra attention to any one student at any point because she wants to treat all students equally (e.g., "...and maybe I need to say, OK, I am going to give these kids extra attention. But then I think the other kids are going to be like, say, "Hey, why is she giving them extra attention and not me")	Conveys frustration to students with negative comments directed to all students in the class (e.g., "Right now I am a little bit concerned. From some of you I am seeing fantastic efforts. Others—I see you walking through life like, "What is going on?")	Uses an assessment system that targets each student several times in a class; repeatedly states that every student can learn and improve in some capacity; aims for success on the AP exam for every student, but is content with student progress knowing proficiency in writing may take longer than one year.
Erin: Deficit					
Donna: Deficit					
Claudia: Dynamic	Claudia consistently gave positive attention to students and responded to students who deviated from her understanding of the course content.				

Table 9.11

*Teachers' Examples of Stated Beliefs on "being warm and supportive to student" Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

Beliefs Correlated with Deficit or Dynamic Thinking	Expectancy Theory Contributing to Understanding Deficit and Dynamic Thinking	Sam	Erin	Donna	Claudia
Factor 2: Emotional Support					
Behavior #9: Is warm and supportive to student (Avoids displays of frustration when students respond with incorrect answers to questions and on essays)					
Sam: Dynamic	Conveying warmth towards students correlated most with the belief that all students can learn at high standards like the other behaviors in the emotional support factor. Teachers who experienced frustration and targeted negative comments towards students when students could not produce answers to questions or failed to structure essays operated from a deficit perspective, while those teachers that remained calm and worked with students to overcome challenges operated from a dynamic perspective.	Believes positive interactions with students will help them engage in class and become U.S. History lovers.	Did not offer any data on intent for this behavior.	Relates to students who are engaged in activities outside of class and talks to them before or after class; does not relate as well to students who do not participate in extracurricular activities and talks to them less (e.g., "That does not mean to say I do not relate to the other ones. It is just a little bit more difficult to relate to these kids who are just in school from 7:30 to 2:30 and that is it.")	Supports students by listening to their response to a question and following up with additional questions to probe for understanding; accepts alternative explanations to questions so long as students can support their statements; scaffolds students to higher-level thinking by asking questions with increasing levels of difficulty
Erin: n/a					
Donna: Deficit					
Claudia: Dynamic					

Table 9.12

*Teachers' Examples of Stated Beliefs on "addressing difficult questions at student" Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

Beliefs Correlated with Deficit or Dynamic Thinking	Expectancy Theory Contributing to Understanding Deficit and Dynamic Thinking	Sam	Erin	Donna	Claudia
Factor 3: Pressure					
Behavior # 10: Addresses difficult questions at student (Targets higher-order thinking (Bloom, 1956) with questions and essays )					
Sam: Deficit	The AP exams target higher-order thinking with both multiple choice questions and essays. Teachers who ask only lower-order questions do not prepare students for the AP exam. Teachers must use instruction to build students' ability to use analysis. Erin and Donna, who do not offer instruction that targets higher-order thinking, blame students for not using analysis when none of their instruction teaches students higher-order thinking.	Asks lower-order	Does not believe in planning to ask different types of questions to maintain a "relaxed" environment (e.g., "we going to operate is so I am more relaxed."); result is all questions target lower-order knowledge	Asks lower-order questions; has stated that she should ask more higher-order questions in class (e.g., "Last year I felt like I was not demanding enough, and that translated to poorer scores"); does not ask questions to some students when she does not believe they will be able to answer the question (e.g., "...a student who is choosing to take this class [who] would not otherwise be called an AP student, a top-tier student, I will not ask the hardest question because they are going to feel like they failed, or they just cannot get it.")	Asks a variety of questions; starts with lower-order questions and scaffolds up to higher-order questions during each activity. (e.g., "I ask them questions that gauge whether they comprehend what we are reading, because before we do more sophisticated analysis, I have to make sure they understand the superficial level... ..but I also will try to point out the types of annotations that I would want them to make in an actual test-taking situation")
Erin: Deficit		Asks lower-order questions as the focus for preparing students for the AP exam (e.g., "The questions I ask for sure are just knowledge questions: recall and comprehension.")			
Donna: Deficit					
Claudia: Dynamic					

Table 9.13

*Teachers' Examples of Stated Beliefs on "being very demanding of student" Correlated with Deficit and Dynamic Thinking through the lens of Critical Race Theory*

Beliefs Correlated with Deficit or Dynamic Thinking	Expectancy Theory Contributing to Understanding Deficit and Dynamic Thinking	Sam	Erin	Donna	Claudia
Factor 3: Pressure					
Behavior # 11: Is very demanding of student (requires students to respond to questions and essays. Does not let students offer partial answers or say, "I do not know" to avoid answering questions.)					
Sam: Dynamic	Teachers who believe all students can learn at high standards do not let students shirk the responsibility of attempting to answer questions or write essays. They worked with students to overcome hardship and persevere to produce some sort of work that could be assessed. Teachers then attempted to build up student abilities from that point toward success.	Acknowledges that the essays on the AP exams are hard and he works to build students up to be able to answer them well on the AP exam	Believes some students will not be able to answer questions; accepts that some students will not be able to answer a question (e.g., "best way to prevent having students who 'just do not get it' in her class is for guidance counselors to 'correctly' choose the students"); when the students missed simple questions "It is an indication that they just do not get it."	Demands that all of her students write essays supported with facts "But in here, you cannot spin an essay... It takes a whole semester to get out of writing that kind of essay and just . . . giving me. . . facts"; works with students to scaffold up to proficiency on essays; accepts that students will experience some failures along the way to eventually being proficient in writing essays (e.g., "And then there is the other group that is on the lower end that they are really challenging themselves by taking that AP class...they need a bit more scaffolding to get to the level of the higher kids.")	Requires students to answer questions (uses long wait time) and complete assignments (e.g., "If I am giving them work or if I am asking them a question, it is because they are going to benefit from it, whether it is on the exam or learning a skill and not just "because." I want everything to be contributing to the big picture")

The analysis of all eleven expectancy conveying behaviors' as shown in table 9.2 contributes to an understanding of deficit and dynamic thinking and critical race theory by identifying correlates among the theoretical frameworks. Each expectancy-conveying behavior is associated with an example of teachers' deficit and dynamic thinking belief that shared similar descriptions from the literature and is then compared to the characteristics found in critical race theory. The teachers' stated intents provided the data used to correlate to the two frameworks. At least one teacher differed from others for each of the eleven behaviors.

The analysis in table 9.2 revealed variation among the teachers. The most commonly held beliefs were that all students can learn at high levels (dynamic) and educability (deficit). Some of the other nine expectancy-conveying behaviors correlated with both deficit and dynamic beliefs. Erin and Donna held the deficit belief of blaming the student for classroom interruptions and addressing difficult questions toward students. Sam and Claudia held the corresponding dynamic belief of challenging systems of oppression.

Loose patterns existed across the three behavioral domains as shown in table 9.2. Overall, the behaviors associated with the instructional and pressure domains were mixed across multiple beliefs. The behaviors associated with the emotional support domain aligned with the dynamic belief of students learning at high standards and the deficit belief of educability.

Using the framework of deficit and dynamic thinking provides a lens to explain the teachers' intention behind their classroom behaviors. As shown in table 9.2, teachers

who have frequent instructional interactions with all of their students, are positive in the emotional support they provide, and offer pressure through their instructional strategies to all students are likely to align with the dynamic thinking beliefs. Teachers who offer little learning support through limited interactions, display negative attitudes towards students, and offer superficial instruction devoid of rigor are likely to align with deficit thinking beliefs.

### **Teacher Beliefs for Student Characteristics of Race, Socioeconomic Status, and Gender**

The data collected from teachers about their beliefs regarding student characteristics influencing performance on the AP exam is derived primarily from how they interpreted student characteristics relative to instructional strategies rather than how they directly address race, SES, and gender. Teachers were not forthcoming about their beliefs about these characteristics. Initially, clear indicators of deficit and dynamic behaviors were not apparent. Over time, it became clear, however, that they were struggling to educate students under the contextual constraints that many teachers face.

Aside from Erin's interactions with Pilipino students, no discernible patterns emerged of teachers differing in the number of interactions with students of different races. Despite the highly diverse classroom populations, in only 3 of 59 observations did a teacher treat students differently based on race. Other examples of deficit and dynamic thinking and race came from conversations about teacher intent based on hypothetical circumstances.

Over time, the teachers answered questions differently during interviews and in after-class discussions. Their responses lengthened without probing questions, and they mentioned students' racial characteristics without retreating at the mention of an achievement gap in their classrooms. What follows are the themes that emerged from later conversations with teachers that illustrate their expectations for students based on race, socioeconomic status, gender. A new theme, family military association, emerged from the interviews.

### **Race as an influence on the AP exam**

A majority of the data on teacher perspectives of students' race as a factor determining expectations came from interviews. Sam and Claudia, however, also incorporated themes of alternative narratives throughout their lessons, creating an opportunity to observe teachers addressing race using culturally responsive pedagogy. Their decision to address student diversity through content communicated a number of expectations to students through the emotional support domain of teacher expectancy-conveying behaviors.

Sam, Donna, and Claudia also mentioned access to resources (e.g., technology and projects outside of class) and the level of parent support (e.g., support with homework) as factors that impacted their curriculum planning. Erin was the only teacher stating she did not consider the race of her students in her curriculum planning, frequently claiming that she became 'colorblind' toward her students after the first week of school. When teachers state that they ignore the race of students in their curriculum planning and instruction they discount "the far-reaching consequences of racial-group experiences for people of color, as well as for Anglos" (Gandara, 2008). Interestingly,

Claudia and Sam, who were the teachers that embraced the racial makeup in their classes most, appeared to express the most meaningful interactions with students.

### **Socioeconomic Status as an influence on the AP exam**

Although SES is not strictly associated with critical race theory, low-income status is often associated with minority students in a number of theoretical frameworks that consider the achievement gap, including teacher expectancy theory. All four teachers used socioeconomic status to identify challenges that students would have in their classes. Teachers mentioned a lack of exposure to prerequisite content, as well as fewer resources at home to complete projects as two of the largest hurdles to preparing students for AP exams. Sam, Donna, and Claudia comingled discussions of resources available to students at home with the identification of the race of their students, indicating they were unable or unwilling to disaggregate the two student characteristics.

Some teachers only discussed socioeconomic status when asked. For Claudia and Sam, discussions disaggregating student SES and race were very difficult. Although asked to discuss race and socioeconomic status independently of one another, the teachers did not separate those characteristics in their responses. This finding may indicate that race and socioeconomic status are equally important when teachers consider how to prepare students for the AP exam.

### **Gender as an influence on the AP exam**

Gender as a characteristic affecting student success in AP exams was the least-mentioned student characteristic mentioned by teachers. Aside from introducing the characteristic as one that might be a characteristic that teachers consider during the

second interview and Erin's perceptions of Filipino students, no teacher made explicit reference to the characteristic.

Donna was the only teacher who attributed any substantive effect of gender — stating that boys were better at critical thinking and thinking outside of the box in biology (Interview, 10-25-2011). She also claimed girls tended to perform better when they were comfortable with the parameters of the essay questions. Yet Donna did not adapt her instruction to accommodate students based on her perceptions of how gender influenced student responses for essay assessments.

In keeping with Sam's instructional strategy of emphasizing alternative historical narratives, he frequently mentioned women during his storytelling sessions. During several lectures in September he included women in historical settings that traditionally focus only on men. For example, he made reference to women on the Mayflower, noting that one woman gave birth to a son, spending several minutes discussing the tremendous challenges associated with giving birth in a hostile environment (Observation, 9-14-2011). In another instance, Sam invoked a feminist position on the atrocities committed against women during the Salem Witch Trials (Observation, 9-21-2011). Despite using such examples in his lectures, however, Sam did not believe that gender accounted for performance in AP U.S. history.

Like Sam, Claudia considered gender only in content selection. Claudia noted that in the selection of literary works she will select a book that is most likely to resonate with one gender when she has classes of predominantly that gender. When creating assignments, she said, she might consider the gender of the students in ways she saw as consistent with gender expectations, typically creating assignments “that involve

creativity and art [which appeals] more to females. I think graphic organizers and logical thinking appeals more to males” (Interview, 11-10-2011).

In contrast, Erin attributed gender to students’ success in AP classes but only for Filipino students, regarding Filipino girls as model students and Filipino boys as silly and goofy. She reported being surprised when Filipino boys earned a 3 or higher on the test because she saw them as usually “just loving life” (Interview, 10-26-2011) and not focusing on their school work. However, she did not address gender in her instruction nor believe it had any bearing on the AP exam, except in the case of Filipino students.

If teachers were communicating differential expectations for students based on gender, it was most likely in the form of supportive behaviors by Sam and Claudia in selecting material they believed would engage students most. Otherwise, no direct link was apparent between teacher observations or interviews and the gender of students in the classroom.

In summary, looking across cases to determine whether patterns exist among teachers that may contribute to the theory and practice of teacher expectations and the achievement gap revealed: (a) teacher expectancy themes were manifested through distinct instructional activities and interaction patterns, (b) student characteristics of race, socioeconomic status, and gender may differentially influence teacher interactions with students, and (c) teachers conveyed expectations to students, which included the influence of race as a factor in preparing minority students in AP classes.

## CHAPTER 10

### DISCUSSION AND IMPLICATIONS

Three research questions served as the guide for data collection and analysis in this study of teachers' deficit and dynamic thinking in AP classes. Chapter 10 includes discussions of the practical significance of the findings, study limitations, and implications for theory and practice.

For question one, what are the expectancy themes that emerge from teachers' sense-making of their interactions with students in the classroom, the cross-case analysis indicates that teachers formed expectancy themes for all students in their classes. Some teachers stated that the students would likely pass the AP exam at the end of the semester. Other teachers modified their expectations when they received student assessment data.

In the second question, how do teachers manifest differential expectations for students through classroom interactions, the teachers manifested appropriate and inappropriate differential expectations by interacting with students in class. Teachers who displayed appropriate differential expectations incorporated information from assessment data into interactions, such as asking questions based on known student skills. Those that formed inappropriate differential expectations instead drew upon other student characteristics such as age, experience, and prior academic experience..

For question three, are these expectations situated in the conceptual frameworks of deficit and dynamic thinking and critical race theory? Teachers did consider students' race, socioeconomic status, and gender in developing predictions about student performance on AP exams, offering support to the theory that teachers' expectations are situated in the conceptual frameworks of deficit and dynamic thinking.

### **Discussion**

The literature suggests that teacher expectancy theory is an appropriate conceptual framework for investigating race, socioeconomic status, and gender in classrooms (e.g., Alexander & Olson, 1997; Alvidrez & Weinstein, 1999; Deyhle & Swisher, 1997; Fischer, Hout, Sanchez, Jankowski, Lucas, Swidler & Voss, 1996; Jussim, Madon, & Chatman, 1994; Moore and Johnson, 1983; Safford and Safford, 1996; Sanchez-Jankowski, Lucas, Swidler, & Voss, 1996; Steele & Aronson, 1995; Valencia, 1991). In this literature, the term differential expectations is used to describe how teachers manifest their expectations for students (Darley & Fazio, 1980; Weinstein, 1976; Weinstein & Middlestadt, 1979). However, this literature presents limited empirical findings regarding how these student characteristics contribute to student achievement.

The literature also suggests that deficit thinking and its conceptual opposite, dynamic thinking, are appropriate conceptual frameworks for investigating race in the classroom (e.g., Gay, 1994; Ladson-Billings & Tate, 1995; Valencia 1997; 2010). The theories of deficit and dynamic thinking are frequently discussed but not substantiated with classroom-based research. The current study contributes to the research on deficit and dynamic thinking and expectancy theory within the AP classroom to contextualize the possible patterns that may influence minority students' classroom performance.

### **Research Question 1: Formation of Expectancy Themes**

As teachers learned more about their students' abilities through classroom assessment, teachers modified their expectations of students' likely performance on the AP exam. Further, teachers were able to articulate their intentions behind the classroom behaviors observed and to convey why they used classroom behaviors during interviews and during informal discussions. When shown summaries of their classroom interaction patterns, the teachers discussed whether they agreed or disagreed with the analysis, expressed surprise at the number of interactions with some of their students, and offered justifications for the patterns they noted. The findings are consistent with previously conducted studies in expectancy literature that teachers provide more opportunities to learn to those students for whom they hold high expectations by interacting with them more frequently (Babad, 1993; Babad, Bernieri, & Rosenthal, 1987; Babad, Bernieri, & Rosenthal, 1987).

