

ENDING THE BIGOTRY OF LOW EXPECTATIONS?
NO CHILD LEFT BEHIND AND THE TEXAS
STATE ALTERNATIVE ASSESSMENT
FOR STUDENTS WITH DISABILITIES

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By

Dale L. Lewis

2008

DEDICATION

For

Sunny Lu Peer

April 24, 1940 to July 8, 2008

This dissertation is dedicated to my mother-in-law, Sunny Lu Peer, a brilliant, compassionate lady who always would ask me, “How is the writing coming along?” Sunny, I wish you could have been here to hear me finally say, “It’s finished!”

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ABSTRACT

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A stated intent of the No Child Left Behind Act (NCLB) is to address the inequities that children from historically marginalized groups have experienced in public education. The Texas assessment system following the authorization of NCLB served as the context for this study. State assessment data from 5669 students receiving special education services in Texas (2587 in reading, and 3082 in mathematics) were analyzed. The expectations set by individual education planning (IEP) teams for the performance of

cohort groups of children taking enrolled grade-level, state alternate assessments (the SDAA-II) in reading and mathematics from 2005 through 2007 were studied and compared to actual performance disaggregated by student ethnic origin, status as having an economic disadvantage, or identification as having limited English proficiency.

Chi-square, correlational, and repeated measures analyses of variance and covariance techniques were used to determine significant group differences. The findings indicate expectations set by IEP teams were low for all ethnic groups across the three-year period, but significantly so for children of color, particularly children of African American heritage. Expectations for children with economic disadvantages were significantly lower in the area of reading, and expectations for children identified as limited English proficient (LEP) were significantly lower than non-LEP children only for the initial testing year. Hispanic and African American children, and children from families with economic disadvantages performed at levels that were significantly lower than their White and non-disadvantaged peers, respectively.

The results and findings of the study call into question the effectiveness of NCLB in producing its intended outcomes for children who have been historically marginalized, as well as the efficacy of special education, especially for African American children. Implications of the research are discussed including a call for additional study in the area of policy development related to bilingual and multicultural education, research exploring the effects of neoliberal versus social democratic approaches, and a comprehensive analysis of federal and state policy related to NCLB.

CHAPTER I

INTRODUCTION TO THE STUDY

The foundations of this study are based in the abundance of research on teacher expectations and the influence these expectations may have on future student achievement. In Rosenthal and Jacobson's (1968) classic Pygmalion study, the authors suggested that the expectations teachers maintained about individual student potential for cognitive growth yielded increases in subsequent measures of intelligence. Students whom teachers believed were destined for rapid cognitive development performed better on a consequent test measuring cognition than those children for whom teachers did not maintain such an expectation. Over the past four decades, the work of Rosenthal and Jacobson has often been interpreted as an explanation of how teacher expectations contribute to social inequities (Jussim, & Harber, 2005). This study investigates the relationship between student characteristics and expectations for academic performance on a test of student achievement. Specifically, this study examines the influence of achievement expectations, formed by a small group of concerned individuals, on the academic performance of students with disabilities. It seeks to analyze the strengths of specific student and situational variables relative to subsequent performance independent of, and in conjunction with, group beliefs regarding the student's ability to achieve on a measure of academic achievement. Through an analysis of existing longitudinal,

academic achievement data, the researcher attempts to achieve a deeper understanding of the factors influencing group decisions concerning the achievement of students with disabilities.

Background to the Study

Ethnic prejudices do die—but slowly. They can be helped over the threshold of oblivion, not by insisting that it is unreasonable and unworthy of them to survive, but by cutting off their sustenance now provided by certain institutions of our society. (Merton, 1946, p. 210)

More than 60 years ago, the sociologist Robert Merton wrote of the roles societal institutions play in the development of individual fears and realities. Fears of differences can be translated into realities by the institutions which we believe are necessary, but to which we have only grown accustomed (Merton, 1946). One such institution, public education, has existed to educate the populous since the late 1800s. The basic structure of the public school system has remained essentially intact over this time: students are grouped by age; individual subjects are taught within compartments of time across the length of a school day; and there is a general emphasis on the accumulation of factual knowledge. However, there have been occasional shifts in public school systems due to societal changes and the actions of some to advance the moral and ethical purposes of public education. For example, fifty years ago the American people witnessed a Supreme Court decision that moved public education to a place of higher moral purpose. In *Brown v. Board of Education* segregation was ruled unconstitutional and, thus, the make-up of public school classrooms became more diverse. The life-chances of an entire population

of children were potentially enhanced through a shift in the legal status of their educational rights. Shifts in attitudes would come later as Justice Felix Frankfurter suggested in his response to defense arguments in the Brown case: “Attitudes in this world are not changed abstractly, as it were, by reading something... Attitudes are partly the result of working, attitudes are partly the result of action... You do not fold your hands and wait for attitude to change by itself.” (as cited in Ancheta, 2006, p. 60).

Unfortunately, attitudes, especially those held onto strongly by individuals, are not easily changed (Na, 1999) and are often written into policy. For example, the *Goals 2000: Educate America Act* of 1994 heightened the role of accountability and standards in public education and resulted in the re-stratification of public school programming for children through measures that sorted and separated them, although often within the walls of the same facility, based on their ability and the expectations of others (Capper, Frattura, & Keyes, 2000; Frattura, & Topinka, 2006; Kohn, 2002). Students who struggle in meeting accountability standards are often placed into instructional programming with a focus on remediation. The sorting and separating of students in this manner perpetuates a class system and serves to isolate groups of children, many of whom come from families with economic hardships, from the rich, powerful learning experiences of those more privileged who are successful in attaining a performance standard (Frattura, & Topinka, 2006; Kohn, 2002; Wheelock, & Keenan, 1997). Now, more than ever before, and in conjunction with increased pupil diversity, public school personnel are sorting children into a plethora of specialized programs, robbing our children of an education that is both inclusive and rich in experience (Frattura, & Topinka, 2006).

Statement of the Problem

Over the past twenty-five years, U.S. public schools have experienced waves of reform aimed at improving outcomes for America's youth. The primary initial push came following the National Commission on Excellence in Education's (NCEE) publication of *A Nation at Risk* in 1983. Finding that a "rising tide of mediocrity" in education was threatening the future of the United States as children from other countries were "surpassing our educational attainments" the Commission called for comprehensive reform of public education (National Commission on Excellence in Education, *A Nation at Risk* section, para. 1). Along with increased graduation requirements, and an emphasis on standards for both students and teachers, the Commission recommended the implementation of a program of standardized testing to "... certify the student's credentials ... identify the need for remedial intervention; and ... identify the opportunity for advanced or accelerated work." (National Commission on Excellence in Education, Recommendation B: Standards and Expectations section, para. 3). With these recommendations the NCEE summed up its concerns regarding student and teacher performance under local and state control, and signaled a stronger interest by federal government in the education of public school children.

A decade after the publication of *A Nation at Risk*, the Clinton administration endorsed and signed into law the *Goals 2000: Educate America Act* (P.L. 103-227) on March 31, 1994. The Act established goals in eight areas for public education to achieve by the year 2000: (a) school readiness, (b) school completion, (c) student achievement, (d) teacher education and professional development, (e) mathematics and science improvement, (f) adult literacy, (g) safe and drug-free schools, and (h) parental

participation. Moreover, the Act established the National Education Standards and Improvement Council with members appointed by the President and tasked to develop national standards for core, fine arts and foreign language content areas identifying the knowledge and skills students should be able to demonstrate for success in the next century. While the Goals 2000 legislation did not mandate that states create and implement student assessments aligned with content standards, it did provide funding to help compensate states for costs associated with test development (Goals 2000: Educate America Act, Section 220).

The current reform effort is codified in the *No Child Left Behind Act of 2001* (NCLB), signed into law by President Bush on January 8, 2002. Its intent is captured in its statement of purpose: “To ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments.” (No Child Left Behind Act of 2001, Section 1001). Further, NCLB states that to accomplish this purpose it must meet the educational needs of children who: (a) attend high poverty schools and are performing poorly, (b) are English language learners, (c) are part of migrant families, (d) have disabilities, (e) are of Native American descent, (f) are neglected or involved with the juvenile justice systems, and (g) are young and in need of reading assistance. In addition to this focus on specific populations of children, NCLB also seeks to “close the achievement gap between high- and low performing children, especially the achievement gaps between minority and non-minority students, and between disadvantaged children and their more advantaged peers” (No Child Left Behind Act of 2001, Item 3, Section, 1001).

In an effort to achieve its mission, including putting an end to the saga of discrepant student achievement, NCLB places increased accountability on schools for the performance of diverse student groups through the establishment of more rigorous requirements for their performance on federally mandated high-stakes tests. With this increased rigor, graduated stages of interventions and sanctions befall those schools and districts that do not consistently achieve increasing performance targets over time. For example, districts with schools failing to meet improvement standards for two consecutive years must offer and pay for contracted supplemental education services, such as individual tutoring, to the children in low performing schools. Sanctions for continued failure to meet performance expectations include school restructuring, increased state oversight, and even dissolution. Thus, the stakes are high under NCLB, and the focus on students who have been historically marginalized and held to lower or even no expectations is great within this current reform agenda. President Bush has often referred to the “bigotry of low expectations” in his call to others to support the goals and tenets of NCLB. Specifically, he points to the low educational performance of marginalized groups of children, especially children of color or who live in poverty. Bush appears to view this historic low performance based, in part, on low expectations for student outcomes and rooted in the concept of the *self-fulfilling prophecy* described in the seminal work of Robert Merton (1946).

Merton (1946), a sociologist, wrote of the self-fulfilling prophecy as based in a basic theorem of social sciences forwarded by W. I. Thomas (1928): “If men define situations as real, they are real in their consequences” (p. 193). As individuals attach meaning to situations they experience, their resulting behaviors, and some of the effects

of these behaviors, are determined by this understanding. Merton (1946) illustrates this phenomenon through a parable involving the collapse of a bank following a rumor of the bank's insolvency that gave way to a rush of depositors eager to withdraw their savings. The belief that the fulfillment of dreams related to the saving and safety of their money yielded consequences that, while based on unfounded beliefs, were real enough to cause the bank's collapse.

If, like the bank depositors' beliefs creating the reality of the bank's failure, educators believe that students of color, children of poverty or students with disabilities cannot perform at the level of their White, middle class, and non-disabled peers, low expectations will persist and the Bush educational reform package under NCLB will fail. While it is plausible that schools and students will not meet the high levels of achievement called for under NCLB, it is also reasonable to assume that some schools and students will meet the standards and experience success in narrowing the achievement gap. The question remains, though, how will these schools achieve success? What roles do the expectations we hold for historically marginalized students play in their resulting achievement, and what factors influence high expectations and subsequent success? This study seeks to address these questions and problems.

The Texas State Assessment Program

Under NCLB states must develop and implement measures to assess student progress toward the laudable goal of 100% student proficiency in reading and mathematics by the school year 2013-2014. The present assessment program in Texas is known as the Texas Assessment of Knowledge and Skills (TAKS). Though the TAKS was intended as the primary measure of student achievement, the state recognized that the

TAKS would not be an appropriate measure for all students, particularly for students with disabilities. Therefore, the State developed an alternative assessment exclusively for students with disabilities known as the State Developed Alternative Assessment II (SDAA II). The SDAA II differed from the TAKS in that there was no set standard for mastery. Rather, each student's individual education plan (IEP) team determined his or her expected performance for each assessed subject area. Students either met this broadly established expectation, or not. Additionally, the SDAA allowed students with disabilities to be assessed against modified curriculum standards and below grade level benchmarks. The SDAA remained in use until the 2007-2008 school year.

The history and structure of the Texas Assessment Program will be reviewed in greater detail later, but here it will suffice to say that only recently has the state begun broadly assessing the performance of student with disabilities against state curriculum standards. Further, only within the past 7 years have campuses and districts been held accountable for the performance of students with disabilities as a group. Changes in the state assessment system beginning with the Spring 2008 testing cycle require virtually all students with disabilities to be assessed against standards comparable to their grade level peers without disabilities. This presents an even greater challenge for schools and children as the rigor of these assessments is unlike the rigor of the assessments the majority of students receiving special education services previously experienced. If the expectations educators had of children who receive special education services were low under the system of SDAA II assessment, then their expectations for the performance of students with disabilities under a system of markedly increased rigor that lies on the horizon may well be one of hopelessness.

Purpose of the Study

The specific objectives for this study are

1. to determine whether IEP team expectations for student achievement on the SDAA II compared to actual student achievement vary according to ethnic/student groups (African American, Hispanic, White, economically disadvantaged, limited English proficient);
2. to determine whether the expectations that IEP teams make regarding the achievement of students with disabilities on the SDAA II become increasingly accurate over time; and
3. to determine whether the expectations IEP teams set for students assessed with the SDAA II account for any portion of variance in the achievement of children from various ethnic/student groups on the SDAA II and, thus, suggest the possible presence of self-fulfilling prophecies.

Theoretical Framework

The present study is viewed through a critical, social constructivist lens and based in critical and social learning theories perspectives forwarded by Max Horkeheimer, Herbert Marcuse, Lev Vygotsky, Julian Rotter and Albert Bandura. The origins of social learning theory draw from the work of critical theorists, including Horkeheimer, Marcuse, and Jürgen Habermas, and their focus on dialogue and language to understand and break down the barriers erected in order to sustain societal power relationships. This section will move us from the foundational roots of social learning theory in the camp of critical theorists, through the concept of human agency associated with Bandura's social

cognitive theory, and to social constructivism and the reflective-construction model upon which this study is founded.

The Critical Theory Perspective

Critical theory seeks to provide a rational means through which to analyze and understand institutional norms and practices (Collins, 1998). Critical theory emerged from the work of Marxist theorists such as Horkheimer, Marcuse and, later, Habermas who were associated with the Frankfurt School in Germany during the early twentieth century. The Frankfurt School emerged following the Russian Revolution of 1917 as a research center for left-wing philosophers who had become disillusioned with the Russian state of affairs under Stalin. Later, with the onset of World War II, the Frankfurt School moved to Geneva, then to New York and California, before returning to Frankfurt in the mid-1950s.

Critical theory strives to describe current events not in terms of what currently exists, but in terms of what ought to be (Collins, 1998). It seeks to uncover the relationships of power that exist to maintain status quo for economic or political reasons and suppress the emancipation of the oppressed, while endeavoring to move society to a participative democracy and higher moral ground. Educational institutions, for example, are viewed as contributing to the social structures that promote division by class, and serve to sustain the status of middle-class clientele while continuing to exploit those who are less privileged. Schools reproduce class, gender, and racial status quo, socialize individuals to the norms and values of the institutional expectations, and promote educational initiatives for reform that reinforce power relationships. Collins (1998) posits that from a critical theory viewpoint, progressive, educational initiatives, whether

with conservative or liberal backing, are responses to crisis situations threatening the status quo, and serve mainly to strengthen existing societal power relationships. A critical theorist might view the No Child Left Behind Act as a federal initiative in response to the *crisis* of achievement gaps between the performance of minority youth and their White peers, but with the hidden intent to gain greater control of state and local education agencies and the educational experiences of our youth. Jürgen Habermas, a second generation critical theorist, represents a shift in critical theory away from the Marxist tenets of revolution and class struggle, toward a focus on the *crisis* and action brought about through open communication.

Habermas (1985) wrote, “I know wherein our most basic values are rooted—in compassion, in our sense for the suffering of others” (p.72). This recognition of the suffering of others connotes the social component of Habermas’ critical social theory which, according to Collins (1998), is concerned primarily with the rational consistency of its approach to the “emancipatory and utopian possibilities it holds out” (p. 68). Habermas’ focus on free, open dialogue as the precursor to *communicative action* represents the heart of a participatory democracy through which rational justification for decisions is achieved. It is this dialogue that leads us to the determination of what we should be doing and to what we ultimately wish to become (Collins, 1998).

The critical theorist perspective entered the realm of pedagogy through the work and commentaries of Michael Apple and Paulo Freire. Apple (1986) conceives schools as sites of struggles toward a more just society. He and other critical pedagogues remain hopeful that educators committed to transformational teaching can assume an active role in developing communicative competence in order to identify and address those

institutional barriers, power relationships and attitudes which limit the development of a true democratic action. The centrality of communication as the primary vehicle for addressing these barriers is analogous to Paulo Friere's (1985) theory of learning as a process of understanding shaped through reflection and discussion and a focus on dialogue as a core educational strategy. It is this component of dialogue and language which is discussed in the next section within the context of social learning theory and the work of Vygotsky, Rotter, and Bandura.

Given the focus of the present study to explore the expectations a group of individuals responsible for developing individual educational plans has for the performance of children with disabilities, particularly students with disabilities who are also children of color or children of poverty, the critical theory lens is an appropriate perspective through which to view its results. Students with disabilities who receive special education services are categorically and, at times, physically separated from the norm group of children known as general education students. Frattura and Topinka (2006) assert this separateness results in oppression and negatively impacts the social and emotional well-being of children with disabilities. Further, these authors note, concurrent with the increasingly diverse student population enrolled in public schools today, now, more than ever before, children are being sorted and separated into specialized programs that rob them of an education that is both inclusive and rich in experience.

Many children who receive special education services in Texas have been assessed with the State Developed Alternative Assessment. As part of this assessment, each student's individual education planning team establishes an expected level of achievement prior to the test administration. This expectation further separates children

into groups expected to achieve at high, moderate, or low levels on the state assessment. The concern of this study, then, rests in how these expectations vary among and between individual student groups and whether these expectations can account for any variance in the eventual test performance of children with disabilities who are also children of color or children of poverty.

Social Learning Theory

Lev Vygotsky (1983), a Russian psychologist who came of age during the time of the founding of the Frankfurt School, suggested that language was not only a tool for communication, but also one that has shaped our evolution as a culture. Likely influenced by the Marxist and critical theorists of his time, Vygotsky (1983) commented that cultural and historical development yielded changes in behavior such that new forms of behavior developed in new, unique, cultural forms. In terms of education, the interactions of a teacher and children in a classroom are based in the historical and cultural context of the classroom, with educational tools available to the teacher. These contexts and tools drive the communications and interpersonal interactions between the teacher and students, impacting the social development and learning of the children. Vygotsky's social development theory posits that learning occurs in interactions with others and it best facilitated by one who is more capable and competent such that the learner gains higher levels of competence through successively greater intellectual demands and experiences. The *zone of proximal development* is developed during the process of instruction and constitutes what one can come to know with the guidance and support of another who is more knowledgeable. It is the difference between what a

learner is able to do independently, and what the learner is able to accomplish with a competent teacher, and is attained through social interaction.

