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Gifted and Unserved: Evaluating the Effectiveness of the Promise Scholar Program on Reducing the Racial Segregation of Gifted Education

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Dedication

To my wonderful parents. To my amazing sister Kaly, Isidro, and my favorite nephews Lucas and Neymar. Thank you all for supporting me through these past several years and reminding me life is good.

To Chase for pushing me through this process. I couldn't have done it without you by my side, wiping my tears, and being my number one cheerleader. Team Parsley.

To all of the gifted children not being served. I know you're out there and you deserve a choice.

Acknowledgements

It has been a privilege to work with gifted students over the past decade in my career. Each student's individual voice resides in this paper as an inspiration to do better for our future generations. As a long-forgotten population, gifted students are often put on the back burner in the day and age of academic accountability and proficiency. No more. It is time to bring the issues of gifted education to the forefront and make necessary services for students a reality.

I am so grateful to work under the direction of Ginger MacDonald, my capstone chair. Gregory Benner and James Hager, members of my capstone committee, have also provided much support through this entire process. Through their guidance and direction my research has become a reality.

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Abstract

There is a crisis in gifted education across our nation. Gifted programs are disproportionally identifying and servicing middle-class White students while systematically ignoring minority students. The Promise Scholar Program was developed by the Kent School District as a method to tackle the underrepresentation of minority students in their gifted education program. This elementary talent development model places promising minority students into gifted classrooms, exposing the participants to advanced and accelerated curriculum. This study sought to determine the effectiveness of this program as way to increase the identification of minority students for gifted education. Through the analysis and comparison of student achievement major finings include that the Promise Scholar students made similar academic growth in reading as compared to identified gifted students. Additionally, 37.4% of all Hispanic Promise Scholar students were identified for gifted services after one year of participation. More research needs to be conducted on elementary talent development models that impact the disproportionate representation of minority students in gifted education.

CHAPTER 1: GIFTED EDUCATION IN THE UNITED STATES

Gifted education is one of the most racially segregated programs in current public education (Ford, 2010). Gifted programs across the nation are disproportionally identifying and servicing middle-class White students while systematically ignoring minority[1] students (Morris, 2001). Correctly identifying and serving gifted students is of the utmost importance so they can access the best colleges and highest quality careers (Mansfield, 2015). Yet, gifted minority students are sitting in general education classrooms, being taught by instructors that have not been trained to meet the needs of gifted students, and wasting valuable education time on skills they have already mastered (National Association for Gifted Children [NAGC], 2015b).

For decades there has been an ongoing argument in the field of gifted education on the root of this disproportionality. While one line of research cites inherent genetic traits that cannot be altered (Murray & Herrnstein, 1994), another growing body of research points to outdated practices, heavy reliance on biased intelligence assessments, and subjective teacher referrals as the triggers for the underrepresentation of minority students in gifted education (Naglieri & Ford, 2003; Oakes, 2005). Ultimately, the problem is that the social construct of giftedness relies heavily on the personal and institutional privileges of the elite White, which has continued to propagate the lack of minority students in gifted education (Morris, 2001).

Throughout the history of gifted education in the United States, the conceptualization of giftedness has favored the White majority and has been defined to maintain White supremacy. Initial research in the field stated that there were measurable Intelligence Quotient (IQ) differences between races and that these lower-ability, "defective" students were a detriment to

[1] In this paper, the term minority specifically refers to underrepresented African American and Hispanic students in gifted education.

the education of gifted students (Henry, 1920; Hollingsworth, 1926; Terman, 1925). Because of the historical, heavy reliance on IQ as a single measure of giftedness, these perceptions have shaped gifted education for decades. However, more recently, there is evidence suggesting that giftedness occurs in students across all races, cultures, and socioeconomic statuses (Naglieri & Ford, 2003); nevertheless beliefs from earlier research continue to propagate the intellectual inferiority of African Americans (Murray & Herrnstein, 1994) that persist in spite of newer findings.

Even in light of these new research findings minority students are being systematically denied gifted services that their White counterparts are accessing (Naglieri & Ford, 2003). Nation-wide, school districts' gifted populations still do not reflect the demographics represented in the general student body. In a recent study by the National Research Center on the Gifted and Talented ([NRCGT], 2014), districts across the nation identified the representation of historically disadvantaged populations in gifted education as a major issue. Nationally, less than 50% of schools districts' gifted program demographics mirrored the Black and Hispanic district demographics (NRCGT, 2014). More specifically, while Black students comprise 15.7% of school districts nationally (U.S. Department of Education, 2015), they only represent 9.2% of identified gifted students (National Center for Education Statistics [NCES], 2015). Even more recent data show that Hispanic students are underrepresented by nearly 36% in gifted education (Ford & King, 2014). This *de facto* segregation is limiting access for African American and Hispanic students who would benefit from gifted education services.

The reasons behind the disproportionate representation of minority students in gifted programming, such as the underreferral of African American and Hispanic students, use of biased assessment tools for gifted identification, and the growing opportunity gap, have been

thoroughly researched for decades (Fagan & Holland, 2002; Ford, 2010; Naglieri & Ford, 2003; Renzulli, 1986; Robinson, Shore, & Enersen, 2007; Sarouphim, 2001; Shaunessy, Karnes, & Cobb, 2004; Sheets, 1995; Tonemah, 1987). Suggestions on how to rectify racial segregation in gifted programs have also been made, such as the use of alternative assessment methods (Renzulli, 1986) and the inclusion of multicultural curriculum in classrooms (Robinson, Shore, & Enersen, 2007), but little longitudinal research has actually proven the effectiveness of these suggestions. More research must be conducted on current programs that are increasing the representation of minority students in gifted education at the elementary school level. At the secondary school level, talent development models, or programs, which place traditionally disadvantaged or at-risk students into advanced placement or honors courses, have been researched over the decades and found much success (Olszewski-Kubilius & Thomson, 2015; Sheets, 1995). The next step would be to take a deeper look at the effectiveness of elementary school based talent development models, which have the potential to impact the representation of minority students in gifted education if similar success is found as in the secondary school model. This study endeavors to fill this research gap by evaluating one elementary talent development program attempting to increase the representation of minority students in gifted education. In turn, this research will provide applicable tools and programming suggestions that address and impact this disproportionate representation.

Operational Definitions

The impacts of race and ethnicity on students are a recurring theme of discussion throughout this paper. Scholars such as Derrick Bell, Gloria Ladson-Billings, and others assert that race is a social construction and there are not inherent, biological differences between people from differing races (Delgado & Stefancic, 2012). With this in mind, and for further

clarification, the terms “African American” and “Black” will be used to describe people residing in the United States who are of African descent. These terms will be used interchangeably due to the differing and inconsistent federal, state, and school district race reporting categories. The ethnicity term “Hispanic” is used for people that are “Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race” (United States Census Bureau, 2011). When the term “minority” is used it refers to all underrepresented demographic groups in gifted education, often times with specified focus on African American and Hispanic; this term excludes White and Asian demographics as overrepresented groups in gifted education.

Additionally, throughout this study, the following definitions are used to better understand the terms:

- gifted student/giftedness – While there is no universally accepted definition of giftedness, this study defines giftedness as a student who possesses outstanding ability, aptitude, and competence in one or more academic domain (NAGC, 2015a).
- gifted education – the term used for the special practices, procedures, and theories utilized in the education of gifted students (NAGC, 2015a).
- gifted program – the school district-based program that operationalizes gifted education and provides the day-to-day services for identified gifted students.

CHAPTER 2: THE CRISIS IN GIFTED EDUCATION

The underrepresentation of African American and Hispanic students in gifted education is a national crisis. While gifted education touts itself for providing specialized services for students who possess outstanding ability, aptitude, and competence in one or more academic domains (National Association for Gifted Children [NAGC], 2015a), gifted minority students across the nation are being left in general education classrooms to fend for themselves. Leading organizations across gifted education (Jacob K. Javits Gifted and Talented Students Education Act, 1994; Jack Kent Cooke Foundation, 2014; NAGC, 2016) have addressed the potential loss of talent among minority students if specific characteristics were not developed and fostered through gifted education programs (2016).

> The lack of specialized services for gifted [minority] students can be disastrous. Many educators hold the mistaken belief that high achievers are capable of finding their way on their own. Repeated studies have shown that these students are actually quite fragile, with many never even applying to college, and many of those who are admitted drop out or take much longer to graduate. (Jack Kent Cooke Foundation, 2014).

This social justice crisis must be addressed; gifted minority students need to receive the services their gifted White and Asian counterparts are already being provided. This research study aimed to determine if the Promise Scholar Program, a program which attempts to address the underrepresentation of minority student in gifted education in the Kent School District (KSD), increased the representation of African American and Hispanic students identified for KSD's gifted education program.

The Crisis in Kent[2]

The Kent School District is the fourth largest school district in Washington State and a minority-majority school district with 37% of the population classified as White (Kent School District [KSD], 2014). As one of the most diverse school districts in Washington State, the nearly 27,000 students speak over 130 different languages. The gifted program, in the 2010-2011 school year, served approximately 600 students with demographics that were not representative of the general student population, disproportionally serving White and Asian students. In response, the Kent School District designed the Promise Scholar Program to develop talent in African American and Hispanic students with gifted potential, the two most underrepresented minority groups in their gifted program. Prior to the implementation of the Promise Scholar Program, in the 2010-2011 school year 12% of the student population district-wide was African American; yet only 3% of students in the gifted program were African American (Office of the Superintendent of Public Instruction [OSPI], 2015). Additionally, in the 2010-2011 school year 17% of the student population was Hispanic; yet only 7% of students receiving gifted services were Hispanic (OSPI, 2015). In contrast, White students comprised nearly 52% of KSD's gifted program population (OSPI, 2015), yet were only 42% of the general student population in 2011 (KSD, 2014). The Promise Scholar Program was created, organized, and implemented by the Kent School District in 2013 to address these disproportionate underrepresentations of African American and Hispanic students in their gifted program.