Demonstrating that teachers form expectancy themes for their students' performance on the AP exam expands our understanding of teacher expectancy literature into new areas of student achievement. Specifically, research on teacher expectations for student achievement in AP classes provided unique opportunities to study the formation and communication of expectation towards a single instructional goal for all teachers, creating a common benchmark to compare across subject areas. Previous literature had targeted teacher expectations within and across a wide array of subjects. Research on teacher expectations in AP classes provides an avenue into exploring how teachers' expectations relating to highly visible standardized assessment of student achievement.

As researchers better understand teachers' stated intent, they can develop a process of reflective practice for teachers. Reflective practice led two teachers in the current study to consider changing aspects of their classroom instruction. By considering the interaction data presented to them and discussing it at length during interviews and after-class conversations, teachers realized how their pattern of interactions favored specific students. For example, as Sam and Donna considered their interaction patterns, they commented on how they could improve their instructional strategies by altering how they used classroom behaviors to target specific students with whom they did not interact frequently. These two teachers wanted to improve their instruction as they made sense of their interaction patterns and formed a plan to target specific students more frequently with a system that used data about the student rather than relying on their perceptions of students. They indicated their intentions to change as classroom observations concluded; however, there was no evidence to suggest they actually did change their interaction patterns.

Teachers who interacted less frequently with all students had fewer classroom behaviors from the learning support and pressure domains and tended to communicate both appropriate and inappropriate differential expectations from the emotional support domain. The result was that most teachers in the study did not help students when they struggled with higher- or lower-order thinking, allowing students to opt out of answering questions. The teachers that did not require students to answer questions had less assessment data to form expectations.

## **Research Question 2: Manifesting Teacher Differential Classroom Interactions**

Reflection on the data relating to how teachers manifest differential expectations for students through classroom interactions led to the findings that some teachers form differential expectations for their students as a class while others formed differential expectations for specific students within a class. All teachers modified these expectations in some form as they assessed each student's abilities in class using instructional questions and through assignments such as tests and essays. When the teachers in the study were basing differential expectations on assessment data they were able to help students achieve according to students' individual potentials and not according to a common expectation that may be too low for some and too high for others as had been suggested by Weinstein (2002).

Describing how appropriate and inappropriate differential expectations were manifested through classroom interactions was an important finding of the study. When the teachers in the current study formed appropriate differential expectations, they did so by relying on individual student assessment data. During the first few weeks of the school year, these teachers used assessment data, interacted with students, and relied on their perceptions of students' abilities to form their expectations for each student's probable performance on the AP exam. Teachers using assessment data asked more questions to students whom they believed to require additional help. However, the use of assessment alone did not equate to high expectations. In many cases, teachers who used assessment data in their interactions may have communicated low expectations to students by asking lower-order thinking questions, using sarcastic comments, or using the interaction to embarrass the student. Only in some instances did reliance on assessment

data equate to the communication of high expectations to specific students, but in all of those cases, relying on assessment data was the critical component.

Conversely, teachers who formed inappropriate differential expectations did so without considering student assessment data, and instead, drew on other student characteristics, such as age, prior academic experience, and agreement with the teachers' perceptions of what were considered correct answers. These teachers also interacted with all students with less frequency and were often surprised by students who performed better than expected, challenging the teacher's low expectations.

Considering the continuous nature of teachers' appropriate and inappropriate differential expectations is important. Teachers' appropriate or inappropriate expectations are not simply to be interpreted as a dichotomously label. Rather, how the expectations are manifested is of equal importance in understanding the appropriateness of expectations. All four teachers used students' assessment data differently but only Claudia used it consistently to alter her instruction with students. The frequency and amount of assessment data as well as teachers' use of their differential expectations to alter instruction to prepare students for the AP exam also informed whether expectations were differentiated appropriately or inappropriately.

Teachers may have been unable to respond to interview questions about why they interacted with students as they did because they had not considered the intent behind their interactions. The ecological approach used to determine teachers' beliefs about student ability in consideration of the second research question was consistent with approaches used by other expectancy theorists (e.g., Bronfenbrenner, 1978; Weinstein, Gregory, & Strambler, 2004). Several theories may explain why these teachers were

unable to explain how they interacted with students, which include: expert cognitive function prevented them from articulating their beliefs (e.g., Feldon, 2007; Wegner, 2002), they did not believe the reasons behind their actions to be important, or the teachers may have experienced cognitive overload (e.g., Goldinger, Kleider, Azuma, & Beike, 2003; Sweller, 1988; Sweller, van Merriënboer, & Paas, 1998). Reflective practice helped teachers consider an idea that was inaccessible because it was on the outer layers of the ecological orientation by bringing it closer to the inner layers of their attitudes and beliefs. The reflective practice technique (Schön, 1987) helped teachers acknowledge their attitudes and beliefs and ultimately offer an explanation of their intent behind their interactions.

Demonstrating the findings that teachers' beliefs about student abilities influence their expectations for student performance is consistent with the research in teacher expectancy theory (e.g., Babad, 2005; Babad, Avni-Babad, & Rosenthal, 2003; Rosenthal & Jacobson, 1968). Studies on self-fulfilling prophecies have also shown that teacher's beliefs also affect their behaviors, and teachers who expect some students to perform better than others will treat them differently (Babad, 1990; Brophy & Good, 1974; Rosenthal & Jacobson, 1968). As students perceive their teachers are treating them differently, they will alter their behaviors in response as has been shown in research on student reactions to teacher behaviors (e.g., Babad, 1993; Cooper, 1985; Fraser 1986; Fraser & Walberg, 1991; Marshall & Weinstein, 1984, 1986; Walberg, 1976). The new student behavior reinforces teachers' perceptions of the students' ability. (e.g., Merton, 1948; Rosenthal & Jacobson, 1968; Weinstein, 2002).

### **Research Question 3: Situating Expectancy Themes in the Theories of Deficit and Dynamic Thinking and Critical Race Theory**

Teachers did consider race, socioeconomic status, and gender when forming predictions for students' achievement on AP exams. The influences of student characteristics on teacher expectations were considered using the same ecological approach (Bronfenbrenner, 1978) used throughout the extensive research on teachers' attitudes and beliefs considering how student characteristics, such as race, might be a component of their classroom contexts. The analysis of teachers' responses to interview questions required modifications. The planned use of assimilationist and pluralistic codes (Ford, 1996; Ladson-Billings, 1990) to analyze all teacher statements about stated intent behind their classroom behaviors did not adequately describe the interactions in teachers' classrooms and failed to provide empirical evidence confirming its existence.

This study also sought to explore the influences of student characteristics on the formulation of teacher expectations. Teachers who held beliefs aligned with dynamic thinking were more willing to adapt instructional strategies to students' assessed needs, incorporate themes about minorities and women and believed that all students had the ability to learn at high standards. Conversely, teachers who operated from deficit beliefs did not adapt instruction based on students' assessed needs, used course content that had few connections to students' race or gender, and believed that some students would succeed or fail regardless of what occurred during the class.

The findings from the current study reflect how teachers consider the student characteristics of race, socioeconomic status, and gender in forming expectations in the conceptual frameworks of deficit and dynamic thinking and critical race theory.

Additionally, the study provides concrete examples of teachers considering how students' characteristics influence performance on AP exams. These examples extend the work of teacher expectancy theorists who began exploring race (e.g., Deyhle & Swisher, 1997; Fischer, Hout, Sanchez, Jankowski, Lucas, Swidler & Voss, 1996; Jussim, Madon, & Chatman, 1994; Moore & Johnson, 1983; Safford & Safford, 1996; Sanchez-Jankowski, Lucas, Swidler, & Voss, 1996; Steele & Aronson, 1995; Valencia, 1991), socioeconomic status (e.g., Cooper, 1985; Dusek & Joseph, 1985), and gender (e.g., Alvidrez & Weinstein, 1999; Midgley, 1990; Graham, 2001), for teachers' expectations in AP courses.

In addition to describing deficit and dynamic thinking in the classroom, the study allows for expansion of the work of expectancy theorists who indicate expectations have practically significant influences on student performance for specific populations of students based on the characteristics of race, socioeconomic status, and gender. Teacher expectancy theory suggests that teachers who consider these students' characteristics when planning instructional strategies, selecting course content, and deciding the types of students who will be successful are more likely to communicate positive expectations through their behaviors (e.g., Jussim, Madon, & Chatman, 1994; Valencia, 1991; Alvidrez & Weinstein, 1999). The differential expectations that consider student characteristics represent dynamic thinking. Consistent with the literature on expectancy theory, the behaviors of the teachers' in the study communicated expectations to students and may have created self-fulfilling prophecies about student course performance. Teachers who operated from a deficit perspective historically had a much lower percentage of students passing the AP exam than teachers with more dynamic thinking.

While the data from the students in the classes observed was not available for analysis, these findings are consistent with the literature that posits deficit thinking as a contributor to the achievement gap (Ladson Billings, 1996; 2006; Valencia, 1997; 2010). Exploring intent behind these classroom behaviors is a critical component to understanding how teachers form expectations for their students and prepare them for success on AP exams.

**Talking about race.** Teachers' inability to express their beliefs about race is a key finding of this study. When mentioned, candid conversations about race were manifested in two ways: (1) the teachers' inability to discuss race, and (2) the teachers' persistence in linking race with socioeconomic status. Although interview data did contain indications that some teachers were considering race when forming expectations of student performance, without clear, direct patterns of interactions between teachers and students the data could not be used to describe the interactions.

Each of the four teachers infrequently acknowledged race as a contextual factor in their classroom. The current study operated from the assumption that the United States is not a post-racial society. Race continues to be an indicator when evaluating student performance and is cited frequently when analyzing the achievement gap. Literature on critical race theory (e.g., Ladson-Billings, 1996, 2006) contains numerous references to oppression of minority students, social justice, and cultural sensitivity. However, the teachers did not offer any indication that they considered race when interacting with students. Claudia stated during interviews that she believed students' race influenced performance on AP exams far less than their socioeconomic status. Erin stated that she operated from a colorblind perspective so she could treat all students equally. Teachers

indicated that race might have played a role under some circumstances, but were unable to articulate how it influenced their beliefs about student performance on AP exams.

Initially, the framework for the study used the assimilationist and pluralistic paradigms with the eleven expectancy-conveying behaviors to describe teacher behaviors. As the study progressed, teachers offered indications that the assimilationist and pluralistic labels were too broad, as the labels only described ideal classroom environments. They did not describe an equitable classroom in which the race of the students was a positive feature for all classroom students. Nevertheless, using the broader conceptual framework (see figure 2.2) of deficit and dynamic thinking aligned with teachers' stated beliefs during interviews (see table 9.2) should aid the analysis. Guided by literature, teachers' beliefs mapped onto three components of the deficit and dynamic thinking framework: (a) blaming the victim/challenging systems of oppression, (b) educability/all students can learn at high levels, and (c) heterodoxy/transformational heterodoxy. An equally important finding was during coding none of the teachers' stated beliefs mapped on to the other three components of the deficit and dynamic thinking framework: (a) oppression/foundations of social justice, (b) pseudoscience/culturally sensitive research, and (c) temporal changes/individuals as components of systemic change.

Despite repeated and varied efforts to explicitly explore race as an influence on the formation of teachers' expectations, data from the teachers was not forthcoming that would allow for confirmation of these influences for all minority students in classrooms. Very little of the data on the four teachers' backgrounds, characteristics, or beliefs supported clear connections to race. Furthermore, teachers also did not offer beliefs that

were easily tied to deficit and dynamic thinking. The challenge of getting teachers to discuss race despite years of professional development that incorporated reflective practice points suggests that accessing beliefs race requires more informed and focused professional development.

Conversations about race during interviews were also limited by teachers' inability or unwillingness to verbally disaggregate the student characteristics of race and socioeconomic status. Deficit and dynamic thinking and critical race theories all consider race a chief student characteristic. Critical race theory and deficit and dynamic thinking theories suggest that race is the primary student characteristic influencing teachers' expectations. Because teachers in the current study were unable or unwilling to disaggregate race from other student characteristics, conclusions about race were more difficult to articulate.

Further, the data were not suggestive of teacher's views on cultural sensitivity and social justice as factors related to student performance.

### **Family military association as an influence on the AP exam**

Consistently, teachers identified a fourth characteristic, military association, as an influence on performance. Bartlet Public Schools is located only a few miles away from one of the largest military bases in the country. As a result, many BPS students are associated with military life to varying degrees. Teachers learn about their students' military association through a "federal cards" program that allows the school system to coordinate resource allocation with the federal government for students of military families. According to Donna,

. . . they are checking how many children live in the household, what schools do they go to, where do the parents work. . . . So it is tracking who these children live with. So the reason I know that some of these children are military and some are not because the ones who are military get a different color card. . . . part of it also has to do . . . [with] government funding . . . That is why they specifically need to know about the military [association] (Interview, 10-25-2011).

Each of the teachers estimated that as many as half of the students in their classes could be from military families.

An association with a military family appeared to have only a minor influence on teachers' instruction. Sam claimed that it had no bearing on how he planned or interacted with students, as he tried to be supportive of all students regardless of their family situation. Donna said that it did have some effect on her expectations: "I am a little bit more lenient with them. For example, they will say, 'my dad's coming back from deployment.' . . . I am a little more understanding than from kids who are not from military families" (Interview, 10-25-2011). Erin had a slightly different perspective, stating that she might use her position as a veteran to relate to students: "I might relate to them, but just because I am a veteran. I might find out if they lived anywhere and then we can relate. I can pull out the theme of living somewhere else. . . ." (Interview, 10-26-2011). Sam, Erin, and Donna saw students' military connections as affecting their instruction, and during my classroom observations, there were no tangible indications that these teachers had considered students' military association.

In contrast to the other teachers, Claudia reported that she responded to students' military associations by addressing themes from literature that students might relate to:

. . . we read stories. Like, we would read a novel about the Vietnam War. We would read essays about the Vietnam War. Several of my students have moms and dads who are in Iraq and [I] try to be very sensitive to that. I was very angry two years ago when I had a substitute brag to the kids about how he dodged the Vietnam War draft because he did not want to get killed over there. When I have, you know, these kids who do have military families . . . and it also affects them because, you know, because they are missing a parent and it is on their minds (Interview, 11-10-2011).

Claudia's consideration of how the instructional elements in her class affect students might be viewed as a supportive behavior from the emotional support domain of expectancy-conveying behaviors. However, no such behaviors were observed in her classroom. Although all teachers mentioned military family association as a characteristic they considered, they did not to articulate how it influenced their expectations for student performance on the AP exams.

Although not evident in the literature on teacher expectations, deficit thinking, or critical race theory, military involvement is mentioned in the literature on student mobility rates (e.g., Bronfenbrenner, 1986; Heinlein & Shinn, 2000; Merchant & Medway, 1987). This is an important contextual feature of the current study because of the proximity of Bartlet Public School (BPS) to a large military base. Researchers offer no clear evidence of the effects of military family association and student mobility on student performance in that literature. Many of these researchers aggregate a family's military association with mobility rates. However, no instances were found of researchers attempting to correlate either of these characteristics with student

performance. Without any studies that examine the relationship of these characteristics with student achievement, no definitive parallels can be drawn. Although teachers suggested that military association was a significant consideration, instruction was not modified to account for this finding.

### **Limitations of the Study**

#### **Access to teachers outside of class**

All observations were conducted during four teachers' AP class periods. Because teachers were only observed interacting with students and not with other teachers, no opportunities presented to observe teachers discussing the instructional planning they mentioned frequently during interviews. Sam, Donna, and Claudia all mentioned horizontal and vertical planning with other teachers in their departments to prepare students for the rigors of AP classes. Each of these teachers indicated other teachers in their subject areas considered the student characteristics of race, socioeconomic status, or gender when planning their AP classes. Because no observations of teachers discussing how they plan for these student characteristics were included in the study, consideration of the influences of student characteristics was limited.

#### **Lack of student perspectives**

Teacher interview questions were not designed to address the effectiveness of conveying expectations to students. Teacher expectancy theory suggests that students perceive their teachers' expectations for them in as little as 10 to 15 seconds with high levels of accuracy (Babad, 1990). Because speaking with students was not included within the methods of the current study, data on how effective teachers were in conveying expectations their students was not available. The limitation prevented full

consideration of the first research questions as the study only addressed one side of teacher-student expectancy-conveying behaviors.

### **No direct access to student assessment data**

Because access to teachers' assessed student work was not offered, verifying if teachers' perceptions of their student performance had any basis in those assessments was not possible. Many of the findings assert that teachers are using assessment data to alter their expectations. The absence of student assessment data prohibited understanding how teachers' differential expectations are influenced by student performance on in-class assignments in the second research question.