The emphasis on social interaction in the development of understanding is central to all social learning theories. Julian Rotter, a clinical psychologist, built upon Vygotsky's social development foundation in developing his social learning theory of personality. Rotter (1954) suggested that personality development was the result of one's interactions with his or her environment. The environment is subject to the individual's experiences and history and actions made or considered are not the result of behavioristic responses to environmental stimuli. Rather, the individual experiences people bring to an environment shape their responses and interactions. Rotter also added the concept of *expectancy* to his theory suggesting that individual expectations for reinforcement within an environment further influence subsequent interactions. Rotter (1966, 1975) expanded upon the expectancy construct adding *locus of control* as a mediating variable. When faced with a novel task, individuals possessing an internal locus of control predict greater possibilities for success if the task is assumed to require individual skill to complete. Those with an external locus of control perceive their probability of success on novel tasks to be a function of chance or luck. When a teacher interacts with a classroom of new students, the background experiences and competencies she brings to the lesson, and expectancy for reinforcement of her teaching in terms of student success, influences the behaviors in which she engages. These behaviors are not only a function of prior experiences and anticipated reinforcement, but also rely on whether the teacher attributes her potential for success to the pedagogical skills she maintains or to external factors such as the day of the week, time of day of the lesson, or even the students themselves.

In addition to the expectancy belief in one's ability to create the circumstances to facilitate performance assumed within Rotter's social learning theory, Albert Bandura (1986) adds an additional expectation, outcome expectancy, which refers to the consequences one assumes will come from that successful performance. It is this cognitive, reflective component that separates the theoretical camps of Bandura and Rotter.

Bandura's social learning theory stresses the cognitive aspects of human interaction and places emphasis on how individuals interact at the cognitive level with their social experiences and how these individual understandings influence behaviors and future development (1977, 1986). Along with the concepts of reciprocal determinism and self-efficacy, Bandura (1978) introduced the notion of vicarious learning to the field suggesting that individuals could learn from observing and modeling the behavior of others.

With reciprocal determinism, Bandura (1978) posited that individuals act on their environments which, in turn, act on them. Individual behavior is one component in a three-way interaction involving personal characteristics, the environment, and behavior. Personal characteristics such as confidence, persistence and physical qualities, influence the environment and individual behaviors, while one's environment impacts the development and refinement of personal characteristics also influencing behavior. Although a level of reciprocity exists among these factors the influences are not equal nor do they necessarily occur simultaneously. Human behavior under Bandura's model is complex and varies according to individual and situation.

Perceived self-efficacy is the belief individuals maintain regarding their ability to produce certain effects, influencing the events that affect their lives (Bandura, 1986). This sense of efficacy is influenced by four sources: mastery experiences, vicarious experiences, social persuasion, and through physiological and emotional states (Bandura, 1994). Mastery experiences provide the most powerful influence over the development of strong efficacious beliefs. Outcomes that are interpreted as successful, serve to enhance self-efficacy, while those that are viewed as unsuccessful tend to erode it. The impact of mastery experiences on self-efficacy is also tempered by situational factors. Persevering and attaining success despite adversity, for example, not only enhances self-efficacy beliefs but also the likelihood of greater resolve with similar tasks in the future. Success under less challenging circumstances may have little or no effect on these beliefs. Vicarious experiences serve to strengthen efficacy beliefs through the observation of a successful model. The more similar the observer is to the model, the greater the model's affect on the observer (Bandura, 1994).

Bandura (1986) concedes that the outcome expectancies factor little into the measurement of efficacy. He does assert, however, that they do serve to encourage or to deter one's action. Self-efficacy beliefs regulate the actions of individuals via reflection on whether their behavior will yield the desired outcome (i.e., outcome expectation) and how confident they feel in their ability to perform at an expected level (i.e., perceived self-efficacy).

In 1986, Bandura renamed his theory *social cognitive theory*, moving away from the behaviorist background of Rotarian social learning theory and its emphasis on outcome expectancies as reinforcing of future interactions with one's environment.

While Bandura's social cognitive theory acknowledges the influence of reinforcement on behavior, it views this as largely regulated through cognitive processes that occur prior to the behavior and subsequent reinforcement. This cognition yields understanding and development of human capacity to predict possible outcomes before engaging in a behavior (Bandura, 1986).

More recently, Bandura (2001) has written of social cognitive theory and human agency: the way in which people bring influence to how they live their lives. He conceptualizes three modes of human agency: (a) personal, (b) proxy, and (c) collective. Personal agency refers to the degree of direct control individuals have in influencing events impacting their lives. In reality, individuals may have little influence on the institutional, governmental, and social practices that may affect their lives on a daily basis. In these situations individuals might seek out proxies who have access to those institutions and practices to which they, as individuals, do not. These proxies, then, can act on behalf of the individual in order to allow more time for the individual to engage in other forms of self development. Collective agency refers to the shared beliefs of a group of people in their ability to produce some desired result (i.e., collective efficacy), and the degree of control the group has in effecting change (Bandura, 1997, 2001). In general, findings from studies of collective efficacy have shown that higher levels of perceived collective efficacy yield higher levels of group motivation, resiliency, persistence, morale and, ultimately, greater levels of performance (Bandura, 1997, 2000).

In the current study, the shared beliefs of a group of individuals comprising the individual education plan (IEP) team are explored to determine the impact of these beliefs, translated into an expectation, on resulting student achievement. This expectation

is akin to Bandura's (1986) concept of outcome expectancy and the notion that the perception of the consequences that an individual presumes will occur from certain actions will serve to encourage or deter that behavior. The expectation of the IEP team, then, may well serve to regulate individual teachers' cognitive processes and expectancies relative to student performance and potential, thereby influencing teacher behavior toward certain students, supporting the possible development of self-fulfilling prophecies.

Social learning theory emerged from interest in language and social interaction as mediators of learning, especially when learning was guided and facilitated by one more competent than the learner. The theory expanded to include expectancy for reinforcement in social interactions as influencing individual behavior, and recognized the importance of human cognition in the learning process, adding components of locus of control, outcome expectations, and human agency, including the power of collective efficacy to influence outcomes beyond the individual level. We turn now to the more philosophical notion of social constructivism, and the supposed power of beliefs to create social reality.

Social Constructivism and the Reflection-Construction Model

Social Constructivism

The philosopher John Searle has written extensively on the philosophy of language and the ability of humans to create social reality through the use of language (Searle, 1979, 1983, 2004, 2005, 2006). Searle (2005, 2006) posits that societal institutions such as money, government, marriage, and schools or universities cannot exist without language, although language may exist without them. For example, it is

only because we agree that a twenty dollar bill is worth twenty dollars that it has value. We have, then, created the social reality of the economic function of this small, colored piece of paper.

Searle's (1995) conception of our ability to create social reality consists of three main components: status functions, constitutive rules, and collective intentionality. Status functions are a subset of agentive functions. Agentive functions are assigned to objects, such as a hammer, denoting that the combination of wood and metal serve a function, or use, for us. Status functions move a step further, and are representations of objects that stand for something more than purely agentive use. The words on this page move beyond an agentive function as phonemes, representing thoughts and ideas that deepen their status.

Constitutive rules refer to the scaling up of status functions of objects so that they emerge as institutional facts. According to Searle (1995), constitutive rules can be expressed in the formula "X counts as Y in C" where X represents an object that is assigned a status function so that it takes on a new representation in some context (C). To elucidate this principle, let us return to the concept of money and the value of the twenty dollar bill. At its base form (X, in Searle's formula), the twenty dollar bill is a piece of colored paper. We agree that it has some value and, as a result, the piece of paper takes on the status function of currency. This currency maintains value specifically within the United States and, in a broader context, the world on the currency exchange market. This final point, accepted value within particular contexts, captures Searle's third and fundamental component regarding the creation of social reality, collective

intentionality. In order for a social fact, such as the value of money, to become institutionalized, its status function must be collectively accepted.

In terms of the present topic of teacher expectations and the self-fulfilling prophecy, the social reality being created is the phenomenon of a self-fulfilling prophecy. Within the context of public education, a status function has been assigned to special education. It represents a place in which to serve children who do not necessarily fit into the general education model. Over time, along with a greater focus on accountability for student performance in schools, the use of special education to sort and separate children who are not being successful under traditional educational practices and systems has become an institutionalized fact through the collective intentionality of educators seeking to shelter and protect children who are struggling in school, and maybe to also bolster campus and district performance ratings. As our low-achieving students, a disproportionate number of whom are children of color and children of poverty, enter special education, they bring with them not only histories of low academic performance but also a label that identifies them as deficient in some manner. The perceptions that teachers form based on student histories and labels may yield lower expectations for future achievement and result in a self-fulfilling prophecy for a number of children with disabilities. In the next section, a reflection-construction model of the relations between social perceptions and social reality will be presented to help depict how social perceptions can create social realities through self-fulfilling prophecies.

The Reflection-Construction Model

Jussim (1989) identified three ways in which students may confirm teachers' expectations of their achievement: self-fulfilling prophecies, perceptual biases, and

accuracy. In the realization of self-fulfilling prophecies, teachers may elicit behavior in a student that confirms their erroneous expectations. Perceptual biases exist in the mind of teachers and influence how they recall a student and explain his or her actions. Finally, teachers' expectations may accurately predict student achievement without influencing these outcomes.

Drawing upon the social construction perspective, Jussim (1991) formulated the reflection-construction model depicting the relations between social perception and social reality (see Figure 1). In the model, accuracy of expectation is represented in the teacher's belief (expectation) correlating with (predicting) student behavior (Path C) when both teacher beliefs and students behaviors correlate with student background information (Paths A and B). This "spurious relationship represents accuracy: predictive validity without influence" (p. 59). Thus, if the teacher bases his or her beliefs about the student on background information that accurately predicts student achievement, then the teacher's beliefs will also predict the student's achievement.

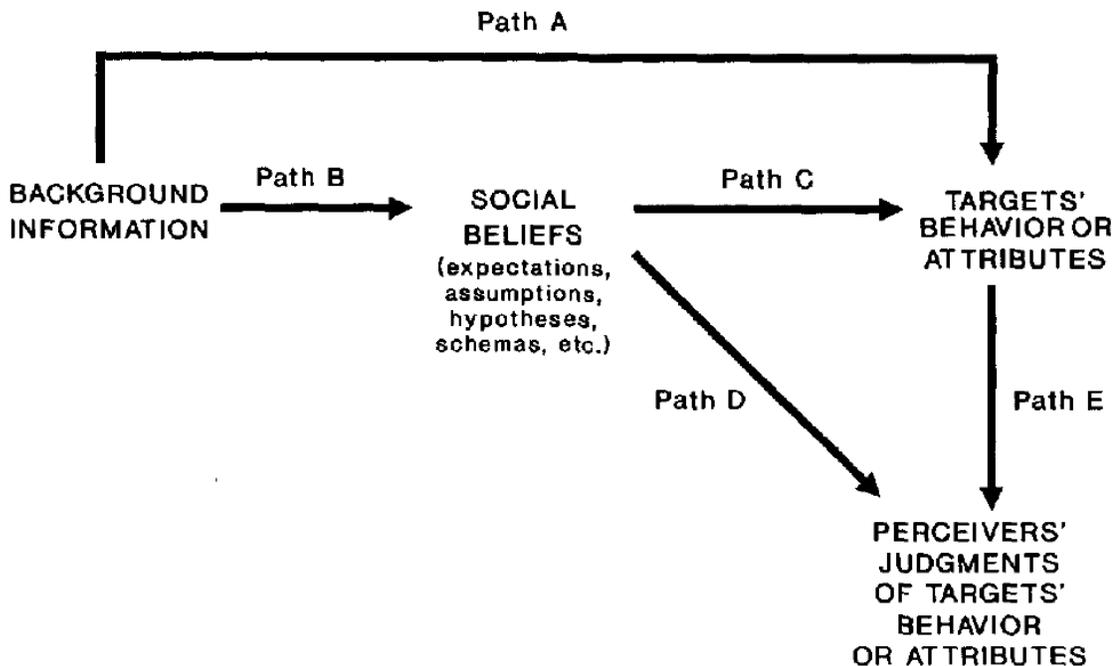


Figure 1. Reflection-Construction Model. The reflection-construction model of relations between social perception and social reality. *Note.* From “Social Perception and Social Reality: A Reflection-Construction Model” by L. Jussim, 1991, *Psychological Review*, 98(1), p. 57. Copyright 1991 by the American Psychological Association, Inc. Reprinted with permission.

Perceptual biases are demonstrated in the model through evidence of a stronger correlation between the teacher’s judgments of student behavior (Path D) when compared to that of the teacher’s belief in predicting student behavior (Path C). According to Jussim, the model indicates the presence of perceptual bias “when the influence of social beliefs on judgments more than makes up for the extent to which failing to judge targets’ exclusively on the basis of their behavior lowers the correspondence among targets’ actual behavior and perceivers’ judgment of that behavior” (p. 66). Hence, the judgments the teacher maintains on a student based on, say, a stereotype regarding children of poverty must be so great that it overshadows and lessens the correspondence between the student’s achievement (behavior) and the judgment the teacher makes about the behavior

due to the fact that the teacher is failing to judge the student solely on the basis of the student's behavior.

Self-fulfilling prophecies related to teacher expectations involve the teacher leading the student to behave in ways that are consistent with the teacher's initially erroneous social beliefs (Jussim, 1991; Merton, 1948). The phenomenon of self-fulfilling prophecy is captured in the reflection-construction model by the strength of the correlation between teacher beliefs and student behavior (Path C). Positive values for Path C represent self-fulfilling prophecy. Jussim cautions, however, that a simple correlation between perceiver expectations and a target's behavior is not sufficient to determine the presence of a self-fulfilling prophecy as other factors such as presence or absence of accuracy may confound this zero order correlation. For this reason, the relationship between and among teacher beliefs, student behavior and student background variables must be analyzed in determining the presence of a self-fulfilling prophecy. The reflection-construction model moves beyond previous theoretical perspectives by incorporating all three ways in which erroneous teacher expectations may influence social reality: (a) by producing a self-fulfilling prophecy (Path C is positive), by yielding a self-defeating prophecy in which an expectation disproves itself (Path C is negative), or by evidencing no influence on behavior (Path C is zero).

The present study explores potential relationships between expectations and student achievement within a critical, social constructivist framework. Expectations that the IEP teams establish regarding future achievement of students receiving special education services may serve to influence individual teacher perceptions of students and result in behaviors that foster student performance in line with these expectations. If

these expectations vary according to student factors such as ethnicity, socioeconomic status, or English language proficiency, children who receive special education services will be further categorized into groups based a perception of their ability to succeed on a measure of achievement. This additional layer of categorization and separation from their peers without disabilities may pose a greater risk for the development of not only self-fulfilling prophecies, but may also further the oppression and negative impacts on the social and emotional well being of our children with disabilities.

Research Questions

Research Question 1: Do the expectations IEP teams establish for individual student performance on an enrolled grade-level reading or mathematics State Developed Alternative Assessment II (SDAA II) vary according to individual student characteristics (ethnicity, socioeconomic status, or status as an English language learner)?

Research Question 2: Do IEP team expectations for students, grouped by demographic characteristics, who receive special education services and take an enrolled grade-level SDAA II in reading and mathematics in successive years become increasingly accurate over time?

Research Question 3: Does the achievement of students with disabilities expressed in terms of percentage of items answered correctly on an enrolled grade-level test in reading or mathematics on the SDAA-II vary according to the individual student characteristics of ethnicity, socioeconomic status, and limited English proficiency?

Research Question 4: After accounting for the influence of expectations, does the achievement of individual groups of students receiving special education services

(African American, Hispanic, White, children from low socioeconomic backgrounds, and children who are English language learners limited) vary?

Significance of the Study

A recent *Education Week* national survey of 800 special and general education teachers found that 84% of those surveyed did not believe that students receiving special education services should be expected to meet the same academic requirements as students without disabilities (Olsen, 2004). Teachers were also not in favor of including students with disabilities in the same tests as students without disabilities. Nearly 80% of the teachers who were surveyed were opposed to including the results of students with disabilities in an accountability system if the students were assessed with the same measure as students without disabilities (Olsen). With the rigorous requirements under NCLB for the inclusion of students with disabilities in state assessment programs, combined with increasing accountability for schools and districts to improve the academic performance of students with disabilities on these assessments, teacher beliefs in the efficacy and validity of these requirements may serve to foster the development of student potential to meet these heightened requirements. If a vast majority of teachers do not expect or even believe that students with disabilities deserve to participate and should be held to achieve at high levels it may well be difficult for schools and districts to be successful under NCLB.

Over the past 40 years a number of research studies have been conducted to explore the impact teacher expectations have on students (Brophy, & Good, 1974; Jussim, & Harber, 2005; Madon, Jussim, & Eccles, 1997; Rosenthal, & Jacobson, 1968; Smith, Jussim, Eccles, Van Noy, Madon, & Palumbo, 1998). In general, these studies

have yielded evidence that teacher expectations do, at least sometimes, influence students and student performance. Self-fulfilling prophecies have been found to be moderated by one's social class and ethnicity (Jussim, Eccles, & Madon, 1996). Lower achieving students from lower socioeconomic backgrounds and students of African American descent were especially subject to self-fulfilling prophecy effects (Jussim et al., 1996).

Students of color and children of poverty are served in special education programs at a rate that exceeds their presence in overall school population. In its Twenty-Fifth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (IDEA) the Office of Special Education Programs (OSEP, 2003) reported that the percentage of African American children served through special education exceeded their presence in the overall school population by nearly 6%. Approximately one-fourth of children with disabilities live in poverty, compared to a rate of about 20% nationwide.

As members of already stigmatized groups, students of color or children of poverty who are also students with disabilities may be at increased risk for lowered teacher expectations and self-fulfilling prophecy effects than children who are neither of minority status nor of lower socioeconomic status.

Definition of Terms

Achievement Expectation in this study is determined by the level at which the student's individual education planning team expects the student to perform on a criterion referenced assessment of grade level curriculum. This expectation is categorized according to an achievement level I, II, or III indicating performance at a beginning, developing, or proficient level of skill, respectively.

Effect Size is a statistic calculated to reflect the magnitude of difference, in number of standard deviations, between the means of two groups (Fraenkel, & Wallen, 2003).

Effect sizes of half a standard deviation or greater (i.e., .50 or larger) are usually considered quite significant (Cohen, 1992; Thompson, 1999).

Individual Education Plan (IEP) refers to the educational programming the IEP team determines to be appropriate for the student and includes individually developed goals and objectives related to the student's course of instruction.

Individual Education Plan (IEP) Team is the group of individuals including, at a minimum, the student's parent, a representative of the local school district who maintains the authority to commit district resources, a general education teacher, a special education teacher, and an individual who is able to interpret the educational implications of evaluation data (Individuals with Disabilities Education Improvement Act, 2004)

Limited English Proficiency (LEP) in this study refers to students whose primary language is other than English and whose English language skills result in the students having difficulty performing typical class work in English (Texas Education Code, § 29.052).