The Promise Scholar Program. The Kent School District identifies students for gifted services based on multiple ability and achievement scores according to Washington State Law (RCW 28A.185; WAC 392-170). Students scoring on multiple criteria above the 97th percentile

[2] Actual name of school district and programs are used with Kent School District permission

are provided gifted education services through a self-contained classroom housed at four of the 28 elementary schools (KSD, 2014). Students scoring on multiple criteria between the 90th and 96th percentile are provided gifted education services in gifted cluster grouping classrooms (KSD, 2014). Cluster grouping is a research-based method of incorporating groups of gifted students into mixed-ability, general education classrooms where trained teachers deliver differentiated instruction with specialized curriculum that, in turn, improves achievement of all students in the classroom (Winebrenner & Brulles, 2008).

The Promise Scholar Program develops participating students' emerging talents through placement into gifted cluster grouping classrooms with the ultimate goal of officially identifying these students for gifted services. Students are identified for the Promise Scholar Program in 2nd grade, when all students district-wide are assessed for gifted services through universal testing. Students are identified through the use of multiple, nationally normed, gifted indicators including ability assessments, classroom achievement data, and teacher input. These practices that KSD uses eliminates some of the identified barriers for minority students in accessing gifted services including underreferral and the use of single-instrument, culturally biased assessments (Ford, 2010; Fagan & Holland, 2002; Naglieri & Ford, 2003). When Promise Scholars are placed into the gifted cluster classrooms they are taught with the same instructional strategies and enriching, accelerated materials as the identified gifted students in the classroom. Promise Scholar students are reevaluated at the end of each school year in an attempt to officially identify them for gifted services. If students do not meet the criteria for services, they continue with the Promise Scholar cohort through the entirety of elementary school, with the option of being reevaluated at the end of each year.

Kent School District identified the first cohort of Promise Scholar students for the 2014-2015 school year and added an additional cohort for the 2015-2016 school year. As a relatively new program, research had not been conducted on the effectiveness of the Promise Scholar Program in identifying minority students for official gifted services or its impacts on participating students' academic achievement. The goal of this study was, through a quantitative analysis of student ability and achievement data, to quantify the change in the representation of minority students in Kent School District's gifted programs and the impact to student achievement as a result of the Promise Scholar Program.

Framing the Crisis: Critical Race Theory

As a theoretical lens and framework, this study relied on the foundational tenets of Critical Race Theory (CRT) (Delgado & Stefancic, 2012) to illuminate and analyze the major barriers that minority students face when accessing gifted education programs. CRT provides insight to the historical and institutionalized practices within gifted education that foster the current disproportionate representation of minority students in gifted programs. More specifically, three key tenets: racism is ordinary, differential racialization, and interest convergence (Delgado & Stefancic, 2012), will be used as analytic tools to examine the literature, research, and history of gifted education.

Critical Race Theory tenets. The following three tenets of Critical Race Theory: racism is ordinary, differential racialization, and interest convergence, were used as the foundation for the theoretical framework for this study. Although this is not an exhaustive list of the Critical Race Theory tenets, these three tenets were selected for applicability to education and specifically, the current national issue of the underrepresentation of minority students in gifted education.

Racism is ordinary. Racism exists permanently in every aspect of our daily lives (Delgado & Stefancic, 2012). However, much of the racism today is difficult to address and goes unacknowledged because it is not the blatant lynching, mortgage redlining, and internment camps of the past (Delgado & Stefancic, 2012). Today, racism is ingrained in society through economic oppression and the enforcement of long-standing laws favoring the White-majority (Delgado & Stefancic, 2012).

In the United States education system, racial inequities are produced, reproduced, and maintained everyday by the White majority. For example, students of poverty, many of them minority students, are attending schools and are not being provided the same opportunities to learn as their more affluent, White counterparts (Delgado & Stefancic, 2012). Course offerings, classroom materials, and technology differ greatly between high poverty and wealthy schools (Ladson-Billings & Tate, 1995). It is not enough to mandate the same content and standards be taught; students must also be afforded the same material property that supports the acquisition of this content knowledge (Ladson-Billings & Tate, 1995). Furthermore, many predominantly African American schools do not offer advanced track courses, forcing Black students to choose between attending predominantly White magnet schools in order to participate in gifted programs or remaining at their home school without the access to advanced courses (Morris, 2001).

Differential racialization. Usually based on the labor market demands, differential racialization helps maintain White privilege, the advantages and benefits one receives from being a member of a society's dominant group, by placing different racial interpretations and stereotypes on groups based on race (Delgado & Stefancic, 2012). Throughout history one can track the dominant society's shifting preferences of minority groups. For example, at one time

the Japanese were viewed with such intense disfavor by the dominant White society of America, they were placed in internment and relocation camps (Delgado & Stefancic, 2012). However, now Japanese are viewed as a "model minority" and are considered highly intelligent (Kawai, 2005). These problematic stereotypes of Japanese, and other specific Asian cultures, can lead to the overrepresentation of Asians in gifted education (Hartlep, 2011).

Interest Convergence. The systemic prevalence of racism benefits the elite White, therefore this dominant group has little incentive to eradicate racism and help marginalized groups (Delgado & Stefancic, 2012). Interest convergence occurs when systematic changes appear to benefit marginalized populations, but in reality these systematic changes just further advance the elite Whites' agendas (Delgado & Stefancic, 2012). Interest convergence has been present throughout the history of education, most famously conveyed in the *Brown v. Board of Education* (1954) decision. Derrick Bell, considered to be the father of Critical Race Theory, asserts that *Brown*, thought of by most as a landmark victory of the civil rights movement, resulted in a larger benefit to elite Whites than any desire to provide equal rights to minorities (Bell, 1979). Bell goes on to explain how, as a result of this landmark ruling, thousands of Black teachers and administrators lost their jobs and 25 years later the majority of Black students still attend racially isolated and inferior schools (Bell, 1979). On the surface schools appear to be desegregated, yet institutional practices, such as the disproportionate placement of African American students in advanced academic tracks, result in segregation within the school house (Morris, 2001).

Research Questions

The goal of this study was to go beyond the social issues of under identification, disproportionate representation, and racial segregation present in gifted programming today.

More information needs to be gathered on elementary talent development models whose goals are to increase the representation of minority student in gifted education. This study attempted to fill this research gap. The purpose was to delve into the aspects of one elementary talent development program that targets the social injustices for minority students so that the program components could be replicated in other gifted education settings. Specifically, this study focused on the achievement impacts to participating students in the Promise Scholar Program through the following research questions:

- What is the effect of the Promise Scholar Program on increasing the number of African American and Hispanic students identified for gifted education in the Kent School District?
- What is the effect of the Promise Scholar Program on participants' academic achievement?

This study sought to answer these questions in order to provide applicable tools and programming suggestions that may address and reverse the disproportionate representation of minority students in gifted education.

CHAPTER 3: LITERATURE REVIEW

The purpose of this study was to analyze the impact of Promise Scholar Program on the identification of minority students for gifted education in the Kent School District. This program attempts to tackle the underrepresentation of African American and Hispanic students in the gifted program in KSD, a current issue that must be addressed in gifted programs nationally. While much literature (Ford & Harmon, 2001; Delpit, 2006; Ford 2010; Ford & King, 2014) has cited the intersection of poverty with being a minority student as a significant barrier to access gifted education, this study focused solely on minority students regardless of socioeconomic status and, therefore, poverty is not addressed within the literature review or the descriptive demographics of the participating, comparison, and gifted groups of this study. Please note the absence of poverty analysis is not to disregard the impacts poverty has on students, it is in an attempt to exclusively center on the underrepresentation of minority students in gifted education *regardless* of the impacts of poverty.

This chapter provides a review of the history and trends in gifted education while utilizing Critical Race Theory as the underpinning for exploratory analysis. Furthermore, literature on the current issue of the underrepresentation of minority students in gifted education, and the core issues leading to this disproportionality, was examined through the lens of Critical Race Theory. Reviewing the history of gifted education roots the present day issues in the past practices of the field. The critical examination of historical practices and pedagogy can help us understand the implications of present and future decisions.

History of Gifted Education

Early research involving gifted students focused on the genetic inheritance of mental abilities, gifted students as subnormal, and the construction of instruments to measure a child's

mental giftedness (Henry, 1920; NAGC, 2015c). In 1925, Lewis Terman, considered to be the father of gifted education, published the first volume of *Genetic Studies of Genius*, currently the longest running longitudinal study of nearly 1500 gifted children. This study followed students with an IQ over 130 for a total of 40 years and was published in five volumes. In the first published volume, Terman stated that racial minorities needed to be segregated into special classes, that they were incapable of being educated, and their "dullness" was inherent to their natural gene pool (Terman, 1925). Terman was not alone in his thinking; Hollingsworth, another initial leading researcher devoted to the study of gifted students, also provided evidence to suggest that non-white, poor children were less intelligent by nature (Hollingsworth, 1926). Terman's and Hollingsworth's heavy reliance on IQ scores in their research of gifted children fueled decades of using IQ assessments as the standard, sole indicator of giftedness in a child (Mansfield, 2015).

Over the next few decades gifted education programs began to appear across the United States (NAGC, 2015c). However, the field of gifted education didn't begin to flourish until after the Soviet Union's launch of Sputnik in 1957 (NAGC, 2015c). This event sparked the United States to reexamine its education system and invest more capital into the advancement of gifted students in math, science, and technology (NAGC, 2015c). Then, in 1972 the Marland Report provided the first national definition of giftedness (Marland, 1972). This new definition of giftedness, which is still widely used today, expanded current thoughts of the time to include a student's high performance, potentiality, and a list of abilities including high intellectual ability, creativity, and leadership (Marland, 1972). This shift in thought from the sole use of an IQ score to identify giftedness was one of the first signals that the field of gifted education recognized

giftedness as a more complex and diverse characteristic than previously thought (Hunsaker & Shepherd, 2010).