Leaving the research site before AP exam results were available prevented consideration of the accuracy of teachers' expectations for students' performance on the AP exams. The timing of the current study focused on the beginning of the school year when teachers formed their expectations for students. The absence of end of the year performance data precluded the opportunity to speak of the appropriateness of teachers' differential expectations for each of their students, limiting the findings presented to the second research question.

### **Implications for Current Theory and Recommendations for Future Research**

The extensive body of literature on teacher expectations has important implications for expanding the literature on deficit and dynamic thinking.

### **Understanding Expectancy Literature as a Roadmap**

The literature on teacher expectancy theory spans more than 40 years with extensive empirical evidence supporting claims that teacher expectations affect student achievement when accounting for race, socioeconomic status, and gender (e.g.,

Brattesani, Weinstein, & Marshall, 1984; Jussim & Haber, 2005; Weinstein, 2002, 2010).

Teacher expectancy literature began with a series of descriptive investigations that progressed to quasi-experimental studies and finally to path analysis to correlate behaviors leading to the formation of teacher expectations. An extensive and well-established base of empirical literature that followed the same roadmap would enhance the conceptual theories of deficit and dynamic thinking by backing up claims with evidence.

**Describing teacher behaviors in the context of classroom interactions.** The causal links that path analyses attributed to teacher expectations on student performance pointed to teacher behaviors as a significant means of communicating teacher expectations (e.g., Weinstein, 1976, 1983, 1985, 1989; 2002; Weinstein, Marshall, Brattesani, & Middlestadt, 1982; Weinstein, & Middlestadt, 1979). The findings from the current study contribute to expectancy theory by reflecting teachers' classroom instructional behaviors toward students. The current study was conducted to learn more about expectancy-conveying interactions and to establish a framework for observing deficit and dynamic thinking in classrooms. By inquiring about teachers' stated intent through a sensemaking process, the current study contains a way to observe teacher deficit thinking in action. Erin's behavior toward Filipino boys was one such example of identifying deficit thinking during interviews and observing it through behaviors in the classroom.

### **Advances in Teacher Sensemaking**

The observation of teacher-expectancy conveying instructional behaviors in classrooms provided the basis for the description of teachers' deficit and dynamic

thinking. However, teacher intent cannot be accounted for through observation alone. Thus the next step was to determine teacher thoughts about their students' abilities that were based on their socially constructed beliefs. Considering teacher beliefs as a means of uncovering teacher expectations is an area that has been previously explored in the literature (e.g., Brophy & Good, 1974; Darley & Fazio, 1980; Rosenthal & Jacobson, 1968). Exploring the stated intent behind teachers' classroom behaviors, allowed for a focus on how beliefs regarding the students' characteristics of race, socioeconomic status, and gender might be influencing those classroom behaviors. Exploring these student characteristics as components of teacher expectations continues recent discussions about the influences of race, socioeconomic status, and gender on student performance (Jussim & Harber, 2005; Weinstein, 2010).

### **Situating Sensemaking within Critical Race Theory**

To date, few researchers have used critical race theory as a lens to consider teacher sensemaking and its influence on teacher expectations for minority students in classrooms. Teachers' sensemaking during interviews presented challenges to analysis. Despite the scholarly discussion of teacher expectations and student characteristics, teachers were not always forming appropriate differential expectations for students—even when they acknowledged that race, socioeconomic status, and gender may be factors limiting success on the AP exams.

Future research could examine pervasiveness and power of expectations on minority student achievement and the nature of the contexts in which teachers and students are successfully changed.

### **Conducting More Descriptive Studies**

Researchers should investigate the larger naturalistic context of the development of teacher beliefs outside of the classroom and the potential for these expectations to influence performance based on the race, class, and gender of students. Two other research questions are: (1) Do teachers manifest differential expectancy themes through interactions with students and other teachers outside of the classroom? and (2) Are these expectancy themes generated outside of the classroom based on the student characteristics of race, socio-economic status, and gender?

Researchers can modify observation protocols to include examples of teachers conveying expectations that consider race, class, and gender in classroom observations. The lack of observable interactions based on these student characteristics in the study limits the discussions of deficit and dynamic thinking.

### **Effecting Change in Deficit Thinking**

A paucity of empirical evidence exists in the literature on the intersection of deficit and dynamic thinking and critical race theory. Findings from the study provide empirical evidence to substantiate deficit and dynamic thinking behaviors by the teachers. These findings advance the research in teacher expectancy theory and address a gap in the literature on any links between deficit thinking and critical race theory. As researchers describe deficit and dynamic thinking through a similar path as teacher expectancy research, attention may shift to altering the deficit mindset. To change teacher thinking, future researchers will need to produce empirical evidence describing how teacher deficit and dynamic thinking is manifested as instructional behaviors. Researchers can then develop and explore theories on how to change teacher deficit and

dynamic thinking in instructional behaviors, leading to effective professional development addressing the achievement gap.

To study the implications of training for teachers in the area of teacher deficit and dynamic thinking researchers should explore the following research questions:

- How is changing teacher deficit and dynamic thinking like changing any other teacher belief about student abilities?
- How long would professional development programs need to last and with how much intensity must trainers work with teachers to change deficit and dynamic thinking based on what we know of changing beliefs?

If researchers can answer these research questions on designing effective professional development to alter teacher beliefs, they will help advance a wide array of areas outside of deficit thinking.

### **Theoretical Implications for School Leaders and Teacher Preparation**

This study has important implications for school leaders seeking to address the achievement gap in their schools. One of the key findings of the current study is that teacher expectations can be tied to teacher perceptions of student ability based on factors other than assessment data.

When teacher expectations for student success are informed by perceptions based on student characteristics rather than student assessment data, teachers may employ deficit thinking. During interviews, all four teachers acknowledged that students' SES possibly prevented the students from being able to complete assignments due to lack of resources.

Teachers are often told to have high expectations for all students, a sentiment the four teachers in the current study repeated; however, having high expectations and believing that all students will perform equally well are not the same thing. The point is not for teachers to set unrealistically high expectations for all students or that students will all achieve equally. Rather, teachers should have appropriate expectations of their students based on demonstrated student ability. To strengthen the connection between having high expectations and facilitating student success, teachers can learn to use assessment data to inform appropriate differential expectations.

### **Implications for Professional Development Programs**

Changing teacher expectations for students based on race, socioeconomic status, and gender will require careful planning. Eliciting candid discussions about if and how race, SES, and gender affect student performance is difficult.

**Improving teacher practice.** Some teachers may believe their instruction lacks deficiencies. If teachers assume that teaching the most advanced classes in the high school curriculum is an indication of prestige, they may be unlikely or less willing to change their instructional strategies without some form of sensemaking intervention. Engaging all AP teachers in professional development that uses examples from their instruction in exercises entailing critical reflection may be one form of effective professional development.

The intended result of a multifaceted professional development strategy that includes classroom observation, data analysis, teacher coaching, and reflective practice would be to address instructional strategies, teacher expectations, and deficit and dynamic thinking. By using research-driven evaluation and professional development

tools combined with teacher reflective practice, researchers could further explore deficit and dynamic thinking. Professional development initiatives targeting teacher expectancy change could also improve instructional strategies that could address multiple areas of pedagogy and thus improve multiple areas of student achievement.

### **Improving Instructional Questioning**

The use of questions in all but Claudia's classroom was a generally ineffective instructional strategy and could be greatly improved upon. Although each AP course requires students to recall facts, memorizing and paraphrasing are only the first steps in preparing students for the AP exams in all subject areas. Based on the format of the AP exam, which requires high-level thinking for all questions, teachers should be using higher-order questions during lectures and classroom activities, not just in essay prompts.

Effective instructional questioning includes asking difficult questions and being demanding of students, two behaviors in the pressure domain of expectancy-conveying behaviors (Babad, 1990). However, teachers may need assistance and training on how to formulate questions that target higher-order thinking and how to support students who cannot answer them.

To change instructional questioning practices, teachers will likely need to be trained on the strategy with professional development explicitly designed to improve the quality of the teachers' questions. Teachers may require additional instruction in scaffolding with classroom observations as a follow-up to observations focused on assessing use of the technique and feedback on how to better implement the strategy.

As educators consider the shifting demographics in public schools, it is crucial to explore the nature of teachers' differential expectations for students. When we consider

that schools will be held accountable for the achievement gap in AP classes, it is critical for teachers to be aware of how their expectations affect students in all levels of education. Researchers must continue to explore deficit and dynamic thinking in classrooms to give educators a clear understanding of how to support their minority and low-income students. Further research measuring the power and pervasiveness of deficit and dynamic thinking is needed, and education researchers need to commit to providing evidence rather than recycling theory. Teachers play a critical role in a student's success; therefore, teachers need to have a deeper understand of how they influence student achievement based on the characteristics of the students in their classrooms.

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## APPENDICES

### Appendix A

#### AP Challenge Program Intervention Timeline

Teacher Cohort Schedule			
Dates	Group	Intervention Activity	High Schools
<b>Program Year 1</b>			
January 2009— June 2009	Teacher Cohort 1	Professional Development	Hoynes, Marbury, McGary
June 2009	Teacher Cohort 1	Summer Residential Program	Hoynes, Marbury, McGary
<b>Program Year 2</b>			
August 2009— June 2010	Teacher Cohorts 1 & 2	Professional Development	Hoynes, Marbury, McGary
June 2010	Teacher Cohorts 1 & 2	Summer Residential Program	Hoynes, Marbury, McGary
<b>Program Year 3</b>			
August 2010— June 2011	Teacher Cohorts 2 & 3	Professional Development	Hoynes, Marbury, McGary, Santos, Fitzwallace, Seaborn
June 2011	Teacher Cohorts 2 & 3	Summer Residential Program	Hoynes, Marbury, McGary, Santos, Fitzwallace, Seaborn
<b>Program Year 4*</b>			
August 2011— June 2012	Teacher Cohorts 3 & 4	Professional Development	Santos, Fitzwallace, Seaborn
June 2012	Teacher Cohorts 3 & 4	Summer Residential Program	Santos, Fitzwallace, Seaborn
<b>Program Year 5*</b>			
August 2012— June 2013	Teacher Cohort 4	Professional Development	Santos, Fitzwallace, Seaborn

\* Project funding cut in the Spring of 2011 resulting in a scaled-down program for year four and no program for year five.

### Student Cohort Schedule

Dates	Group	Intervention Activity	High Schools
Program Year 1			
June 2009	Student Cohort 1	Summer Residential Program	Hoynes, Marbury, McGary
Program Year 2			
August 2009—June 2010	Student Cohort 1	Students are enrolled in AP courses with AP Challenge Teachers	Hoynes, Marbury, McGary
June 2010	Student Cohorts 1 & 2	Summer Residential Program	Hoynes, Marbury, McGary
Program Year 3			
August 2010—June 2011	Student Cohorts 1 & 2	Students are enrolled in AP courses with AP Challenge Teachers	Hoynes, Marbury, McGary, Santos, Fitzwallace, Seaborn
June 2011	Student Cohorts 1, 2, & 3	Summer Residential Program	Hoynes, Marbury, McGary, Santos, Fitzwallace, Seaborn
Program Year 4*			
August 2011—June 2012	Student Cohorts 2 & 3	Students are enrolled in AP courses with AP Challenge Teachers	Santos, Fitzwallace, Seaborn
June 2012	Student Cohorts 2 & 3	Summer Residential Program	Santos, Fitzwallace, Seaborn
Program Year 5*			
August 2012—June 2013	Student Cohorts 3 & 4	Students are enrolled in AP courses with AP Challenge Teachers	Santos, Fitzwallace, Seaborn
Program Year 6*			
August 2013—June 2014	Student Cohort 4	No Summer Residential Program	Santos, Fitzwallace, Seaborn
August 2013—June 2014	Student Cohort 4	Students are enrolled in AP courses with AP Challenge Teachers	Santos, Fitzwallace, Seaborn

*Note.* Project funding cut in the Spring of 2011 resulting in a scaled-down program for year four and no program for years five or six.

## Appendix B

### Assimilationist versus Pluralistic Framework

(Ford, 1996; Ladson-Billings, 1990)

The assimilationist versus pluralistic philosophies of teaching closely align with deficit (assimilationist) and dynamic (pluralistic) thinking found scattered throughout literature on multicultural education.

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#### ASSIMILATIONIST VERSUS PLURALISTIC PHILOSOPHIES OF TEACHING

(Ford, 1996; Ladson-Billings, 1990a, 1990b)

<b>Assimilationist</b>	<b>Pluralistic</b>
<i>Conceptions of Self and Other</i>	
Teacher sees self as technician; teaching is a technical task	Teacher sees self as artist; teaching is an art
Teacher does not see self as part of the community; encourages achievement as a means of students' escaping the community	Teacher sees self as part of a community and teaching is giving back to the community; teacher encourages students to do the same
Teacher believes that failure is inevitable for some students	Teacher believes that all students can achieve
Teacher homogenizes students into one "American" identity	Teacher helps students make connections among their community, racial, ethnic, and national origins
Teacher sees teaching as putting in knowledge—like banking	Teacher sees teaching as pulling out knowledge—like mining
<i>Social Relations</i>	
Teacher-student relationship is fixed, hierarchical, and limited to formal classroom roles	Teacher-student relationship is fluid, humanely equitable, and extends to interaction beyond the classroom and community
Teacher has a weak, superficial, and/or idiosyncratic relationship with individual students	Teacher demonstrates a connectedness with all students (oneness)
Teacher encourages competition; individual achievement is priority	Teacher strives to have a community of learners; cooperation is valued and encouraged
Teacher encourages students to learn individually, in isolation	Teacher encourages students to learn collaboratively; students are expected to teach and be responsible for one another
<i>Conceptions of Knowledge</i>	
Knowledge is static, passed in one direction—from teacher to student	Knowledge is dynamic—continuously recreated, recycled, and shared by teachers and students; it is not static or

	unchanging; students revise old ideas based on new information
Student performance relies heavily on innate ability	Student performance relies heavily on environment, teaching, and nurturance
Knowledge (content) is infallible	Knowledge (content) is viewed critically
Teacher is detached, neutral about content	Teacher is passionate about content
Teacher expects students to demonstrate prerequisite knowledge and skills (students build their own bridges)	Teacher helps students develop prerequisite knowledge and skills (building bridges or scaffolding)
Teacher sees excellence as a postulate that exists independent of student diversity or individual differences	Teacher sees excellence as a complex but achievable standard that may involve some postulates but takes student diversity and individual differences into consideration

## Appendix C

### Teacher Expectancy Behaviors (Babad, 1990)

Each action refers to a teacher/student interaction with based on positive or negative teacher expectations of student behavior.

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Factor 1: Learning Support: The teacher:	
Behavior #1	approaches child to observe work
Behavior #2	approaches child
Behavior #3	sees to it that child will learn without interruption
Behavior #4	gives child opportunity to think long enough before answering
Behavior #5	helps child to answer questions
Behavior #6	explains child's mistakes and how to correct them
Factor 2: Emotional Support: The teacher:	
Behavior #7	praises child in the classroom
Behavior #8	gives child a lot of attention
Behavior #9	is warm and supportive to child
Factor 3: Pressure: The teacher:	
Behavior #10	addresses difficult questions at child
Behavior #11	is very demanding of child

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## Appendix D

### Participant Interview #1

#### Instrument Construction:

- Each behavior (Babad, 1990) is paired with one or more assimilationist/pluralistic beliefs (Ford, 1996).
- I list all 11 behaviors (**in black**)
- Under each behavior, I have matched beliefs (from Ford, 1996) that may be relevant to each behavior (**in orange**)
- For each behavior, I develop a question (or questions) to address teacher behavior and beliefs (**in blue**)
- Only 12 of 14 assimilationist/pluralistic belief philosophies were incorporated for lack of fit. The following were not used:
  - Teacher sees self as technician; teaching is a technical task/Teacher sees self as artist; teaching is an art
  - Teacher is detached, neutral about content/Teacher is passionate about content
- I will interpret each response in two ways. (1) Does the teacher include the behavior in his/her response and, if so, does the teacher agree the behavior should be part of his/her instruction? (2) Does the teacher mention any of the assimilationist/pluralistic beliefs (in orange) and on which side to they associate (assimilationist, pluralistic, or some combination of the two)? If the list of beliefs from Ford (1996) does not fit, I will inductively analyze the teacher response.
  - For teacher responses that do not fit any part of the frameworks, I will proceed through the sequential data analysis
- Informing teacher selection:
  - Each question will address beliefs about deficit and dynamic thinking through specific expectation conveying behaviors.

#### Instructions:

- Establish rapport (Something nice here)
- Explain to the teacher that this interview has eleven questions on teacher beliefs. They may skip any prompt they do not feel comfortable answering. All data will remain confidential.
- Read the questions from each of the three categories and ask the teacher to respond.
- Ask follow-up questions as needed to probe for additional teacher beliefs. These follow-ups will be at the interviewer's discretion and based largely on how much information the respondent offers to each primary question.