Self-Fulfilling Prophecy, in this study, refers to erroneous expectations made by the IEP team, that may lead students to perform at levels consistent with those expectations (Brophy, & Good, 1974; Rosenthal, & Jacobson, 1968).

Socioeconomic Status (SES) in this study is determined by the student's participation in free or reduced-fee lunch programs. Students who participate in free or reduced-fee lunch programs are considered low SES while students not participating in these are considered non-low SES.

State Developed Alternative Assessment II (SDAA II) is a criterion-referenced Texas state assessment for students who receive special education services and for whom the students' IEP teams have determined the TAKS is inappropriate. The determination that a student will be assessed with the SDAA II is based on whether the student is receiving instruction in the state curriculum below his or her enrolled grade-level, or whether the student receive instructional and testing accommodations that would invalidate the TAKS score and are thus non-allowable on the TAKS.

Student Achievement is determined by the performance of a student on some scale or criterion. In the present study, student achievement was determined by both the student's raw score on the SDAA II converted to a percentage of items answered correctly, and the level of performance categorized according to level I, II, or III indicating the student performed at a beginning, developing, or proficient level of skill in the assessed curriculum, respectively.

Students with Disabilities are students with an Individual Education Plan (IEP) or who receive services under Section 504 of the Rehabilitation Act of 1973 and have an accommodation plan.

Students without Disabilities are students who participate in the general education program and do not have an Individual Education Plan (IEP) and do not receive services under Section 504 of the Rehabilitation Act of 1973.

Texas Assessment of Knowledge and Skills (TAKS) is a criterion-referenced Texas state assessment measuring student performance in the state curriculum, the Texas Essential Knowledge and Skills (TEKS). The TAKS is administered during the spring of each school year to students enrolled in grades three through eleven.

Assumptions and Limitations of the Study

This study is limited to students with disabilities who were enrolled in a Texas public school and assessed with an enrolled grade-level alternate assessment, the SDAA II, in reading and mathematics across a three-year period (2005-2007). This population is a subset of the total population of students with disabilities who receive special education services. Many students receiving special education services in the state of Texas were assessed with the SDAA II at levels below their enrolled grade level, or were assessed at enrolled grade level, but not for the three consecutive years captured in this research. The results of this study should not be generalized to either of these groups or any other population.

The present study focuses on quantitative data obtained a priori. As such, there exists no insight into the discussions of IEP teams who made specific educational decisions regarding individual students. While it is assumed that IEP teams actually used existing performance and other achievement data in making educational decisions and determinations for students, there can be no certainty that this review of existing educational data, including prior performance on the SDAA II, actually took place.

A final limitation exists in the fact that the state assessment system in Texas, especially as it relates to students who receive special education services, is in a constant state of flux. At the time of this study, the SDAA II assessments were being phased out and replaced with tests designed to measure the progress of all students receiving special education services against enrolled grade-level content. Although the current research study followed a group of students over a three-year period, this change may well have

affected decision making of the IEP teams during the final administration year of the SDAA II in the spring of 2007.

CHAPTER II

REVIEW OF THE LITERATURE

The primary purpose of this study is to explore potential inequities regarding academic achievement expectations for the performance of children with disabilities, particularly children of color or children categorized as economically disadvantaged. The overarching research question that guided this study is: Do differences exist in academic achievement expectations determined by the IEP team for students with disabilities in regard to ethnicity, socioeconomic status, and status as an English language learner?

This chapter provides a review of literature related to teacher expectations and the self-fulfilling prophecy. A discussion of the composition of special education programs and the overrepresentation of children of color in these programs, as well as the nature of the Texas State Assessment Program and accountability for the academic performance of students with disabilities under it and the federal No Child Left Behind Act is also included. The research on teacher expectations and self-fulfilling prophecy is reviewed so that the reader may appreciate the breadth of coverage in the literature this topic has afforded as well as uncover its shortcomings. Overrepresentation of minority youth and children of poverty in special education programs is addressed next as the children in these groups may be more greatly at risk of lowered expectations. Finally, the Texas State Assessment Program and accountability under both the state and federal systems are discussed so that the context within which the study is situated can be understood.

Teacher Expectation Research

The ability of teachers to influence achievement outcomes for students through their expectations has been studied by various researchers over the past 40 years. While the foundation of educationally based studies was established with Rosenthal and Jacobson's (1968) classic study of the self-fulfilling prophecy, the sociologist, Robert Merton (1946) first suggested the possibility that we create our own realities

The self-fulfilling prophecy entered the realm of educational research with a study of the effect of teacher expectations on student success, and over the past forty years teacher expectancies have been explored by a variety of researchers (Rosenthal, 1973; Rosenthal, & Jacobson, 1968; Jussim, 1989; Brophy, 1983; Smith, Jussim, & Eccles, 1999). The research has generally shown that teachers maintain certain expectations for student behavior and performance and tend to behave differently toward their students based upon these expectations. These expectations, whether intentional or not, create a reality for these students in terms of their cognitive and affective behaviors. High teacher expectancies have been shown to correlate positively with higher student achievement, while low teacher expectancies correlate with lower student achievement (Brophy, 1979; Good, 1981; Jussim 1986; Rosenthal, & Jacobson, 1968). Additional research, however, has called into question the effect sizes of teacher expectancies, their accuracy, and whether resulting impacts on students accumulate or dissipate over time (Brophy, 1983; Jones, 1990; Jussim, 1991; Kenny, 1994; Raudenbush, 1984; Snyder, 1984; Weinstein, & McKown, 1998).

Pygmalion in the Classroom

Few published studies in education have garnered as much attention as Rosenthal and Jacobson's (1968) work describing the effects of teacher expectations on student performance. The researchers began their investigation by assessing all children enrolled in the elementary school where Jacobson was principal. The school was located in a low income neighborhood in South San Francisco. The school followed an ability tracking program in which students were placed primarily according to individual reading ability into fast, medium or slow programs. Approximately 450 children from 18 classrooms, three per each grade level from kindergarten through five, were tested with a measure of nonverbal intelligence. Then, Rosenthal and Jacobson provided the children's teachers with false information regarding the abilities of a randomly selected group of students comprising 20% of the school's population, an average of 5 students per classroom. Teachers were informed that certain students (from two to seven per classroom) had the potential to experience rapid and dramatic intellectual growth over the course of the coming school year when in fact the students were no more likely to experience this growth than their peers. Rosenthal and Jacobson (1968) found that upon subsequent administrations of the same nonverbal intelligence test, even two years later, the children whose teachers believed they were primed for growth displayed gains exceeding their control group peers. The teachers' false expectations about the potential of individual students appeared to have produced the effect of higher intelligence test scores for those students thought to be more able. These *expectancy effects* have been extolled by the popular press and now by President Bush, occupying a center piece in his educational

reform agenda, as an explanation of how teacher expectations could contribute to the social inequities we observe in our public school classrooms.

A Deeper Analysis of the Pygmalion Results

Although the findings of Rosenthal and Jacobson (1968) appeared quite dramatic, and although the study continues to be described in the same manner in which the original researchers characterized the results (Gilbert, 1995; Schultz, & Oskamp, 2000), deeper analysis has revealed some shortcomings in the widely broadcast conclusions (Elashaoff, & Snow, 1971; Jussim, & Harber, 2005; Snow, 1969; Thorndike, 1968). Jussim and Harber (2005) point to the fact that both groups of children in the Pygmalion study evidenced dramatic gains in IQ points, with the late bloomers gaining about 12 points and the control group students, on average, about 8 points. They add that no evidence existed indicating children were harmed by the expectations, and that the gains of the control group equated to approximately one-half of a standard deviation on the typical test of cognitive ability.

Second, Jussim and Harber note that even though the four-point difference in average IQ growth between the experimental and control groups was statistically significant, they contend that it would be difficult to characterize this difference as an indication of a “dramatic” effect (p. 134). As an example of how this four-point difference is less than dramatic, they point to a comparison of the Pygmalion result to effect size, and calculate that the difference between the experimental and control groups yielded an effect size of .30 which, according to Cohen (1988), would typically be considered small.

Jussim and Harber (2005) do concede, however, that there was some indication of dramatic effects among the students in individual grade levels. The first grade students, whose teachers thought they were on the verge of remarkable growth, outperformed their control group peers by 15 IQ points, and in the second grade, bloomers out-gained non-bloomers by 10 points. These gains, though, diminished in the third, fourth, and fifth grades, and in the sixth grade, although not statistically significant, the control group actually outperformed their bloomer peers. Subsequent follow-up revealed that after two years, the oldest group of Pygmalion study children actually showed the largest difference in their performance when compared to their age-group, control peers. Such a finding, Jussim and Harbers contend, did little but further complicate and confuse conclusions surrounding the seminal work of Rosenthal and Jacobson (1968).

Initial Follow-Up Studies to Pygmalion

While subsequent analysis of the Rosenthal and Jacobson (1968) findings revealed, as best, modest effects, their research did serve to expand the research base of educational studies (Brophy, 1983; Brophy, & Good, 1974). The first steps undertaken, however, focused on attempts to replicate and evaluate the validity of a connection between teacher expectation and self-fulfilling prophecy (Jussim, & Harber, 2005).

Not surprisingly, Robert Rosenthal, along with several colleagues, attempted additional studies to support his and Jacobson's 1968 results (Rosenthal, 1973, 1974; Rosenthal, & Rubin, 1978). These new studies and others only served to deepen the controversy surrounding the notion of a self-fulfilling prophecy as little more than a third demonstrated statistically significant results (Brophy, 1983; Rosenthal, & Rubin, 1978). Interestingly, it was the pioneering work of Rosenthal and Rubin (1978) in development

of the meta-analysis and simultaneous application of this new technique to 345 experiments on expectancy effects that resolved the initial controversy surrounding the existence of self-fulfilling prophecies. Following the differentiation of these 345 studies into 8 categories, the combined expectancy effects of all studies within the eight categories were calculated resulting in a significant likelihood that the phenomenon of self-fulfilling prophecy was real. Although further meta-analyses and literature reviews (Brophy, 1983; Jussim, 1991; Raudenbush, 1984) support the presence of self-fulfilling effects of teacher expectations, these effects are rather small, falling in the lower third of effect sizes obtained in nearly 380 meta-analyses analyzed by Hemphill (2003). Despite the apparent positive conclusion regarding the presence of self-fulfilling prophecies in the classroom, the phenomenon has spawned additional controversy, and study, regarding its effects on intelligence, the accuracy and power of teacher expectations, the impact of positive and negative expectations, and the accumulation or dissipation of expectancy effects over time.

Self-Fulfilling Prophecy and IQ

Recall that the most controversial claim of the Pygmalion study was the ability of teacher expectations to influence the cognitive capacities of children as measured by an IQ score. Raudenbush (1984) conducted a meta-analysis of 18 studies relating teacher expectations and IQ. Raudenbush's hypothesis was that the time of the school year at which the study was conducted would moderate the expectancy effects. He predicted that the longer the teacher knew the children for whom they had been given information designed to augment their expectations of student intelligence a smaller effect on expectancy would result. Conversely, with little or no exposure to the children at the

time expectancies were induced through, for example, records reporting standardized test scores, grades, or anecdotal data from other teachers, the effects of such information might have a greater impact on teacher expectations. Results from Raudenbush's meta-analysis yielded a strong curvilinear relationship between time of year and effect size suggesting that expectancies induced within the first week of the school year produced effect sizes similar to those of the original Pygmalion study, while expectancy inductions introduced more than two weeks into the school year yielded no effect. In 1994, Raudenbush reanalyzed the 18 studies employing a model allowing for greater generalization than the earlier analysis and concluded that the studies in which teacher had no contact with students prior to the expectancy induction yielded a small effect size ($r = .2$) while the remaining studies produced no effect. Other researchers have argued that the effects of induced expectancies on IQ are nonexistent (Snow, 1995; Wineburg, 1987), citing additional problems with the original Pygmalion study and inconsistencies in the Raudenbush meta-analyses. The possibility that teacher expectations may have large effects on measures of student intelligence has not been empirically supported, and research to date suggests little to no effect of teacher expectations on measures of student IQ.

Accuracy of Teacher Expectations

Jussim and Harber (2005) define accuracy as the extent to which teacher expectations predict, but do not cause, resulting student achievement. Given that typical classroom teachers have interactions with students and student data that influence the development of expectations for student performance, and given that these expectations are open to corrective feedback teachers obtain through ongoing interaction with

students, their perceptions may indeed be accurate and borne out in achievement scores that correspond with their high or low expectations (Brophy, 1983). There exists an inverse relationship between the accuracy of teacher expectations and the power of these expectations to result in self-fulfilling prophecy. As the accuracy of teacher perception and expectation increases, the potential for self-fulfilling prophecy decreases and, conversely, as accuracy decreases, the potential increases (Jussim, & Harber, 2005).

Brophy (1983) reported that the probability of self-fulfilling prophecy effects depends not on how accurate teacher expectations are initially, but rather on how rigidly maintained these expectations are over time, despite conflicting feedback from student performance, and how consistently the expectations are transmitted to the student. Empirical studies regarding the accuracy of teacher expectations involve assessing these expectations early in the school year, and assessing student achievement prior to the measure of teacher expectation and at the conclusion of the school year in which expectations were assessed (Jussim, & Harber, 2005). The earlier measure of student performance controls for the effect of prior achievement, and allows an estimate of the extent to which teacher expectation early in a school year predicts student achievement at the end of the school year. The difference between this statistic (a standardized path coefficient, controlling for likely sources of accuracy within a model of teacher expectation-student achievement, representing an estimate of self-fulfilling prophecy) and the overall predictive validity obtained from the correlation of teacher expectation and end-of-year student achievement yields a measure of prediction absent causation (Jussim, 1991).

Power of Teacher Expectations

Although few studies have been undertaken to explore possible student background moderators of classroom self-fulfilling prophecies such as race and disability, several have been conducted relating self-fulfilling prophecies to student ability levels and possible stigmas associated with membership in certain groups (Jussim, Eccles, & Madon, 1996; Madon, Jussim, & Eccles, 1997; Madon, Jussim, Keiper, Eccles, Smith, & Palumbo, 1998; Smith, Jussim, Eccles, Van Noy, Madon, & Palumbo, 1998).

Ability grouping, or tracking, has been presented as a possible vehicle for facilitating teacher expectations that may create self-fulfilling prophecies (McGrew, Evans, 2004; Oakes, 1986). Practices in schools and classrooms involving the grouping of students by ability may serve to foster the differential treatment of students based on group membership (McGrew, & Evans, 2004). Brophy and Good (1970) reported on differences in student-teacher interactions between groups characterized as high or low expectation. They found that high expectation students were more likely to receive praise for success and less criticism associated with failures than low expectation students. Similarly, specific feedback to high expectation students regarding the correctness of their responses was found to occur in 97% of interactions, but in only approximately 85% of interactions with low expectation children. Teachers were also noted to be more likely to repeat or rephrase questions or provide clues when addressing students in the high expectation group.

In a more recent study, Smith, et al. (1998) hypothesized that self-fulfilling prophecies “may be more powerful for groups because teachers spend more time addressing their classes of ability groups as a whole than addressing individual students”

(p. 534). Although the results of their study failed to confirm differences in self-fulfilling prophecies when comparing homogeneous classrooms with those comprised of a heterogeneous make up, they did, however, uncover some differences when within class grouping were considered. Students in classes when no grouping occurred or students assigned to high, within class groups evidenced effect sizes of near zero, while children assigned to low ability groups within a heterogeneous classroom demonstrated self-fulfilling prophecy effect sizes of .2. Smith, et al. suggested that within class groupings may increase the potential for differential student treatment by classroom teacher yielding a small expectancy effect and possibility for the development of self-fulfilling prophecy.

Students who belong to groups which may be stigmatized, such as children with disabilities or children of poverty, may be more vulnerable to the effects of self-fulfilling prophecy than children who comprise the typical majority. Jussim and Harber (2005) found, surprisingly, that little research in self-fulfilling prophecies among potentially stigmatized groups has occurred to date. Two studies, however, have been undertaken exploring potential effects among children of historic low achievement, children of poverty and children of African-American descent (Jussim, Eccles, & Madon, 1996; Madon, Jussim, & Eccles, 1997).

In examining the presence of self-fulfilling prophecies among students of historically low achievement, Madon, et al. (1997) found effect sizes of .26 among the low achievers, and only .08 among high achievers. Jussim, et al. (1996) found no moderation of self-fulfilling prophecies related to gender differences, but did identify some evidence of effects related to social class and ethnicity. When analyzing differences based on socioeconomic status they found self-fulfilling prophecy effects

ranging between .2 and .3 for children from lower socioeconomic backgrounds. When expanding this group to include children who were historically low achievers, the expectancy effect size doubled to .6. Effect sizes for African American children, were also elevated, ranging from .4 to .6.

In a follow-up study examining the accuracy of teacher expectations for African American students and students from families with lower socioeconomic status Madon, Jussim, Keiper, Eccles, Smith, and Palumbo (1998) sought to address the potential role of stereotypes that individuals might hold in contributing to the larger effect sizes uncovered in the earlier studies. Their results indicated that supposed stereotypes based on gender, social class (high versus low) and ethnicity (African American versus White) had little effect on the perceptions teachers had regarding their students, and that individual student characteristics such as effort and time spent on various academic tasks were more powerful predictors of teacher perceptions than was student membership within any specific demographic group. Hence, Madon, et al. concluded that, in the case of their study, stereotypes were potentially accurate, and that their effect on individual teacher perceptions were weak, especially when compared to the effect of individual student characteristics on teacher expectations.

Teacher Expectations and Students with Disabilities

Much of the little literature that exists regarding expectancy effects associated with students with disabilities and measures of achievement can be described as anecdotal and not empirical (Gloeckler, 2001; Nelson, 2003; Thompson, & Thurlow, 2001). Generally, these authors cite survey feedback from educators and policy makers suggesting that increased student access to rigorous curriculum content enhances

expectations for the achievement of children with disabilities. Although there appears to be a dearth of empirical research on self-fulfilling prophecy and expectancy effects for students with disabilities, several studies investigating teacher expectations have included students who receive special education services (Carlisle, & Chang, 1996; Pope, 2003; Richey, & Ysseldyke, 1983; Rolison, & Medway, 1985).

In their longitudinal study of student self-evaluations of science learning competencies among children with and without learning disabilities in general education elementary and middle school classrooms, Carlisle and Chang (1996) also investigated teacher perceptions of student ability. Teachers were found to consistently rate the students with learning disabilities as having significantly less adequate learning abilities and lower levels of achievement when compared to their classmates without disabilities.

