Strategies for Success:  
Gifted Students from Diverse Cultural Backgrounds Reflect on What Matters Most

Nakeiha Primus Smith

Abstract

This study was conducted to investigate factors which contribute to the success of gifted students from diverse cultural, linguistic, and low socio-economic backgrounds. Participants were 63 graduates of a secondary gifted and talented program in an urban school district. The graduates’ perspectives were examined through the use of questionnaires. Resilience and coping strategies were among the contributing factors for the participants’ success in gifted programs and after high school graduation. Further, increased exposure to and involvement with technology and community service programs also heightened students’ ability to persevere and positively persist in the workforce. The results lead to instructional implications and recommendations for fostering success for all students from different cultural, linguistic, and low socio-economic backgrounds.

Keywords: diverse students, gifted education, secondary education, instructional strategies

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The 2013-2014 “Estimations for Enrollment” report produced by the U.S. Department of Education indicated that 49.6% of all students enrolled in public elementary and secondary public schools were students from a wide variety of cultural and linguistic backgrounds (U.S. Department of Education, CRDC, 2014). Many of these students attend schools located in urban environments that are culturally and linguistically diverse, yet simultaneously face inequitable educational opportunities when compared to their White peers. Statistical analyses on dropout characteristics show higher dropout rates of Blacks and Hispanics who attend urban high schools (Ford, 1993; Natriello, McDill & Pallas, 1990; U.S. Department of Education, CRDC, 2014). The dropout rate for both Blacks and Hispanics in 2014 was 5.7% and 7.9% respectively, and remained higher than the rate for Whites at 4.7% (U.S. Department of Education Digest of Education Statistics, 2014). One factor in these discrepancies may be the continued dearth of students of color in gifted education programs. Often managing students’ of color giftedness is seen as more challenging and/or perceptions of students’ of color giftedness are limited (Grissom & Redding, 2016). This is evermore true for students who attend urban schools where teachers’ capacity to recognize giftedness may be linked to identity biases related to race (Wong, 2016), socioeconomic status, and long held notions of a “typical” gifted student (Diket & Abel, 1994). Yet, when appropriately identified, gifted students of color embody a unique sense of resilience that demands more attention and equity in public schools throughout the United States (Kim, 2015; Kitano & Lewis, 2004).

**Literature Review**

**Enrollment of culturally diverse students in gifted programs**

Most studies of the late 20th and early 21st century note students of color are disproportionately underrepresented in programs designed to serve gifted and talented students. Ford, Grantham, and Whiting (2008) state, in fact, “[i]n the past 70 years educators have been
concerned about the paucity of Black students being identified as gifted” (p. 289). Although African-American students constitute 15.5% of public school enrollment, they represent 9.9% of the students selected for the gifted and talented programs during the 2013-2014 school year (CDRC, 2014) and similar trends exist for Hispanic, Asian American, and multiracial students. These discrepancies may, in effect, make qualified and capable students disadvantaged educationally. Students of color who could be gifted become bored and educationally apathetic as a result of their inability to harness and/or facilitate their curiosity and academic aptitude (Diket & Abel, 1994; Kim, 2015). As a result, they may be less likely to be enrolled in academic programs that prepare them for college (U. S. Department of Education, 1989) and may become educationally disadvantaged (Renzulli & Owen, 1983).

Researchers since the early 1960s report children from typically educationally disparate or oppressed groups tend to score lower than do Whites on various measures of cognitive ability and academic success (Kovach, 1991; Murphy, 1986). As a result, they are disproportionately placed in special classes for the students with cognitive disabilities. This discrepancy has been explained by theories that emphasize the roles of economics, home environment, and cultural factors (Murphy, 1986). These theories suggest that although the socioeconomic status, home and family characteristics and ethnic backgrounds of many minority groups differ from those of mainstream society, the educational system reflects the values and experiences of the dominant, White culture (Emdin, 2016; Murphy, 1986;). As a result, students from different cultural and linguistic backgrounds are at an educational disadvantage throughout their school years (Nieto & Bode, 2012).