## **Factor 1: Learning Support**

### 1.1 - Teacher approaches child to observe work

- Teacher expects students to demonstrate prerequisite knowledge and skills (students build their own bridges)/Teacher helps students develop prerequisite knowledge and skills (building bridges or scaffolding)
- Teacher encourages competition; individual achievement is priority/Teacher strives to have a community of learners; cooperation is values and encouraged
- Teacher-student relationship is fixed, hierarchical, and limited to formal classroom roles/Teacher-student relationship is fluid, humanely equitable, and extends to interaction beyond the classroom and community
- Student performance relies heavily on innate ability/Student performance relies heavily on environment, teaching, and nurturance

#### 1.1 – How do you decide which students to observe in class?

- 1.1.1 Possible follow-up (ad hoc): What if you were working on a critical thinking activity and students were working in groups? What if it was at the end of a lecture and students were practicing independently on an assignment.

### 1.2 - Teacher approaches child

- Teacher expects students to demonstrate prerequisite knowledge and skills (students build their own bridges)/Teacher helps students develop prerequisite knowledge and skills (building bridges or scaffolding)
- Teacher-student relationship is fixed, hierarchical, and limited to formal classroom roles/Teacher-student relationship is fluid, humanely equitable, and extends to interaction beyond the classroom and community
- Student performance relies heavily on innate ability/Student performance relies heavily on environment, teaching, and nurturance

#### 1.2 – How do you decide when to approach a student?

### 1.3 - Teacher sees to it that child will learn without interruption

- Teacher encourages competition; individual achievement is priority/Teacher strives to have a community of learners; cooperation is values and encouraged
- Student performance relies heavily on innate ability/Student performance relies heavily on environment, teaching, and nurturance

#### 1.3 – How do you ensure that students have time to work without interruption?

- 1.3.1 - (If teachers talk about the administrative and logistics interruptions, I will redirect to instructional planning within their control)

### 1.4 - Teacher gives child opportunity to think long enough before answering

- Teacher encourages competition; individual achievement is priority/Teacher strives to have a community of learners; cooperation is values and encouraged
- Teacher sees teaching as putting in knowledge—like banking/Teacher sees teaching as pulling out knowledge—like mining
- Student performance relies heavily on innate ability/Student performance relies heavily on environment, teaching, and nurturance

- Knowledge is static, passed in one direction—from teacher to student/Knowledge is dynamic—continuously recreated, recycled, and shared by teachers and students; it is not static or unchanging; students revise old ideas based on new information
- 1.4 – How do you determine how much time to wait after asking a question?
  - 1.4.1 - Does this vary among students in your classroom?
- 1.5 - Teacher helps child to answer questions
  - Teacher believes that failure is inevitable for some students/Teacher believes that all students can achieve
  - Teacher sees teaching as putting in knowledge—like banking/Teacher sees teaching as pulling out knowledge—like mining
  - Teacher-student relationship is fixed, hierarchical, and limited to formal classroom roles/Teacher-student relationship is fluid, humanely equitable, and extends to interaction beyond the classroom and community
  - Student performance relies heavily on innate ability/Student performance relies heavily on environment, teaching, and nurturance
  - Knowledge is static, passed in one direction—from teacher to student/Knowledge is dynamic—continuously recreated, recycled, and shared by teachers and students; it is not static or unchanging; students revise old ideas based on new information
- 1.5 – How do you decide whether to help a student with a question?
  - 1.5.1 – How do you help when you decide the student needs assistance?
  - 1.5.2 - Does this vary among students in your classroom?
- 1.6 - Teacher explains child's mistakes and how to correct them
  - Knowledge (content) is infallible/Knowledge (content) is viewed critically
  - Teacher expects students to demonstrate prerequisite knowledge and skills (students build their own bridges)/Teacher helps students develop prerequisite knowledge and skills (building bridges or scaffolding)
  - Teacher-student relationship is fixed, hierarchical, and limited to formal classroom roles/Teacher-student relationship is fluid, humanely equitable, and extends to interaction beyond the classroom and community
  - Knowledge is static, passed in one direction—from teacher to student/Knowledge is dynamic—continuously recreated, recycled, and shared by teachers and students; it is not static or unchanging; students revise old ideas based on new information
- 1.6 – Do you help students correct mistakes in their work?
  - 1.6.1 - Why? When? How?
  - 1.6.2 – Is there a point when you might typically intervene if you see a child making mistakes?

## **Factor 2: Emotional Support**

### 2.1 - Teacher praises child in the classroom

- Teacher believes that failure is inevitable for some students/Teacher believes that all students can achieve
- Teacher encourages students to learn individually, in isolation/Teacher encourages students to learn collaboratively; students are expected to teach and be responsible for one another
- Teacher-student relationship is fixed, hierarchical, and limited to formal classroom roles/Teacher-student relationship is fluid, humanely equitable, and extends to interaction beyond the classroom and community
- Student performance relies heavily on innate ability/Student performance relies heavily on environment, teaching, and nurturance

#### 2.1 – How do you praise children in the classroom?

2.1.1 - Under what conditions? How do you decide?

2.1.1 – Do you offer more praise to some children than others?

### 2.2 - Teacher gives child a lot of attention

- Teacher believes that failure is inevitable for some students/Teacher believes that all students can achieve
- Teacher encourages students to learn individually, in isolation/Teacher encourages students to learn collaboratively; students are expected to teach and be responsible for one another
- Teacher expects students to demonstrate prerequisite knowledge and skills (students build their own bridges)/Teacher helps students develop prerequisite knowledge and skills (building bridges or scaffolding)
- Teacher-student relationship is fixed, hierarchical, and limited to formal classroom roles/Teacher-student relationship is fluid, humanely equitable, and extends to interaction beyond the classroom and community
- Student performance relies heavily on innate ability/Student performance relies heavily on environment, teaching, and nurturance

- Teacher does not see self as part of the community; encourages achievement as a means of students' escaping the community/Teacher sees self as part of a community and teaching is giving back to the community; teacher encourages students to do the same

#### 2.2 – How do you decide to which student you will give attention?

2.2.1 – What does this look like to you?

### 2.3 - Teacher is warm and supportive to child

- Teacher believes that failure is inevitable for some students/Teacher believes that all students can achieve
- Teacher has a weak, superficial, and/or idiosyncratic relationship with individual students/Teacher demonstrates a connectedness with all students (oneness)
- Teacher-student relationship is fixed, hierarchical, and limited to formal classroom roles/Teacher-student relationship is fluid, humanely equitable, and extends to interaction beyond the classroom and community

- Student performance relies heavily on innate ability/Student performance relies heavily on environment, teaching, and nurturance
  - Teacher homogenizes students into one “American” identity/Teacher helps students make connections among their community, racial, ethnic, and national origins
  - Teacher does not see self as part of the community; encourages achievement as a means of students’ escaping the community/Teacher sees self as part of a community and teaching is giving back to the community; teacher encourages students to do the same
- 2.3 – How do you see yourself as warm or supportive to students?  
 2.3.1 – What types of students do you find yourself relating to more?  
 2.3.2 – What does this look like in your class?

**Factor 3: Pressure**

3.1 - Teacher addresses difficult questions at child

- Teacher believes that failure is inevitable for some students/Teacher believes that all students can achieve
  - Knowledge (content) is infallible/Knowledge (content) is viewed critically
  - Teacher expects students to demonstrate prerequisite knowledge and skills (students build their own bridges)/Teacher helps students develop prerequisite knowledge and skills (building bridges or scaffolding)
- 3.1 – How do you select which child will get a difficult question?  
 3.1.1 – How do you select which child will get an easy question?

3.2 - Teacher is very demanding of child

- Teacher believes that failure is inevitable for some students/Teacher believes that all students can achieve
  - Teacher sees excellence as a postulate that exists independent of student diversity or individual differences/Teacher sees excellence as a complex but achievable standard that may involve some postulates but takes student diversity and individual differences into consideration
  - Teacher-student relationship is fixed, hierarchical, and limited to formal classroom roles/Teacher-student relationship is fluid, humanely equitable, and extends to interaction beyond the classroom and community
- 3.2 – How demanding do you think you are of your students?  
 3.2.1 – What would make you more demanding with some students than others?

## Appendix E

### Participant Interview #2

#### Research Questions

1. Do teachers manifest differential expectations for students in the classroom?
2. If so, what are the expectancy themes that emerge from teachers' sensemaking of their interactions?
3. Are these expectations situated in the conceptual frameworks of deficit and dynamic thinking and Critical Race Theory?

#### Expectancy Behaviors

**Factor 1: Learning Support:** The teacher:

1. approaches child to observe work
2. approaches child
3. sees to it that child will learn without interruption
4. gives child opportunity to think long enough before answering
5. helps child to answer questions
6. explains child's mistakes and how to correct them

**Factor 2: Emotional Support:** The teacher:

1. praises child in the classroom
2. gives child a lot of attention
3. is warm and supportive to child

**Factor 3: Pressure:** The teacher:

1. addresses difficult questions at child
2. is very demanding of child

*Note on expectancy behaviors: I will consider the contexts of the classroom at the time a behavior is observed. For example, if a teacher offers a basic recall question that requires little time to process an answer, I will consider the teacher behavior differently than if the teacher asks a question that requires a student to use higher-order thinking skills (e.g., analysis, synthesis, and/or evaluation).*

#### Instrument Construction:

- Interview questions in sections 1 & 2 target content arising from the first five week of observations.
  - Section 1 asks questions to all teachers about expectations for student performance on AP exam
  - Section 2 asks questions that relate to individual teachers based off of analytic assertions made from observations.
  - The corresponding analytic assertions with confirming and disconfirming evidence are presented in Appendix 1.
- Section 3 asks teachers to respond to scenarios that incorporate Cognitive Task Analysis. Each scenario contains a hypothetical situation that challenges a teacher's automatic cognitive processing.
  - Elucidate the principles of specific interactions from the lit review in the scenario. Find out how teachers would respond to the scenario and follow up with questions that target teachers' intent.

- The scenario targets several expectancy behaviors within the four parts of the scenario.
- The first part of the scenario establishes the context for a student behaving in such a way that the teacher relates to the student. I want the teacher to consider these behaviors a normal part of classroom behavior.
- The second and third parts of the scenario are designed to interrupt the teacher's automated thinking (likened to seeing break lights interrupting your trance-like drive home).
- The final component of the scenario is designed to allow for error detection and create a "cringe" for the teacher to challenge their automated thinking processes. Having a teacher that I am interviewing say, "A student will never be able to achieve because..." should communicate both expectations for the teacher I am interviewing and elicit some sort of strong response. This follows the formula from David's meeting to elicit a "cringe" response from the teacher. The goal is to halt automated cognitive processing and have the teacher focus in on the activity that would occur in the classroom (hypothetically or with specific students). The "cringe moment" is similar to the third and fourth parts of the interview. However, rather than changing the behavior of the student as in previous parts, this comment is designed to force a teacher to respond to a statement that I believe each teacher would find repulsive. I am basing my assumption on what the teacher would think on the responses given during interview #1 during the third and fourth weeks of the data collection process.
  - Ultimately, I think a teacher's key issue is likely to be the jarring thing that snaps their attention to talk about a student. The goal at that point is to get them to unpack more about some key thing they tend to emphasize in their room, that they may not be able to explain. I don't know if it will lead to the teacher discussing differential expectations outright, but I'm going to give it a try based on how I understand David Feldon's research.
- Scenario will start off hypothetical and will not involve student names, indications of student race, or seating locations as mentioned in the meeting with David Feldon, Carolyn Callahan, and Sara Dexter. I do not have observation data to support the inclusion of specifics yet. By starting off in the hypothetical contexts I can avoid confusing teachers or causing them to shut down if they feel judged.
  - Follow up with the teacher's scenario response to see if they saw any examples of the scenario in their classroom of how they might have interacted with students.
- Section 4 asks questions to all teachers about their perceptions of gender, race, and SES affecting how they design and plan for instruction.

- These three student characteristics are more likely to make a student susceptible to the effects of teacher expectations (based in my lit review).
- I have added a fourth characteristic (membership in military families) that is closely aligned with SES as the schools are close to the Navy base & shipyards.
  - May lead to instability of student populations
  - May differentiate the homegrown kids who have come through elementary and middle schools in the district versus the students who just arrived and don't know the culture of the area
- All four of these questions in section four would need to be approached with an introduction that explains background on gender, race, and SES. Lee (1993) acknowledges context may shape the direction or alter responses the participants give. As one of the first of four contingencies surrounding sensitive qualitative interviewing an explanation may help participants provide responses
- I plan to tread carefully though this section and may help guide teacher responses so that I do not come across as judging them for their interactions with students. My primary goal will be to maintain the relationship with these teachers at the expense of having them offer a complete answer to any question in this section.
- During the fourth part of the scenario, I customize the end of the “Cringe statement” for each teacher to address an aspect of her or his class via observation notes or interview that has been mentioned as an essential skill to succeeding on the AP exam
- I would like to have all four of my committee members look at the interview protocol as well as a couple of other professors (David Feldon [from a cognitive psychologist perspective] and Walt Heinecke [from a qualitative methodologist perspective]). I would use their feedback to determine the face validity of the instrument and cast a wide net for feedback to point out any methodological blind spots I may have. I believe face validity will be especially important to consider the use of scenarios in examining consistency of responses for race as a variable.

### **Coding**

- I will interpret each response through sequential data analysis.
  - (Step 1: Deductive Coding) Does the teacher include the *appropriate/inappropriate differential expectations* or *assimilationist/pluralistic* beliefs in his/her response and, if so, does the teacher agree the behavior should be part of his/her instruction?
  - (Step 2: Inductive coding) If the list of beliefs from Ford (1996) does not fit, I will inductively analyze the teacher response.

### **Interviewer Instructions:**

- Establish rapport (Something nice here)
- Explain to the teacher that this interview has both questions and scenarios. They may skip any prompt they do not feel comfortable answering. All data will remain confidential.
- Read the questions from each of the three sections and ask the teacher to respond.

- Ask follow-up questions as needed to probe for additional teacher expectations. These follow-ups will be at the interviewer's discretion and based largely on how much information the respondent offers to each primary question.

## INTERVIEW PROTOCOL

Say: “*This interview has both questions and scenarios. As always, you are free to skip any question you’d like and everything you say is confidential.*”

### **Section 1: AP Exam Expectations (all teachers)**

1. Now that you have worked with these students for over 6 weeks, how do you think this class will do on the AP exam? In your class overall?
  - a. What do you think the distribution will be?
  - b. Which students do you think will score well.
  - c. What about that student (or those students) has led you to that conclusion?
  - d. Which ones will struggle to earn a 3 or more?
  - e. What about that student or those students has led you to that conclusion?
2. Would any of the students in this class be good participants for the AP Challenge Program if your school were still participating in the program?

### **Section 2: Questions for individual teachers**

(See Appendix 1 for corresponding analytic assertions)

#### ***Questions for Teacher 1***

3. How do you plan for your lectures?
  - a. How do you decide which content to cover?
  - b. How do you customize the content to your students?
  - c. What is involved in your decision to emphasize alternative historical narratives in class? (e.g., slave, African American, women, American Indian)

#### ***Questions for Teacher 2***

3. What guidelines are you using to pace the content in the class?
  - a. What sources do you consider when deciding how to cover the AP course curriculum content.
    - i. How do you evaluate the sources you use in your selection of sources to cover the AP curriculum?
  - b. How do you decide when to make student participation and class discussion the primary instructional strategy?
    - i. Are there cues students might give to cause you to switch instructional strategies from a teacher-focused activity to a student-focused activity?

#### ***Questions for Teacher 3***

3. What was your class like last year? (i.e., describe your experience teaching your AP class last year.)
4. Can you give me an example of your favorite lesson? What does that look like or feel like when you implement it in your class?
5. How has the larger-than-usual class size affected your instruction?

### ***Questions for Teacher 4***

3. How do you select the activities you'll work on in class?
  - a. You've used multiple writings that address slavery. Do you find that these stories affect the student experience in your class?
    - i. Did you find the experience to be the one you were looking for?
    - ii. How did you judge that?
  - b. How do you decide which content to cover?
  - c. How do you customize the content to your students?
    - i. In what ways does the use of the stories you've selected allow students to connect with alternative historical perspectives?