Rolison and Medway (1985) sought to examine the effects of disability label (no disability, learning disability or mental retardation), the pattern of student past performance (improving or decreasing), and student participation in special education (no participation, resource room, self-contained classroom) on expectations teachers maintained regarding the student's future academic achievement. Teachers in the study were given hypothetical information for a single male student according to the conditions noted above and asked to provide a prediction of the number of times the student would likely exceed the school districts' average on 20 subsequent achievement tests. Results of the study showed that teachers strongly maintained higher expectations for students displaying an ascending pattern of performance, and that descriptions of the student with a label of mental retardation yielded lower teacher expectations for future performance. No difference was found between expectations based on no disability label and that of

learning disability. The authors felt that this lack of difference could possibly be attributed to the experimental procedures in which some scenarios describing a student with no disability label received services in a special education classroom setting. Finally, no differences were uncovered based on classroom placement.

In her study of teacher gender and gender-type (the extent to which individual view themselves as ascribing to stereotypical masculine and feminine roles) on teacher expectations for academic success of students receiving special education services Pope (2003) found that gender-typed male teachers expected less success from students receiving special education services than all other groups. Similar to the Rolison and Medway (1985) study, a vignette was employed describing a male student who received special education services. However, unlike the prior study, all participants in the study received the same student description. Results were group by teacher gender and gender-type (as measured by the Bem Sex-Role Survey) and correlated to two measures of teacher expectation (the Teacher expectation questionnaire and the Teacher Expectancy for Student Success Scale). Although gender-typed males expected less success from students with disabilities, no significant difference was found between male or female teachers, or between general and special education teachers' expectations for student success.

Richey and Ysseldyke (1983), while not studying students with disabilities directly, explored the effect of having an older sibling with a disability on teacher expectations for younger brothers or sisters. The authors conducted two investigations of sibling effects on teacher expectations, the first with teachers who were instructing the younger sibling of a former student with learning disabilities, and the second with

teachers who were currently teaching children with learning disabilities and who were presented with a hypothetical example of a younger sibling and asked to provide an expectation of future achievement of this child. Comparisons between sibling pairs without disabilities and pairs with one sibling with learning disabilities were made in each study. Richey and Ysseldyke found that, under both conditions of real or hypothetical older siblings with learning disabilities, teachers validated significantly lower expectations for the younger child when compared to sibling pairs of children without disabilities. In particular, expectations for reading level, general knowledge, visual/auditory perception and memory skills were significantly lower for siblings of children with learning disabilities. Teachers also indicated that they expected the younger siblings to make less progress during the school year and need more support services than siblings of children without learning disabilities. While the authors did not address any effects on the actual achievement of the younger siblings and thus, any self-fulfilling prophecy effects on these children, they did, however, point to this as a need for further research.

Little research has been conducted on potential student background variables that may serve as moderators of self-fulfilling prophecies (Jussim, & Harber, 2005), or on expectancy effects for children with disabilities. Exploration of the potential of various background variables to influence teacher expectations and produce self-fulfilling prophecies is an important step in helping researchers and practitioners understand the role, if any, self-fulfilling prophecies play in maintaining and fostering social inequities such as the overrepresentation of children of color and of poverty in special education programs. Ethnic disproportionality will be the subject of the next section of this review.

Ethnic Disproportionality in Special Education Programs

Concern regarding overrepresentation of students of color and students from low socioeconomic families in special education programs dates back to at least 1968 when Lloyd Dunn noted that between 60% and 80% of students being served in classes for students with mild mental retardation were from “low status backgrounds”, children he identified as being from minority ethnic groups, English language learners, and from non-middle class families. Shortly thereafter, Mercer (1973) recorded similar observations reporting that in classes for students with mental retardation in Riverside, California Mexican American children were represented at a rate four times their percentage in the general population and African American children were represented at a rate three times their percentage in the general population.

Finn (1982) was the first to examine the issue of disproportionate representation at the national level finding that African American children were overrepresented in special education classrooms for children with mental retardation and emotional disturbance. Contrary to the findings of Mercer (1973), Finn determined that Hispanic and White students were being served at rates similar to their prevalence in the general school population.

In its Twenty-Fifth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (IDEA) the Office of Special Education Programs (OSEP, 2003) reported that of the near 6 million students with disabilities ages 6 through 21 served in special education programs during the 2000-2001 school year 20.5% were African American and 14.6% were of Hispanic descent. This compares to representation figures of African American and Hispanic youth in the general school

population of 15.1% and 16.6%, respectively. Within the 13 disability categories recognized under IDEA, the percentage of African American students with disabilities who are served in special education under the eligibility category of mental retardation is substantially higher than the percentage for any other ethnic group (17.4% compared with 8.1% for Hispanic students with disabilities, and 8.6% for white students with disabilities). The percentage of African American students with disabilities who received special education services for emotional disturbance is also considerably higher than the percentage for any other ethnic group (11.3% compared with 5% for Hispanic students with disabilities, and 8% for white students with disabilities).

OSEP (2003) also reports risk ratios regarding the identification of student groups by disability category. The risk ratio compares the proportion of a particular ethnic group to the proportion of all other ethnic groups combined and indicates the likelihood of students being identified under a particular eligibility category. During the 2000-2001 school year, African American students age 6 through 21 were 2.99 times more likely to be identified as having mental retardation and 2.21 times more likely to be identified as having an emotional disturbance than all other groups combined.

Special education also serves a larger percentage of children living in poverty than their representation in the U.S. population as a whole. Based on parent report, 24% of students in elementary through middle school and 25% of high school students with disabilities are members of families that meet the federal Orshansky poverty index guidelines compared with 20% of the general population (OSEP, 2003).

According to Heller, Holtzman, and Messick (1982) concern about disproportionate representation is justified if the process of identification and placement

is not applied equitably across student groups, if the program is ineffective, or of the program stigmatizes groups of students. Based on these criteria and given the previous data regarding representation of various student groups in special education programs, concern about ethnic and economic disproportionality in special education seems warranted. This concern has given rise to criticisms of special education programs, the identification and placement processes, and disproportionate placement, especially with respect to children of color. Hosp and Reschly (2003) have identified three main reasons for this criticism of special education programs and disproportionality: (a) labeling effects, (b) segregation of placement, and (c) presumed ineffectiveness of special education (p. 68).

The depersonalizing nature of labeling students with one of the 13 disability categories under IDEA, especially the “judgment” diagnoses such as mental retardation, emotional disturbance and learning disability, does little to limit the perpetuation of racial stereotypes associated with the disabilities (Harry, & Klingner, 2006). Labeling theorists Bogdan and Knoll (1988) have suggested that reification of formal labels ascribes a definition of an individual that eclipses the unique, personal qualities of an individual. Harry and Klingner propose that a paradox exists in our current system of separating students with disabilities into categories under the auspices of altruism when the presence of a label not only further stigmatizes individuals who may already be stigmatized based on ethnicity, but possibly limits the judgments of educators and school professionals who are charged with serving the children. The presence of a particular label may serve to narrow the expectations and actions of educators as they work with students with disabilities.

Segregation of students by placement in special education programs is an area of concern in studies of disproportionality and is embodied within the concept of the mandate under IDEA to serve students with disabilities in least restrictive environment. IDEA requires that IEP teams consider, first, the general education classroom and education of students with disabilities in settings with general education peers to the maximum extent possible. Only when students cannot be served in the general education classroom with appropriate supplementary aids and services is it appropriate for the IEP team to consider more segregated, special education classroom settings. Because students with mental retardation and emotional disturbance are likely to require greater levels of special education support and services there exists a greater probability that they will be served in segregated classroom settings (Reschly, 1997).

Special education has often been viewed as the sole public school option to aid children experiencing school failure despite evidence that calls into question its efficacy (Harry, & Klingner, 2006). Donavon and Cross (2002) report that although the research base is replete with studies supporting the validity of a variety of special education interventions, at least under experimental conditions, evidence of these interventions filtering out and into the hands and practices of educators is limited. Another testament to the disappointment in the effectiveness of special education can be seen in post-school outcomes for students with disabilities. Data from the National Longitudinal Transition Study of Students in Special Education-2 (SRI International) indicates that with a school leaver rate of 44%, youth with emotional disturbances leave school without graduating at the highest rate of any disability category. Roughly 50% of students served under the eligibility categories of emotional disturbance and mental retardation reported being

employed at the time of the survey, and African American students reported being employed at a rate that was 16 percentage points below that of White students.

Clearly there are questions about the effectiveness of special education in increasing the life chances of our youth with disabilities. Moreover, there are grave concerns about the apparent overrepresentation of students of color, particularly African American children, in special education, especially children diagnosed and served under the stigmatizing labels of mental retardation and emotional disturbance. Gergen (1994), possibly captures the most concerning aspect of the effect labeling may have on our children when he writes that the deficit perspective existing within the assignment of a label is not limited in time, space, or context. The affected individual carries this label, and the deficit terminology attached to it, with him or her from place to place. "To be labeled by mental deficit terminology is . . . to face a potential lifetime of self-doubt" (Gergen, p.151).

History of the Texas Assessment Program

The Texas testing program for public school students began in 1979 with the creation of the Texas Assessment of Basic Skills (TABS). TABS assessed skills in math, reading and writing for students in grades 3, 5, and 9. Although not a requirement for graduation and receipt of a high school diploma, ninth grade students who did not demonstrate mastery of the test content had to retake the exam each year until graduation. With the public reporting of results, the TABS marked the beginning of high-stakes accountability for public school districts in Texas.

In 1984, TABS evolved into the Texas Educational Assessment of Minimum Skills (TEAMS) which expanded testing to students enrolled in odd-numbered grade

levels, and imposed individual student sanctions for eleventh graders not passing the exit assessment. The class of 1987 became the first required to pass the exit-level assessment in order to receive a high school diploma, marking the beginning of high individual student stakes for non-mastery.

The Texas Assessment of Academic Skills (TAAS) emerged in 1990 and moved test content from minimum skills to academic skills as represented by the adopted state curriculum at the time, the Essential Elements. It initially continued to be administered to students in odd-numbered grade levels, with the exception of first grade, but eventually was expanded into all grades 3 through 8, and moved the exit-level test from eleventh to tenth grade. With the inclusion of TAAS in the state accountability system in 1993, public reporting of school performance, and the potential for individual student sanctions at the exit level, the TAAS became the most high-stakes assessment in the history of Texas' testing program. The creation of a common standard across all levels of the TAAS, the Texas Learning Index (TLI) enabled comparisons between grade levels and provided an indication of whether students were making enough yearly progress to eventually master the exit-level assessment. With the inclusion of science and social studies as assessed areas for eighth grade students in 1995, student performance in all major content areas was monitored as some point along the path of a public school student.

The current incarnation of Texas' state assessment is known as the Texas Assessment of Knowledge and Skills (TAKS). This assessment, even more rigorous than previous state assessments, is aligned to the state curriculum, the Texas Essential Knowledge and Skills, and includes the potential for negative consequences against not

only students in high school, but also children in grades 3, 5, and 8. Third graders must demonstrate proficiency on the state reading assessment in order to be promoted to grade 4. A child is offered three attempts at the assessment, and should receive intervention during the periods between measures, but if she is unable to attain a passing score a committee, including the child's parents, meets to determine her fate—placement in the next grade, or retention. At grades 5 and 8 the same process applies, but in addition to reading, each child must also master the math portion of the state assessment in order to secure promotion into the next grade.

Until 1999, the test scores of students with disabilities who received special education services in Texas' public schools did not factor into a school or district's accountability rating. Students who were able to be assessed with the same assessment as children without disabilities, participated in testing and received a score report, but their performance did not impact campus or district ratings, nor did it bar the student from graduating with a diploma. In 1999, however, Texas began including the scores of students receiving special education services in measures of accountability including the performance of all students, students of major ethnic groups, and students from families classified as economically disadvantaged based on eligibility for free or reduced-cost school lunch programs. In a study conducted by the University of Texas' Dana Center analyzing the exemption rates of students with disabilities from Texas state assessments prior to and following the decision to include scores of students with disabilities in the accountability system researchers found that from 1998 to 1999 exemptions from the TAAS increased from 5.2% to 6.9% statewide and that schools demonstrating improvement in their accountability rating, on average, had fewer students with

disabilities participating in the state assessment and more students exempted from the assessment than those schools who had no change or a decrease in their rating (Fuller, 2000). Although no causal connection can be ascertained from these data, they suggest the possibility of schools seeking to better their public rating through greater exclusion of students in the accountability subset.

The State Developed Alternative Assessment (SDAA)

At the same time students receiving special education services were being included in the Texas accountability system, the state was at work developing a new, alternative assessment for students with disabilities, the State Developed Alternative Assessment (SDAA). This test development was initiated following action by the 75th Texas Legislature in 1997 which amended Section 39.023 of the Texas Education Code (TEC). Section 39.023 was revised requiring the education agency to develop a criterion-referenced assessment for each student served under a special education program who receives instruction in the TEKS, but for whom the general state assessment would not be appropriate, even with allowable accommodations. However, students who were not being instructed in the state curriculum, at any grade level in any area tested by the state assessment, could still be exempted from the alternative test.

The SDAA development began with a steering committee comprised of educators, parents of students receiving special education services, representatives from various advocacy groups from across the state, and national experts in the field of special education who advised the Texas Education Agency (TEA) in the creation of an appropriate assessment. Test items were developed through TEA collaboration with Pearson Educational Measurement and subcontractors Harcourt Educational

Measurement and Beck Evaluation and Testing Associates, Inc. Item format and design was guided by state curriculum standards and encompassed instructional objectives down to the kindergarten grade level in reading, mathematics, and writing. Field testing of the tests and items with a representative sample of students receiving special education services for whom the assessment was appropriate was conducted over a two-year period prior to the first “live” administration of the SDAA in 2001. Since its initial appearance, the SDAA has been updated to align more closely with the current general state assessment, the TAKS. The updated version of the alternative assessment, the SDAA II, was field-tested in spring 2004, fully implemented during the 2004-2005 school year, and expanded as a test option for students receiving special education services enrolled in grades 9 and 10.

The SDAA II differed from the standard TAKS assessment in that individual student IEP teams met to determine first whether the standard TAKS test was appropriate for the student and, if not, considered the SDAA II as an appropriate alternative. The state provided some initial guidance for IEP teams as they made these assessment determinations: “Each student’s ARD committee [IEP team] has the responsibility of *weighing the benefits of rigorous and challenging expectations with the possibilities of success* [italics added] given each student’s individual strengths, needs, instruction, and accommodations as documented in the IEP” (2004-2005 Technical Digest, p. 22).

In considering the benefits of challenging expectations coupled with the possibilities of student success, the IEP team employed the following guidelines when determining which assessment the student will take in reading, writing, and/or mathematics:

1. If the student received instruction at enrolled grade level with no accommodations that would invalidate the TAKS, the student would take the TAKS test.
2. If the student was enrolled in a grade 3 through 10 and received enrolled grade-level instruction in the state curriculum but needed accommodations that would invalidate the TAKS but not invalidate the SDAA II, the student would take the SDAA II with these accommodations.
3. If the student was enrolled in a grade 3 through 10 and received instruction in the state curriculum but at a level below his enrolled grade level and needed no accommodation that would invalidate the SDAA II, he would take the SDAA II in the applicable subject(s) at the level he was receiving instruction.
4. If the student received accommodations that would invalidate the SDAA II or was not being instructed at the kindergarten grade level or above in reading, writing, or mathematics he or she was assigned a locally-determined alternative assessment (LDAA).

In addition to these eligibility criteria, the SDAA II differed from the TAKS in terms of formatting, length, and breadth of coverage. The 2004-2005 Technical Digest from the Student Assessment Division of TEA indicated that the differences between the SDAA II and the TAKS were based on input from stakeholder committees regarding frequently used accommodations for students with disabilities including, “slightly shorter passages, more white space on the page, increased font size, ... increased leading. ... [and] the SDAA II tests are slightly shorter than the comparable grade-level TAKS tests” (p. 24).

Once the IEP team had determined that the SDAA II was appropriate for the student its members selected the grade level of the assessment based on the grade level of instruction the student was receiving in the classroom which might have been lower than the student's enrolled grade level. The next step for the IEP team was to establish an expectation for student achievement on the SDAA II. Rather than having a passing standard established by the State Board of Education for all students, student performance on the SDAA II was measured at the individual student level in terms of achievement at a beginning, developing or proficient level of skill in the content area being assessed. The IEP team used knowledge of the individual student and his or her level of functioning and progress in the curriculum at the time of testing to set an expectation for achievement at a level I, II, or III indicating an expectation for the student to perform at a beginning, developing, or proficient level of skill, respectively. Eventual student performance on the SDAA II was reported as either having met or not met the IEP team expectation. It is these expectations of the IEP team and the resulting individual student performance that are central to the present study.

Campus and District Accountability

Unlike students assessed with its TAKS counterpart, the stakes for individual students and schools for children taking the SDAA II were less demanding and less punitive. Although students assessed with the SDAA II in grades 3, 5 and 8 were subject to the same grade promotion requirements as their peers without disabilities, their IEP team determined what constituted satisfactory performance as there was no established passing standard for all students on the SDAA II. Similarly, no exit-level passing requirement existed then, or currently exists, for *any* student with disability, regardless of

his or her level of participation in the state assessment program. Students receiving special education services may obtain a high school diploma through several means, all of which require completion of minimum academic requirements. As is the case with many aspects of special education, the IEP team determines the student's method of graduation which may include documentation of the exit-level performance, but may also not require demonstration of proficiency on any state assessment.

Campus and district accountability under Texas' Academic Excellence Indicator System (AEIS) focuses primarily on the performance of students on the TAKS test. Performance is evaluated for All Students and the following student groups: African American, Hispanic, White, and Economically Disadvantaged. The standard for academically acceptable varies depending on the assessed subject and, at the time of this study, ranged from a low of at least 35% of the tested students passing the science test to 60% passing the reading, writing and social studies assessments. Standards for recognized and exemplary ratings were 70% and 90% passing each subject area test, respectively. Additional measures of accountability included high school completion rate and annual dropout rate for students in grades 7 and 8.

Individual campuses and school districts were held accountable for the collective performance of all students taking the SDAA II by determining the percentage of students who met IEP team expectations on a sum of all tests, and assigning campus and district ratings based on this percentage. Under Texas' Academic Excellence Indicator System (AEIS) schools and districts were determined to be acceptable if they had at least 50% of students taking the SDAA II tests meet IEP team expectations. If 70% of tested students met expectations campuses were considered recognized, and schools in which

90% or more of its students meet the ARD expectations on the SDAA II were rated exemplary. Although accountability for the performance of students with disabilities as a group existed, there was no school or district accountability for student performance in specific subject areas, nor was the performance of students receiving special education services who take the SDAA II factored into overall or individual student group accountability measures as was and is the case with TAKS accountability.