Traditional definitions of giftedness date back to the early 1920s, when Terman (1925) introduced a one-dimensional definition. Referred to as the ‘top one percent in overall
intelligence ability’ on the Stanford-Binet Intelligence Test (Ford & Harris, 1990), many categorizations of giftedness align with this description. In fact, since their development, the use of intelligence tests to determine giftedness continued to gain popularity throughout the 20th century (Renzulli, 2011). In response to the call for a more representative definition that could better reflect the many manifestations of giftedness, alternative definitions were offered. Through the Marland Report to Congress (1972), the U.S. government set the stage for such inclusivity. Stemming from work done to pass The Gifted and Talented Children’s Educational Assistance Act of 1969, the Marland Report supported mandated funding for gifted students in public schools (Jolly & Robbins, 2016). Giftedness, as a result, ascribed certain characteristics to children including: general intellectual ability; specific academic aptitude; creative or productive thinking; leadership ability; visual and performing arts aptitude; and psychomotor ability (Ford & Harris, 1990; Gross, 2013).

With this definition, researchers continued to expand and better address the needs of gifted children. Joseph Renzulli (1981) followed this with the Revolving Door Model (RDM), a more holistic and inclusive assessment tool for identifying gifted behaviors and facilitating their propensity for autonomous learning. The RDM was used in the present study and highlights the giftedness as an interaction among three basic clusters of human traits. These clusters are: (a) above-average general ability, (b) high levels of task commitment, and (c) high levels of creativity. According to RDM, gifted and talented students are those who possess or are capable of developing this composite set of traits and applying them to any potentially valuable area of human performance. RDM underscores giftedness as primarily behavioral and, therefore, should not be identified through an “oddly mechanistic system [… built on] ever growing combinations of tests scores” (Renzulli & Owen, 1983, p. 39). The clusters Renzulli outlines, in fact, are not
always present nor do they always interact with one another (Renzulli & Owen, 1983), which is an important departure from more traditional measures. Skeptics critique RDM because it relies heavily on measures that would, through more holistic use, require identification that goes beyond absolutes and taps into the nuances of idiosyncratic personality, learning style, and other behavior-based manifestations. By further expanding the traditional definition of giftedness, RDM contributes to more equitable assessments, particularly for marginalized student populations. As RDM continues to be offered and used to identify students, the overall representation of these groups in gifted and talented programs increases.

In 1993, and likely in response to a decade diminished faith in the American public school system outlined in *A Nation at Risk* (1983), the United States government addressed two issues specific to minority student education: (a) students must be compared with others of their age, experience, or environment; and (b) outstanding talents are present in individuals from all cultural groups across all economic strata, and in all areas of academic endeavor (Ford, 1994). Interestingly, gifted students from different cultures share certain characteristics of giftedness, which include: the ability to meaningfully manipulate some symbolic system; the ability to think logically, given appropriate information; the ability to used stored information to solve problems; the ability to reason by analogy; and the ability to extrapolate knowledge to new or novel situations (Ford, 1994). Moreover, gifted students of color learn quickly through experience, retain and use information well, are adept at generalizing learning to other areas; at seeing relationships among apparently unrelated parts, and at solving problems in resourceful ways (Borland & Wright, 1994; Ford, 1994; Ford, 2010). As a result, efforts were put forth to address not only the obvious underrepresentation of these students in gifted programs, but also find out why such discrepancies existed at all.
Gifted Students from Diverse Cultural and Linguistic Backgrounds

The talents of students from different cultural and linguistic backgrounds have been largely under-developed. At the beginning of the twentieth century, the talents of these students were unrecognized (Eby & Smutny, 1990) or overlooked entirely. In the early 1930s, researchers such as Samuda (1975) began to denounce the cultural bias of testing. One significant contributor was Raymond Cattell, who developed the Culture Fair Intelligence Tests in an effort to assess academic capacity free from cultural bias. In critiquing his contemporaries, Binet and Otis in particular, he showcased how oft-used and ‘traditional’ intelligences tests favor “the native” (Cattell, 1940, p. 166) by overtly assessing shared cultural knowledge (usually learned through social interaction) rather than one’s innate intellectual ability. In the 1960s and 1970s, in response to the Civil Rights Movement, research on testing bias forced educators to seek alternative means of assessment (Eby & Smutny, 1990). Mercer & Lewis developed the System of Multicultural Pluralistic Assessment (SOMPA) in 1977. This assessment “takes into account underlying social and political assumption[s]” inherent to a society which so heavily valued European customs and ideals (Mercer & Lewis, 1979, p. 285). Innovation and adjustments to these assessments continued well into the late 20th century.