### **Section 3: Scenarios**

4. Let's say you have a student in class named Johnny, who is shy and withdrawn during the first few weeks of school. He sits in the middle of the room and records notes when appropriate. However, after several weeks of class you notice that he doesn't offer to answer questions or share any of his thoughts. Without being asked directly by you. His responses when asked are short and factually correct most of the time. How would you adapt instructional response to Johnny's behavior in class?
  - a. Do you see this behavior or similar behaviors in any of your students?
  - b. How have you addressed your instruction to respond the student's specific behavioral or academic need?
5. Suppose that at the beginning of the fifth week of school, Johnny begins to offer answers to questions enthusiastically, but they are all incorrect. You've also had an opportunity to grade his an essay he wrote that is several pages long, but would receive a failing grade for both form (appropriate for the AP exam) and course content. How would you react with your instruction?
  - a. Do you see this behavior or similar behavior from any of your students?
6. Would your approach remain the same if you learned that Johnny participates in all of his other courses and his teachers rave about how he has the highest grade of all of the student grades in those AP classes?
  - a. Have you ever had an experience like this?
  - b. How have you approached her or him after learning about the performance difference in classes?
7. What would your reaction be to another one of Johnny's teachers telling you, "Perhaps Johnny doesn't do well in your class because he's just won't ever be able to:"
  - a. [for Teacher 1] recall large amounts of information.
  - b. [for Teacher 2] make complex comparisons.
  - c. [for Teacher 3] evaluate data for an essay.
  - d. [for Teacher 4] write an essay well.

*(See appendix 2 for justification on each stem customized for teachers)*

#### **Section 4: Student Expectancy Characteristic (all teachers)**

1. Do you know if any students in your classes are from military families?
  - a. Do you have a large number of students from military families in your classes?
  - b. Does knowing about students from military families affect how you approach your instructional planning and design at all? If so, how?

Say: *“I’d like to explore a few student characteristics and understand how you think about them both generally in education and in the context of your own classroom.”*

#### ***Gender***

[Introduce gender by discussing research on gender in the paragraph below. I will present the italicized text, minus citations, to teachers on a 5” x 7” notecard. I won’t read the text, but ask teachers if they have any questions. The citations in the text will not be shown to teachers.]

Printed on the notecard: *“There is a great deal of discussion about how gender affects student performance in the classroom”* (e.g., Eccles & Midgley, 1990; Graham, 2001). *“The decline of girls’ enthusiasm for math is often cited in the literature”* (e.g., Doherty & Conolly, 1985; Jussim, 1989; Jussim & Eccles, 1992) *” and boys are typically rated lower in reading than girls”* (Palardy, 1969).

8. Do you think gender plays a role in student success in [SUBJECT AREA]? If so, how?
9. Do you think teachers at [HIGH SCHOOL NAME] consider gender when planning in [TEACHER’S SUBJECT AREA]? If so, how?
10. Do you consider student gender in your instructional planning and design? If so, how?

#### ***Race***

[Introduce race by discussing research on race in the paragraph below. Again, I will present the italicized text, minus citations, to teachers on a 5” x 7” notecard. I won’t read the text, but ask teachers if they have any questions. The citations in the text will not be shown to teachers. I will also have the demographic information printed on a separate notecard. I will ask if anything is surprising by what they see or if they knew this information before I showed it to them.]

Printed on the notecard: *“During the AP Challenge Program professional development sessions, we frequently discussed the race of students. Some argue that race plays a critical role in the student success”* (e.g., Haller, 1985; Leacock, 1985; Ogbu, 2003, pp. 286-287; Rist, 1970; Steele, 1997). *“You’ve got a diverse population here at [HIGH SCHOOL NAME]”* and tell teacher racial breakdown of school.

Printed on the notecard: *Hoynes Student Racial Characteristic Statistics*

<b>Race</b>	<b>Number (Percentage)</b>
American	8 (0%)
Indian	
Asian	119 (7%)
Black	823 (45%)
Hispanic	101 (6%)
White	718 (40%)

Printed on the notecard: *McGary Student Racial Characteristic Statistics*

<b>Race</b>	<b>Number (Percentage)</b>
American	9 (0%)
Indian	
Asian	283 (13%)
Black	872 (40%)
Hispanic	134 (6%)
White	880(40%)

11. Do you think race plays a role in student success in [SUBJECT AREA]? If so, how?
12. Do you think teachers at [HIGH SCHOOL NAME] consider race when planning in [TEACHER'S SUBJECT AREA]? If so, how?
13. Do you consider student race in your instructional planning and design? If so, how?

### **SES**

[Introduce SES by discussing research on SES in the paragraph below. Again, I will present the italicized text, to teachers on a 5" x 7" notecard. I won't read the text, but ask teachers if they have any questions. I will also have the demographic information printed on a separate notecard. I will ask if anything is surprising by what they see or if they knew this information before I showed it to them.]

Printed on the notecard: *“Along with race, many discuss students’ SES and claim it may cause them to be perceived differently from their peers. You’ve got a high percentage of low-SES students here at [HIGH SCHOOL NAME]”* and tell teacher SES breakdown of school.

Printed on the notecard: *Hoynes Student SES Characteristic Statistics*

<b>FRL Service</b>	<b>Number (Percentage)</b>
Free Lunch Eligible	401 (22%)
Reduced-Price Lunch Eligible	160 (9%)
Combined Free or Reduced	561 (31%)
Rank in State: 40 of 313	

Printed on the notecard: *McGary Student SES Characteristic Statistics*

<b>FRL Service</b>	<b>Number (Percentage)</b>
Free Lunch Eligible	317 (14%)
Reduced-Price Lunch Eligible	164 (7%)
Combined Free or Reduced	481 (22%)
Rank in State: 48 of 313	

14. Do you think SES plays a role in student success in [SUBJECT AREA]? If so, how?
15. Do you think teachers at [HIGH SCHOOL NAME] consider SES when planning in [TEACHER'S SUBJECT AREA]? If so, how?
16. Do you know which of your students are eligible Free and Reduced Lunch? If so, do you consider these low-SES students in your instructional planning and design? If so, how?

Interview #2 APPENDIX 1: Analytic Assertions from classroom observations

Teacher 1 (Sam)

**Assertion 1 (Initially made on 9/7/11): Teacher 1 accounts for race in his teaching and emphasizes alternative narratives in history.**

**Confirming Evidence:**

- a. Examples from Teacher 1's opening class lectures and stories (9/7)
- b. Teacher 1's statements on diversity at Hoynes (9/7 after class)
- c. Teacher 1's search for "historical truth" and alternative histories (9/7)
- d. Mention of different religion, although religion was not as central as race to his stories. (9/7)
- e. Mentions alternative histories on 9/13 (slaves and Native Americans)
- f. Mentions alternative histories again on 9/15 (slaves, Native Americans)
- g. Teacher 1 shows videos (recreations) of American Indians depicting differences with the British (9/27).
- h. Discusses Crispus Attucks as a marginalized historical figure that had a tremendous influence on early American history. (9/27)
- i. Teacher 1 uses an article comparing Jay-Z and George Washington comparing the cultural elements associated with the more colorful historical facts of each. The activity is an in-depth look at the congruent lives each man followed to fame (colonial vs. "gansta"). Teacher 1 wants students to experience a "new perspective" on George Washington. (9/29)
- j. (9/29) Teacher 1 mentions the war on drugs and the punishment differential and used the phrase "institutional racism"

**Disconfirming Evidence:**

**Assertion 2 (Initially made on 9/7/11 as Teacher 1 does not account for women. I switched the observation due to evidence supporting the counterfactual.): Teacher accounts for women in his teaching:**

**Confirming Evidence:**

- a. Teacher 1 mentions women's historical perspectives on 9/13/11
- b. (9/15) Made reference to women on the Mayflower. One gave birth to a son. Talked about men present in history, but not women.
- c. (9/21) Spoke about going on a feminist rant and pointed out men's historical abuses of power when leading up to a discussion of the Salem Witch Trial.

**Disconfirming Evidence:**

Teacher 2 (Erin)

**Assertion: Teacher 2 covers course content of interest to her rather than covering course content mandated by the College Board for the AP exam.**

**Confirming Evidence:**

- a. Daily class instructional goals are not articulated verbally or in written form during any class periods. (9/7, 9/13, 9/15, 9/21, 9/27, 9/29)
- b. Teacher 2 introduces the six core countries that will form the basis of the material for the AP Comparative Government exam that include: China, Great Britain, Mexico, Nigeria, Iran, and Russia. (9/7)
- c. The first instructional activity on the first day of class is an activity requiring students to identify the six core countries on a map of the world. Teacher 2 incorporates an additional two dozen countries that students must label (9/7)
- d. Teacher 2 tells me in the work room that she is going day-to-day when planning the APCG course. She has prepped the materials for the class I am observing in the planning period leading up to the class. (9/13)
- e. Students spend more than 45 minutes “customizing” their websites that they will use to submit articles in class. Teacher 2 has not “begin teaching yet”. She says that will happen next week. (9/15)
- f. Teacher 2 begins “teaching” on the first day of the third week of school with a 38 slide PowerPoint presentation. She covers 2 slides in the first 15 minutes because she incorporates a conversation about every bullet. (9/21)
- g. Teacher 2 asks a number of questions to students from the AP Human Geography class. (APHG is not a prerequisite course for AP Comparative Government). These APHG questions slow down the presentation of the APCG content.
- h. Teacher 2 engages a student on a tangent about Cuba and the rights of Americans to visit the country (9/21).
- i. Teacher 2 halts the lecture on government elements found in the six core countries (about 40 minutes long) to show pictures of South Sudan during its first week as a country. (S. Sudan is not an APCG country) (9/21)
- j. Teacher 2 brings up a website that indexes how free countries are in relation to one another. Of the two dozen or so countries analyzed and discussed, none of them are the six core countries on the APCG exam. (9/21)
- k. Teacher 2 says that she hasn’t planned out her lessons beyond a day or two ahead. She’s dealing with lessons as they come. (9/27)
- l. Teacher 2 spent fifteen minutes on the proposed borders of Palestine (9/27).
- m. Teacher 2 spends 30 minutes classifying countries under a new classification system (no longer 1<sup>st</sup>, 2<sup>nd</sup>, & 3<sup>rd</sup> world) that is not part of the AP curriculum. (9/27)
- n. Teacher 2 discusses socialism and communism in developing countries—does not tie the discussion to any of the six core countries (9/27).
- o. The extensive lecture (via PowerPoint) is halted 20 minutes before the end of class. The teacher is about half-way through the content based on my initial count of the number of slides in the presentation and the progress made during class. No additional instruction occurs after the lecture.

- p. The teacher is giving students notes without going over them because “[she doesn’t] want to cover content on the U.S. because [they] get it in AP U.S. History.” (9/27)
- q. Teacher 2 frequently brings up geography terms in APCG for non-core countries such as “BRICs”, “Four Dragons”, NATO, etc. (e.g., 9/13, 9/27)
- r. Students are given a notes packet to complete at home over the material from Chapter 3 that will be due the next class. These notes packets introduce the topic for the first time to students and will constitute the bulk of the reading for this chapter. (9/29)

**Disconfirming Evidence:**

- a. Students review for a quiz on 9/13 that assesses terms students must learn to be able to compare governments.
- b. Class begins on 9/21 with an article on Nigeria and Sharia Law because none of the students selected an article on Nigeria when they completed current events assignments during the previous week.
- c. Teacher 2 discusses totalitarianism/authoritarianism (9/21), socialist, and communist government structures (9/27). However, they are not always in the context of the six core countries that will be assessed by the AP exam.
- d. The current events articles that students have to find, analyze, occasionally present to the class, and submit to the teacher are on the six core AP countries. (9/27)

Teacher 3 (Donna)

**Assertion (Initially made on 9/20/11): I believe the talking and large class size is shutting Teacher 3 down, causing her to withdraw and limiting the interactions she is having with the class. (Due to lack of classroom management skills?)**

**Confirming Evidence:**

- a. Teacher starts the semester off in a class that contains praise and positive interactions with students. By the end of the second observation of her class, this praise is no longer as apparent. By the seventh observation, students receive no praise in class (9/8, 9/14, 9/20, 9/22, 9/28, 10/4, 10/6).
- b. Teacher 3 discusses her frustration with the talkative nature of the class with me after class. (9/14)
- c. Teacher 3 has mentioned the size of the class as a negative feature 3 to me times now. (through 10/6 observation)
- d. Teacher 3 does not interact with individual students in the class unless the student approaches her. (e.g., observations 9/28, 10/4, 10/6)
- e. Teacher 3 creates a negative environment in the classroom by talking about how the students are not prepared for a very difficult test (comment is audible to students). (9/28)
- f. Teacher 3 makes a comment that compares the class to being like (or worse than) a general biology class in a negative comment which is audible to students. (9/28)
- g. Teacher 3 does not direct questions to individual students—rather she directs them to the class as a whole. (9/14, 9/20, 9/22, 9/28, 10/4, 10/6).

- h. Students have developed a routine (apparent during the last three observations: 9/28, 10/4, 10/6) That they will come into the classroom 10-15 minutes before class starts, look at Teacher 3 who is at her desk working, drop their school supplies at their seats, and walk back out of class without saying a word to Teacher 3. During the first two or three class periods, students would talk with the teacher about non-instructional topics and Teacher 3 would engage in conversation.
- i. Teacher 3 has begun using a passive aggressive classroom management strategy. (E.g., she will say to the class as a whole, “You should be writing.” The students who should have been specifically targeted continue their conversations at a lower decibel level.) (10/6)
- j. Teacher 3’s body language communicates that she isn’t happy to be engaged in this activity: her shoulders are slumped, her head is tilted off to one side, and she is leaning on her teacher lab desk. (10/6)
- k. Teacher 3 has to yell loudly for her students to hear her instructions that they should not be so loud and need to focus on the activity. (9/14, 9/20, 9/22, 9/28, 10/4, 10/6)

**Disconfirming Evidence:**

- a. Teacher 3 does interact with some students when they walk in the classroom before or shortly after the bell rings.
- b. Teacher 3 does provide positive feedback to some students (1 positive comment on 9/20 and 9/28) (No positive feedback on 10/4 or 10/6).

Teacher 4 (Claudia)

**Assertion: Teacher 4 considers race in her selection of literature and uses these pieces to connect with students.**

**Confirming Evidence:**

- a. Students read works by Frederic Douglas as a component of their summer assignments and were assigned the task of analyzing rhetorical elements in dialectical journals. (discussed in the class on 9/14)
- b. Students analyze the rhetorical elements used by Frederick Douglas. (9/14)
  - i. Teacher 4 primes students for the discussion by showing images from the early- to mid -1800s depicting slave hangings and grim images of life working as a slave. Students are asked to consider the experiences of slaves as she shows proceeds through a dozen images. When a new image is flashed on the screen, students are quiet as they consider the disturbing accounts of hardship and death.
  - ii. Teacher 4 also asks students if they know the background of the Dread Scott Case. One student does. She asks him “[Student] can you tell us anything about the case?” The student gets the basic facts of the case correct. Teacher 4 acknowledges him positively and goes on to tell some of the more gruesome implications of the case (you can treat property [slaves] any way you want.) The same

- student says the author (Alex Hayley) copied a book called *The African* or *The Slave Ship* and claims much of it was made up. Teacher 4 acknowledges his interjection and uses it as an example. “Is the writer being honest and can we validate it?”
- c. Teacher 4 holds a debate on the merits of Olaudah Equiano’s use of fictionalizing his life’s experiences to communicate the horrific life experiences of an African captured, shipped to the New World, and forced into servitude. (Story read on 9/20 and debate held on 9/22)
    - i. Students’ read the account of a supposed “freed slave” as he is captured in Africa and the tragic events that follow. Students are later introduced to evidence from scholars that argue the author wasn’t a captured African, but a slave born in South Carolina and eventually freed.
    - ii. Students debate if the fictional account of his capture and subsequent ill treatment were warranted to get his point across about the horrors of slavery.
    - iii. The purpose of the debate was to analyze rhetorical element of veracity. Incorporating slavery as the subject of consideration forced students to consider the (modern) moral responsibility to oppose slavery. Students considered if the ends justified the means when the author lied about his life experiences to further the abolition of slavery. The debate is lively with every student in the class contributing at least one comment to the discussion.
    - iv. Teacher 4 poses higher-order prompts to students while prepping for their debate that in turn requires students to consider the merit of an author’s veracity, (E.g., Teacher 4: “If Equiano’s story was a lie, it makes all the history the professors are teaching, false. It matters for that reason. If that story isn’t true, then we don’t have a true account of history. We think we know the truth.”)
  - d. Students read letters (aloud in class) from Benjamin Banneker to Thomas Jefferson to end slavery. (9/28)
    - i. Teacher 4’s questions that are interspersed throughout the activity target student analysis of the letters’ intent and the intended purpose of the letters.
    - ii. Teacher 4 asks the students to consider the race of Banneker (Black) writing to Jefferson (a slave holder) and consider their perspectives on slavery.
  - e. Teacher 4 uses the poem, “Shooting an Elephant”, by George Orwell as the subject of a lesson on literary analysis. The premise of the poem focuses on an English constable in an imperially controlled India with the Character telling a first-person account of a cultural disconnect (among many other aspects of the poem).