After more than 25 years of the Texas Assessment Program, it has evolved from a limited measure of basic skills with few consequences for schools and individual students to a system of expanded accountability for a greater number of public school students across a broad and deep common curriculum. Accountability for students with disabilities who receive special education services has progressed from a state of nonexistence to a presence and role in the determination of school and district ratings, albeit with a set of somewhat different and narrower expectations for student performance.

CHAPTER III

METHODS

This chapter describes the design of the present research project. The chapter is organized into six sections: (a) purpose of study, (b) research design, (c) sample, (d) data collection and procedures, (e) key terminology, and (f) statistical methods and data analysis procedures.

Purpose of the Study

Students with disabilities and their school districts are being held to increasingly higher expectations for academic achievement under the *No Child Left Behind Act*. With the overrepresentation of specific student groups served through special education, concern exists regarding expectations educators hold for these students who, first, have a disability that impacts their performance in the general curriculum and, second, are members of groups who have been historically marginalized within the public education system. This study examined the relationships among student and institutional variables and resulting student achievement on a measure of academic progress.

The purpose of this study was to investigate whether expectations for students with disabilities who took an enrolled grade-level assessment in reading or mathematics varied according to individual student characteristics (ethnicity, socioeconomic status, or status as an English language learner) and according to the expectation for achievement established by each student's individual education planning (IEP) team. Further, the

accuracy of IEP team expectations was investigated by analyzing student performance on the Texas state alternative assessment with successive measures over a three-year period.

The Texas public school accountability system included an allowance for students with disabilities who receive services through special education to be assessed with a tool that is an alternate to the test used for students who do not receive special education services. The primary alternate assessment used prior to a change in the state assessment program in 2008 was known as the State Developed Alternative Assessment II (SDAA II). Students in special education who were assessed with the SDAA II could receive an enrolled grade-level assessment sampling a subset of grade level curriculum standards, or could be assessed with a tool aligned to below grade level standards. In making this determination, the individual education planning team comprised of the child's parent, school personnel and, sometimes, the student considered not only where in the state curriculum the student was receiving instruction and his or her progress with this curriculum, but also established an expectation (beginning skills, developing skills, and proficient skills in the assessed curriculum) for the student's performance on the selected alternative assessment (on grade level or below grade level). Student performance was reported to the school and parents in terms of a raw score on the SDAA II assessment and its corresponding achievement level (beginning, developing or proficient), and whether or not the student achieved below, at, or above the expectation established by the IEP team. In this manner, educators and parents could ascertain how the child performed in comparison to the expectation established by the IEP team, the degree to which the student evidenced mastery of state curriculum standards, and could use this information

in developing educational goals, objectives and performance expectations for instruction and subsequent state assessments.

In exploring the expectations IEP teams establish for student with disabilities assessed under the alternative assessment and resulting student achievement, four research questions guided the present study:

1. Do the expectations IEP teams establish for individual student performance on the Texas State Developed Alternative Assessment II vary according to individual student characteristics (ethnicity, socioeconomic status, or status as an English language learner)?

2. Do IEP team expectations for students, grouped by demographic characteristics, who receive special education services and take an enrolled grade-level SDAA II in reading and math in successive years become increasingly accurate over time?

3. Does the achievement (expressed in percent of items answered correctly) of students with disabilities assessed with an enrolled grade-level test in reading or mathematics on the Texas State Developed Alternative Assessment II (SDAA-II) vary according to the individual student characteristics of ethnicity, socioeconomic status, and limited English proficiency?

4: After accounting for the effects of IEP team expectations, does variance in the achievement of individual groups of students receiving special education services (African American, Hispanic, White, children from low socioeconomic backgrounds, and children who are English language learners limited) remain significant?

Research Design

The predictor variables in this study were (a) student demographics (ethnicity, economic disadvantage, limited English proficiency, and (b) IEP team expectations for achievement on the reading and math SDAA II tests. The criterion variables were student performance on the SDAA II expressed in terms of percent of items answered correctly, and SDAA II level of achievement (I, II, or III) during each of the three years sampled. Data were analyzed over each of the three year periods in order to ascertain changes in expectations and resulting student achievement and according to statistical tests specific to each research question as discussed in the data analysis section that appears later in this chapter.

Three mixed model factorial repeated measures analyses of variance (ANOVAs) were used to compare the interactions between student demographic variables and student performance on the SDAA II across each of three consecutive years. A repeated measures design is appropriate when multiple measures of the criterion variable (score on the SDAA II) exist for the same subjects, and hypotheses about two or more means are being explored. In the present study, three repeated measures ANOVAs were computed: one 3 (performance scores in each of the three assessment years) x 3 (ethnicity), one 3 (scores) x 2 (economic disadvantage), and one 3 (scores) x 2 (limited English proficiency).

Sample

The sample for the present study consisted of students with disabilities who were assessed in reading or mathematics with an enrolled-grade-level alternative assessment, the SDAA II, for three consecutive years. The student sample was drawn from the

population of students with disabilities who took an enrolled-grade-level SDAA II during the 2005, 2006, and 2007 administrations of the Texas State Assessment Program.

Although students with disabilities taking the SDAA II may be assessed against below grade level curriculum expectations, students included in this study took a SDAA II at their enrolled grade level as on-level assessment satisfies the requirements of the No Child Left Behind Act (NCLB) and the Individuals with Disabilities Education Improvement Act of 2004 (IDEA). Both NCLB and IDEA require all but a very small number of students with significant cognitive disabilities to be instructed in and their progress measured against the curriculum standards applicable to their general education peers. The students identified for inclusion in this study were enrolled in grade 3 at the time of the 2005 assessment. As 2005 test takers, their scores were reported back to their school districts and campuses at the end of the 2004-2005 school year. Hence, IEP teams had access to this student performance data from 2005 in making determinations regarding expectations for 2006 student performance on the SDAA II. Similarly, 2006 performance data was accessible to IEP teams in making 2007 assessment decisions. Two cohort groups of students, all of whom were enrolled in third grade during the 2004-2005 school year, were selected to be followed over a three year period as they moved through the fourth and fifth grades. The first group included students enrolled in third grade who were assessed during the Spring 2005 state assessment administration with a third grade reading SDAA II, and who were subsequently assessed with a fourth and fifth SDAA II reading assessment in the Spring 2006 and 2007 testing cycles, respectively. The second cohort was comprised of third, fourth and fifth graders over the same time

period, but who were assessed with enrolled grade-level SDAA II tests in math during each of the spring testing cycles.

Data Collection and Procedures

On an annual basis following the spring state assessment cycle, the Texas Education Agency (TEA) collects and reports data regarding the performance of students with disabilities who take the SDAA II to school districts in which students are enrolled. An amalgam of data regarding each student including demographic information, current and past performance, and IEP team expectations for achievement is provided to each district for internal analysis. TEA also collects and maintains this information at the state level, but provides only summary performance results to the public regarding the percentage of students meeting the IEP team expectation. Although this summary includes performance information by ethnic groups, students of low socioeconomic status, and students who are English language learners, it does not yield information concerning whether students performed at, above, or below the IEP teams expectation, nor does it disaggregate the data by student groups according to the grade level at which students were assessed. The TEA does, however, maintain a process through which researchers and other interested parties may request student specific performance data and provides data format files to assist these individuals in formulating and clarifying their information request.

Data sets for the present study were requested through the process maintained by the TEA. Using the SDAA II Data File Format documents available from the Student Assessment Division of TEA the following variables were identified to be included in the reading and mathematics data set requests:

1. Enrolled Grade-Level Code: Requested students enrolled in grade 3 in 2005, grade 4 in 2006, and grade 5 in 2007
2. ESC Region Number: State regional number to aid in describing study population
3. Sex-Code: Student gender
4. Ethnicity-Code: Requested students by three major ethnic groups-African American, Hispanic, and White
5. Economic-Disadvantage-Code: Students identified as eligible for free or reduced school meals or coded with some other economic disadvantage
6. LEP-Indicator-Code: Students identified as having limited English proficiency
7. Reading/ELA Score Code: Requested students with a score code of *S* indicating SDAA II test booklet was scored
8. Reading/ELA Instructional Level: Requested students with instructional level 3 in 2005, level 4 in 2006, and level 5 in 2007
9. Reading/ELA Raw Score: Number of items students responded to correctly
10. Reading/ELA Achievement Level: Achievement level (I, II, or III) student attained on the assessment
11. Reading/ELA SDAA II ARD Decision: IEP team expected level of achievement
12. Mathematics Score Code: Requested students with a score code of *S* indicating SDAA II test booklet was scored
13. Mathematics Instructional Level: Requested students with instructional level 3 in 2005, level 4 in 2006, and level 5 in 2007
14. Mathematics Raw Score: Number of items students responded to correctly

15. Mathematics Achievement Level: Achievement level (I, II, or III) student attained on the assessment

16. Mathematics SDAA II ARD Decision: IEP team expected level of achievement

The data sets requested were provided in a comma-delimited text file which was subsequently imported into a Microsoft Excel spreadsheet and then transferred to the data analysis software, Statistical Package for the Social Sciences (SPSS) Graduate Pack 12.0, for coding and screening. Any student records containing missing data were deleted from the file. In order to translate test scores over each of the three years to an interval scale for comparison of student achievement and to fit with the research design, an additional, artificial variable was created for student raw scores on the SDAA II assessments by converting each raw score to a percent of items answered correctly based on the total number of items possible on each test.

Data were obtained for all third grade students receiving special education services in the state of Texas who took an enrolled grade-level SDAA II reading or math assessment during the spring of 2005. The data set was reduced further by following these third graders into fourth grade and fifth grade and eliminating students who did not take an enrolled grade-level SDAA II math or reading assessment during these subsequent years. These students may have been absent, moved out of state, or were slated by their IEP teams to participate in the general TAKS assessment or an off-grade-level SDAA-II. Thus, the final set of data included all students who were assessed with the SDAA II reading or math assessment, at enrolled grade level, during each of the test administration cycles in 2005, 2006, and 2007. Descriptive data for both the reading and mathematics samples are displayed in Table 3.1.

Table 3.1. Distribution of Reading and Mathematics Samples

Group	Reading ($n = 2587$)		Mathematics ($n = 3082$)	
	n	Percentage	n	Percentage
Ethnicity				
African American	439	17.0	542	17.6
Hispanic	984	38.0	1265	41.0
White	1164	45.0	1275	41.4
Economic Disadvantage				
Yes	1770	68.4	2166	70.3
No	817	31.6	916	29.7
Limited English Proficient				
Yes	299	11.6	460	14.9
No	2288	88.4	2622	85.1

The research questions listed earlier in this chapter guided the study. Key terminology related to repeated measures analyses and other statistical tests employed in this study appear next. After the section on key terminology, the study's research questions are re-stated with specific procedures for data analysis following each description.

Key Terminology

Chi-Square Test. The chi-square test assesses whether categorical level data come from the same distribution. Observed frequencies are compared to expected frequencies to determine how likely the obtained pattern differs from that one would expect in the population (Fraenkel, & Wallen, 2003).

Cramer's V. Cramer's V is a correlation coefficient that establishes the degree of relationship between two categorical variables. It is an appropriate test statistic for variables at the nominal level or greater when the number of row and column factors is equal (Acock, & Stavig, 1979). Like other correlation coefficients it ranges in value from -1 to 1, indicating perfect negative or positive relationships, respectively.

Analysis of Variance (ANOVA). ANOVA is a statistical technique employed to determine whether significant differences exist between two or more groups. Variation both within groups and between groups is analyzed for significant effects (Fraenkel, & Wallen, 2003).

F-Ratio. An F ratio, or value, is a test statistic for comparing significance of two or more group means. When comparing more than two groups, the F statistic is not sufficient, in and of itself, to indicate which means are different (Fraenkel, & Wallen, 2003). In these cases, post hoc test must also be conducted.

p-value. The p -value represents statistical significance and is an indication of the likelihood that an observed significant result occurred by chance (Hurlburt, 1998). For example, a p -value of .05 indicates that there exists a 5% possibility that the relationship between variables occurred at random.

Sphericity. Sphericity is an assumption within repeated measures designs that the relationship between pairs of conditions is equal. Violations of sphericity result in a loss of statistical power and a resulting F statistic that cannot be compared to the normal distribution of F . If sphericity is violated, corrections must be applied to yield a valid F ratio (Field, 2005).

Greenhouse-Geisser and Huynh-Feldt. Greenhouse-Geisser and Huynh-Feldt are estimates of sphericity that can be applied to the degrees of freedom necessary to calculate the F ratio when the sphericity assumption has been violated. These estimates can serve to correct for this violation (Field, 2005).

Statistical Methods and Data Analysis

1. Do the expectations IEP teams establish for individual student performance on the Texas State Developed Alternative Assessment II vary according to individual student characteristics (ethnicity, socioeconomic status, or status as an English language learner)?

To determine whether IEP team expectations differ according to student group the Chi-square was used. The Chi-square assesses whether two or more variables are independent, or in this case whether the likelihood of a student being assigned an expectation of I, II, or III was the same for the set of members in each group (ethnicity, socioeconomic status, or limited English proficiency). Frequency counts (observed) were obtained for each group across each of the three assessment years. Expected values were computed and Chi-square statistics were calculated for each of the three years of assessment to ascertain whether the groups were independent.

2. Do IEP team expectations for students, grouped by demographic characteristics, who receive special education services and take an enrolled grade-level SDAA II in reading and math in successive years become increasingly accurate over time?

To determine the relationship between IEP team expectations and student's achievement levels the Cramer's V statistic was calculated, correlating the IEP team

expectation with the actual student achievement level for each student group (African American, Hispanic, White, economic disadvantage, limited English proficiency) across each of the three years of assessment (2005, 2006, 2007). If the IEP team expectations were to become increasingly accurate over time, that is, more closely matched to actual student achievement, the test statistic would become increasingly larger, approaching a value of 1.0.

3. Does the achievement of students with disabilities assessed with an enrolled grade-level test in reading or mathematics on the Texas State Developed Alternative Assessment II (SDAA-II) vary according to the individual student characteristics of ethnicity, socioeconomic status, and limited English proficiency?

To determine whether student achievement (criterion variable) differed depending on student demographic characteristics (predictor variables) a repeated measures analysis of variance was used to compare mean scores for student achievement for each of the following three groups: ethnicity, socioeconomic status, and limited English proficiency.

As is common in quantitative research an alpha (α) of .05 for statistical significance was selected. The selection of $\alpha = .05$ implies that if the test statistic is significant, one can be confident that such a difference would occur by chance less than 5% of the time. The statistical analysis software SPSS was used to analyze data according to this alpha. Mauchly's test for sphericity was examined to determine whether any violation of the sphericity assumption existed. In cases where the assumption of sphericity was violated (i.e., Mauchly's test statistic is significant, $p < .05$) and the Greenhouse-Geisser estimate (ϵ) was greater than .75, the Huynh and Feldt correction was employed as recommended by Girden (1992). Once the need for

correction due to sphericity violations, the appropriate F statistic in SPSS was consulted. When significant differences between ethnic groups occurred, post hoc analyses were conducted, as is appropriate when comparing more than two groups (Fraenkel, & Wallen, 2003).

4. After accounting for the effects of IEP team expectations, does variance in the achievement of individual groups of students receiving special education services (African American, Hispanic, White, children from low socioeconomic backgrounds, and children who are English language learners limited) remain significant?

To ascertain whether, after controlling for the effects of IEP team expectation, student achievement continued to vary significantly a mixed-model factorial ANOVA was computed for each of the student demographic predictor variables while controlling for IEP team expectation. In SPSS, the predictor variable, IEP team expectations, were entered as covariates and statistical analyses undertaken to determine any statistically significant main effects between student groups. Analyses similar to those described for question 3, above, were conducted. The level of significance again was set at $\alpha = .05$, and, following any necessary correction for violations of the sphericity assumption, the F statistic analyzed for significance.

Summary

The focus of this analysis was on differences in performance between various student groups and the effect of IEP team expectation on student performance. Differences in IEP team expectations for various student groups and accuracy of the IEP team expectations over time for these groups were also analyzed. Analysis of any

violations of assumptions related to repeated measures ANOVAs were conducted and appropriate corrections undertaken as necessary.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

The purpose of this study was to explore potential inequities regarding academic achievement and achievement expectations for the performance of children with disabilities, particularly children of color and children with an economic disadvantage. The guiding research question for this study is: Do differences exist in the actual student achievement and in the achievement expectations as determined by the IEP team for students with disabilities in regard to ethnicity, socioeconomic status, and status as an English language learner?

The design of this study involved the following procedures:

1. Data sets were obtained from the Texas Education Agency (TEA) containing performance, expectation, and related demographic information for a cohort group of students receiving special education services who took an enrolled grade-level alternative assessment in reading or mathematics in the spring of their third, fourth, and fifth grade school years.
2. Data screening was undertaken and student records containing any missing data were removed. Students eligible for free or reduced price lunches in 2005 were coded as having an economic disadvantage.

3. Statistical analyses using the Statistical Package for the Social Sciences (SPSS) Graduate Pack 12.0 were comprised of both descriptive data and repeated measures analysis of variance procedures. The significance level was set a priori at .05 for all analyses.

This chapter provides the results of the statistical analyses for each of the four research questions. The chapter is organized into four sections according to the specific research questions posed.

Research Question 1

Do the expectations IEP teams establish for individual student performance on the Texas State Developed Alternative Assessment II vary according to individual student characteristics (ethnicity, socioeconomic status, or status as an English language learner)?

Chi-square Tests of Reading Expectations

Pearson chi-square tests of independence were conducted to examine the presence of any relationships between the assignment of a level of expected achievement for reading by the IEP team across each of the three years and the students' ethnicity, presence of an economic disadvantage, or status as a student with limited English proficiency. The tests were significant for ethnicity in each of the three years: 2005: $X^2(4, n = 2587) = 20.93, p < .001$; 2006: $X^2(4, n = 2587) = 12.62, p = .013$; and 2007: $X^2(4, n = 2587) = 12.15, p = .016$. Effect sizes for these results as determined by Cramer's V values (Cramer's $V = .06, .05, \text{ and } .05$, for the 2005, 2006, and 2007 testing years, respectively) suggest that although ethnicity is a valid determinant of achievement

expectations assigned to individual students, other factors exist that have a greater impact on the determination of these expectations.

Table 4.1 shows that within each of the three ethnic groups, children of African American descent were proportionately more likely to be assigned an achievement expectation of Level 1 during each of the three assessment years (range 52.6% to 63.6%) than their Hispanic and White peers (range 42.3% to 55.7%). Across the three-year period of study the percentage increase in students of color assigned the lowest level of expected achievement rose by double digits (11 and 12.5 percentage points for African American and Hispanic students, respectively), while the percentage of white students assigned the lowest expectation increased by 5.9%.