Increased attention and resource allocation for gifted education continued through the 1980's after the Nation at Risk report (1983) was published and recommended an increased federal role in providing services for gifted students (Gardner, Larsen, Baker, Campbell, & Crosby, 1983). From this, the nation began focusing on quality and equitable services for gifted education, identifying insufficient services, lack of qualified teachers, and funding shortfalls as major issues (Hunsaker & Shepherd, 2010). The most substantial federal policy came in 1988 with the Jacob K. Javits Gifted and Talented Students Education Act that specifically focused on developing the talents and potential of minorities and students of poverty in order to increase the identification of these underrepresented populations in gifted education (1988). To date, this remains the main source of federal funding for gifted education.

Currently there is no federal mandate to provide or fund gifted education at the state level. Nationally, only four states mandate and fully fund gifted education, while 10 states have no requirements or funding for gifted education (Davidson Institute for Talent Development, 2016). Many other states have mandates for gifted education with partial or no funding (Davidson Institute for Talent Development, 2016). While increasing attention has been paid to the unbalanced services provided to all gifted students, the inconsistent implementation of gifted education across the states and local communities continues to perpetuate the inequities faced by minority students attempting to access gifted services.

The Current Trend: Underrepresentation of Minority Students in Gifted Education

Nationally throughout history, minority students are grossly underrepresented in gifted education (Ford & King, 2014). However, it is only until recently that the issue of the

underrepresentation of minority students in gifted education has been addressed in the literature. Prior to 1998, less than 2% of publications regarding gifted education addressed the representation of culturally diverse students in gifted programs (Ford, Grantham, & Whiting, 2008). More recent literature points to the reasons behind this underrepresentation of minority students as tri-fold: underreferral (Ford, 2010), use of biased assessment tools and protocols (Ford, 2010; Naglieri & Ford, 2003), and the limited access to quality educational experiences minority students historically face (Renzulli, 1986; Hart & Risley, 2003; Ford, 2010; Murphy, 2010)

Underreferral. Referral, or nomination, for services is often the first step in being evaluated for placement in a gifted program. It has long been known that the rate at which minority students are referred for gifted services is far below their White and Asian counterparts (Frasier, Garcia, & Passow, 1995). The problem begins with the reality that the demographics of our students are changing, while teacher demographics are stagnant. In a nation where 16% of students are African American and 24% of students are Hispanic, 85% of teachers are White, middle-class females (U.S. Department of Education, 2015). Research points to minority students bringing specific histories and cultural values that contribute to the way their giftedness is displayed (Robinson, Shore, & Enersen, 2007). Teachers may not view these certain characteristics, behaviors, or cultural values of students as indicators of giftedness and are therefore less likely to refer minority students for services (Frasier, Garcia, & Passow, 1995). But underreferral lies even deeper within the disproportionate teacher demographics and White elitism. Even when minority students had scores high enough to meet identification criteria teachers would still not refer them for screening (Ford, Grantham, & Whiting, 2008). In one case study, minority students were viewed by teachers as immature, unrelatable, and

uncomfortable with adults, and were therefore overlooked despite high academic achievement and abilities (Ford, Grantham, & Whiting, 2008). This case study described "Dawn, an African American eighth grader, not only had high achievement scores [in the 99th percentile] each year tested, she had a perfect 4.0 cumulative GPA, and an IQ score of 143. Although Dawn had exceeded the identification and placement criteria since the third grade, she was not identified as intellectually or academically gifted, and she had not been referred for screening." (Ford, Grantham, & Whiting, 2008, p. 296). This is a prime example of why it is essential for educators to understand how different cultures display giftedness and that not all of these cultural viewpoints align with the dominant group's view of intelligence.

Furthermore, Delpit (2006) argues that cultural differences between White teachers and African American and Hispanic students are contributing to and maintaining the achievement gap. Communication, values, and behavioral differences between teachers and their minority students are a contributor to lower expectations (Delpit, 2006). These lower expectations result in minority students becoming unmotivated and disengaged, creating perceived and authentic underachievement (Ford, 2010). With low expectations and students underachieving, teachers tend to overlook minority students when referring students for gifted services. Moreover, student achievement is utilized as one of the main identifiers of giftedness in school districts across the nation. The underachievement of minority students leads to underreferral and, ultimately, underidentification.

Fernandez, Gay, Lucky, and Gavilan, (1998) found that teachers of Hispanic students overvalued a student's ability to communicate through an extensive English vocabulary and devalued the ability to speak multiple languages when evaluating indicators of giftedness. Teachers often mistake the exposure to quality English education experiences with innate

intellectual ability when referring students for gifted services (Frasier, Garcia, & Passow, 1995; Oakes, 2005). Consequently, teachers are not referring bilingual minority students and thus inadvertently becoming the gatekeepers for gifted education.

Suggestions. Suggestions have been made to address the barrier of underreferral of minority students for gifted education. Some research has proposed using teacher, parent, peer, and community members as advocates when attempting to refer and identify culturally diverse gifted students (Frasier & Passow, 1994). However, this suggestion does not address the cultural differences and understandings between these possible advocates and minority students. Further training for educators focused on the characteristics, values, gifted indicators of culturally diverse students would need to take place to ensure this as a possible solution to the underreferral of minority students. Even with these shortfalls, additional research needs to be completed to determine the impact of this suggestion on increasing the identification of minority students with gifted talents.

Universal screening is another practice discussed in the literature as a way to systematically identify gifted learners among diverse populations (Ford, 2010; Card & Giuliano, 2015). By assessing all students with the test used to identify gifted learners, rather than relying on a biased referral process, universal screening removes the teacher as the gatekeeper for gifted education (Card & Giuliano, 2015). It levels the playing field for students who would otherwise get overlooked through the referral process. The problem with universal screening is that it only identifies students that would naturally score highly on traditional, biased assessments. While this may help identify a small group of minority students who lack a traditional educational advocate needed for the referral of services, universal screening still holds the barrier of using biased assessments as the measure for giftedness (Ford, 2010). In fact, literature has shown that

many districts did not find an increase in identification of diverse students through the use of universal testing without adjusting identification criteria and are therefore abandoning this costly practice (Card & Giuliano, 2015).

Biased identification tools. Even when African American and Hispanic students are being referred for gifted programming, the biased assessments tools and protocols used by districts across the nation are not identifying gifted minority students. To state that an assessment is biased is to assert that it is "prejudiced or unfair to groups or individuals characterized as different from the majority of test takers. These groups may include ethnic minorities…[and] individual whose first language is not English." (Tittle, 1994). Similar to the barrier of underreferral of minority students for gifted education services, gifted identification tools often rely on characteristics deemed valuable and gifted in the dominant White culture but may not be valued and gifted in diverse, minority cultures (Ford, 2010). Therefore, this value system was embedded in the creation of traditional intelligence and ability assessments, such as the *Cognitive Abilities Test* (CogAT) (2014) and the *Weschsler Intelligence Scale for Children* (WISC) (2014), under identifying minority students who display giftedness in alternate ways (Naglieri & Ford, 2003).

The history of gifted education has had a heavy reliance on IQ tests as the sole indicator for giftedness (Mansfield, 2015). Even with a shift in assessment tools, the majority of standardized tests discriminate against students whose linguistic orientation and cultural background differs from the dominant norm group – White, middle class, native English speaking populations (Frasier, Garcia, & Passow, 1995). Research suggests that traditional intelligence tests can return results that are 15% higher for White students over African American and Hispanic students for a variety of reasons including low proficiency of the English

language and limited exposure to American cultural experiences (Fagan & Holland, 2002). Many Critical Race Theorists critique standardized tests as "coachable", favoring students from high socioeconomic statuses (Delgado & Stefancic, 2012). The use of intelligence and cognitive ability tests clearly falls short in providing valid and reliable assessment results for minority students. Yet, these biased assessment tools continue to be used to make educational and academic placement decisions for the very students the assessments are biased against (Frasier, Garcia, & Passow, 1995).

Suggestions. Research over the years has focused on the elimination of biased assessment tools as the sole indicator for giftedness when identifying minority students for services. The adjustment of identification criteria (Reavis, 2007), use of alternative assessments (Shaunessy, Karnes, & Cobb, 2004; Sarouphim, 2001; Sheets, 1995; Robinson, Bradley, & Stanley, 1990; Tonemah, 1987), the inclusion of talent-development programs (Sheets, 1995), and the use of multiple criteria to identify minority students (Callahan, 2004; NAGC, 2015c) have all been suggested and researched throughout the literature.

In the pursuit of equity, administrators of gifted programs across the nation are being challenged to develop and implement new methods of identification that include adjusting gifted identification criteria in order to be more inclusive. However, simply adjusting identification criteria is not the answer (Reavis, 2007). Lowering qualification criteria to identify additional minority students results in the continued over identification of White and Asian students (Reavis, 2007). Yet, with an engrained history dominated with the use of IQ testing to identify students for gifted services, it is unlikely the world of gifted education will see a complete shift from this practice anytime soon.

Several researchers (Sarouphim, 2001; Sheets, 1995; Tonemah, 1987) have suggested eliminating the reliance on heavily culturally biased assessments and transitioning to the use of language-specific assessments for gifted identification. The use of nonverbal assessments, such as the *Raven Standard Progressive Matrices* (RPM) (2000) or the *Naglieri Nonverbal Abilities Test* (NNAT) (2008), has also been suggested as a method to identify minority students for gifted services (Shaunessy, Karnes, & Cobb, 2004; Robinson et al., 1990). However, currently there is much debate at the effectiveness of these assessments in identifying culturally diverse gifted students (Robinson, Shore, & Enersen, 2007).