**Disconfirming Evidence:**

- e. The class will read *Into the Wild* over the next several weeks. I don't believe there are any aspects of the story addressing race. However, I don't know if this book was selected by Teacher 4 or not.

Interview #2 APPENDIX 2: Relevant observation and interview data

7. What would your reaction be to another one of Johnny's teachers telling you, "Perhaps Johnny doesn't do well in your class because he's just won't ever be able to:"

Each stem completing interview question #7 has been derived from expectations set in class by each teacher. The stem articulates a requirement a student must be able to perform to pass the AP exam (as articulated by the classroom teacher). Evidence for each stem was collected during classroom observations during the first five weeks of classes.

[for Teacher 1] recall large amounts of information.

Teacher 1 has told the students in the AP United States History class that they will need to be able to recall large amounts of information when taking the AP exam in May. The information will be used to answer multiple choice questions and provide evidence on essays. He's made comments that articulate the wide array of possible sources students must use to master the course content. He has also alluded to students needing to learn more than what he delivers via lectures to be successful on the AP exam.

[for Teacher 2] make complex comparisons.

Teacher 2 teaches AP Comparative Government in which students must draw comparisons between the different elements of governments in six core countries. The bulk of the material for the course I am observing takes the form of learning about what elements comprise a type of government and how those elements relate to other government elements. To be successful on the AP exam, students must articulate both the theoretical foundations and the real-world practical application of different forms of government.

[for Teacher 3] evaluate data for an essay.

Teacher 3 articulates the strategies for earning a passing grade on the AP Biology exam to her students. To earn a 3 or higher, students must be able to consider data presented from systems, cycles, charts, and graphs among many the complicated interplay of living organisms and biological processes. Students are not required to write a traditional essay present in many other AP classes, nor are they exempt from the requirement to recall facts on command. However, to succeed on this particular subject area AP exam, students must consider the data presented in exam questions and evaluate what data to include.

[for Teacher 4] write an essay well.

Teacher 4 is an English teacher. Although the expectations to write essays well may be an inherent expectation for most AP classes as well as English classes, the AP English Language teacher I have observed has referenced elements of successful AP exam essay writing. Students read exemplars from the College Board, respond to previous AP English Language essay questions, and target literary elements designed to enhance students' writing.

## Appendix F

### Participant Interview #3

(Also contains seating charts and student racial identification)

#### Research Questions

1. Do teachers manifest differential expectations for students in the classroom?
2. If so, what are the expectancy themes that emerge from teachers' sensemaking of their interactions?
3. Are these expectations situated in the conceptual frameworks of deficit and dynamic thinking and Critical Race Theory?

#### Expectancy Behaviors

**Factor 1: Learning Support:** The teacher:

- a. approaches child to observe work
- b. approaches child
- c. sees to it that child will learn without interruption
- d. gives child opportunity to think long enough before answering
- e. helps child to answer questions
- f. explains child's mistakes and how to correct them

**Factor 2: Emotional Support:** The teacher:

- praises child in the classroom
- gives child a lot of attention
- is warm and supportive to child

**Factor 3: Pressure:** The teacher:

- addresses difficult questions at child
- is very demanding of child

#### Instrument Construction:

1. *Section 1 addresses the meaning-making process of expectations and introduces the theory behind reflective practice. (General questions for all four teachers)*
  - a. I am looking at meaning-making here for cross-case analysis in Section 1.
    - i. The questions do not target specific/observed behaviors from my observations to get the teachers to recall events they feel are important. I will use specific events in the second section to continue my focus on reflective practice.
  - b. "We cannot learn what someone's theory-in-use is simply by asking him. We must construct his theory-in-use from observations of his behavior. In this sense, constructs of theory-in-use are like scientific hypotheses; the constructs may be inaccurate representations of the behavior they claim to describe" (Schön & Argeris, 1974, p.7)
  - c. "We know more than we can tell and more than our behavior consistently shows. This is implicit knowledge, or tacit knowledge, as Polanyi (1967) calls it. Tacit knowledge is what we display when we recognize one face from thousands without being able to say how we do so, when we demonstrate a skill for which we cannot state an explicit program, or when

we experience the intimation of a discovery we cannot put into words” (Schön & Argeris, 1974, p.10).

- d. Theoretical framework for this section of the interview: Schön theory of reflective practice states that (1) professions like teaching are filled with spontaneous, routinized behavioral processes. (2) Occasionally, the teacher’s routines yield responses that produce a surprise. (3) The teacher must reflect on the surprise in the present course of the teaching behavior. (4) The teacher must question the “assumptual structure” of what they know about a teaching behavior while engaged in that behavior. (5) The teacher reflects on modifications to the behavior in an “on-the-spot experiment”.
  - e. Trying to get an idea of meaning-making on expectations with question #1 by looking at change over time in keeping with Schön’s theory of reflective practice.
  - f. Question 2 addresses a general form of teacher reflection without an example of instruction presented by me. I want to see what direction teachers head without a prompt. I’ll add specific parameters on the reflective process in section two with examples from teachers’ individual classes.
  - g. The reflective practice portion of this interview protocol is incorporated with questions targeting specific instructional instances for each teacher. I do not ask generalized reflective questions or present scenarios that are hypothetical because the teachers either do not know how to reflect on these type of prompts, they offer to little information, or they make up answers based on what they think I want to hear or what might be politically correct.
2. *Section 2 addresses teacher-specific questions I have based on observations conducted since interview #2. (Teacher-specific questions)*
- a. I have identified key themes and examples from observation and previous interviews about the teachers’ classroom expectancy-conveying interactions. I will use data collected from these questions to support the themes I plan to write into the vignettes and case studies (briefly outlined in Appendix 1). I use examples of teacher practice from observational data and/or interview responses to craft questions and reflection prompts. I will briefly describe why I’m asking each question immediately below and include evidence from assertions.
    - i. Sam:
      1. He typically asks lower-order recall questions in class. On November 8, he used a higher-order question in class. I’m curious if he notices the difference between the two types of questions and how it shapes the subsequent interactions with students when he asks it.
      2. During Sam’s second interview, he expressed concern about how to move students from earning a three to earning

fours and fives. Bridget noted that he doesn't ask the students to do much analysis in class and typically asks students to recall facts and then makes analytic connections for the students.

3. This question goes against the trend and opened up dialogue with several students—including two that don't typically participate in conversations. Sam was able to interact with these students positively and ask follow-up questions on their responses to his question.
4. I would like to see if Sam notices his questions are low on Bloom's Taxonomy and if he believes that he has the ability to change his questioning strategy.
  - a. If he doesn't believe that he needs to change, does he think his questions will help prepare students for the AP U.S. History exam?

ii. Erin:

1. I am trying to be especially cautious with the questions I am asking Erin because she is the most negative of the three students I am working with. She puts students down (openly) in class, holds prejudices against specific types of students, and spends very little time planning for either of the AP classes she teaches.
2. Erin believes that the number of years she has teaching AP classes makes her an expert teacher. She uses the same structured curriculum every year and helps new AP Human Geography teachers around the district with pacing guides and lesson planning. She also travels and uses experiences from her travels in her PowerPoint lectures. Her experiences constitute the frame through which she tells her story and during the classes I have observed, little else matters to her. When she solicits student responses to questions and attempts to connect the instructional material to student experiences, she is typically dismissive of responses, driving any conversations back to her own experiences. I want to understand what types of student reactions she views as important component of her instruction. Doing so will help me to interpret how she gives students attention and why, which is an important expectancy-conveying behavior.
3. I'm curious to know how she has continued to plan (or not plan) for her AP Human Geography class. During previous conversations and interviews with her, I have gotten her to talk (generally) about the "relaxed" environment she strives to create in her class. I want her to operationalize the term and know what she's trying to create this environment.

iii. Donna:

1. Donna gets excited about extracurricular activities. Examples of her extracurricular activities include: she dresses up during homecoming week on theme days, she gets competitive during fundraising drives, and encourages students to participate in the PowderPuff football game.
2. Donna gets frustrated easily when students are talkative and it affects her subsequent interactions with students. She gets quiet and her attitude appears to become negative (looking down/not making eye contact with students, terse expressions on her face, lots of audible sighing, using sarcasm with students).
  - a. She also will use questions as a disciplinary tactic and I want to know when and how she decides to use them as they create interactions that have both positive and negative elements. She's putting students on the spot, yet developing a rapport with the questions at the same time. This use of questions affects the climate and may count as asking difficult questions.
3. On a more general note, I'm curious why Donna asks questions to the class as a whole and if the same handful of students answering the questions means anything to her. Her interactions are clustered around a few students and I'd like to know if there's any expectation-related intent in her behaviors/interactions.

iv. Claudia:

1. Claudia is the only teacher I am working with that asks high-level questions during the class that test for more than basic comprehension and recall. In addition to pushing students to respond to questions that require analysis and synthesis, she often accepts initial student responses to questions and pushes them to explain their answers further with probing follow-up questions. Although the other three teachers ask recall questions and move on, she will keep digging for student understanding of more complex concepts. If a student answer is incorrect, she typically pushes students to the right track of thinking rather than providing the answers for them.
2. Claudia doesn't always ask high-level questions and she does occasionally tell the student that they are wrong and she moves on. I would like to know why she responds differently.
3. The series of questions on student narratives stems from a class where she spent 45 minutes reading two moving

exemplars from winners of a national competition and one exemplar from a student who recounted a student suicide at the school. All three examples were powerful and in some instances moved students to tears. She followed the readings with targeted, high-level questions that probed for meaning and rhetorical analysis. However, when she asked students to begin writing their own narratives and moved back to her teacher desk (not interacting with them), the students appeared lost. Most of the class was unable to start their narrative. I heard several comments from students who didn't have a deep, dark, depressing secret like the narratives and felt stuck.

4. The number of questions I asked Claudia is due to the short and terse responses I received during the first two interviews.
3. *Section 3 addresses the reflective process (Schön, 1987) toward teacher interactions with their students. I have recorded the frequency of four types of teacher/student interactions during the last four weeks of observations (Teacher-initiated questions, student-initiated questions, student/teacher responses to those questions, and student/teacher comments.) (Teacher-specific questions*
4. *Section 4 addresses why teachers believe minority students in their subject at their school are performing less well than their majority counterparts. (General questions for all four teachers)*
  - a. I want to know with a pointed question why teachers think minority students aren't passing the AP exam at the same rates as their majority counterparts. To make this question less antagonistic, I am trying to couch this in the context of the AP Challenge Exam and the effort that teacher put in to learn new strategies. I want to know what they think they are doing for minority students and if they feel like they have room for improvement in working with their minority students. Ideally I will be able to steer teachers towards talking about interactions with their minority students.
  - b. Feedback note from Dan Duke: First, on p.3, no.4 (Section 4), you address why teachers believe minority students in their subject at their school are performing less well than their majority counterparts. I can't imagine that all minority students are performing less well. For the sake of balance, it would be worthwhile to ask why some minority students are performing as well or better than majority students.
  - c. The prompt to the second question was made more open-ended by removing mention to minority and SES.
5. *Section 5 addresses my role as research and allows teachers to add anything else they didn't get to share during interviews or after-class discussions. (General questions for all four teachers)*
6. *Notes on the reflective process:*

- a. I plan to make the seating chart with corresponding interactions look a bit friendlier/easier to read for the handouts I present to teachers. Ultimately, I will try to keep it from looking like a “researcher instrument” and a bit friendlier.
  - b. If a teacher asks me what I think of what I’ve observed in class (basically asking me to analyze their instruction) I plan to try to steer my response towards starting a conversation aiming to get at teacher intent. For example, let’s say I ask Sam, the most experienced teacher, about his use of a higher-order question in the lecture. Instead of responding with some critical analysis of why he selected that particular question format, he instead responds with a question about my perceptions of his other lectures. My response would be to compare the two types of question formats (lower- and higher-order thinking) and ask how each type of question affects his interactions with students, noting from my observations that the higher-order question involved more students. At any possible point where a teacher asks me what I think, I will try to steer a conversation back to what the teacher hopes to accomplish with each interaction and avoid “buzz” words that might tip my hand, like: expectations, appropriate/inappropriate, and making judgments on instructional strategies.
7. I would like to have all four of my committee members look at the interview protocol as well as any other professors I can (e.g., Walt Heinecke [from a qualitative methodologist perspective]). I would use their feedback to determine the face validity of the instrument and cast a wide net for feedback to point out any methodological blind spots I may have. I believe face validity will be especially important to consider the use of scenarios in examining consistency of responses for race as a variable.

### **Coding**

- I will interpret each response through sequential data analysis.
  - (Step 1: Deductive Coding) Does the teacher include the *appropriate/inappropriate differential expectations* or *assimilationist/pluralistic* beliefs in his/her response and, if so, does the teacher agree the behavior should be part of his/her instruction?
  - (Step 2: Inductive coding) If the list of beliefs from Ford (1996) does not fit, I will inductively analyze the teacher response. (The inductive approach includes using the expectancy-conveying behaviors (Babad, 1990) to use as an intermediate approach if the deductive codes (e.g., appropriate/inappropriate differential expectations) do not fit.
- If any of the teachers give thoughtless answers to questions that either do not address the question or seem to be incongruent with what I’ve observed multiple times in class, I may be need to consider how successful the reflection approach was with each teacher.

### **Interviewer Instructions:**

- Establish rapport (Something nice here)

- Explain to the teacher that this interview has questions. They may skip any prompt they do not feel comfortable answering. All data will remain confidential.
- Read the questions from each section and ask the teacher to respond.
- Ask follow-up questions as needed to probe for additional teacher expectations. These follow-ups will be at the interviewer's discretion and based largely on how much information the respondent offers to each primary question.

## INTERVIEW PROTOCOL

Say: *“This interview has several different types of questions. So that I can target specific areas where I need a little more information, I will be jumping around to different topics that have come up since I began observing you and speaking with you during interviews. As always, you are free to skip any question you’d like and everything you say is confidential.”*

### **Interview Section 1 (All teachers)**

Say, *“In our last interview, you rejected the notion that a student could not ever complete tasks required to be successful on the AP [SUBJECT AREA] exam.”*

1. What is getting in the way of students passing or earning 5’s on the AP exam?  
Students, teachers, school... [pause and wait for teacher to talk]
  - a. What have you done to move your students toward passing or earning 5’s?
  - b. What could you do to get there?
2. How have your perspectives on student achievement changed since you have started teaching?
  - a. When you first started teaching AP classes, did you believe that you could get all students to pass the exam?
  - b. What conditions in the school would need to exist today for you to be able to get all of your students to earn a passing score on the AP exam?
  - c. What would you need to change about your teaching for all of your students to earn a passing score on the AP exam?
  - d. What school conditions, student characteristics, or ways you teach would need to change for every student to earn a five for all students?

Say, *“I’d like you to think about your interactions with your students over the past few weeks.”*

3. Can you recall times this semester when you decided to try out something new?
  - a. What happened in class to cause you to try it out?
  - b. Did it go well? Why or why not?
  - c. Did you try to alter it based on success or failure of the initial attempt?

## **Interview Section 2: Teacher 1 (Sam)**

The expectancy-conveying behaviors (Babad, 1990) are in blue.

3. Can you categorize the types of questions you typically ask in class along Bloom's Taxonomy of Intellectual Behavior (1956)? [have a chart ready to show Sam if he does not remember them off the top of his head]
  - a. Can you categorize the types of questions you typically see on in the multiple choice and essay sections of AP U.S. History exam?
  - b. Do you believe that the two types of questions are the same?
4. During the November 8 class, you displayed a question during your PowerPoint presentation that asked, "What are the advantages and disadvantages of revolution?" It stood out to me because it was different from most of the other question formats I've seen you use in class. (3.1 addresses difficult questions at child)
  - a. Why did you decide to use this type of question in your class?
  - b. Did the students answer the question like you thought they would?
  - c. Do you start off the year with different types of questions from where you finish the year?
  - d. What strategies do you use to move students to the next level [of Bloom's]?
  - e. How does this sort of question help prepare students for the AP exam?
  - f. Both [Black Male] and [White Female], who don't talk a lot in class, raised their hands to respond to this question. Why do you think that might be?
  - g. My perception is that you connect your stories with students. How do you get students to connect their stories to the AP U.S. History exam?