Table 4.1. Reading Expected Achievement Level by Ethnicity and Test Year

Ethnicity	Reading Expected Achievement					
	<u>Level 1</u>		<u>Level 2</u>		<u>Level 3</u>	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
2005						
African American	231	52.6%	199	45.3%	9	2.1%
Hispanic	416	42.3%	547	55.6%	21	2.1%
White	580	49.8%	550	47.3%	34	2.9%
Total	1227	47.4%	1296	50.1%	64	2.5%
2006						
African American	264	60.1%	173	39.4%	2	0.5%
Hispanic	505	51.3%	471	47.9%	8	0.8%
White	633	54.4%	515	44.2%	16	1.4%
Total	1402	54.2%	1159	44.8%	26	1.0%

Table 4.1-Continued

Ethnicity	Reading Expected Achievement					
	<u>Level 1</u>		<u>Level 2</u>		<u>Level 3</u>	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
	2007					
African American	279	63.6%	157	35.8%	3	0.7%
Hispanic	539	54.8%	439	44.6%	6	0.6%
White	648	55.7%	503	43.2%	13	1.1%
Total	1466	56.7%	1099	42.5%	22	0.9%

With respect to economic disadvantage and reading expectation, Chi-square tests were also significant in each of the three years suggesting a relationship does exist between the expectations IEP teams set and a student's status as having or not having an economic disadvantage. 2005: $X^2(2, n = 2587) = 6.22, p = .045$; 2006: $X^2(2, n = 2587) = 14.05, p = .001$; and 2007: $X^2(2, n = 2587) = 22.86, p < .001$. Effect sizes as measured by Cramer's *V* were again weak, suggesting other factors exist that have a larger impact on expectation projections than a student's status as economically disadvantaged (Cramer's *V* = .05, .07, .09 for the three consecutive years studied).

In comparison to students without an economic disadvantage, a larger proportion of students identified as having an economic disadvantage were expected by their IEPs teams to achieve at the lowest level in each of the three tested years (Table 4.2). The number of students from families identified as having economic disadvantages expected to demonstrate achievement at the lowest level increased across each of the three years by

a total of 11.7 percentage points, or 206 students. Although increases were also observed in the assignment of level one achievement expectations for students from families without economic disadvantages, the increase of 4 percent was only approximately one-third of that noted in the level one expectations for students with economic disadvantages.

Table 4.2. Reading Expected Achievement Level by Economic Disadvantage and Test Year

Economic Disadvantage	Reading Expected Achievement					
	<u>Level 1</u>		<u>Level 2</u>		<u>Level 3</u>	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
2005						
Yes	852	48.1%	883	49.9%	35	2.0%
No	375	45.9%	413	50.6%	29	3.5%
Total	1227	47.4%	1296	50.1%	64	2.5%
2006						
Yes	1003	56.7%	749	42.3%	18	1.0%
No	399	48.8%	410	50.2%	8	1.0%
Total	1402	54.2%	1159	44.8%	26	1.0%
2007						
Yes	1058	59.8%	700	39.5%	12	0.7%
No	408	49.9%	399	48.8%	10	1.2%
Total	1466	56.7%	1099	42.5%	22	0.9%

Results for students identified as having limited English proficiency (LEP) were significant for the 2005 testing year, $X^2(2, n = 2587) = 10.51, p = .005$, but not for the 2006 or 2007 testing years, 2006: $X^2(2, n = 2587) = .49, p = .784$; and 2007: $X^2(2, n = 2587) = 2.73, p = .256$. The effect size for the 2005 year (Cramer's $V = .06$) suggests the presence of other factors that influenced the expectations assigned to the projected performance of the students. During the 2005 assessment, proportionately fewer children identified as LEP were expected to achieve a Level 1 (40.8%) compared to children without LEP (48.3%), while more were expected to achieve at a Level 2 (58.2%) than their non-LEP identified peers (Table 4.3).

Table 4.3. Reading Expected Achievement Level by Limited English Proficiency and Test Year

Limited English Proficient	Reading Expected Achievement					
	<u>Level 1</u>		<u>Level 2</u>		<u>Level 3</u>	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
2005						
Yes	122	40.8%	174	58.2%	3	1.0%
No	1105	48.3%	1122	49.0%	61	2.7%
Total	1227	47.4%	1296	50.1%	64	2.5%
2006						
Yes	160	53.5%	137	45.8%	2	0.7%
No	1242	54.3%	1022	44.7%	24	1.0%
Total	1402	54.2%	1159	44.8%	26	1.0%

Table 4.3-Continued

Limited English Proficient	Reading Expected Achievement					
	<u>Level 1</u>		<u>Level 2</u>		<u>Level 3</u>	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
	2007					
Yes	160	53.5%	138	46.2%	1	0.3%
No	1306	57.1%	961	42.0%	21	0.9%
Total	1466	56.7%	1099	42.5%	22	0.9%

Chi-square Tests of Mathematics Expectations

Similar to the analysis for reading, Chi-square tests were conducted for the mathematics assessment, exploring any relationship between the IEP team expectation and the student demographic variables. As was the case for reading, the tests were significant for ethnicity in each of the math assessed years: 2005: $X^2(4, n = 3082) = 34.61, p < .001$; 2006: $X^2(4, n = 3082) = 17.31, p = .002$; and 2007: $X^2(4, n = 3082) = 10.74, p = .030$. Cramer's *V* effect sizes for these results (Cramer's *V* = .08, .05, and .04, for the 2005, 2006, and 2007 testing years, respectively) suggest that although ethnicity is a valid determinant of achievement expectations assigned to students of color taking the math assessment, other factors exist that have a greater impact on the determination of these expectations.

As shown in Table 4.4, proportionately more students identified as African American were expected to achieve at the lowest level (range of 46.7% to 60.1%) while

Hispanic students were proportionately less likely than their African American or Anglo peers to be assigned an achievement expectation of Level 1 (range of 35.5% to 52.0%).

Increases in student assignment to the lowest level of expectation occurred across each of the three years. Students who were of African American and Hispanic heritage accounted for the largest portion of this increase with 13.4% and 16.5% more African American and Hispanic students, respectively, assigned a Level 1 expectation in 2007 than in 2005. The number of White students expected to achieve at the lowest level also increased, however at a rate less than that of their peers (8.5% from 2005 to 2007).

Table 4.4. Mathematics Expected Achievement Level by Ethnicity and Test Year

Ethnicity	Mathematics Expected Achievement					
	Level 1		Level 2		Level 3	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
2005						
African American	253	46.7%	274	50.6%	15	2.8%
Hispanic	449	35.5%	783	61.9%	33	2.6%
White	578	45.3%	658	51.6%	39	3.1%
Total	1280	41.5%	1715	55.6%	87	2.8%
2006						
African American	280	51.7%	252	46.5%	10	1.8%
Hispanic	556	44.0%	691	54.6%	18	1.4%
White	628	49.3%	615	48.2%	32	2.5%
Total	1464	47.5%	1558	50.6%	60	1.9%

Table 4.4-Continued

Ethnicity	Mathematics Expected Achievement					
	<u>Level 1</u>		<u>Level 2</u>		<u>Level 3</u>	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
2007						
African American	326	60.1%	207	38.2%	9	1.7%
Hispanic	658	52.0%	588	46.5%	19	1.5%
White	686	53.8%	568	44.5%	21	1.6%
Total	1670	54.2%	1363	44.2%	49	1.6%

Contrary to the results in the area of reading, none of the Chi-square statistics for the mathematics assessment scores were significant for economic disadvantage: 2005: $X^2(2, n = 3082) = 1.52, p = .468$; 2006: $X^2(2, n = 3082) = .69, p = .708$; and 2007: $X^2(2, n = 3082) = 2.03, p = .363$. Table 4.5 shows similar proportions of identified and non-identified students with an economic disadvantage across each of the three achievement levels.

Table 4.5. Mathematics Expected Achievement Level by Economic Disadvantage and Test Year

Economic Disadvantage	Mathematics Expected Achievement					
	<u>Level 1</u>		<u>Level 2</u>		<u>Level 3</u>	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
2005						
Yes	900	41.6%	1210	55.9%	56	2.6%
No	380	41.5%	505	55.1%	31	3.4%
Total	1280	41.5%	1715	55.6%	87	2.8%

Table 4.5-Continued

Economic Disadvantage	<u>Level 1</u>		<u>Level 2</u>		<u>Level 3</u>	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
2006						
Yes	1039	48.0%	1086	50.1%	41	1.9%
No	425	46.4%	472	51.5%	19	2.1%
Total	1464	47.5%	1558	50.6%	60	1.9%
2007						
Yes	1190	54.9%	944	43.6%	32	1.5%
No	480	52.4%	419	45.7%	17	1.9%
Total	1670	54.2%	1363	44.2%	49	1.6%

Once again, when considering a student's status as having a limited English proficiency, the Chi-square statistic was significant for the primary test administration in mathematics, but not for either of the two subsequent years: 2005: $X^2(2, n = 3082) = 17.44, p < .001$; 2006: $X^2(2, n = 3082) = 3.97, p = .137$; and 2007: $X^2(2, n = 3082) = 4.92, p = .09$. The effect size (Cramer's $V = .08$) represents a weak effect and suggest other factors have a greater impact on the IEP team's determination of expectations for students with LEP. As depicted in Table 4.6, fewer students with an identified LEP were expected to achieve at a Level 1 during the 2005 test administration (33.3%) than their non-LEP identified peers (43.0%).

Table 4.6. Mathematics Expected Achievement Level by Limited English Proficiency and Test Year

Limited English Proficient	Mathematics Expected Achievement					
	<u>Level 1</u>		<u>Level 2</u>		<u>Level 3</u>	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
	2005					
Yes	153	33.3%	297	64.6%	10	2.2%
No	1127	43.0%	1418	54.1%	77	2.9%
Total	1280	41.5%	1715	55.6%	87	2.8%
	2006					
Yes	207	45.0%	248	53.9%	5	1.1%
No	1257	47.9%	1310	50.0%	55	2.1%
Total	1464	47.5%	1558	50.6%	60	1.9%
	2007					
Yes	265	57.6%	192	41.7%	3	0.7%
No	1405	53.6%	1171	44.7%	46	1.8%
Total	1670	54.2%	1363	44.2%	49	1.6%

Research Question 2

Do IEP team expectations for students, grouped by demographic characteristics, who receive special education services and take an enrolled grade-level SDAA II in reading and math in successive years become increasingly accurate over time?

Cramer's V Statistic

The categorical variables, IEP team expectation (Level 1, 2 or 3) and student achievement level (also Level 1, 2, or 3) were correlated for each independent variable (ethnicity, economic disadvantage, and limited English proficiency) and across each of the three years of assessment (2005, 2006, and 2007). Values of the Cramer's *V* statistic for each correlation in both reading and mathematics are presented in Tables 4.7 and 4.8, respectively.

Table 4.7. Correlation Coefficients: Reading IEP Team Expectation and Actual Reading Achievement

Group	Testing Year		
	2005	2006	2007
African American	.13	.12	.19
Hispanic	.12	.20	.20
White	.15	.13	.18
LEP			
Yes	.13	.23	.21
No	.13	.14	.18
Economic Disadvantage			
Yes	.13	.15	.19
No	.14	.13	.15

Table 4.8. Correlation Coefficients: Mathematics IEP Team Expectation and Actual Mathematics Achievement

Group	Testing Year		
	2005	2006	2007
African American	.09	.15	.18
Hispanic	.11	.17	.14
White	.11	.18	.16
LEP			
Yes	.10	.11	.12
No	.10	.18	.16
Economic Disadvantage			
Yes	.09	.17	.16
No	.10	.18	.13

Although the correlation coefficients related to IEP team expectations for some student groups increased very slightly across the three years of state assessments, the coefficients remained extremely low and, thus, contain no predictive value.

Research Question 3

Does the achievement of students with disabilities assessed with an enrolled grade-level test in reading or mathematics on the Texas State Developed Alternative Assessment II (SDAA-II) vary according to the individual student characteristics of ethnicity, socioeconomic status, and limited English proficiency?

Descriptive Statistics: Reading Performance

The descriptive statistics for the reading scores are presented in Table 4.9. The mean score for the 2005 administration of the reading assessment was 48.47% with a

standard deviation of 17.29. African American students scored the lowest of the three ethnic groups ($M = 46.40\%$, $SD = 17.15$), with Hispanic students performing slightly better ($M = 46.67\%$, $SD = 16.75$), and White students scoring the highest ($M = 50.77\%$, $SD = 17.51$). This pattern continued into the 2006 testing year with White students again achieving the highest mean score (49.20% , $SD = 17.86$) while Hispanic and African American students fared less well ($M = 43.57\%$, $SD = 16.19$; and $M = 42.30\%$, $SD = 16.83$, respectively). In 2007, African American students slightly out-performed their Hispanic peers, with mean scores of 52.29% ($SD = 19.13$) and 52.22% ($SD = 18.61$), respectively. Anglo students continued to achieve at a level above their peers, earning a mean score of 57.27% ($SD = 19.33$).

Students identified as having limited English proficiency performed at the lowest level of all students groups in each of the three years with a mean score range at a low 42.47% correct to a high of 49.54% correct ($SD = 15.18$ and 18.38 , respectively). Students from families identified as having economic disadvantages also achieved at levels below their non-disadvantaged peers with differences in achievement ranging from 6.59 percentage points to a high of 7.01 percentage points in 2007. Although the gaps between the performance of children with and without economic disadvantages and children who were and were not identified as having a limited English proficiency decreased from 2005 to 2006, the gap widened slightly in 2007, increasing approximately one-half a percentage point in the economic disadvantaged student group, and one and one-half percentage points in the limited English proficient group.

Table 4.9. Descriptive Statistics for Reading Scores (% Correct) by Test Year

Factor	Mean	Standard Deviation
2005		
African American	46.39	17.15
Hispanic	46.67	16.75
White	50.77	17.51
Economic Disadvantage		
Yes	46.34	17.14
No	53.07	16.70
Limited English Proficient		
Yes	44.98	15.65
No	48.92	17.44
2006		
African American	42.30	16.83
Hispanic	43.57	16.19
White	49.20	17.86
Economic Disadvantage		
Yes	43.81	17.02
No	50.40	17.12
Limited English Proficient		
Yes	42.47	15.18
No	46.34	17.54

Table 4.9-Continued

Factor	Mean	Standard Deviation
		2007
African American	52.29	19.13
Hispanic	52.21	18.61
White	57.27	19.33
Economic Disadvantage		
Yes	52.29	19.04
No	59.30	18.60
Limited English Proficient		
Yes	49.54	18.38
No	55.15	19.19

Reading ANOVAs

Three separate analyses of variance (ANOVAs) for repeated measures were conducted. A 3 (student ethnicity) x 3 (performance scores in each of the three assessment years), was performed to test for possible main effects on student test performance for the three ethnic groups. A 2 (economic disadvantage) x 3 (test scores) ANOVA was conducted to assess possible main effects on student test performance involving student identification as to whether or not he or she was a member of a family with an economic disadvantage. Finally, a 2 (limited English proficiency) x 3 (test scores) analysis was performed to investigate possible main effects on student test performance for students identified as, or as not, having limited English proficiency.

Analysis of data for Mauchly's test statistic was significant ($p < .001$) indicating that the condition of sphericity has not been met. Since the resulting Greenhouse-Geisser estimate (ϵ) was greater than .75, the Huynh and Feldt correction was employed for further analysis of potential main effects. For the reading assessments, the omnibus tests of the main effect of test score was statistically significant, $F(2, 5136) = 11.06, p < .001$ suggesting that, independent of all other variables, test scores were significantly different across the three year period of study.

Tests of between-subjects effects revealed significant main effects for both ethnicity and economic disadvantage, $F(2, 2568) = 4.26, p = .014$ and $F(1, 2568) = 4.73, p = .030$, respectively. In terms of effect sizes, these results represented very weak effects as indicated by the values of partial eta squared ($\eta_p^2 = .003$ and $.002$) for ethnicity and economic disadvantage, respectively). No significant between subject effect was found based on limited English proficiency. The estimated marginal means are displayed in Table 4.10 for both the ethnicity and economic disadvantage groups.

Table 4.10. Estimated Marginal Mean Reading Scores by Ethnicity and Economic Disadvantage Groups

Group	Mean
African American	48.64
Hispanic	48.68
White	55.20
Economic Disadvantage	
Yes	47.52
No	54.16

Due to significant between-subject effects, post hoc analysis was undertaken for the ethnicity variable to determine which group means differed from one another. Since violations of the sphericity assumption existed in the present study, and as recommended by Maxwell (1980), the Bonferroni approach for post hoc pairwise comparisons was employed. This analysis yielded significant differences between the scores of both African American and Hispanic students compared to White students ($p < .05$).

Descriptive Statistics: Mathematics Performance

The descriptive statistics for the mathematics scores are presented in Table 4.11. The mean score for the 2005 administration of the reading assessment was 55.00% with a standard deviation of 16.47. African American students scored the lowest of the three ethnic groups ($M = 52.73\%$, $SD = 16.50$), with Hispanic students performing marginally better ($M = 53.25\%$, $SD = 15.77$), and White students scoring the highest ($M = 57.70\%$, $SD = 16.76$). This pattern continued into the 2006 testing year with White students again achieving the highest mean score (63.16%, $SD = 16.08$) while Hispanic and African American students achieved at lower levels ($M = 58.98\%$, $SD = 16.18$; and $M = 57.82\%$,

$SD = 16.71$, respectively). In 2007, the trends continued with African American students underperforming their Hispanic peers, with mean scores of 56.33% ($SD = 16.82$) and 58.23% ($SD = 15.43$), respectively. Anglo students continued to perform at levels above their peers, earning a mean score of 63.06% ($SD = 16.19$).

Students identified as having limited English proficiency performed at the lowest level of all students groups during the first year of test administration with a mean score of 52.13% ($SD = 15.42$), 3.38 percentage points lower than their English speaking peers. This gap in performance decreased across the three years studied, narrowing to a 1.87 percentage point difference in 2007. Students from families identified as having economic disadvantages also achieved at levels below their non-disadvantaged peers with differences in achievement ranging from a high of 6.09 percentage points in 2005 to a low of 5.35 percentage points in 2006.