Another avenue in eliminating biased assessment methods in gifted education is to move toward the use of talent-development models. While talent development models are not new in gifted education, the research has begun to focus on the implications and impacts for traditionally underrepresented populations in K-12 education (Olszewski-Kubilius & Thomson, 2015). In its earliest form, Sheets (1995) investigated a newly conceptualized "try-out", or talent development, identification strategy for linguistically diverse students by placing 29 Spanish-speaking Hispanic students into Advanced Placement (AP) Spanish Literature along with other AP students for a three-year trial period. Once identified as at-risk, 20 of the original 29 Hispanic students passed the AP test associated with the course and received college credit (Sheets, 1995). However, the talent development model has not had widespread use until more recently (Olszewski-Kubilius & Thomson, 2015). While many districts reported the use of nonverbal assessment and multiple sources of student achievement data, even fewer identified the use of talent development models as a way to identify their Black and Hispanic students for gifted services (NRCGT, 2014). Furthermore, little research has been conducted on the

effectiveness of current elementary level talent development models on identifying gifted minority students.

Finally, the use of multiple data points and assessment sources in the identification of gifted students is one way research (Callahan, 2004) suggests to increase the representation of minority students in gifted education. "Fair identification systems use a variety of multiple assessment measures that respect diversity, accommodate students who develop at different rates, and identify potential as well as demonstrated talent" (Callahan, 2004). Moreover, the National Associate for Gifted Children states:

> Given the limitations of all tests, no single measure should be used to make identification and placement decisions. That is, no single test or instrument should be used to include a child in or exclude a child from gifted education services…Best practices indicate that multiple measures and valid indicators from multiple sources must be used to assess and service gifted students. (NAGC, 2015c).

Researchers argue that the use of multiple criteria has an increased chance of identifying minority and culturally diverse students for gifted education (Slade, 2012). This non-traditional method removes the reliance off a single, biased, IQ assessment to identify gifted students.

Opportunity gap. Closely related to infamous achievement gap, the term opportunity gap refers to the ways in which race, ethnicity, and socioeconomic status perpetuate lower educational achievement and attainment for traditionally disadvantaged groups of students (Editorial Projects in Education Research Center, 2011). The opportunity gap refers specifically to the inequitable distribution of educational resources, such as the limited access to high levels of curricula, advanced academic classes, and quality classroom teachers, which minority students have as compared to their affluent, White counterparts (Editorial Projects in Education Research

Center, 2011). Gifted education research has recently shifted focused to the opportunity gap, eventually leading to the achievement disparity between minority students and their White and Asian peers, as a root cause for the underrepresentation of minority students in gifted education (Murphy, 2010; Robinson, Shore, & Enersen, 2007).

The opportunity gap can be traced back to early childhood and the impacts can be felt throughout a student's educational career. In a seminal study, Hart and Risley (2003) found that children living in the lowest socio-economic households, who were disproportionally African American children in their research, were exposed to 30 million fewer words by age 3 than their wealthier, predominantly White counterparts. This lack of exposure to key vocabulary resulted in a widening disparity of language development for poor, minority students (Hart & Risley, 2003). Nevertheless, early childhood education programs are the least accessible to minority children despite their proven effectiveness in closing the achievement gap (Taylor, 2006).

The advantage for gifted students who come from affluent families to enroll in specialized private schools, attend weekend and summer enrichment programs, and compensate private tutors just widens the opportunity gap for our minority students. Furthermore, research suggests Black and Hispanic students have less access to quality, experienced teachers with high levels of content knowledge in their field (Hanushek, Kain & Rivkin, 1998). Students attending schools heavily populated with minority students often times have less access to rigorous curriculum and classes (Morris, 2001; Murphy, 2010), compounding the already widening opportunity gap.

In reality the opportunity gap is generational. Decades of racialized hiring, lending, and second-rate educational systems have placed black and brown families in an economically disadvantaged position as compared to White families (Taylor, 2006). Generational poverty and

a history of residential segregation of minority families have led to a lack of quality educational experiences for these students. The systematic lack of resources and segregated educational experience over generations has lead to an opportunity gap for our minority students that will be difficult to overcome (Ladson-Billings & Tate, 1995). The literature does not point to an easy solution for closing this gap, as many systemic changes need to be made at the federal and state level before we can see any impact at the student level.

CHAPTER 4: METHODOLOGY

This study used a quasi-experimental approach in order answer the two research questions:

- What is the effect of the Promise Scholar Program on increasing the number of African American and Hispanic students identified for gifted education in the Kent School District?
- What is the effect of the Promise Scholar Program on participants' academic achievement?

The in-depth analysis of student achievement scores, one key component in the identification of gifted students nationally, and in KSD, was a central focus in selecting the quantitative methodology for this research study. The following describes the research site, sample populations, and conditions of the quantitative quasi-experiment. Additionally, the data collection and analysis methods are described in detail.

Research Site

Kent School District (KSD) is the fourth largest district in Washington State comprised of 29 elementary schools, six middle schools, four high schools, and three academies. The Kent School District encompasses 72 square miles including the communities of Kent, Black Diamond, Maple Valley, Covington, and portions of Auburn, Renton, and SeaTac. In the 2013-2014 school year KSD served over 27,000 students. Because the district includes many different communities the student population reflects that diversity. As a minority-majority school district nearly 140 different languages are spoken by students and families; 38% of students are White, 17% are Asian, 12% are African American, 21% are Hispanic, and 9% are self-identified multi-racial. (KSD, 2014).

In the 2014-2015 school year, KSD's gifted education programs served 764 students in kindergarten through 6th grade. There were 32 students in the 2014-2015 cohort of Promise Scholars served in 15 of the 29 elementary schools in the district.

Sample Populations

For the purposes of this study, three groups were considered: the gifted group, the participating group, and the comparison group. The intact 2014-2015 cohort of Promise Scholar students were utilized as the participating group (Creswell, 2014). The participating group's baseline and post-treatment classroom achievement and ability scores were compared to the selected comparison group of matched (Creswell, 2014) general education students not participating in the Promise Scholar or Gifted Education Program and with all identified gifted cluster students within the Kent School District.

Gifted group. As common practice, KSD assesses all students in 2nd grade for gifted services. All students' abilities are assessed using the CogAT 7 and achievement is evaluated through the i-Ready math and reading assessments. These multiple, nationally normed, ability assessments and achievement data are compiled in order to evaluate students for two levels of gifted programing. Students scoring in ability or achievement data in the 97 percentile and above on multiple math and reading indicators are serviced in a self-contained classroom for gifted students housed at four of the 28 elementary schools (KSD, 2014). This group of self-contained gifted students was not used as a sample population during this quasi-experiment.

Students scoring on multiple criteria between the 90th and 96th percentile are provided gifted education services in gifted cluster grouping classrooms (KSD, 2014). All 92 students in the gifted cluster classrooms were used as the gifted group sample. This sample was comprised of 6 African American, 11 Hispanic, 13 multi-racial, 19 Asian, and 43 White students. While the

demographics and baseline reading and math achievement scores are not statistically similar to the participating group, the gifted group was specifically utilized in this quasi-experiment in order to compare the rate of growth of the participating group as both groups were exposed to the same treatment.

Participating group. All 32 students in the 2014-2015 cohort of Promise Scholar students comprised the participating group of this quasi-experiment. While there are additional future cohorts of Promise Scholar students, this cohort was specifically selected as the group of participants with the longest treatment exposure and most complete student growth assessment data. In the 2014-2015 school year there were 32 identified Promise Scholar students. Of these 32 students, ranging in age from 7 to 9, 14 were African American, 8 were Hispanic, and 10 were multi-racial. This group of 32 students created the participating group in this quasi-experiment.

Promise Scholar students are selected from the pool of 2nd grade students not identified for gifted services. Promise Scholar students are identified based on possible gifted indicators including achievement and ability data that do not surpass the official identification criteria of 90th percentile and above and are placed in the gifted cluster classrooms, the same classrooms as the gifted group that participated in this quasi-experiment, as part of the general education population. Even as identified general education students, Promise Scholar participants receive gifted education services in the classroom. Teachers of Promise Scholar students are provided professional development on meeting the academic, social, and emotional needs of gifted students. Additional math, reading, writing, science, and social studies curriculum materials, specifically designated for use with gifted students, are provided to the teachers to use with their gifted and Promise Scholar students. Extension activities, more rigorous and complex

assignments, and project-based learning opportunities are all provided to the Promise Scholar students as part of the gifted education services. All of these identified treatments were also provided to the gifted group that participated in this study.

Comparison group. The comparison group was comprised of 32 general education students as matched participants from a pool of 1832 2nd grade students (Creswell, 2014). Propensity score matching (PSM) was used to select the comparison group students. The purpose of using PSM was to compare the average outcomes, or achievement growth, of participating and comparison individuals who had the same values on ability and achievement level scores (Creswell, 2014). To be a participant in the comparison group, students had baseline i-Ready math and reading achievement and CogAT 7 ability scores similar to the scores of the participating group. Additionally, core demographic characteristics, such as gender, ethnicity, grade level, and primarily language, were used during the matching process. As a result, the comparison group was comprised of African American, Hispanic, and students of two-or-more races, which contained no significant different between the participating and comparison groups' key demographics (see Table 1). Overrepresented populations of White and Asian students in Kent School District's gifted education programs were not selected as part of the comparison group. Furthermore, a Pearson correlation examined the differences between the comparison (M=451.25, SD=11.44) and participating (M=452.41, SD=14.06) groups and this test suggested no significant statistical difference (see Table 2) between the groups on baseline math achievement scores ($t(62)$=-0.36, p=.719). Furthermore, the difference between the comparison (M=548.41, SD=22.67) and participating (M=550.38, SD=22.11) groups on reading baseline achievement scores was not statistically significant ($t(61)$=-0.17, p=.869).

The comparison group students were placed in general education classrooms. Students participating in special education services, English Language Learning classrooms, or other specialized academic interventions were not identified for the comparison group in order to eliminate the possible impact of these additional services on students' academic achievement scores. Students in the comparison group received traditional general education services in all academic areas with district approved grade level curriculum. Additionally, students with similar baseline achievement and ability scores placed into gifted cluster classrooms were not assigned to the comparison group due to possible exposure to the participating treatment of the gifted education instructional strategies and curricula.