November 8—Sam (US History)				
BF TQ/SR (Grades) TQ/SR SC	WF TQ/SR, TQ/SR, TQ/SR TC/TQ/SR (talking to her during DBQ)	WF SC, TQ/SR, TQ/SR, SQ/TR, SC	BF (Tahjey) SQ (Testing) TQ/SR TQ/SR	WM TQ/SR TQ/SR SC SC
WF SQ/TR (about grades) SQ/TR (joke) TQ/SR, TQ/SR, TQ/SR, SQ/TR, SC/TQ/SC	BF TQ/SR SC/TC (complaining about new seat) TQ/SR, TQ/SR, SC/TR, SQ/TR, SC	WF SC TQ/SR	AM TQ/SR	BF TQ/SR TQ/SR
	WM TC, TC, TQ/SR, SR, TQ/SR, TQ/SR, SC/TR, SC/TR, SC/TR, SC/TR, SQ/TR, SR/TR, SQ/TR	WM SQ/TR, TQ/SR, TQ/SR, SC/TR, SC/TR, SC/TR, SQ/TR	HF (Sydney) TQ/SQ TQ/SQ SC/TR SC/TR, SC	BM TQ/SR SC, SR TQ/SR TQ/SR, SC
		HM TQ/SR (Soccer) TQ/SR TQ/SR SQ/TR		BF TC (welcome to class-late) TC (come see grade) TQ/SR, SQ/TR, SC
My Seat (Back of room)				

5. You reassigned students to new seats at the beginning of the second nine weeks. [Show Seating Chart on a separate sheet of paper] with the purpose of being able to interact with them more. (1.1 approaches child to observe work)

- a. You interact with Sydney and Richard a lot each class. Why do you think moving them closer to you will help increase their grades?
- b. I noted limited interactions with [Black Male] and [White Female] despite their close proximity to you. What do you think is the reason for not calling on them?
  - i. Would you change the way you interact with students based on seeing this information?
- c. Did you find that changing the seating chart up every nine weeks helps? Why or why not?
- d. How did you first get the idea to try moving seats around to infect instruction? (Was there some specific event that you recall?)
- e. Are there any other patterns from this class period's seating arrangements that you notice?

### **Interview Section 3: Teacher 1 (Sam)**

Say: *"I'd like to ask you about your classroom interactions with students. During the last three weeks I observed your classroom, I indicated the students with whom you interacted. These interactions included questions and comments directed at students and student questions and comments directed at you."*

Show the seating chart (printed on a separate sheet of paper—Page 8 of interview protocol) to Sam.

6. Does any of this information surprise you?
7. Why do you think you interact with some students more than others?
8. Could you make any changes to your instructional practices or the classroom contextual factors to change the pattern of interactions?
9. During the first interview, you said that you approach a student when: "a student that has a look on their face or is just putting off a particular energy that says, 'I might need something a little more today' then I might be attracted to that."
  - a. Does the pattern of interaction in this chart support how you know when to approach a student?

Sam interaction log 10/25 & 11/9 (No interactions recorded on 11/1 because of tests and individual work)

AF=Asian Female, AM=Asian Male, BF=Black Female, BM=Black Male,  
 HF=Hispanic Female, HM=Hispanic Male, WF=White Female, WM=White Male  
 SQ/ TR = Student-initiated question /Teacher Response to question  
 SC=Student comment to teacher (Possible teacher response)  
 TQ/SR =Teacher-initiated question/Student Response to question  
 TC=Teacher comment to student

BF TQ/SR TQ/SR SC	WF SQ/TR SQ/TR TQ/SR TQ/SR TQ/SR TC/TQ/SR	WF SC SC TQ/SR TQ/SR SQ/TR SC	BF SC SQ/TR TQ/SR TQ/SR	WM TQ/SR TQ/SR SC SC
WF SC SQ/TR SC SQ/TR, SQ/TR TC SQ/TR, SQ/TR TQ/SR, TQ/SR TQ/SR, SQ/TR SC/TQ/SC	BF SC SQ/TR TQ/SR SC/TC TQ/SR TQ/SR SC/TR SQ/TR SC	WF SC TQ/SR	AM TQ/SR	BF TQ/SR TQ/SR
--	WM ( SQ/TR SC TC TC TQ/SR SR TQ/SR TQ/SR SC/TR SC/TR SC/TR SQ/TR SQ/TR SQ/TR	WM SC SC SC SQ/TR SQ/TR SC , SC SQ/TR SQ/TR TQ/SR TQ/SR SC/TR SC/TR SC/TR SQ/TR	HF SC TQ/SQ TQ/SQ SC/TR SC/TR SC	BM SC TQ/SR SC SC TQ/SR TQ/SR SC
--	--	HM TQ/SR TQ/SR TQ/SR SQ/TR	--	BF SQ/TR TC , TC TQ/SR SQ/TR SC
My Seat (Back of room)	--	--	--	--

## Interview Section 2: Teacher 2 (Erin)

The expectancy-conveying behaviors (Babad, 1990) are in blue.

3. You've taught Human Geography for a number of years and have a structured instructional design in the course. You bring in a lot of experience from the places you've traveled and I see those presented as examples on slides. You also ask a lot of questions to the class to get them to respond to content on slides.
  - a. How do you make choices about the slides you will use to get discussion going about the big ideas in Human Geography?
  - b. What guides your questions that you will ask students when going through a lecture with slides?
  - c. How do you decide what questions to ask?
  - d. How do you tie back the big ideas to the AP Human Geography exam content?
  - e. When you ask for students to respond to these questions or have them to offer examples to reinforce your lecture, what type of response are you looking for? (2.2 gives child a lot of attention)
    - i. Do you think the students in this class offer thoughtful responses to your presentation on Pop Culture? What are some examples of ideal responses that you have heard from students in any of your Human Geography classes? (2.2 gives child a lot of attention)
  - f. Can you describe the type of response a student might give to your content-based questions or solicitation of student experiences that would cause you to incorporate it back into your instruction? (2.2 gives child a lot of attention)
  - g. In your Human Geography class, you have an African American male who sat on the far side of the classroom from me (I think his name is ...) who gave an "unusual response" to two questions that you directed to the class—one on October 26 (about an African he chatted with while playing *xBox*) and the other on November 1 (talking about snow in Massachusetts causing problems on Halloween).
    - i. How did you evaluate whether the student's response is an example that supports the instructional goals in the lesson? (2.2 gives child a lot of attention/2.3 is warm and supportive to child)
      1. How much flexibility do you allow for the answer to deviate from how you'd like students to respond?
      2. What indicators do you use to determine if a student or the class need to be redirected?
4. How have your questioning strategies changed in the last ten years? Three years? Last year?
  - a. Do you ever think, "Why did I ask that question?" and think the question was inadequate to get students to respond the way you wanted them to?
5. You've stated for me that you are aiming for a relaxed approach in the AP Comparative Government class that is different from the way you teach your AP Human Geography class.

- a. What do you mean when you say relaxed? (2.3 is warm and supportive to child/3.2 is very demanding of child)
- b. Why did you decide to pursue a relaxed environment in the AP Comparative Government class?
- c. Has the relaxed approach worked for you?
- d. You've mentioned that the class has changed since the last time I observed it.
  - i. What alterations did you make, specifically?
  - ii. What are your interactions like with students in the APCG because of these alterations?

**Interview Section 3: Teacher 2 (Erin)**

Say: *“I’d like to ask you about your classroom interactions with students. During the last three weeks I observed your classroom, I indicated the students with whom you interacted. These interactions included questions and comments directed at students and student questions and comments directed at you.”*

Show the seating chart (printed on a separate sheet of paper—Page 11 of interview protocol) to Erin.

6. Does any of this information surprise you?
7. Why do you think you interact with some students more than others?
8. Could you make any changes to your instructional practices or the classroom contextual factors to change the pattern of interactions?
9. During the first interview, you said that you approach a student: “if they’re not focused. If they’re talking too much...I just make sure they’re on task...I don’t mind as a teacher to give them this time to chitchat while they’re doing it. It’s what they do.”
  - a. Does the pattern of interaction in this chart support how you know when to approach a student?

Erin interaction log 10/20, 10/26, 11/1, & 11/10

AF=Asian Female, AM=Asian Male, BF=Black Female, BM=Black Male,  
 HF=Hispanic Male, HM=Hispanic Male, WF=White Female, WM=White Male  
 SQ/ TR = Student-initiated question /Teacher Response to question  
 SC=Student comment to teacher (Possible teacher response)  
 TQ/SR =Teacher-initiated question/Student Response to question  
 TC=Teacher comment to student (Possible student response)

BM SC TC TC TC/SC TC/SC	BF SQ/TR SQ/TR SQ/TR TC TC SC TC TC/SC	BM SC TQ/SR TC/SC SC/TQ/SR SC TC/SC	HM TC TC TC TC TQ TC TC SC/TC SQ/TR TC/SC TC/SC	WM TC TQ/SR SC SQ/TR TC TC TC/SC	WF (new?) SC TC/SC	HF TC/SC TC/SC	
BM TC TC/SC TC/SC	WM TC/SC	--	AM TC TC TC/SC TC TC/SC	WM TC TC SQ/TR TQ/SR SQ/TR TC/SC	WM TQ/SR TC/SC TC/SC TC	--	--
AM TC TC/SC	WM TC/SC	BM TC/SC		WM TQ/SR TC TC/SC	WF SC SQ/TR SQ/TR SC TC TC TC/SC SQ/TC TC/SC	AF TC TC/SC SQ/TR SC/TC SQ/TR SC TC TC/SC/TC TC/SC	BM TC/SC SC SQ/TR TC/SC
BF TC/SC	WM TC SC/TC TC/SC	WM TC SQ/TR SC/TC TC/SC					
My seat (Front of room)	--			BF TC/SC		HF SQ/TR TC/SC	BM SQ/TR SC TC TC/SC TC

## Interview Section 2: Teacher 3 (Donna)

The expectancy-conveying behaviors (Babad, 1990) are in blue.

3. I notice during my observations that you are very involved with extracurricular activities. How does your involvement with extracurricular activities outside of class filter into your AP Biology classroom? (e.g., Homecoming, Student Government, United Way campaign, etc.) (2.3 is warm and supportive to child)
4. What is the purpose of the questioning strategies you use in the AP Biology class?
5. After you showed the video on digestion, you had a review where you asked several follow-up recall to test student comprehension. You often ask questions to the class during lectures. When you ask questions about content during your lectures and other instructional periods, they are addressed to the class as a whole most of the time. (3.1 addresses difficult questions at child)
  - a. Why is that?
  - b. What are you trying to accomplish with the questions you ask to the class? (Why do you do it?)
  - c. How you decide when to ask a question to the entire class versus a specific student?
  - d. Does it matter to you if only one person responds or if several students respond?
  - e. How do you know if the students who don't respond comprehend the material?
6. During the class I observed on November 10, you asked [Latino Male] and [Black Male] to answer the writing log question that asked, "Describe the difference between extracellular and intracellular digestion. Give an example of each organism." (1.3 sees to it that child will learn without interruption/2.2 gives child a lot of attention)
  - a. Why did you target both of these students directly to approach the board and describe each type of digestion?
  - b. Did the interaction with these two students have the effect you desired?
7. You have mentioned before in our discussions after class and in interviews that your class is larger and can be talkative at times. (1.3 sees to it that child will learn without interruption)
  - a. At what point will you decide a class is off topic and/or too loud?
  - b. Are there specific student actions or a frequency of events that might cause you to make an announcement to the class?
  - c. How do you let the students know when they need to quiet down?
    - i. Does this strategy always work?
    - ii. What do you do when it doesn't work/what would you do if this strategy didn't work?
  - d. What other aspects than the size of the class—student characteristics or other aspects—might contribute to noise levels?
    - i. What strategies for minimizing noise have worked?
    - ii. Which ones have not?
8. I have observed you ask questions to [Latino Male] and [Black Female] that appear to be used to bring them back on topic. During each instance, they were

involved in a side conversation and you repeated the statement you had just made in question form.

- a. Am I correct in considering these types of questions to be used for classroom management?
- b. How do you differentiate the use of questions between classroom management and knowledge comprehension?
- c. What do you consider to be a successful question?

**Interview Section 3: Teacher 3 (Donna)**

Say: *“I’d like to ask you about your classroom interactions with students. During the last three weeks I observed your classroom, I indicated the students with whom you interacted. These interactions included questions and comments directed at students and student questions and comments directed at you.”*

Show the seating chart (printed on a separate sheet of paper—Page 13 of interview protocol) to Donna.

9. Does any of this information surprise you?
10. Why do you think you interact with some students more than others?
11. Could you make any changes to your instructional practices or the classroom contextual factors to change the pattern of interactions?
12. During the first interview, you said that you approach a student: “if they’re misbehaving.” You also mentioned that knowing the student helped when you said, “But I think if you know the kid, then you really know when they’re struggling.”
  - a. Does the pattern of interaction in this chart support how you know when to approach a student?

Donna interaction log 10/20, 10/26, 11/1, & 11/10

AF=Asian Female, AM=Asian Male, BF=Black Female, BM=Black Male,  
 HF=Hispanic Male, HM=Hispanic Male, WF=White Female, WM=White Male  
 SQ/ TR = Student-initiated question /Teacher Response to question  
 SC=Student comment to teacher (Possible teacher response)  
 TQ/SR =Teacher-initiated question/Student Response to question  
 TC=Teacher comment to student (Possible student response)

Table 1		Table 2		Table 4		Table 6	
		BF		BF SQ/TR TQ/SR TQ/SR	BF	WF SC SQ/TR TQ/SR TQ/SR	BM
		HM SC TQ/SR SC SC SQ/TR SC SC	WF SC		HF SQ/TR SQ/TR SQ/TR	WM	
BF TC SQ/TR TQ/SR TQ/SR		Table 3		Table 5		Table 7	
BF SQ/TR SQ/TR TC SQ/TR SQ/TR SQ/TR	BF	BM TC		H/AF SQ/TR SQ/TR SQ/TR SQ/TR	AM		BM SQ/TR SQ/TR
		HM TQ/SR SQ/TR SC SC/TC TC, TC SC TQ/SR SC/TC SC, SC SC/TC TC TQ/SR SC SQ/TR/SC SQ/TR SC/TC SC/TC SQ/TR SQ/TR SQ/TR SC/TC SC, SC TQ/SR	BF TC SQ/TR TQ/SR SQ/TR SQ/TR SQ/TR SQ/TR SC/TC SC, SC TC TQ/SR SC SQ/TR/SC SQ/TR SC/TC SC/TC SQ/TR SQ/TR SC/TC SC, SC TQ/SR		BM TQ/SR TQ/SR TC TC	BF SC SC TQ/...	HM
				434			

## Interview Section 2: Teacher 4 (Claudia)

The expectancy-conveying behaviors (Babad, 1990) are in blue.

3. I'd like you to consider some of the recent "read-alongs" you've had in class recently (Writings from Franklin, Thoreau's *Civil Disobedience*, etc.) where you play an audio recording and interject questions into the readings to test for student comprehension.
  - a. How do you decide the type of questions you ask students? (3.1 addresses difficult questions at child)
    - i. Do you think that these sections of class went well? (Why or why not?)
    - ii. Do students exhibit behaviors that will cause you to alter the types of question you planned to ask?
  - b. When do you ask questions to students specifically and when do you ask the students to a class at large? (2.2 gives child a lot of attention/3.1 addresses difficult questions at child)
    - i. When you ask to the class at large and students provide a choral response, do you consider the students who do not answer?
4. During the class on October 26, you read three student narratives as examples for students to consider as they prepared to write their own. I observed that several students did not write any of the narrative during the class.
  - a. Why do you think this is?
    - i. Do you think that students were able to draw connections between the examples you read and what they were expected to write? (3.2 is very demanding of child) [Possible Follow-up]
    - ii. Do you have any other assignments where students experience some form of writer's block or frustration?
  - b. Why did you select those three exemplar narratives in particular? (3.2 is very demanding of the child)
  - c. You talked to two students about entering a narrative competition for minority students ([Black Female] was one of them. I think [Asian Male] might have been the other). Why did you select those two students? (2.2 gives child a lot of attention)
5. I've noticed you respond to student answers to your questions differently. When you ask questions targeting higher-order thinking, you accept a response or offer additional clarifying/correcting information to the student. In other instances, you accept the student response and ask the student follow-up questions that get them to elaborate on their responses. This behavior comes across to me that some questions you ask have correct answers and others are seeking student opinion or perception about a topic.
  - a. What do you think of my reflection? Do you agree/is this your intent?
  - b. How do you decide when a student's response to a question is correct or requires additional clarification versus a valid interpretation regardless of whether it fits your thoughts on what might be a correct answer? (3.1 addresses difficult questions at child/3.2 is very demanding of child) [I

plan to adapt this follow-up question based on Claudia's response, but this is the information I want to try to access.]