Table 4.11. Descriptive Statistics for Mathematics Scores (% Correct) by Test Year

Factor	Mean	Standard Deviation
2005		
African American	52.73	16.50
Hispanic	53.25	15.77
White	57.70	16.76
Economic Disadvantage		
Yes	53.19	16.21
No	59.28	16.28
Limited English Proficient		
Yes	52.13	15.42
No	55.51	16.59
2006		
African American	57.82	16.71
Hispanic	58.98	16.18
White	63.16	16.08
Economic Disadvantage		
Yes	58.92	16.35
No	64.27	15.84
Limited English Proficient		
Yes	58.07	16.40
No	60.94	16.34

Table 4.11-Continued

Factor	Mean	Standard Deviation
		2007
African American	56.33	16.82
Hispanic	58.23	15.43
White	63.06	16.19
Economic Disadvantage		
Yes	58.30	16.30
No	63.66	15.40
Limited English Proficient		
Yes	58.30	15.38
No	60.17	16.35

Mathematics ANOVAs

As was the case with the Reading ANOVA, Mauchly's test statistic was significant ($p < .001$) indicating that the condition of sphericity has not been met. The resulting Greenhouse-Geisser estimate (ϵ) was greater than .75, prompting use of the Huynh and Feldt. For the mathematics assessments, the omnibus tests of main effects revealed no significant differences.

Tests of between-subjects effects again yielded significant main effects for both ethnicity and economic disadvantage, $F(2, 3072) = 4.32, p = .012$ and $F(1, 3072) = 6.74, p = .009$, respectively. These results represent very weak effects as indicated by the values of partial eta squared ($\eta_p^2 = .003$ and $.002$) for ethnicity and economic disadvantage, respectively). As was the case with reading performance, no significant

between subject effect was found based on limited English proficiency. The estimated marginal means are displayed in Table 4.12 for both the ethnicity and economic disadvantage groups.

Table 4.12. Estimated Marginal Mean Mathematics Scores by Ethnicity and Economic Disadvantage Groups (ANOVA)

Group	Mean
African American	57.54
Hispanic	58.56
White	63.48
Economic Disadvantage	
Yes	55.69
No	64.96

Post hoc analysis of the group means by ethnicity was carried out to confirm the significant differences and to determine which group means differed from one another. Analysis using the Bonferroni correction generated significant differences between the scores of both African American and Hispanic students compared to White students ($p < .05$).

Research Question 4

After accounting for the effects of IEP team expectations, does variance in the achievement of individual groups of students receiving special education services (African American, Hispanic, White, children from low socioeconomic backgrounds, and children who are English language learners limited) remain significant?

In order to ascertain any effects of the IEP team expectation on both the reading and mathematics performance of the various student groups, additional multivariate ANOVAs were conducted including the expectation variables for each year as covariates in the model to control for the any effects related to expectation.

Reading ANCOVAs

As was the case with the repeated measures ANOVA for reading scores, analysis of SPSS data output for Mauchly's test statistic with the covariates of IEP team expectation yielded significance ($p < .001$) suggesting a violation of sphericity. Again using the Huynh and Feldt correction due to a Greenhouse-Geisser estimate (ϵ) = greater than .75, data was analyzed for potential main effects. Omnibus tests of main effects were significant for test scores, $F(2, 5113) = 4.853, p = .008$, implying significant differences in test scores among the three years studied.

Tests of between-subjects effects did not produce significant main effects for any grouping variable. Hence, when controlling for the effect of IEP team expectations on the scores students obtain on the reading assessment, students in the groupings studied performed at similar levels. This finding suggests that when IEP team expectations were included in the model significant differences between the scores of African American and Hispanic children and their White peers were, in small part, attributable to the expectation variable.

Mathematics ANCOVAs

The repeated measures analysis of covariance relative to mathematics scores once again required the use of the Huynh and Feldt correction due to a large Greenhouse-Geisser estimate. No significant omnibus main effects were observed. Significant

between-subjects effects of ethnicity and economic disadvantage on resulting achievement on the mathematics test were found after controlling for the effect of IEP team expectation, $F(2, 3069) = 3.57, p = .028$, and $F(1, 3069) = 10.310, p = .001$, respectively. In terms of effect sizes these results suggest that, above and beyond the effects of IEP team expectations, differences in ethnicity and economic disadvantage account for a very small proportion of the variance in scores as indicated by the values of partial eta squared ($\eta_p^2 = .002$ and $.003$) for ethnic and economic groups, respectively. Post hoc comparisons using Bonferroni's correction confirmed significant differences between the performance of students with and without economic disadvantages, but failed to confirm significant differences between groups based on ethnicity ($p < .05$). The estimated marginal means for groups based on ethnicity and economic disadvantage are displayed in Table 4.13.

Table 4.13. Estimated Marginal Mean Mathematics Scores by Ethnicity and Economic Disadvantage Groups (ANCOVA)

Group	Mean
African American	57.83
Hispanic	58.29
White	64.46
Economic Disadvantage	
Yes	55.34
No	65.99

Summary

The purpose of this study was to explore possible expectancy effects related to expectations that IEP teams established for the performance of students on Texas' alternative assessment. The performance of students in two cohort groups (one in reading and one in mathematics) on the Texas state alternative assessment was tracked across three consecutive years. Chi-square, correlational, and analyses of variance techniques were employed to ascertain the presence of any statistically significant differences between groups.

Chi-square tests revealed significant differences in expectations based on ethnic group representation for both reading and mathematics. African American children were proportionately more likely to have the lowest expectation ascribed to their future performance. Significant differences in expectations were also found for children identified as having an economic disadvantage in the area of reading but not in mathematics. Expectations for students identified as second language learners were significantly different from non-English language learners in both reading and mathematics only during the first testing year.

Comparisons of IEP teams' expectations and actual student achievement were the subject of the second research question. Correlation coefficients were calculated for each student group to explore the degree of association between the levels of expectation and actual student achievement across three consecutive years, and to determine whether the IEP teams' expectations became more accurate in successive years. Cramer's *V* statistics were calculated and indicated low correlations between the expectation level established by the IEP teams and the level of actual student achievement. Although there were some

gradual increases in the coefficients for some groups over time, this movement which could suggest some increasing accuracy was, in the best case, an increase of nine one-hundredths from 2005 to 2008.

The third research question addressed potential variances in student achievement on the assessments by group membership. Students of African American and Hispanic heritage, and children from families identified as having an economic disadvantage, achieved at levels that were significantly below their Anglo or non-economically disadvantaged peers in both reading and mathematics. The effect size in all cases accounted for only a very small portion of the variance in scores. No significant difference was found when comparing the performance of children who were English language learners with children who were not identified.

Question four extended the results found for question three through additional analyses of variance conducted while accounting for the effects of IEP team expectations. IEP teams' expectations for students' achievement in each of the three years were entered as covariates in the model and, in the case of reading, yielded no significant differences between groups after controlling for the effects of expectations. Mathematics analyses pointed to significant but very small differences between the performance of students identified as having or not having an economic disadvantage after factoring out the portion of variance attributable to expectations.

CHAPTER V

DISCUSSION AND CONCLUSIONS

This longitudinal study analyzed relationships between actual student achievement and the expectations IEP teams set for students receiving special education services over a three-year period (2005 through 2007). Two cohort groups of students taking an enrolled grade-level state assessment in reading and mathematics, the State-Developed Alternative Assessment II (SDAA II), were followed across three consecutive years and their performance studied to discern differences in achievement and possible effects related to expectations for performance. Data were gathered from the initial testing year during the spring semester of third grade through the SDAA II administration during the students' fifth grade year. The reading cohort was comprised of 2587 students who took an enrolled-grade level assessment in reading in each of three school years from 2005 through 2007. The mathematics cohort included 3082 students assessed during each of the same three years. Performance on the SDAA II was analyzed and comparisons between student groups classified by ethnicity, socioeconomic status as determined by participation or non-participation in free or reduced-fee school lunch programs, and identification as having or not having limited proficiency in the English language were undertaken.

IEP team expectations of low, moderate, or high student performance were examined for differences by student grouping variables, and for evidence of accuracy in

predicting student achievement outcomes over time. Repeated measures analyses of variance (ANOVAs) and analyses of covariance (ANCOVAs) were conducted to explore potential differences in the performance of student groups and for differences after controlling for any effects related to IEP team expectations.

Summary and Discussion of Major Findings

Four key findings from the study are presented in this section. The first two findings offer important implications for practitioners, while the latter two will be of interest to everyone involved in public education, particularly policy makers and educational leaders.

Expectations for Children with Economic Disadvantages

While lower expectations and expectancy effects related to socioeconomic status have been discussed in the literature and, previously, in this paper (Flores, 2007; Jussim, Eccles, & Madon, 1996; Madon, Jussim, & Eccles, 1997; Teale, Paciga, & Hoffman, 2007), the current study found that lowered expectations for children with disabilities identified as having an economic disadvantage were significant only in the area of reading. Although the study of factors that might contribute to lower expectations solely in the area of reading is outside the scope of this study, one possible explanation for this phenomenon lies in the possibility that students' specific disabilities may have impacted expectation determinations. For instance, IEP teams may have weighed the potential effect of a student's disability type (e.g., learning disability in the area of reading) heavily in making a selection of an expected level of achievement for test performance. Students who read below grade level, such as children with reading-based learning disabilities who struggle with decoding, comprehension, or fluency, are more likely to be the recipients of

low expectations for success from their teachers (Clark, 1997; Rolison, & Medway, 1985; Tournaki, 2003; Tournaki, & Podell, 2005). Since there are proportionately more students with identified reading-based learning disabilities than math disabilities (Lyon, 1996), it is possible that expectations for achievement on the reading test were significantly different from the math expectations due to the sheer number of students with reading disabilities comprising the reading group. Further, there also exists the possibility that students with reading difficulties were afforded an oral administration of the mathematics assessment. The accommodation of having word problems read aloud potentially assists children with reading disabilities in by-passing reading decoding problems while benefitting mathematics test performance through the reduction of errors due to reading difficulties. The IEP teams' decision regarding an expected level of achievement on the mathematics assessment might have been positively influenced by the adoption of a reading accommodation for a student with a reading disability, resulting in a higher achievement expectation than if this accommodation were not made available.

Expectations for Children Identified as Having Limited English Proficiency

Expectations for children identified as having limited English proficiency (LEP) were significantly lower than those for their non-LEP peers only at the time of the first administration of the reading and mathematics assessments in 2005. A plausible explanation for this inconsistency may be found in factors associated with the first year of the test's administration to the cohort group of students, and the selection of an expected achievement level for students for whom the IEP team had no prior SDAA II performance data. Furthermore, gains in English language proficiency over time,

particularly conversational language, could have influenced the achievement expectations formed by the IEP teams.

Jim Cummins (1979) introduced the concepts of basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP) to distinguish the difference in time periods that second language learners typically require to gain conversational skills in their second language compared to academic language proficiency appropriate to the student's grade level. Conversational fluency is generally attained within two to three years of the individual's initial exposure to the second language, while academic proficiency and achievement of grade level norms is realized after approximately 4 to 7 years (Collier, 1987; Collins, 1987; Cummins, 1981; Hakuta, Butler, & Witt, 2000; Klesmer, 1994). Exploring teacher perceptions of interpersonal skills consistent with Cummins' BICS theory, Edl, Jones, and Estell (2008) found that teachers who initially perceived children with limited English proficiency as demonstrating less interpersonal competency developed perceptions of the children as more similar to their peers after two academic years. In a later study, Cummins (1984) found that psychologists and teachers administering or serving as informants in the evaluation of minority children for special education purposes often assumed that children who had reached a level of conversational fluency in English had actually overcome all difficulties with the second language even though the children continued to perform poorly on English academic and standardized assessment tasks. Thus, in the present study, one reasonable explanation for the absence of significant differences in expectations for children who were and were not identified as English language learners during the second and third years of the SDAA II Administration rests in the possibility

that the members of IEP teams observed, or received reports of, improved conversational fluency in English and adjusted their expectations consistent with this basic language improvement.

Expectations for Children of African American Origin

Analysis of the categorical expectations that IEP teams made regarding the expected achievement of students on the reading and math assessments yielded significantly lower expectations based on ethnicity. Consistent with Tenenbaum and Ruck's (2007) meta-analysis of 32 studies, results of Chi-square tests indicated that expectations based on ethnic group were significantly different in each of the three years. Children of African American heritage were proportionately more likely to be assigned low achievement expectations for the reading and mathematics assessments than their non-African American peers.

This finding is concerning in light of the research conducted by Jussim, Eccles and Madon (1996) which suggested negative teacher perceptions produced an adverse impact on the test scores of African American children that was *three times greater* than that for White students. The current study extends the research to children with disabilities who receive services from special education. The results reveal that children with disabilities in Texas who were assessed with an enrolled grade-level SDAA II from 2005 through 2007, and who also happen to be African American, were expected to achieve at a lower level than their peers on the same measure. African American children, already members of a group which has been historically marginalized in our public school system (Gloeckler, 2001; Harry, & Klingner, 2006; Ladson-Billings, 2006; Osher, & Sims, 2002), who are also served through special education, a system built to

address the inequities children with disabilities have faced, may potentially experience an expectancy effect double whammy. They are more likely to be stigmatized first for being children of color, and then again as children who have significant disabilities. African American children are not only overrepresented in special education as a whole, but also within the disability categories of mental retardation and emotional disturbance (OSEP, 2003). As recipients of these deficit labels they are further subjected to lowered expectations for achievement (Gergen, 1984; Harry, & Klinger, 2006).

Low expectations for our African American children with disabilities may greatly increase the likelihood of self-fulfilling prophecies tied to these expectations. Indeed, current social realities for African American children and adults suggest these prophecies are, perhaps, being realized. African American adults are disproportionately represented in our prison population (Bureau of Justice Statistics, 2008; Finn, 1982; IDEA, 2004; Stenhjem, 2005). Some scholars have suggested these phenomena are related.

Overrepresentation of African Americans in the Criminal Justice System

In 2003, African American children ages birth through 17 accounted for approximately 16% of the juvenile population, but were involved in 27% of juvenile arrests, and were detained in disproportionate numbers for crimes including robbery (63%) murder (48%) and aggravated assault (38%) (Office of Juvenile Justice and Delinquency Prevention, 2006). The prevalence of school age children with disabilities in state juvenile corrections systems has been estimated at approximately 33% with children identified as having an emotional disturbance comprising almost 48% of this group (Quinn, Rutherford, Leone, Osher, & Poirier, 2005). Although data regarding the ethnic make-up of juvenile offenders could not be found, it appears reasonable to assume

that given the probability that African American children are approximately two times more likely to be identified as having an emotional disturbance than all other student groups combined (OSEP, 2003), a significant number of African American children with disabilities are clients of the juvenile corrections system. Beyond the juvenile system, the prevalence of adult incarceration in the United States mirrors the juvenile justice system with 16.6% of African American males imprisoned during the year 2001 (Bureau of Justice Statistics, 2008). The Bureau of Justice Statistics (2008) also reports that the probability of an African American individual being sent to a state or federal prison in his or her lifetime is 18.6% compared to 3.4% for White individuals. Thus, the problem of disproportionate representation of African American children extends beyond the schoolhouse and special education, breaching both the juvenile and adult corrections arenas.

Two theories that have been forwarded to explain the overrepresentation of youth with disabilities in the corrections system are the school failure and differential treatment theories (Keilitz, & Dunviant, 1998; Osher, Woodruff, & Sims, 2002). Osher et al. posit that outcomes of school disengagement, suspension and delinquency are a direct product of school failure, or the by-product of an eroding self-image brought about by school failure, placed into motion by the students' emotional, intellectual, or learning disabilities. Keilitz and Dunviant (1998), avoiding a student-deficit model, place the onus on the justice system, asserting that the police, courts and juvenile corrections treat offenders with and without disabilities differentially, ascribing more severe punishments to youth with disabilities. Regardless of the driving forces behind the inequities, expectations for children with disabilities, especially children of color, and more

specifically, children of African American heritage, may play a role in this phenomenon, deepening the understanding and enhancing both theories.

Efficacy of Special Education for African American Students

African American students are more likely than any other ethnic group to be identified as needing special education services. Moreover, in this study, expectations for African American students served through special education were substantially lower than that for other students. Once identified, expectations for African American children are the lowest of all student groups. When this finding is considered in light of the literature on self-fulfilling prophecy effects (Jussim, 1989, 1991; Jussim et al., 1998; Madon, et al., 1997; Smith, et al., 1999), the possibility exists that African American children could be harmed more than benefitted by special education. Disparately low expectations of achievement for our African American children compared to their Anglo peers has the potential to produce poor academic achievement, disenfranchisement with the educational system, and create a disturbing social reality in which nearly one in five of our African American youth may spend a portion of his or her adult life in state or federal corrections facility.

If educators hold disproportionately lower expectations for African American children in special education, a system that is supposed to support the educational needs of each student, they must consider the efficacy of such a system when the potential for harm to the children exists. When the benefits of special education services in terms of positive, pro-social outcomes for children with disabilities are called into question, we should all heed the skepticism. If educators and policy makers turn a blind eye to these questions and doubts, and continue to allow children to be subjected to the deleterious

effects and injustices associated with low expectations, are they not complicit in the outcomes that befall African American children with disabilities today and adults tomorrow?

Accuracy of IEP Team Expectations

With respect to the accuracy of expectations made by IEP teams only very weak correlations were found between expectations and actual student achievement across each of the three years suggesting little to no success in the ability of IEP teams to successfully predict the performance of students on the assessment. No significant increases in the correlation coefficients over time, an indication of improved accuracy in setting expectations, were observed. Additional analysis of IEP team expectations and the actual level of student achievement revealed that the percentage of students expected to achieve at the lowest level was far greater than the actual percentage achieving at that level regardless of student ethnic group. Tables 5.1 and 5.2 display the percent of students expected to achieve at a level one in each of the three assessment years and the percent that actually achieved at this level for each ethnic group for reading and mathematics, respectively.

Table 5.1. Level 1 Expectations and Level 1 Achievement in Reading

Group	Year	Percent Expected to Achieve at a Level 1	Percent Achieving at a Level 1
African American			
	2006	52.6	35.5
	2007	60.1	34.4
	2008	63.6	30.5
Hispanic			
	2006	42.2	32.6
	2007	51.3	25.1
	2008	54.7	29.8
White			
	2006	49.8	27.1
	2007	54.4	15.9
	2008	55.7	22.9

Table 5.2. Level 1 Expectations and Level 1 Achievement in Mathematics

Group	Year	Percent Expected to Achieve at a Level 1	Percent Achieving at a Level 1
African American			
	2006	46.7	4.8
	2007	51.7	9.6
	2008	60.1	16.2
Hispanic			
	2006	35.5	4.4
	2007	44.0	9.0
	2008	52.0	12.1
White			
	2006	45.3	3.3
	2007	49.3	5.4
	2008	53.8	8.1

Clearly the IEP teams were expecting a far greater percentage of students to achieve at the lowest level than actually achieved at that level. In reading, the difference between the percentage of students expected to achieve at a level one and the actual percentage of students achieving at this level ranged from 9.6 percentage points for Hispanic youth in 2005 to a difference of 38.5 percentage points for white students in 2006. In all cases IEP teams expected more students to achieve at the lowest level than the number of students who actually performed at this level. In mathematics, the discrepancy was even greater with IEP teams underestimating the performance of students year after year. For mathematics the difference in the percent of students

actually achieving at a level one and those expected to achieve at this level ranged from 31.1 percentage points for Hispanic children in 2005 to 45.7 percentage points for white children in 2007. Not only were expectations low for children of color when compared to actual achievement rates of the students, but expectations were also low for white students. For example, in 2007 only 8.1% of the white students assessed in math achieved at a level one, but a staggering 53.8% of the white students were expected by their IEP teams to achieve at the lowest level. Hence, the IEP team “under expected” the achievement potential of approximately 45% of white students during the 2006-07 school year!