Instrumentation

Cognitive Ability Test. The CogAT 7 is a nationally normed assessment that measures the cognitive development of individual students compared to their age peers across the nation. The CogAT 7, one of the primary instruments used in the identification of gifted students in the Kent School District, was used as the baseline measurement instrument to identify students for the comparison group in the this experiment. The CogAT 7 contains three subtests, or batteries: Verbal, Quantitative, and Nonverbal (The Riverside Publishing Company [Riverside], 2014). The Verbal Battery of the CogAT 7 assesses a student's verbal reasoning ability through picture analogies and classifications (Riverside, 2014). The Quantitative Battery assesses a student's ability complete number analogies, puzzles, and patterns (Riverside, 2014). The Nonverbal Battery evaluates a student's spatial reasoning skills through matrices and figure classifications (Riverside, 2014). Each of the batteries takes approximately 30 minutes to administer, totaling 90 minutes of testing. There are multiple levels of the CogAT 7 assessment that are associated

with different grade levels (Riverside, 2014). The Kent School District administers CogAT 7 Level 9 to 2nd grade students and CogAT Level 10 to 3rd grade students.

i-Ready. I-Ready is a nationally normed, diagnostic reading and mathematics assessment that evaluates student performance across key domains in kindergarten through 12th grade (Curriculum Associates, 2015). I-Ready assessments adapt to each student as he/she takes the test, providing easier or harder questions based on previous answers (Curriculum Associates, 2015). In the Kent School District i-Ready is given to all students three times per year: fall, winter, and spring administration (KSD, 2014). This sweeping administration allows teacher to make instructional adjustments as well as placement decisions for students. The fall administration provides a baseline in which achievement growth for students can be calculated.

The reading and mathematics portion of the i-Ready assessment each consist of 54 to 72 questions and typically take thirty to sixty minutes for students to complete in a group setting (Curriculum Associates, 2015). The reading assessment consists of five domains including phonological awareness, word recognition, vocabulary, and comprehension of literary and informational text (Curriculum Associates, 2015). The math portion of the i-Ready assessment contains 13 domains including counting, numbers and operations, algebraic thinking, proportional relationships, equations, algebra, measurement, statistics, and geometry (Curriculum Associates, 2015).

Overall scores on the i-Ready reading and mathematics assessment are reported in multiple ways, however, for this study scale scores (SAS) and norm scores (NPR) were used to evaluate student growth and placement in the participating and comparison groups. A scale scores converts student raw scores to a single continuum of scores that run from kindergarten through 12th grade (Curriculum Associates, 2015), which allows for scores to be compared

across grade levels and achievement growth to be calculated. I-Ready norm scores refer to the comparison of how a student performs on an assessment compared to a nationally normed representative sample of students in the same grade level, also known as a national percentile rank. While domain-specific, strand-by-strand scores are reported by i-Ready, those scores were not used during this experiment.

Participating Procedures

All students in the Kent School District are administered the CogAT 7 Level 9 in 2nd grade. The reason for this sweeping administration is two-fold: the use of the assessment for instructional interventions for struggling students and the removal of the barrier of underreferral for gifted minority students. Students in all other grade levels are administered the corresponding leveled CogAT 7 when referred for gifted education services.

Figure 1.
Quasi-participating design

Participating Group O_1 --------- O_2---------- X --------- O_2-- O_1 ----------X---------- O_2
Comparison Group O_1 --------- O_2---------- O_2---------- O_2
Gifted Group O_1 --------- O_2----------X---------- O_2----------X---------- O_2

Figure 1. Quasi-participating design. In Figure 1 O_1 represents the administration of the CogAT 7 for initial identification and placement into the participating, gifted, and comparison groups, *X* represents the exposure of the participating and gifted groups to the gifted education instructional strategies and curricula, and O_2 represents the administration of the i-Ready mathematics and reading achievement assessments.

In Figure 1 the pretreatment data (O_1) was collected from initial CogAT 7 Level 9 scores from the Promise Scholar participating group to create a match comparison group. All students in the participating, comparison, and gifted groups were then administered the i-Ready math and reading achievement tests (O_2). These initial sets of achievement scores were used as the covariant baseline data in order to determine achievement growth for the participating, comparison, and gifted groups.

Prior to placement of students, classroom teachers were notified of the Promise Scholar students within their gifted cluster classrooms and provided multiple hours of professional development regarding the gifted education adopted curriculum and research-based instructional strategies. Students in the Promise Scholar program participating group and students in the gifted group then received the intervention treatment (X) (Creswell, 2014) by being provided identical instructional strategies, research-based curriculum, and accelerated instruction as the officially identified gifted students in the classroom. During this same time students in the comparison group received no alternate intervention or treatment, participating in general education curriculum and services.

After students in the participating and gifted groups received the intervention treatment for a total of four months, all three groups of students, including the comparison group, were administered a mid-treatment achievement test (O_2) using the i-Ready math and reading assessment (Creswell, 2014). After 5 months of treatment exposure, the 3rd grade CogAT 7 Level 10 was administered to the participating group in order to identify students for official gifted services. Finally, after nine months of intervention treatment, the participating, comparison, and gifted groups of students were administered a post-treatment (O_2) using the

i-Ready math and reaching assessment to determine academic achievement growth (Creswell, 2014).

Data Analysis

In order to answer the first research question, what is the effect of the Promise Scholar Program on increasing the number of African American and Hispanic students identified for gifted education in the Kent School District, national age percentile rankings (APR) were compared to KSD's official CogAT 7 identification criteria. The percentage of students from the participating group identified for gifted services in the 2015-2016 school year was analyzed.

In order to answer the second research question, what is the effect of the Promise Scholar Program on participants' academic achievement, scale scores for the i-Ready reading and mathematics assessments for the participating, comparison, and gifted groups were analyzed using a hierarchical linear model (HLM) (Raudenbush & Bryk, 2002). HLM was specifically selected for the data analysis since the growth measurement assessment was administered longitudinally at three different points in time, also known as nested data. HLM allowed the average growth, or slope, of a group of students' nested data to be compared and analyzed without the need for a statistically similar achievement baseline, or intercept. This linear model was used to compare the participating and comparison groups and the participating and gifted groups separately. Finally, after the HLM was completed, a model fit index was used to determine the statistical difference among the fixed intercept, random intercept, random slop, and the final models.

CHAPTER 5: FINDINGS

The purpose of this study was to evaluate the influences of the Promise Scholar Program on the identification of minority students for gifted education in the Kent School District and the impacts on participating students' academic achievement. This study attempted to fill the research gap that addresses elementary talent development programs, such as the Promise Scholar Program, as a viable solution to increasing the representation of minority students in gifted education. The following chapter discusses the key findings for each of the two research questions:

- What is the effect of the Promise Scholar Program on increasing the number of African American and Hispanic students identified for gifted education in the Kent School District?
- What is the effect of the Promise Scholar Program on participants' academic achievement?

Demographic Information

Table 1 (Appendix A) displays the demographic characteristics of the participating, comparison, and gifted groups according to gender, race, English Language Learner (ELL) status, and home language. As seen in Table 1 (Appendix A), of the 32 students in the participating group, 14 (44%) were Black, 8 (25%) were Hispanic, and 10 (31%) were self-identified as multi-racial. The comparison group, containing 32 students, contained 6 (19%) Black students, 14 (44%) Hispanic students, 10 (31%) multi-racial students, one Pacific Islander student, and one Asian student. In an evaluation of the participating and comparison groups there was no statistically significant difference (p=.145) in the students' demographics. The pre-

established group of 92 gifted students contained 6 (7%) Black, 11 (12%) Hispanic, 13 (14%) multi-racial, 19 (21%) Asian, and 43 (47%) White students.

Gifted Identification of Promise Scholar Students

To answer the first research question "What is the effect of the Promise Scholar Program on increasing the number of African American and Hispanic students identified for gifted education in the Kent School District?" an analysis of descriptive statistics was completed. Of the 32 identified Promise Scholar students receiving treatment in the 2014-2015 school year, parent permission as able to be obtained for 23 students to be assessed for gifted services using the CogAT 7. Parent permission was unable to be obtained from 9 participating students and, therefore, were not assessed for gifted services. Table 2 (Appendix B) displays the percentage of student identified for gifted services after receiving treatment through the Promise Scholar Program in the 2014-2015 school year. Of the 23 participating students assessed, 17.4% (n=4) were identified for gifted services beginning in the 2015-2016 school year. Additionally, of the 8 participating Hispanic students assessed, 37.4% (n=3) were identified for gifted services beginning in the 2015-2016 school year.

Analysis of Academic Achievement

In order to answer the second research question, "What is the effect of the Promise Scholar Program on participants' academic achievement?" the Promise Scholar students', or participating group's, academic growth in mathematics and reading was compared to the comparison group (see Table 6 and 7) and gifted group (see Table 8 and 9; see Figures 2 and 3). Propensity score matching was used to create the comparison group of students that had similar academic achievement baseline scores to the participating group. Table 3 (Appendix C) examines the differences between the participating and comparison groups' baseline math and

reading achievement scores. On average, the baseline math and reading scores were not statistically different between the two groups. Since the students in the comparison and participating groups are statistically similar in baseline achievement scores, the propensity score matching used to create the comparison group in this study was effective and valid.

The following analyzes reading and math achievement growth through the comparison of the participating group to the comparison and gifted groups, respectively. The effects of the treatment on the participating group are evaluated based on math and reading academic growth as compared to the comparison group, who received no treatment, and to the gifted group, who was exposed to the same treatment as the participating group. To begin, math achievement scale scores are reported for each of the three groups on Table 4 (Appendix D). Reading achievement scale scores are reported for each of the three groups on Table 5 (Appendix E).