In fact, “the eighties were marked by an increasing interest in the atypical gifted who are described generally as consisting of ethnic, racial, and linguistic minorities, the economically disadvantaged, gifted females, gifted underachievers, and the gifted/disabled” (Reis, n.d.). As a Result, many educational and social programs were introduced to improve opportunities for students from various cultural, linguistic, and lower economic backgrounds. This trend continues today, as other researchers (Harradine et. al, 2014) work to eradicate some of long held methods for assessing giftedness in students from diverse backgrounds.
Researchers have noted how many gifted students of color struggle to define themselves and their unique characteristics within the larger society (Lindstrom & VanSant, 1986; Reis & Renzulli, 2009), and this understanding is crucial. According to Betts (1985), gifted students must have an understanding of the term gifted, so they are: 1) able to relate the concept to their lives, and 2) able to understand how their giftedness, in particular, can impact educational opportunity and success. As part of the orientation stage (among four other dimensions) of the Autonomous Learner Model for the Gifted and Talented (ALM), Betts (1985) argues developing an understanding of giftedness is critical in helping students “continually seek life enhancing experiences in exploration and investigation” (Betts, Kapushion, & Carey, 2016, p. 201) needed to creatively and responsibly address macro world issues. Gifted students, according ALM, need to see the purpose and potential of their giftedness.

However, for students from different cultural, linguistic, and lower economic backgrounds, this type of positive agency, particularly in educational settings, can be a challenge. For one, fewer students are identified as gifted in these communities. The use of IQ tests and other measures (Colangelo & Zaffran, 1979) used to assess giftedness, overtly exclude marginalized students and further distance them from their intellectual potential. Recently, researchers have sought to further expand the tools used to assess this type of exceptionality because of the inherent biases such tests have when used with diverse populations (Frasier & Garcia, 1995; Valler et. al, 2017). Moreover, giftedness, in these students, may manifest in non-psychometric ways such as creativity, leadership, psychomotor ability, arts aptitude and an ability to recover quickly from setbacks. As Betts (1985) emphasizes, these multiple measures of intelligence, and their recognition, allow gifted students, and perhaps most especially non-
traditional gifted students, to see themselves as vital contributors to the world through their ability to be autonomous learners.

**Resiliency**

The use of the theory of resilience has gained popularity since the early 1990s in the field of education. Resilience is a protective mechanism that modifies one’s response to a risk situation (Kitano & Lewis, 2004). Protective factors increase the likelihood that individuals will adapt or cope effectively with stressors. However, it is seldom used in relations to gifted youth, possibly because of the misunderstanding that gifted youth experience few barriers to academic achievement and the myth that they have few social and emotional concerns (Ford, 1994; Ford, 2010). In addition, while studies have examined resilience among minority youth, they have not focused on gifted minority youth (Ford, 1994). Ford (1994) synthesized the research on resilience and found that stressors must be examined in terms of their frequency, intensity, duration, co-occurrence, kind or type, timing and focus. Kitano and Lewis (2004) cited four factors that are effective in assisting students developing resilience: (a) the reduction of negative outcomes by altering either the risk or exposure to the risk; (b) the reduction of the negative chain reactions following exposure to the risk; (c) the establishment and maintenance of self-esteem and self-efficacy; and (d) the opening of opportunities. Though coping strategies differ depending upon the situation, these strategies enhance self-efficacy, which in turn, support resiliency. This is in alignment with the strategies that enhance resilience, including fostering a strong relational bond and encouraging a positive outlook and increased confidence in one’s ability. These, in turn, validate a student’s experience and helps bridge gaps when cultural fissures erupt as the result of bias (Kim, 2015; Kitano and Lewis, 2004).
Conclusion

Students from pluralistic cultural, linguistic, and low SES backgrounds continue to be underrepresented in gifted programs. There is a need to better understand the support structures present in schools, family and community environments of students from culturally different and disadvantaged backgrounds to better inform intervention strategies, as they relate to gifted education. However, there is hope for more gifted students from culturally diverse backgrounds to be identified by using such options as the Revolving Door Identification Model of Joseph Renzulli (1981). Obtaining information from the graduates of the current gifted programs may enable us to focus on how to nurture students’ academic success and positive educational outcomes. Additionally, this data may provide insights about how to further expand assessments related to giftedness, strategies to help gifted students socio-emotionally, and support teachers whose implicit biases may impede disenfranchised students’ access to appropriate gifted education.