- c. Does it matter which student is answering the question? If so, how?
- d. How did you get to a point where you can accept students' claims and still "hold their feet to the fire" instead of rejecting what you may consider to be an incorrect answer or response?
  - i. What experiences have you had in your teaching tenure that have led you to use questioning in this manner?

**Interview Section 3: Teacher 4 (Claudia)**

Say: *“I’d like to ask you about your classroom interactions with students. During the last three weeks I observed your classroom, I indicated the students with whom you interacted. These interactions included questions and comments directed at students and student questions and comments directed at you.”*

Show the seating chart (printed on a separate sheet of paper—Page 16 of interview protocol) to Claudia.

6. Does any of this information surprise you?
7. Why do you think you interact with some students more than others?
8. Could you make any changes to your instructional practices or the classroom contextual factors to change the pattern of interactions?
9. During the first interview, you said mentioned that when you approach a student: *“I try to observe all of my students... With groups, I tend to join groups. I tell students that when we’re doing group work that I will join their group and I’m not [the teacher] anymore, I’m a student... I look over shoulders a lot. If students are working individually I’ll look at their papers to see how they’re doing.”*
  - a. Does the pattern of interaction in this chart support how you know when to approach a student?

Claudia interaction log 10/20, 10/26, & 11/10 (No observation on 11/1)

AF=Asian Female, AM=Asian Male, BF=Black Female, BM=Black Male,  
 HF=Hispanic Male, HM=Hispanic Male, WF=White Female, WM=White Male  
 SQ/ TR = Student-initiated question /Teacher Response to question  
 SC=Student comment to teacher (Possible teacher response)  
 TQ/SR =Teacher-initiated question/Student Response to question  
 TC=Teacher comment to student (Possible student response)

*(Classroom seating chart is split onto two pages)*

	WF TQ/SR SC SQ/TR	BF TQ/SR SQ/TR TQ/SR TQ/... TQ/SR TQ/SR TC	HF TC		WF SC TQ/SR	WF SQ/TR TQ/SR	WM TC TQ/SR SC/TC TC TC TQ/SR,TQ/SR TQ/SR,TQ/SR TQ/SR,TQ/SR TQ/SR, SC/TQ/SR TQ/SR TQ/SR/TQ/SR TC
AF SC/TC SQ/TR							

AM TQ/SR TQ/SR SC SC/TC SQ/TR TC SQ/TR	AF TQ/SR TQ/SR TQ/SR	WF TQ/... SQ/TR SQ/TR SR SC TQ/SR TQ/SR TQ/SR/TQ/SR SQ/TR TQ/SR TQ/SR TQ/SR TC	WM TQ/SR TC TQ/SR TC/SC				AF SC TQ/SR TQ/SR TQ/SR TQ/SR TQ/SR SQ/TR
A/WM, TQ/SR TQ/SR				WM TQ/SR, TQ/SR, SC/TC, SC/TC	WM/AM TQ/SR TC SC SC/TC SC TQ/SR TQ/SR TQ/SR/TC SQ/TR TQ/SR TQ/SR TQ/SR	HF TQ/SR TQ/SR TQ/SR	WM TQ/SR SQ/TR TQ/SR TQ/SR TQ/SR SC TQ/SR TQ/SR TC
AM TQ/SR TQ/SR TQ/SR	AM TQ/SR	BF TQ/SR SC TC SQ/TR TQ/SR TQ/SR TQ/SR	W/AM SC/TC SQ/TR				AM TQ/... TQ/SR/TQ/SR TC/SR TQ/SR TC
My seat							AM TQ/SR TQ/SR TQ/SR TQ/SR TQ/SR TQ/SR TQ/SR TQ/SR TQ/SR SC TQ/SR TC
					HF TC TQ/SR	AF TQ/SR SC	

**Interview Section 4: All teachers**

Say, *“I’d like to talk to you a little about your experiences in the AP Challenge Program that I brought up in the last interview and how your experiences may be translating to the instruction that I’ve witnessed. During that interview, we briefly discussed gender, race, and socioeconomic status. I’d like to revisit that topic and discuss low-SES/minority students a little more.”*

- A. Why do you think fewer low-income/minority students at [HIGH SCHOOL NAME] pass the AP exam in [SUBJECT AREA] than their majority peers?
  - i. Why do you think some minority students are performing as well or better than their majority student peers?
- B. We discussed a number of possible interventions that may help students in the AP Challenge Program.
  - i. Do you remember any of the strategies, topics, or discussions that related to the minority students in your classroom?
  - ii. Have you incorporated any of the AP Challenge strategies into your class that you weren’t using before?
  - iii. Do you believe there is anything that you could do in addition to everything you are currently doing to help minority students achieve higher on their AP exams?

**Interview Section 5--Final questions: All teachers**

Say, *“I really appreciate all of your time and effort to help me complete my dissertation research. I have a few final questions for you.”*

- C. Do you think that my presence in the class affected your interactions with students?
- D. Were the classes I was present different in any ways than the classes I observed?
- E. Do you have any additional information you’d like to share with me?

## APPENDIX 1: TEACHER THEMES FOR VIGNETTES AND CASE STUDIES

1. *Sam*
  - a. Establishing him as a storyteller.
  - b. Introduce the elements of a typical lecture and how it is both engaging and entertaining.
  - c. Introduce alternative narratives as a theme of the class.
  - d. Explore expectations as a component of his stories for students.
  - e. Describe a typical (and meaningful) student interaction.
  - f. Describe how his questions are lower-order and he comes across as the holder-of-knowledge as the teacher. Student ideas are accepted if they fit with his historical narrative.
2. *Erin*
  - a. Establishing her as a self-perceived expert.
  - b. Introduce how she does not plan in advance for her Comparative Government class or deviate from the standard and structured approach for her Human Geography class.
    - i. Explain how lack of planning affects instructional design.
  - c. Explore expectations as a component of instructional planning for classes.
  - d. Describe a typical (and meaningful) student interaction.
  - e. Describe how her questions are lower-order and she comes across as the holder-of-knowledge as the teacher. Student ideas are accepted if they fit with her ideas about Comparative Government and Human Geography.
3. *Donna*
  - a. Establishing her as frustrated/always in training.
  - b. Introduce lack of interactions with students during instruction.
  - c. Explore expectations as a component of her frustration with the size of the class and how her interactions appear to be limited.
  - d. Describe a typical (and meaningful) student interaction.
  - e. Describe how her questions are lower-order and she comes across as the holder-of-knowledge as the teacher. Student ideas are accepted if they fit with her understanding of Biology.
4. *Claudia*
  - a. Establish her as someone who orchestrates complex instructional and evaluation strategies.
  - b. Explore expectations as a component of instructional planning and assessment.
  - c. Describe a typical (and meaningful) student interaction.
  - d. Describe how her questions are higher-order and she comes accepts students as sources of knowledge. Student ideas are accepted and she asks follow-up questions to incorporate student ideas into instruction.

Appendix G  
Classroom Observation Schedule

	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>
<b>Week 1</b>		B-Day Schedule	A-Day Schedule
<b>September 7 &amp; 8</b>	<b>First Day of School No Observations Scheduled</b>	Sam/U.S. HIST. 7:30-9:00 Erin/CGov 12:30-2:00	Donna/Bio 7:30-9:00 Claudia/Eng 12:30-2:00
<b>Week 2</b>	B-Day Schedule	A-Day Schedule	B-Day Schedule
<b>September 1-15</b>	Sam/U.S. HIST. 7:30-9:00 Erin /CGov 12:30-2:00	Donna/Bio 7:30-9:00 Claudia/Eng 12:30-2:00	Sam/U.S. HIST. 7:30-9:00 Erin/CGov 12:30-2:00
<b>Week 3</b>	A-Day Schedule	B-Day Schedule	A-Day Schedule
<b>September 20-22</b>	Donna/Bio 7:30-9:00 Claudia/Eng 12:30-2:00	Sam/U.S. HIST. 7:30-9:00 Erin/CGov 12:30-2:00	Donna/Bio 7:30-9:00 Claudia/Eng 12:30-2:00
<b>Week 4</b>	B-Day Schedule	A-Day Schedule	B-Day Schedule
<b>September 27-29</b>	Sam/U.S. HIST. 7:30-9:00 Erin/CGov 12:30-2:00	Donna/Bio 7:30-9:00 Claudia/Eng 12:30-2:00	Sam/U.S. HIST. 7:30-9:00 Erin/CGov 12:30-2:00
<b>Week 5</b>	<b>A-Day Schedule ADJUSTED Schedule</b>	B-Day Schedule	A-Day Schedule
<b>October 4-6</b>	Donna/Bio 7:30-8:25 Claudia/Eng 12:50-2:00	Sam/U.S. HIST. 7:30-9:00 (Erin is not at school)	Donna/Bio 7:30-9:00 Claudi /Eng 2:30-2:00
<b>Week 6</b>	B-Day Schedule	<b>A-Day Schedule ADJUSTED PSAT Schedule</b>	B-Day Schedule
<b>October 11-13</b>	Sam/U.S. HIST. 7:30-9:00	Donna/Bio 10:55-11:30 Erin/HG 12:15-1:20 Claudia/Eng 1:25-2:00	Sam/U.S. HIST. 7:30-9:00
<b>Week 7</b>	A-Day Schedule	B-Day Schedule	A-Day Schedule
<b>October 18-20</b>	Donna/Bio 7:30-9:00 Erin/HG 11:00-12:30 Claudia/Eng 12:30-2:00	Sam/U.S. HIST. 7:30-9:00	Donna/Bio 7:30-9:00 Erin/HG 11:00-12:30 Claudia/Eng 12:30-2:00
<b>Week 8</b>	B-Day Schedule	A-Day Schedule	B-Day Schedule
<b>October 25-27</b>	Sam/U.S. HIST. 7:30-9:00	Donna/Bio 7:30-9:00 Erin/HG 11:00-12:30 Claudia/Eng 12:30-2:00	<b>No Observations</b>

<b>Week 9</b>	A-Day Schedule	B-Day Schedule	
<b>November 1-3</b>	Donna/Bio 7:30-9:00 Erin/HG 11:00-12:30 (Claudia is not at school)	Sam/U.S. HIST. 7:30-9:00	<b>No Observations</b>
<b>Week 10</b>		A-Day Schedule	B-Day Schedule
<b>November 9-10</b>	<b>Teacher Work Day</b> <b>No Observations</b>	Donna/Bio 7:30-9:00 Erin/HG 11:00-12:30 Claudia/Eng 12:30-2:00	Sam/U.S. HIST. 7:30-9:00

Appendix H  
Classroom Observation Protocol

**Instrument Construction**

- Spradley Matrix (1979) adapted to my study from important elements of the literature review

Original Spradley elements (old)	Corresponding elements (for my study)
space	classroom
object	students
act (actions)	instruction
activity	activity
event	interactions with the teacher
time	time (a single class period)
actor	teacher
goal	instructional goal
feelings	teacher expectation behaviors

- Expectation behaviors will be operationalized with Babad’s (1990) list:
  - Factor 1: Learning Support
    - The teacher approaches child to observe work
    - The teacher approaches especially child
    - The teacher sees to it that child will learn without interruption
    - The teacher gives child opportunity to think long enough before answering
    - The teacher helps child to answer questions
    - The teacher explains child’s mistakes and how to correct them
  - Factor 2: Emotional Support
    - The teacher praises child in the classroom
    - The teacher gives child a lot of attention
    - The teacher is warm and supportive to child
  - Factor 3: Pressure
    - The teacher addresses difficult questions at child
    - The teacher is very demanding of child

**Instructions:**

- Depending on the teacher participant's preferences, I will either fill out the observations on a laptop computer or on a printed copy. If my note taking is distracting to the teachers or students at any given point, I will fill out the observation protocol immediately following the observation with as much information as I can recall.
- I will fill out the matrix for each classroom observation during the data collection period
  - Reminder of what should be observed
  - Elements—features to be observed
- For each observation I will also keep a running description with open-ended notes to allow for emerging themes not captured by beginning codes. These notes will summarize interactions and activities with minimal inference. I will record these interactions chronologically to recreate the important interactions comprise class observation.
- In each observation I will include:
  - Low-level inferences, making judgments of individual behaviors and how they fit into a larger theme. They will help me move from thin to thick description as I focus on interactions and behaviors in the classroom that are important to my study.
    - Throughout my observations, I will make observer comments. These will serve as low-level inferences to explain what I think about the function of a classroom interaction.
  - High-level inferences, developing high-level judgments of teacher thinking, supporting judgments with specific observed behaviors. I will tie these judgments to one of the theories from the literature review. When I make these high level inferences, I plan to follow-up with teachers to seek additional clarification and explore their perspective of the interactions.
    - I will include any theoretical notes as high-level inferences that relate activities or behaviors to the conceptual framework of the study.
  - I will maintain a running record in my analytic journal of all low- and high-level inferences and share them with my peer debriefer.
  - I will indicate methodological notes as needed to deal with any problems or issues experienced with my methods.

	<b>Classroom</b>	<b>Students</b>	<b>Instruction</b>	<b>Activity</b>	<b>Interactions with the teacher</b>	<b>Time (Class period)</b>	<b>Teacher</b>	<b>Instructional Goal</b>	<b>Teacher Expectation Behaviors</b>
<b>Classroom</b>	Can you describe the classroom in detail?	What are all the ways the classroom is organized by students?	What are all the ways the classroom is organized by instruction?	What are all the ways the classroom is organized by activities?	What are all the ways the classroom is organized by interactions?	What spatial changes occur over time?	What are all the ways the classroom is used by teachers?	What are all the ways the classroom is related to instructional goals?	What places are associated with expectations?
<b>Students</b>	Where are students located?	Can you describe the students in detail?	What are all the ways students are included in instruction?	What are all of the ways students are included in activities?	What are all the ways that students are included in interactions?	How are students included at different times?	What are all the ways students are included by teachers?	How are students included in seeking instructional goals?	What are all the ways students evoke expectations from teachers?
<b>Instruction</b>	Where does instruction occur?	How does instruction incorporate the students?	Can you describe in detail all the instruction?	How are instruction a part of activities?	How is instruction part of interactions?	How does instruction vary over time?	What are the ways instruction is performed by teachers?	What are all the ways instruction is related to instructional goals?	What are all the ways instruction is linked to expectations?

<b>Activity</b>	What are all the places activities occur?	What are all the ways activities incorporate students?	What are all the ways activities incorporate instruction?	Can you describe in detail all the activities?	What are all the ways activities are part of interactions?	How do activities vary at different times?	What are all the ways activities involve teachers?	What are all the ways activities involve instructional goals?	How do activities involve expectations?
<b>Interactions with the teacher</b>	What are all the places interactions occur?	What are all the ways interactions incorporate students?	What are all the ways interactions incorporate instruction?	What are all the ways interactions incorporate activities?	Can you describe in detail all the interactions?	How do interactions occur over time? Is there any sequencing?	How do interactions involve the various teachers?	How are interactions related to instructional goals?	How do interactions invoke expectations?
<b>Time</b>	Where do time periods occur?	What are all the ways time affects students?	How does instruction fall into time periods?	How do activities fall into time periods?	How do interactions fall into time periods?	Can you describe in detail all the time periods?	When are all the times teachers are “on stage”?	How are instructional goals related to time periods?	When are expectations evoked?
<b>Teacher</b>	Where do teachers place themselves?	What are all the ways teachers use students?	What are all the ways teachers use instruction?	How are teachers involved in activities?	How are teachers involved in interactions?	How do teachers change over time or at different times?	Can you describe in detail all the teachers?	Which teachers are linked to which instructional goals?	What are the expectations experienced by teachers?

<b>Instructional Goal</b>	Where are instructional goals sought and achieved?	What are all the ways instructional goals involve use of students?	What are all the ways instructional goals involve instruction?	What activities are instructional goals seeking or linked to goals?	What are all the ways interactions are linked to instructional goals?	Which instructional goals are scheduled for which times?	How do the various instructional goals affect the teachers?	Can you describe the instructional goals in detail?	What are all the ways instructional goals evoke expectations?
<b>Teacher Expectation Behaviors</b>	Where do various expectations states occur?	What expectations consider students?	What are all the ways expectations affect instruction?	What are all the ways expectations affect activities?	What are all the ways expectations affect interactions?	How are expectations related to various time periods?	What are the ways expectations involve teachers?	What are the ways expectations influence instructional goals?	Can you describe the expectations in detail?

*Based on the Spradley Matrix (1979)*

**Open-ended Notes**

- [TYPE TEXT HERE]

**Low-level Inferences**

- [TYPE TEXT HERE]

**High-level Inferences**

- [TYPE TEXT HERE]