The examination of data in Tables 4 and 5 (see Appendix D and E) was completed with a hierarchical linear model (HLM). HLM was used in order to compare the rate of academic growth, reported as coefficients, in math and reading between groups (see Tables 6, 7, 8, and 9). An HLM with random slope and intercept, using the math and reading achievement data from Tables 4 and 5 (Appendix D and E), was used and the model is shown below.

Level 1: $Y_{ij} = \pi_{0i} + \pi_{1i}\,(\text{Winter})\text{ti} + \pi_{1i}\,(\text{Spring})2_{ti} + e_{ti}$

Level 2: $\pi_{0i} = \beta_{00} + r_{0i}$

$\pi 1\text{i} = \beta_{00} + {}_{r0i.}$

Participating and comparison group achievement. The following describes the participating group's (Promise Scholar students) academic achievement and growth compared to the comparison group. Math and reading achievement are compared and analyzed for each group using the hierarchical linear model (see Tables 6 and 7).

Mathematics. The HLM results of the participating and comparison group math achievement are presented in Table 6 (Appendix F). First, the difference on the baseline mathematics achievement scores of comparison group students compared to the Promise Scholar students, reported on the table as treatment and intercept respectively, was not significant ($p<.001$). From the baseline (intercept) to winter math assessment the participating students made, on average, 0.69 standard deviation, reported as a coefficient, in growth on the math assessment, t (122) =4.83, $p<.001$. Evaluating the same time period, from baseline to winter math assessment, the comparison group made statistically similar growth compared to the participating group, t (122) =-0.54, $p=.592$. On the spring assessment, the Promise Scholar students made an average of 1.45 coefficient growth in math compared to the baseline assessment, t (122) =8.84, $p<.001$. The comparison group made on average 1.27 coefficient growth on the same math assessment, t (122) =-0.78, $p=.438$. Overall the comparison group and the Promise Scholar students made significantly similar growth in mathematics.

Reading. The HLM results of the participating and comparison group reading achievement are presented in Table 7 (Appendix G). First, the difference on the baseline reading achievement scores of comparison group students compared to the Promise Scholar students, reported on the table as treatment and intercept respectively, was not significant ($p<.001$). From the baseline to winter reading assessment the participating students made, on average, a 0.46 coefficient growth on the reading assessment, t (122) =3.56, $p<.001$. Evaluating the same time period, from baseline to winter reading assessment, the comparison group made statistically similar growth compared to the participating group, t (122) =-0.20, $p=.8425$. On the spring assessment, the participating group, or Promise Scholar students, made an average of 0.76 coefficient growth in reading compared to the baseline assessment, t (122) =4.99, $p<.001$. The

comparison group made on average 0.65 coefficient growth on the same reading assessment, *t* (122) =-0.49, *p*=.6269. Overall there was no significant difference between the participating and comparison groups' reading achievement or growth.

Participating and gifted group achievement. The following describes the participating group's academic achievement and growth compared to the gifted group. Math and reading achievement are compared and analyzed for each group using the HLM (Tables 8 and 9) with the longitudinal growth comparison displayed on a line graph (Figures 2 and 3).

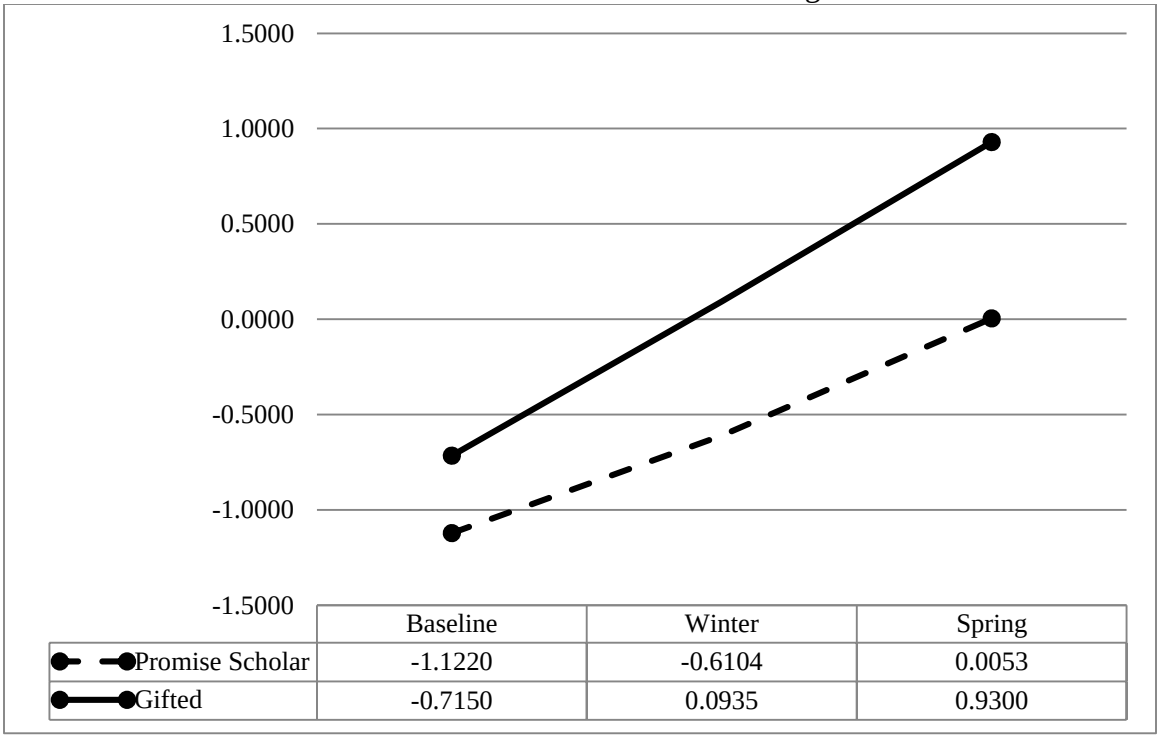
Mathematics. The HLM results of the participating and gifted group math achievement are presented in Table 8 (Appendix H). First, the difference on the baseline mathematics achievement scores of gifted program students compared to the participating students, reported on Table 8 (Appendix H) as the treatment and intercept respectively, was statistically significant (*p*=.012). From the baseline to winter math assessment the participating students made, on average, a 0.51 coefficient in growth on the math assessment, *t* (242) =4.59, *p*<.001. However, evaluating the same time period, from baseline to winter math assessment, gifted program students made significantly more growth, or a 0.30 coefficient more growth on average, than the participating group, *t* (242) =2.30, *p*=.022. On the spring assessment, the participating group made an average of 1.13 coefficient growth in math compared to the baseline assessment, *t* (242) =9.35, *p*<.001. Conversely, the gifted program students made on average 1.65 coefficient growth on the same math assessment, significantly more growth than the participating group, *t* (242) =3.71, *p*<.001. Overall, on average, the gifted group made significantly more growth in mathematics than the Promise Scholar students.

Figure 2 plots the longitudinal math achievement outcomes for the participating and gifted groups using the coefficients as described in Table 8 (Appendix H). This visual depiction

shows that, in math, the participating group, or Promise Scholar students, made less growth than the gifted students on the math assessment. There is significant difference between the Promise Scholar and Gifted students' math achievement starting baseline scores. Furthermore, Figure 2 displays the gifted students' statistically significant (p=.022, p<.001) higher growth rate compared to the Promise Scholar students on the winter and spring math achievement assessment.

Figure 2.

Plot of Math Achievement for Promise Scholar and Gifted Program Students



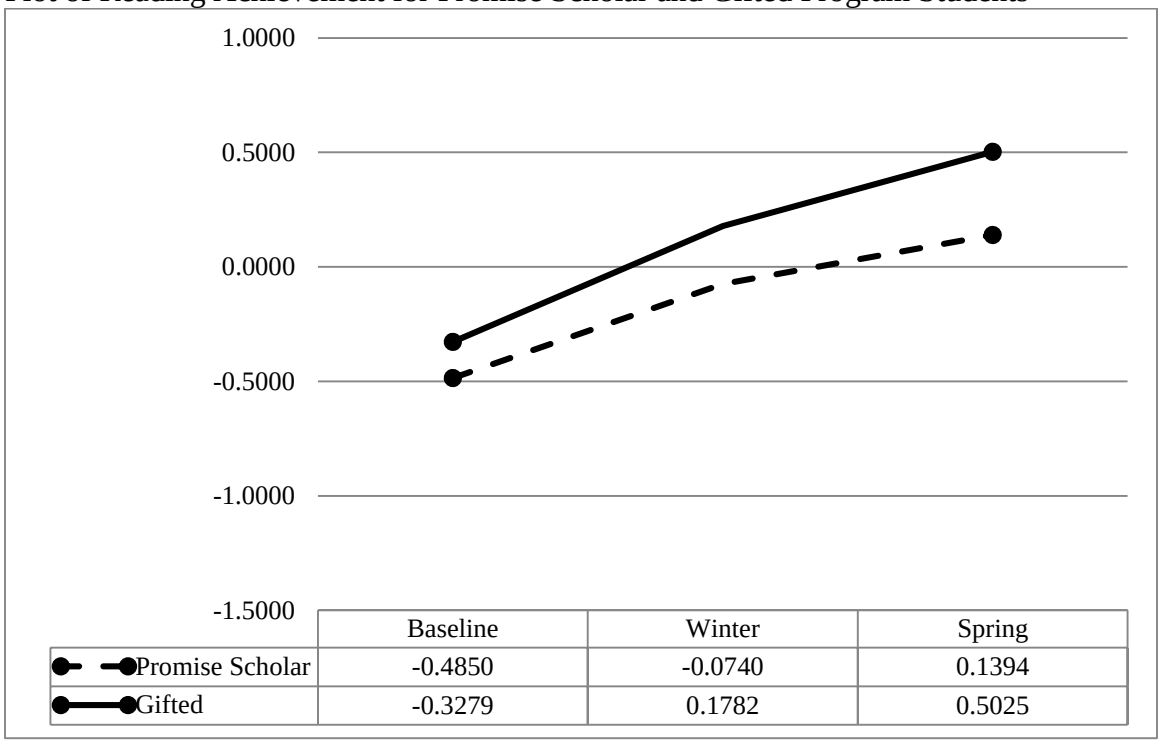
	Baseline	Winter	Spring
Promise Scholar	-1.1220	-0.6104	0.0053
Gifted	-0.7150	0.0935	0.9300

Reading. The HLM results of the participating and gifted group reading achievement are presented in Table 9 (Appendix I). First, the difference on the baseline reading achievement scores of gifted program students compared to the Promise Scholar students, reported on Table 9 (Appendix I) as the treatment and intercept, was not significant (p=.532). From the baseline to winter reading assessment the participating students made, on average, a 0.38 coefficient in

growth on the reading assessment, t (242) =3.44, p<.001. Evaluating the same time period, from baseline to winter reading assessment, gifted program students made a 0.50 coefficient growth on average, which is statistically similar to the growth of the participating group, t (242) =0.95, p=0.349. On the spring assessment, the participating group made an average of 0.60 coefficient growth in reading compared to the baseline assessment, t (242) =4.60, p<.001. The gifted program students made on average 0.83 coefficient growth on the same reading assessment, which is statistically similar to the Promise Scholars' growth, t (242) =1.55, p<.124. Therefore, in reading, the Promise Scholar students made similar growth to the gifted students and the difference in growth between the two groups is not statistically significant, even though the achievement gap still exists.