Method

Participants

Participants for this study were 63 graduates from one secondary school’s (The School) gifted and talented program. Each participant entered The School from one of two magnet elementary/middle schools in the District. The two gifted programs used for this study utilized several non-cognitive measures to assess students’ appropriateness for admission. The use of matrices that assessed students’ self-perceptions, attitudes toward school, levels of motivation, learning styles and test taking and study skills were major factors in their consideration when choosing students for admission. Students who scored high in the areas of motivation and commitment were preferred over students with high IQ scores. Though most of the students
were performing below grade level before they were admitted into the programs, almost 100% of them performed at or above grade level in reading and mathematics based on the standardized achievement tests while in the gifted programs. Further, many maintained a grade of ‘B’ or higher when they went to high school.

The present study included 21 males and 42 females. They identified as: 17 African-American, 38 Hispanic-American, 5 Euro-American, and 3 Asian-American using the local Board of Education racial designations. Only participants who were classified through these designations were eligible to participate in the study. Each participant attended The School for at least three years and at most four years. Each participant completed high school at the time of data collection and was attending college, completed college, or was employed. Participants ranged in age from 20 to 30 years old.

**The School**

The School was created in the mid-1980s for gifted students in fourth through eighth grades in a major urban district located in the northeast United States. Its mission aimed to increase participation of traditionally underrepresented students in advanced study in mathematics, science and technology. The District, where The School is located, is composed of several socioeconomic and linguistically diverse communities with high populations of Latino, African American, and immigrant families. At the time of this study, The School had approximately 400 students enrolled with over 90% of students identified as Hispanic and 80% of students receiving free lunch.

Since its inception, The School has been a magnet school, and the accomplishments of the students have been well documented. For several years, 100% of its students reading scores were at or above grade level and 99% of its students performed at or above grade level in
mathematics. Upon graduation, however, students usually attend their local high school within the District. The students in this study acquired certain skills and resiliency strategies at The School that made them successful in high school and beyond. Consequently, many students have won Oliver Scholarships to be used for tuition expenses at private schools such as Dalton, Exeter and Choate. Further, many graduates of The School went on to pursue postsecondary education at prestigious universities such as Harvard, MIT, and Yale among others.

**Design**

The present study used a questionnaire for data collection. The use of questionnaires allowed for an examination of selected issues related to the participants by using descriptions and direct quotations to capture the essence of the individual’s personal experiences (Patton, 1990). The questionnaire survey was distributed to each participant via postal mail.

**Materials**

The materials for this study included an adapted survey constructed by Bensman (1994). For the purpose of this study, 21 of the 32 original survey questions were used. The 21 questions were chosen due to their appropriateness for the high school population. Of the 21 questions, 17 were used for the main analysis and the remaining four questions were used to obtain demographic information.

The questionnaire contained both closed and open-ended questions; however, the closed questions were used for this study. By using closed-ended questions, it allowed the researcher to obtain answers specific to the purpose of the study.

Some of the survey questions involved reading one sentence. For example, “When you left your School, and went to college, what strengths did you feel you brought to your new school?” The response options for this question were, “(a) spelling/punctuation, (b) math skills,
(c) reading, (d) independent learning skills, (e) study habits, (f) meeting deadlines, (g) lots of specific knowledge, (h) writing skills, (i) other (please list in space provided), and (j) none.” The participant circled all responses that applied.

Procedure

One hundred surveys were mailed with self-addressed, stamped return envelopes to the qualified participants based on the above criteria. The participants were instructed to return the survey within two weeks. Of the 100 surveys sent, 63 were returned within 4 weeks of mailing. Of the 100 surveys that went out, 63 responded, 29 had incorrect addresses, and 8 did not respond. No follow-up surveys were sent to those who did not respond to the initial mailing and they were excluded from the study.

Analysis of the Data

The data analysis for this study was mainly descriptive. Research questions were answered through the analysis of the frequencies and distributions of responses to the questionnaire items. For questions number 6 and 7, space was provided for the participants to explain or further elaborate on their answers. The data analysis of the survey consisted of reading the transcripts of descriptive responses and sorting important information based on its relevance to the research questions. Major themes relating to the research questions were highlighted with different colors. Recurring themes were identified and categorized based upon the participant responses to the research questions and cross-referenced with the responses on the structured questionnaires.

Results

Data are presented in the order that the questions were asked on the instrument. The responses to the questions are presented in tabular form below.
Survey question 1 asked, “When you left your School and went to college, what strengths did you feel you brought to your new school?” Participants were instructed to indicate all choices which applied; therefore, the responses did not add up to 100%. The largest number of participants (n=38) indicated that they felt reading was their greatest strength after leaving the School. Math and writing skills were second and third respectively. Spelling, punctuation, independent learning skills and meeting deadlines were also indicated by over half of the participants as what helped them succeed in their gifted programs. A few number of participants (4) indicated that study skills were an area of strength for them.