Inducement to Exploit the Accountability System?

One possible explanation for this great disparity in expectations and student achievement may rest in the current educational environment and our system of high-stakes testing and heightened accountability for student achievement under NCLB. This context likely influenced the IEP team’s decision making regarding the setting of expectations for students. Recall that the minimum expectation, a level one achievement, required that the student only be present for the assessment. A test answer document submitted with no correct responses would result in an “earned” achievement level of one. By selecting an achievement expectation at the lowest possible level, the IEP team would be certain that, if the student was in attendance at the time of testing, he or she would meet the expectation set by the team and count positively toward the campus’ rating. Thus, there could have been an underlying inducement to assign lower expected achievement levels in order ensure students met the expectation thereby increasing the

likelihood of the campus achieving an acceptable, or better, standard under the state accountability system.

This notion of exploiting the system, seeking avenues that could potentially enhance the probability that a school campus or district would achieve an acceptable rating, is not unique to the present study. Although members of IEP teams should base the development of each IEP on the needs of the individual student (IDEA, 2004), the larger context of school accountability and success of the school as a whole may cause the IEP team to succumb to the pressure of the accountability system. In the present case, by establishing lower expectations for student achievement the IEP teams also placed the campus in a more favorable position in terms of meeting accountability standards. In fact, Nelson, McGhee, Meno, and Slater (2007) examined the history of school reform in Texas, and identified myriad unintended outcomes, such as these, that emerged as the Texas accountability system evolved into the model which helped spawn the Bush administrations national reform effort, NCLB.

The rating scale for Texas public schools was introduced in 1994 and, in deference to the public reporting of school performance data, classified schools as either exemplary, recognized, academically acceptable or academically unacceptable based on the performance of students as a whole and within specific student groups. It was not until 1999 that scores from students who received special education services were included in the rating determinations, and then only for students taking the general state assessment and not as a separate special education group. Up until this time, scores of students served through special education were factored out of accountability ratings. Prior to 1999 there was a great incentive, in terms of prestige associated with high

campus and district ratings, for school personnel to identify and place more students in special education, thereby artificially protecting or inflating their campus rating (Nelson et al., 2007). In fact, Nelson et al. reported that there were instances in which some schools considered exemplary actually exempted 50% or more of their African American student population through the special education loophole. With the introduction of the SDAA II in 2001, more students with disabilities were included in the state accountability system and a separate accountability group comprised of special education students taking this assessment emerged. This change, however, did little to assuage instances of manipulations aimed at inflating campus or district ratings. Educators that served as members of IEP teams could establish expectations for achievement that were low enough to help ensure that the requisite percentage of students would attain or exceed these expectations and in doing so help maintain or increase the campus' rating. Moreover, IEP teams could set expectations at the lowest level and ensure that no matter what the students' achievement their scores would count positively in the accountability system.

In order to meet the requirement under IDEA 2004 that state assessments for most students with disabilities have a standard that is aligned to that assessments for students without disabilities, and in response to the U.S. Department of Education's peer review of the SDAA II and Texas' assessment program for students with disabilities (United States Department of Education, 2006), the Texas Education Agency (TEA) administered the SDAA II for the final time during the Spring 2007 testing cycle. Though not specifically mentioned as a concern in the U. S. Department of Education's (DOE) 2006 letter to TEA, the possibility that a student's performance could be considered proficient if she

responded correctly to *no* items on the assessment, but had an IEP team expectation of Level 1, likely was an issue for the DOE when conducting its peer review. Consequently, the assessment program for students who receive special education services in Texas has again been modified, and new assessments have been developed and introduced. These assessments are aligned to enrolled grade-level standards and have specific achievement target established which students must meet in order for their performance to be considered proficient. Although students' scores are currently used to determine ratings under NCLB, they have yet to be fully incorporated into the state accountability system. In fact, the first time results from these new special education assessments will possibly be considered for inclusion in the state accountability system is 2011.

The presence of low expectations for the majority of students in the current study is disturbing from several perspectives. First, low expectations may lead to their realization through the development of self-fulfilling prophecies. Of great concern are the expectations for our marginalized youth, particularly children of color, and especially African American children, and the realities we may be creating for them as they continue on through the education system and into adulthood. Second, the unintended outcomes of a high-stakes accountability system that brandishes individual children and schools with the mark of failure, and spurs educators to seek out means of manipulating the system to bolster their own public image at the cost of excluding or glossing over the performance of individuals, appears both unethical and reprehensible. Finally, educational policy in the form of NCLB that purports to be the salvation for groups of children who have been historically marginalized by school systems appears to be doing little for the children with disabilities in Texas, failing to bring an end to low expectations

and doing little to close gaps in achievement that exist between children of color and their White peers.

NCLB and the Call to End the “Soft Bigotry of Low Expectations”

NCLB has been touted as the educational reform package schools desperately need in order to close achievement gaps and bring an end to low expectations for minority youth, children with disabilities, and children identified as English language learners (2001). In Texas, often cited as the birthplace and model for NCLB (Achieve, Inc., 2002; Nelson et al., 2007), reform efforts have only recently begun to include children identified as in need of special education services. Expectations for the achievement of children with disabilities have taken a back seat to the achievement of schools and districts, with special education seen as a place for children who cannot factor positively into the accountability rating equation. In the current study, although significantly lower for students of African American heritage, IEP team expectations for achievement in reading and math were low for all student groups. Nearly 50% or more of the students in each student group were expected by their IEP teams to perform at the lowest level. The irony of this finding lingers in the righteous call of President Bush for the NCLB to, “end the soft bigotry of low expectations”.

At the time of the 2007 administration of the SDAA II, the public education system was six years into the era of NCLB, the centerpiece of G. W. Bush’s educational reform agenda. In reality, the push to reform public education through high-stakes testing and accountability appears to not be having the desired impact on expectations, at least not in Bush’s home state of Texas. The group of children with disabilities who were

the subject of this study, in fact, experienced an *increase* in *lower* expectations over the three-year period studied.

Further, in the current study, repeated measures ANOVAs yielded statistically significant differences in the test scores of African American and Hispanic children, and children identified as having economic disadvantages when compared to their white or non-disadvantaged peers, respectively. In both reading and mathematics Hispanic and African American children, on average, scored approximately six percentage points lower than their White peers. The gap between the performance of children identified as or as not having an economic disadvantage equaled six percentage points in reading and 11 in mathematics.

These gaps in achievement, expressly targeted for closure under NCLB (2001), are consonant with those widely cited in the literature, by media organizations, and in legislation (Flores, 2007; Ladson-Billings, 2008; McKown, & Weinstein, 2008; No Child Left Behind Act of 2001). Thus, the mechanisms contained within NCLB that are purportedly designed and expected to eradicate the inequities in achievement of historically marginalized students are not being effective, at least in the case of a few thousand children with disabilities who receive special education services in Texas. African American children, Hispanic children, and children from families with economic disadvantages continue to achieve at levels below their white and non-disadvantaged special education peers even after several years of education in our society where no child is supposed to be left behind. The increased rigor and heightened levels of accountability for public school students under NCLB seem to have had little impact on

the expectations for and achievement of a large group of children with disabilities in Texas who, for three years, were assessed with Texas' alternative assessment.

An emphasis on high-stakes testing and reform efforts like NCLB may be doing less to close achievement gaps and raise expectations, and more to call into question the efficacy of public education. McNeil (2000) observed that the implementation of standardized testing requirements in Texas yielded a narrowing of the curriculum for low income students of color in Houston schools. Teachers demanded less of their students as their focus shifted to the basic skills necessary to perform at a level to pass the assessment. Instruction turned from, for example, teaching students to write well to teaching students the required number and type of elements to include in a composition in order to achieve a passing mark. Additional studies point to the elimination of school subjects not measured by the state assessment, to budgets expended on test preparation materials and the creation of test preparation courses as further evidence of this narrowing (McNeil, & Valenzuela, 2001; Nelson et al. 2007; Nicholas, & Berliner; 2005).

The pressure to raise scores and maintain or improve the public image of a campus and district through the rating system has resulted in the forcing out of underperforming students from the accountability system (Haney, 2000; Hursh, 2007). In the past, Texas school districts gained exemptions from state assessment participation for students not performing to standard on the state assessment solely by having them identified as in need of special education. Another example of forcing students from the accountability fold was captured in Haney's (2000) critique of the Texas program and the prevalence of drop-outs in minority groups. Haney found that a number of students were

being retained in ninth grade, the year before they would begin to take the assessment required for graduation. In fact, 17.8% of ninth graders were being held back, one-half of whom were African American and Hispanic youth, and four years later, during their senior year, only approximately half of the African American and Hispanic students who began ninth grade remained enrolled. Apparently, something is amiss when reform efforts heralded as coming to the rescue of children from historically marginalized yield such poor outcomes. The answer to why achievement gaps, low expectations, watered-down curricula, and negative outcomes for children of color persist may lay in the neoliberal approaches and reform efforts advanced through federal and state education policies over the past 25 years.

Neoliberalism and No Child Left Behind

Tabb (2002) defines neoliberalism as emphasizing “the deregulation of the economy, trade liberalization, the dismantling of the public sector, and the predominance of the financial sector of the economy over production and commerce” (p. 7). Globalization is viewed as inevitable and, thus reforms in the public sector, in welfare and in education, are non-negotiable (Dean, 2002). Hursh (2007) presented an analysis of the growth of high-stakes testing and accountability in education situating it within the context of economic globalization. Beginning with *A Nation at Risk* (National Commission on Excellence in Education, 1983) and the scapegoating of public education for economic troubles at home, to our current NCLB reform efforts, the United States government has consistently pointed to the need for public schools to improve in order to compete in a global marketplace (NCEC, 1993; NCLB, 2001). This ideal, Hursh contends, is firmly entrenched in the neoliberal policy approaches of the current Bush

administration. Economic globalization requires, from a neoliberal perspective, free market capitalism, deregulation and privatization (Friedman, 1999; Hursh, 2007). Personal choice and responsibility are themes central to neoliberalism, as is the notion that societal ills are in no way a cause for the failure of the individual. With personal choice comes the need to create an aware consumer, armed with information to make good choices. Public reporting of school and district accountability ratings, and choices afforded the consumer when the data suggest problems may exist are all elements of the NCLB legislation and its neoliberal policies. In fact, Hursh, remarks “some neoliberal and neoconservative organizations have stated that their real goal is to use testing and accountability to portray public schools as failing and to push for privatizing education provided through competitive markets” (p. 501). Given the results of the present study, they may be well on their way to achieving their prime directive. The low expectations and discrepant achievement for students with disabilities, who are also children of color and children from families with economic disadvantages, seem to indicate that the system is failing. Though the neoliberal policy maker would likely call for increased competition in the education marketplace through privatization, including more charter schools and vouchers, the policy maker’s real focus is on the global economy and the ability of the United States to keep up with the Joneses. With the reauthorization of NCLB on the horizon, and as we approach the eve of a presidential election, both Republican and Democratic leaders appear to remain staunch supporters of school accountability (Hoff, 2006). Senators Obama and McCain have spoken little of their educational platforms, instead focusing more attention on the economy and foreign conflicts. Thus, true reform of NCLB, and of education itself, may only be realized if

educators work with policy makers, helping them to negotiate the fine line that exists between globalization policies and education, and supporting a return to social democratic practices aimed at enhancing the life chances not only for children of color and poverty, but also those of their families.

Limitations of the Study

A key limitation within the present study is the absence of qualitative data, in particular, the absence of voice. Within Jussim's (1991) reflective-construction model of relations between social perception and social reality, voice would appear in the discussions of the members of the IEP team, both as individuals and as a collective group, and resonate in any perceptual biases as reflected by judgments expressed by team members, as well as in their perceptions of the current accountability system. The absence of student voice presents a further limitation, leaving an abundance of rich data undiscovered. How did the student approach and evaluate the assessment? What was the student's perception of his or her resulting achievement? Thus, the sole quantitative nature of the present study would have been greatly enhanced through the incorporation of methods allowing for some insight into the thinking of the IEP teams within the context of the state accountability system as well as perceptions of the student regarding the assessment and reflection on his or her performance.

Another limitation of the present study involves the breadth and depth of quantitative analysis. The methods in this research called for the analysis of possible group differences by ethnicity, and by status as having an economic disadvantage or limited English proficiency. In retrospect, it would have been advantageous to have disaggregated the data even further such that the performance of ethnic groups could

have been analyzed by identification as having an economic disadvantage or limited English proficiency. Additionally, analysis of differences by gender and ethnicity could have furthered the exploration of possible achievement differences and expectancy effects related to male and female differences by ethnicity.

A further limitation involves issues that might impact the composition of the IEP team over time and, thus, increase the variability in decision making regarding a student's educational program. It is unlikely that the IEP team for a student in 2005 was composed of the same members as the IEP team in 2007. Students who moved to different schools within Texas over the three-year period of study had educational plans and assessment decisions developed by different IEP teams. If the student were to remain at the same campus over that three year period, the IEP team, absent the parent, would more than likely change from year-to-year as the student advanced in grade level and was served by different general and special education teachers than prior years.

Given the available data set for this research, the best scenario that could have been achieved would have been to identify only the children who remained within the same region of the state, eliminating from the data set children who moved from one region to another. This change, however would have accomplished little in helping to reduce the potential variation in consistency of educational planning. An alternative approach would have been to request student data from the Texas Education Agency including each student's campus assigned for each of the three years. The resulting sample, however, would likely be much smaller than the present one due to the Agency's protocol of masking of student data when 5 or fewer students of a particular group on a campus exist. Thus, students with limited English proficiency or students from a

particular ethnic group that were small in number on an individual campus would be deleted from the sample, but analysis of data for students who remained on the same campuses for each of the three years studied would have been possible.

Implications for Future Research

Additional research regarding the academic achievement of students who receive special education services and the impact of expectations on this achievement is warranted. While building a culture of high expectations for student performance among school staffs has been identified as a component of successful, high performing schools (Reynolds, 2004), the increased focus on accountability for the educational outcomes of all students at the federal and state levels should help encourage further study concerning broad scale benefits of programs and interventions for students with disabilities.

Although the State Developed Alternative Assessment II (SDAA-II) is no longer being used in Texas, analysis of data from its prior administrations could still be conducted. Through incorporation of the changes discussed in the limitations section, including further disaggregation of student groups and refinement of the sample to include only students who attended the same campus for successive school years, a more thorough analysis of possible differences and expectancy effects could be realized.

Additional studies could also be undertaken with assessment data from older groups of students or from groups of students as they transition from elementary to secondary schools to ascertain any changes as students age or experience transitions between campuses. Studies such as these could explore movements in the achievement gap or changes in the IEP team expectations for achievement over time and across campuses. Studies could also be further enhanced through the inclusion of a qualitative

component. Interviews or surveys of IEP team members might provide an interesting perspective on the decision-making process in IEP team meetings regarding student participation in state assessments. Differences in views of parents, students, teachers and school administrators might help uncover a deeper understanding of the way different individuals perceive the accountability process as it applies to students with disabilities, and of the reform efforts associated with NCLB.

Finally, a comprehensive analysis of federal and state policy as it relates to NCLB would go far to advancing the findings of this study. An examination of the effects of NCLB on other groups who have been subjected to a system that has served to marginalize them for many years would be a welcome extension. Research in the area of policy development related to bilingual and multicultural education and that explores the effects of neoliberal versus social democratic approaches could serve to enlighten both educators and legislators about what is right and wrong with public education in America today.

Summary

The present study contributes to the extant literature by incorporating a specific focus on the academic expectations for, and the achievement of, children who receive special education services. Teacher expectations, the notion of a self-fulfilling prophecy and gaps in the academic achievement between students of different ethnic and socio-economic backgrounds have long been discussed in the literature (Alexander, Entwisle, & Olson, 2001; Banks, 2004; Coleman, et. al., 1966; Flores, 2007; Howard, 2006; Jussim, 1989, 1991; Ladson-Billings, 2006; Rosenthal, 1973, 1974; Rosenthal, & Jacobson, 1968). This study pointed to potential fallacies in the espoused benefits of

NCLB and the educational reform agenda of the Bush administration, especially for children who are served through special education.

Despite four decades of attention, gaps persist in the academic achievement of African American and Hispanic students compared to their White classmates. Since the early 1990s, the National Assessment of Education Progress (NAEP) has been administered regularly to assess the reading and mathematics performance of U.S. fourth and eighth graders. During this time, only the gap between the achievement of White and African American fourth graders has narrowed. While the gap for African American and Hispanic children has not worsened, in most cases it has remained relatively unchanged.

The current system of accountability, especially for the historically marginalized group of students who receive special education services, is broken. At best, the system offers no help at all, failing to eradicate gaps in performance among various student groups, and at worst, the system may actually reinforce the so-called bigotry of low expectations. With a new assessment system in Texas that mandates a measure of academic outcomes for students against enrolled grade-level standards, the bar for students receiving special education services has been raised again. Although expectations of IEP committees may no longer be specifically measured, will the low expectations of the past influence the present and future teachers of the children? Will the expectations of teachers of children who are poor, African American, or viewed as stigmatized in some other fashion, continue to mirror the low expectations for these groups discussed in the literature? Will our children who are most in need of support continue to be allowed to fail?

It will take more than federal and state mandates for increased accountability, higher standards, and an emphasis on annual assessment to narrow the significant differences in achievement that exist between ethnic groups. Without higher expectations and beliefs that all of our children can rise up to meet and surpass more rigorous standards our children, their parents, their teachers and their school administrators will only experience frustration and failure (Darling-Hammond, 2004). Only by first uncovering and calling into question our own beliefs and expectations can we truly begin to make the changes that will be necessary to close the gap in opportunities a number of our children continue to endure. By shifting our focus from economic outcomes to outcomes based on human growth and development we can move toward increasing the opportunities and life-chances for our children whose educations have for so many years been trivialized.

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VITA

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The first 14 years of his service in special education were at the Bastrop Independent School District where he was initially employed as a middle school special education teacher and then as an educational diagnostician before assuming the role as district coordinator of special education. During the past four years he has served children with disabilities in his role as the director of special education for the East Williamson County Special Education Cooperative which includes the Coupland, Granger, Taylor, and Thrall Independent School Districts in Central Texas.

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