Figure 3 plots the longitudinal reading achievement outcomes for the participating and gifted groups using the coefficient of growth as described in Table 9 (Appendix I). This visual depiction shows that, in reading, the Promise Scholar students made statistically similar growth compared to the gifted students on the reading assessment. There is no significant difference (p=.532) between the Promise Scholar and Gifted students' reading achievement starting baseline scores. Furthermore, Figure 3 displays there was no statistical difference (p=.349, p=.124) in the growth of the Promise Scholar and Gifted students on the winter and spring reading achievement assessment, meaning both groups grew at similar rates in reading achievement.

Figure 3.
Plot of Reading Achievement for Promise Scholar and Gifted Program Students



	Baseline	Winter	Spring
Promise Scholar	-0.4850	-0.0740	0.1394
Gifted	-0.3279	0.1782	0.5025

CHAPTER 6: DISCUSSION

There is a crisis on our hands. Minority students across the nation are grossly underrepresented in gifted education. This study took a deeper look at Kent School District's possible solution to this social justice disaster. Even in one of the largest and most diverse school districts in Washington State, African American and Hispanic students were being systematically placed into general education classrooms and denied access to gifted education while their White and Asian counterparts were receiving needed gifted services. Then, in 2014, KSD created and implemented an elementary-based talent development program, called Promise Scholars, whereby placing minority student in gifted education classrooms beginning in third grade. Participants in the Promise Scholar Program were exposed to advanced and accelerated gifted education curriculum alongside the gifted students within their classroom.

Using one academic year of data, this study analyzed the Promise Scholar Program's effectiveness of addressing the underrepresentation of minority students in Kent School District's gifted education program. In order to determine the effectiveness of program, an evaluation of the increased identification minority gifted students and an analysis of participating students' achievement data in reading and math was completed. This study answered the following two research questions:

- What is the effect of the Promise Scholar Program on increasing the number of African American and Hispanic students identified for gifted education in the Kent School District?
- What is the effect of the Promise Scholar Program on participants' academic achievement?

The problem addressed in this study is directly related to the opportunity gap, specifically the gap between minority students and White and Asian students who are traditionally overrepresented in gifted education classrooms across the nation. As the literature suggests (Editorial Projects in Education Research Center, 2011; Hart & Risley, 2003; Morris, 2001; Murphy, 2010; Robinson, Shore, & Enersen, 2007; Taylor, 2006), exposure, or the lack thereof, to key academic experiences from an early age can drastically impact a student's academic trajectory, creating an opportunity gap. The non-traditional model of utilizing an elementary talent development program as a way to mitigate the effects of the opportunity gap and increase the identification of minority students for gifted education was the key focus of this evaluative study. Specifically, the research focused on the comparison of participating students achievement data to general education and identified gifted students. The purpose of this chapter is to identify, discuss, and recommend replicable program components that can be used to inform similarly focused efforts to identify underrepresented populations in gifted education across the nation.

Summary and Discussion

The results obtained in this study led to compelling conclusions about the effectiveness of elementary talent development models as a method to impact the identification of minority students for gifted education. The most apparent conclusion is that talent development models are effective in the elementary setting. The following summarizes and discusses the most significant findings from the study related to each of the two research questions.

Gifted Identification of Promise Scholar Students

The main goal of the Promise Scholar Program is to increase the identification of underrepresented minority students, specifically African American and Hispanic students, in

Kent School District's gifted education program. Therefore, it was essential to complete an evaluation of the program's impact on the rate of gifted identification for minority students. After one year of participation in the Promise Scholar program, 17.4% of participating students were identified for gifted education services. Traditional practices in KSD yields an identification rate of approximately 10% of the student population (OSPI, 2015). Furthermore, these same traditional identification practices identify approximately 7% of Hispanic students for gifted services each year (OSPI, 2015). However, 37.4% of Hispanic Promise Scholar students were identified for gifted education services after one year of participation in the Promise Scholar Program. Although a small sample size, these numbers are a promising glimpse at possible results for future, expanded cohorts of Promise Scholar students. Additionally, these results confirm findings from earlier research about talent development models (Sheets, 1995); however, these results expand the previous findings from secondary settings into an elementary setting.

Academic Achievement of Promise Scholar Students

Another goal of the Promise Scholar Program is to address the opportunity gap for minority students through the exposure to rich, rigorous, advanced level gifted curriculum. In turn, this exposure should impact participating students' academic achievement. The results from this study showed that Promise Scholar students made similar academic growth to identified gifted students in reading. However, Promise Scholar students made less academic growth over the course of a year in mathematics compared to the identified gifted students. Perhaps student exposure to rich, rigorous gifted reading curriculum and extensive professional development provided to teachers serving gifted and Promise Scholar students impacted the reading achievement of participating students. Over the course of the year, teachers were

provided with reading curricular resources identified and created specifically for gifted students that included *Jacob's Ladder Reading Comprehension Program*, *Wordly Wise 3000*, and *Junior Great Books*. Each teacher was provided with 20 hours of professional development regarding instructional reading strategies and utilizing the provided resources with gifted students. In contrast in math, where participating students made significantly less growth in math than gifted students, teachers were provided no additional resources regarding math instruction of gifted students and only two hours of professional development late in the academic year. The resources and professional development, or lack thereof, provided to gifted education teachers make the comparable reading growth and absence of math growth a noteworthy finding in this study.

Recommendations

The use of elementary talent development programs is an effective tool in addressing the disparate identification of minority students for gifted education. The results of this study, in the key areas of identification and student achievement growth, are translated into concrete recommendations and next steps for the Kent School District. The recommendations for curricular supports and program expansion are translated into actionable suggestions and program components school districts seeking to reduce the underrepresentation of minority students in their gifted education program can replicate.

Curricular Supports

The similar growth of participating students in reading compared to gifted students has a possible link to the exposure to rigorous gifted reading curriculum. In relation, the absence of corresponding growth of participating students in comparison to gifted students in mathematics also has a possible link to the lack of exposure to rigorous gifted mathematics curriculum. With

this in mind, more research needs to be conducted on the correlation between the use of the specific gifted reading curriculum and participating students' achievement. However, the noteworthy reading growth of participating students makes the link to the use of specialized reading curricular materials undeniable. Therefore, the addition of specific gifted mathematics curriculum and continued use of reading supplemental materials would be a next logical step.

The access to high quality curriculum is a social justice issue. Much of the history of gifted education is marked by the lack of access to advanced courses and curriculum experienced by minority students (Hanushek, Kain & Rivkin, 1998; Morris, 2001; Murphy, 2010). The results from this study should be a significant indicator to districts that they must begin providing access to specialized gifted curriculum to promising minority students. Directly related to the opportunity gap, exposure to high quality, rigorous curricula specifically design for the instruction of gifted students is a feasible pathway for districts to begin to identify black and brown students for gifted services.

Program Expansion

The implementation of the Promise Scholar Program demonstrated important impacts on the underrepresentation of minority students in Kent School District's gifted education program. The study also revealed positive academic growth for participating students. KSD should continue and expand the Promise Scholar program. The program began with students serviced at 15 of the 29 elementary schools in the district. Additional students should be added at the remaining elementary sites and to the existing cohort of students, now in 4th grade. Promise Scholar services should continue to be provided to students throughout their academic career regardless of official gifted identification. KSD should continue to identify and serve Promise Scholar students through this model, constructing new cohorts each school year.

Districts across the nation should begin the process of implementing talent development models at the elementary level. Many districts already have open enrollment policies for advanced placement and honors courses at the secondary level in place, a key component regarding access to quality and rigorous courses often missing from minority students' educational experience. As shown in this study, talent development models are a way to raise minority student achievement, a key component in many districts' gifted identification process. With a history entrenched in the use of single assessment, biased identification tools (Ford, 2010; Naglieri & Ford, 2003) it is unlikely that the field of gifted education will make the necessary changes required to provide equitable access for minority students. Even so, talent development models have the ability to raise minority student achievement to a level required by districts for gifted identification. The bottom line is that talent development models are a feasible way to rectify the underrepresentation of minority students in gifted education.

Continued Research

Additional longitudinal research should be conducted on the Promise Scholar Program and similarly focused models around the nation. Similar to previous research regarding talent development models at the secondary level (Sheets, 1995), the impact of exposure to treatment over multiple years on participating students needs to be conducted. Larger effects on student achievement and identification rates of minority students could be seen with long-term exposure to program services. Lasting impacts of elementary talent development programs on the identification of minority students for gifted services should be directly evaluated and is a critical next step in the field of gifted education.