Table 1

<table>
<thead>
<tr>
<th>When you left your school, and went to college, what strengths did you feel you brought to your new school?</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spelling/Punctuation</td>
<td>39</td>
<td>61.9</td>
</tr>
<tr>
<td>Math Skills</td>
<td>37</td>
<td>58.7</td>
</tr>
<tr>
<td>Reading</td>
<td>54</td>
<td>85.7</td>
</tr>
<tr>
<td>Independent learning skills</td>
<td>31</td>
<td>49.2</td>
</tr>
<tr>
<td>Study skills</td>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td>Meeting deadlines</td>
<td>41</td>
<td>65.1</td>
</tr>
<tr>
<td>Writing skills</td>
<td>29</td>
<td>46.0</td>
</tr>
<tr>
<td>No strengths</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Survey question 2 asked, “When you left your School and went to college, did you have any weaknesses you had to overcome?” Students were instructed to indicate all choices which applied; therefore, the responses did not add up to 100%. Seventy-three percent of the
participants felt that they had no weaknesses to overcome when they went to college from the gifted program. Nine percent of the participants indicated that they felt they had difficulty with study habits. Less than 10% of participants indicated that math, writing skills, spelling/punctuation were areas of weakness.

Table 2

Frequencies and Distributions of Participants’ Responses on Weaknesses (N = 63)

<table>
<thead>
<tr>
<th>Did you have any weaknesses you had to overcome?</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spelling/punctuation</td>
<td>5</td>
<td>7.9</td>
</tr>
<tr>
<td>Math skills</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>Reading</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Independent learning skills</td>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td>Study habits</td>
<td>12</td>
<td>19.0</td>
</tr>
<tr>
<td>Meeting deadlines</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Writing skills</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>No weaknesses to overcome</td>
<td>35</td>
<td>55.6</td>
</tr>
</tbody>
</table>

Survey question 3 asked, “Which program(s) did you participate in while attending The School?” Participants were instructed to indicate all choices that applied, and as a result were quantified beyond 100%. Ninety-nine percent of the participants participated in Technology (53%) and Community Service (44%) respectively.
Table 3

Frequencies and Distributions of Participants on Program Participation (N = 63)

<table>
<thead>
<tr>
<th>Which program(s) did you participate in while attending the School?</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td>57</td>
<td>90.5</td>
</tr>
<tr>
<td>Support Net</td>
<td>63</td>
<td>100</td>
</tr>
<tr>
<td>Mentoring</td>
<td>48</td>
<td>76.2</td>
</tr>
<tr>
<td>Community Service</td>
<td>53</td>
<td>84.1</td>
</tr>
<tr>
<td>After School Program</td>
<td>6</td>
<td>9.5</td>
</tr>
<tr>
<td>Other</td>
<td>29</td>
<td>46.0</td>
</tr>
</tbody>
</table>

Survey question 4 asked, “Which program(s) did you feel had the most benefit to you?”
Many of the participants (90.5%) who participated in the technology program felt it held the most benefit for them. Of the 63 participants, 84.1% felt that Community Service was the most beneficial to them. While 46.0% indicated the choice “Other” and wrote in the programs such as Science and Technology Entering Program (STEP), National Dance Institute (NDI), and the Engineering Program.

Survey question 5 asked, “What kind of grades did you receive in college?” Most of the participants (61%) reported that they were “B” average while 39% of the participants indicated that they were “A” average college students.

Survey question 6 asked, “Did you graduate from college?” or “Are you still enrolled in college?” Of the 63 participants, 96% of them have graduated from college. However, 4% of the participants did not graduate from college, but instead got a full-time employment positions. No one was still attending college at the time the survey was completed.
Survey question 7 asked, “Have you been involved in math, science or technological activities since the you graduated from your School?” If the response was “yes” they were asked to describe them. Of the 63 participants, 59 (94.0%) of them indicated that they have been involved in math, science or technological activities since the high school. Several of the activities included advanced math or science classes in college, computers, internships in hospital settings and college settings. Of the 63 respondents, 4 (6.3%) indicated that they were not involved in math, science or technological activities since leaving The School.