Finally, while this study did not include a qualitative component, the narrative voice of the Promise Scholar students is critical in breaking down the barriers for minority students in

gifted education. The idea of using storytelling is entrenched in the foundation of Critical Race Theory. As a tool, storytelling can act as a powerful means of identifying and exposing discrimination, bridging the gap between theory and reality, and has the ability to enable marginalized groups to speak back about racism (Delgado & Stefancic, 2012). Storytelling in education is where the narratives about low achievement and opportunity gaps students of color face are personalized and revealed (Solorzano & Yosso, 2002). These forms of storytelling have the ability to mobilize minority groups with little power and status to inform and influence change in the education system. Ultimately, narrative voice has the potential to act as a persuasive and transformative tool to challenge the systemic, ingrained racism in United States society and provide a valuable opportunity for students to use their narrative voice to enact social change within gifted education.

Limitations

Though this study was successful in analyzing the impacts of the Promise Scholar Program, limitations did exist. The greatest study limitation was the sample size of participating Promise Scholar students. The 32 students participating in the research was bound by the amount of students KSD identified for the Promise Scholar Program. As a result, the study is therefore limited in terms of generalizability. Future research should be conducted on the Promise Scholar Program as it expands in KSD with a larger sample size.

Furthermore, a larger effect could have been present with a longer exposure to treatment for participants. Previous research (Sheets, 1995) involving talent development models in the secondary setting exposed students to treatment for multiple academic years. Additional longitudinal follow-up and research with the continuing 2014 cohort of Promise Scholar students should be conducted as they progress through the program in the KSD system.

The final limitation was the use of the CogAT assessment tool in this study to place Promise Scholar students and later used as the tool for official gifted identification. This specific assessment tool has been cited throughout research to be racially biased (Naglieri & Ford, 2003); yet it was used in this study with racially diverse, minority students. As the official tool for gifted identification in the Kent School District, there was no way to eliminate this barrier for minority students in the this study.

Conclusion

Something must be done to address the racial segregation present in gifted education classrooms across the United States; social change must be enacted. This study provided the opportunity to uncover tools and systems that are working to rectify the social injustice of the underrepresentation of minority students in gifted education in the Kent School District. The research conducted showed marked academic improvement for students participating in the Promise Scholar Program and the increased identification of participating Hispanic students for gifted education, suggesting that talent develop models are viable options for districts looking to increase the representation of minority students in their gifted education program.

There are decades of social injustices in the world of gifted education to rectify. How will the field of gifted education respond? The time is now to begin moving gifted education toward an equitable model that is inclusionary of all races and ethnicities. The Promise Scholar Program demonstrated that it is possible to positively impact the representation of minority students in gifted education. It is reasonable to conclude that talent development models in the elementary setting are an integral part of the future of gifted education.

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Appendix A

Table 1.

Baseline Equivalence on Group Demographic Characteristics

	Participating *N*=32		Comparison *N*=32		Gifted *N*=92		Participating vs Comparison		
	n	*%*	*N*	*%*	*N*	*%*	χ^2	*df*	*P*
Gender									
Male	14	44%	16	50%	41	45%	0.25	1	.616
Female	18	56%	16	50%	51	55%			
Race									
Black	14	44%	6	19%	6	7%	6.83	4	.145
Hispanic	8	25%	14	44%	11	12%			
Multi-racial	10	31%	10	31%	13	14%			
Islander	0	0%	1	3%	0	0%			
Asian	0	0%	1	3%	19	21%			
White					43	47%			
ELL							0.16	1	.689
No	29	91%	28	88%	82	89%			
Yes	3	9%	4	12%	10	11%			
Language							3.36	4	.499
English	24	75%	20	63%	67	73%			
French	0	0%	1	3%	0	0%			
Somali	1	3%	3	9%	1	1%			
Spanish	7	22%	7	22%	6	7%			
Vietnamese	0	0%	1	3%	1	1%			
Other	0	0%	0	0%	17	18%			

Note. ELL=English language learner

Appendix B

Table 2.

Students Identified for Gifted Services from Participating Group

	n	*N*	*%*
Total	4	23	17.4%
Gender			
Male	2	12	16.6%
Female	2	11	18.2%
Race			
Black	1	11	9.1%
Hispanic	3	8	37.4%
Multi-Racial	0	4	0.0%

Note. *n*=number of students identified; *N*=number of participating students; *%*=percentage of identified students out of participating group

Appendix C

Table 3.

Baseline Equivalence on Math and Reading for Participating and Comparison Groups

							95% Confidence Interval	
	M	*SD*	*t*	*Df*	*P*	*SE*	Lower	Upper
Baseline-Math	451.25	11.44	-0.36	62	0.719	3.20	-7.56	5.25
	452.41	14.06						
Baseline-Reading	548.41	22.67	0.17	61	0.869	7.26	-7.90	9.32
	550.38	22.11						

Note. M=mean; SD=Standard Deviation; SE=Standard Error

Appendix D

Table 4.

Math Achievement by Groups

		N	*M*	*SD*	*SE*	*Min*	*Max*
Baseline	Comparison	32	451.25	11.44	2.02	427	473
	Participating	32	452.41	14.06	2.49	424	489
	Gifted	92	463.90	15.13	1.58	423	519
		156	458.95	15.35	1.23	423	519
Winter	Comparison	32	464.94	16.03	2.83	442	495
	Participating	31	464.23	18.12	3.25	426	503
	Gifted	92	482.07	15.93	1.66	448	524
		155	474.96	18.44	1.48	426	524
Spring	Comparison	32	480.13	18.03	3.19	433	510
	Participating	31	478.00	21.06	3.78	418	508
	Gifted	92	500.86	14.19	1.48	464	533
		155	492.01	19.66	1.58	418	533

Note. M=mean; SD=Standard Deviation; SE=Standard Error

Appendix E

Table 5.

Reading Achievement by Groups

		N	*M*	*SD*	*SE*	*Min*	*Max*
Baseline	Comparison	32	548.41	22.67	4.01	510	611
	Participating	32	550.38	22.11	3.91	495	591
	Gifted	92	557.90	28.10	2.93	490	643
		156	554.41	26.12	2.09	490	643
Winter	Comparison	32	561.31	28.76	5.09	506	610
	Participating	31	562.29	28.88	5.19	472	617
	Gifted	92	573.55	32.57	3.40	493	682
		155	568.77	31.46	2.53	472	682
Spring	Comparison	32	569.81	31.09	5.50	499	636
	Participating	31	568.84	28.42	5.10	509	634
	Gifted	92	583.59	28.71	2.99	514	654
		155	577.79	29.81	2.39	499	654

Note. M=mean; SD=Standard Deviation; SE=Standard Error

Appendix F

Table 6.

HLM Results of Promise Scholar and Comparison Students on Math

	Coefficient	*Std.Error*	*df*	*T*	*P*
(Intercept)	-0.75	0.16	122	-4.58	<.001
Treatment	0.03	0.16	57	0.16	0.875
Winter	0.69	0.14	122	4.83	<.001
Spring	1.45	0.16	122	8.84	<.001
Male	0.12	0.15	57	0.81	.423
Multiracial	-0.10	0.18	57	-0.54	.591
Hispanic	0.03	0.18	57	0.17	.863
Islander	0.06	0.59	57	0.10	.921
Asian	1.81	0.59	57	3.06	.003
Treatment*Winter	-0.11	0.20	122	-0.54	.592
Treatment*Spring	-0.18	0.23	122	-0.78	.438

Appendix G

Table 7.

HLM Results of Promise Scholar and Comparison Students on Reading

	Coefficient	*Std.Error*	*Df*	*t*	*P*
(Intercept)	-0.75	0.21	122	-3.62	<.001
Treatment	-0.10	0.20	57	-0.50	0.6203
Winter	0.46	0.13	122	3.56	<.001
Spring	0.76	0.15	122	4.99	<.001
Male	-0.08	0.19	57	-0.43	0.6695
Multiracial	0.59	0.24	57	2.50	0.0152
Hispanic	0.72	0.24	57	3.08	0.0032
Islander	0.83	0.77	57	1.08	0.286
Asian	0.85	0.77	57	1.11	0.271
Treatment*Winter	-0.04	0.18	122	-0.20	0.8425
Treatment*Spring	-0.11	0.22	122	-0.49	0.6269

Appendix H

Table 8.

HLM Results of Promise Scholar and Gifted Program Students on Math

	Coefficient	*Std.Error*	*Df*	*t*	*P*
(Intercept)	-1.12	0.19	242	-5.77	0
Treatment	0.41	0.16	116	2.55	.012
Winter	0.51	0.11	242	4.59	<.001
Spring	1.13	0.12	242	9.35	<.001
Male	0.16	0.11	116	1.50	.137
Black	-0.17	0.20	116	-0.86	.392
Multiracial	-0.10	0.16	116	-0.58	.564
Hispanic	-0.05	0.17	116	-0.30	.764
Islander	-0.26	0.61	116	-0.42	.672
Asian	0.26	0.16	116	1.64	.103
Treatment*Winter	0.30	0.13	242	2.30	.022
Treatment*Spring	0.52	0.14	242	3.71	<.001

Appendix I

Table 9.

HLM Results of Promise Scholar and Gifted Program Students on Reading

	Coefficient	*Std.Error*	*Df*	*t*	*P*
(Intercept)	-0.46	0.26	242	-1.77	.079
Treatment	0.13	0.21	116	0.63	.532
Winter	0.38	0.11	242	3.44	<.001
Spring	0.60	0.13	242	4.60	<.001
Male	0.29	0.15	116	1.95	.053
Black	-0.44	0.28	116	-1.57	.118
Multiracial	-0.21	0.22	116	-0.92	.358
Hispanic	-0.28	0.23	116	-1.21	.228
Islander	-0.35	0.83	116	-0.43	.671
Asian	-0.30	0.22	116	-1.37	.173
Treatment*Winter	0.12	0.13	242	0.94	.349
Treatment*Spring	0.23	0.15	242	1.55	.124