**Summary**

The purpose of this study was to examine the perspectives of the graduates from a school with gifted and talented programs to determine how students respond to their educational settings and the educational interventions provided. In general, the participants rated their educational experience at The School very positively. As a result of their school experience, a large majority of the participants indicated that upon entering college, they gained strengths in the areas of math, reading and writing skills. Many participants felt that they also entered college with strengths in the areas of independent learning skills, meeting deadlines and specific knowledge; however, some of the graduates felt that they had to overcome poor study skills. Many of the graduates indicated they found the technology program and community service opportunities at The School to be the most beneficial to them.

It also examined the perspectives of the graduates related to their perceptions of parental/community influence on their educational experience, while simultaneously exploring if there are cultural and/or gender differences in the perspectives of the graduates. Knowing what helped students, from diverse backgrounds who graduated from current gifted programs succeed, from the students’ perspective, will be another stepping stone in how to effectively design gifted
programs for all students from different cultural, linguistic, and low SES backgrounds.

Discussion

The Graduates’ Educational Progress

The graduates maintained an admirable record of academic achievement. This is important because the unemployment rate is high for young people from different cultural and linguistic backgrounds (White, 2015). Yet, each of the participants in the study either graduated from college or obtained full-time positions upon graduating from high school. Moreover, their inclusion in a gifted program at The School made their achievements more significant. There, they acquired and cultivated resiliency and academic fortitude they may not have developed elsewhere. It is fair to suggest that the use of identification methods that are culturally sensitive to differences instead of traditional IQ methods opened doors for these participants they may not have otherwise had in their subsequent educational environments.

Most of the participants identified key areas in which The School’s educational program contributed to their school success and these factors included: teachers who provided support, encouragement and guidance; engagement with a stimulating curriculum that offered challenging activities that engaged their interest and developed critical thinking and problem solving skills; and the provision of opportunities for enrichment through partnerships and mentoring programs with business and other educational institutions.

Curriculum Implications

Non-traditional methods for identifying potentially gifted students seems to be a more accurate predictor of academic success for students from marginalized cultural backgrounds. While many of the students from dominant cultures are accepted to the gifted programs based on their high scores on standardized tests, these criteria do not give equal opportunity to students
from other backgrounds (Frasier & Garcia, 1995; Kim, 2015). This evidence displays how alternate measures of assessment can be more accurate predictors of the students’ potential for success in gifted programs and beyond are reasonable given the persistent underrepresentation of marginalized students in these programs.

Additionally, specific responses from the students are notable. Although many more students felt they were stronger in reading than in math, 90% percent of the participants indicated the value of the technology program to their education while 95% indicated that they continued to be involved with math, science or technology. So, while it appears that students initially felt less secure in their math ability, the program had positive influence on their knowledge and skill development as well as interest to pursue STEM studies. Additionally, 84% percent noted the value of community service to their learning, and 49.2% acknowledged the development of independent learning skills. Although the data from the survey does not indicate why students felt the community service experience to be beneficial, the development of independent learning skills were helpful to the students continued studies.

The participants indicated their gifted programs incorporated several opportunities that helped them learn in more co-generative ways (Emdin, 2016) which included, but were not limited to: after-school programs, weekend and summer enrollment; the provision of accelerated courses at local universities and programs offered by specialized schools in mathematics and science; the use of hands-on learning techniques such as laboratory classes and independent research projects; and the provision of out-of-school activities designed to enhance students cultural and intellectual development, such as business and industry mentorships. By fostering several opportunities and environments their intellectual capacity was married with their lived experiences (home communities, social circles), and these students excelled.
Additionally, opportunities were provided to introduce students to the world of work in careers related to Mathematics, Science and Technology. During their time in the gifted program, students worked on projects with professionals in the fields of architecture, banking, electronics, law, business, design, engineering and medicine. Students were also introduced to various career options in the nonprofit sector through their participation in volunteer service programs in the communities where they live. In this way, not only did these students see academic excellence reflected in their communities by members who could speak to their interests, but also they did not have to choose between academic achievement and social acceptance.

**Conclusion**

This study sought to investigate factors which contribute to the success of gifted students from diverse cultural, linguistic, and low socio-economic backgrounds who graduated from a secondary school gifted program. Students entered the program with many natural abilities that were further refined; especially in the areas of reading, math, science, and technology. Students experienced additional benefits, such as community service involvement, that they felt were helpful as they continued their pursuit of education. Although students believed that their reading skills were at a higher level than their math skills, many pursued studies in the STEM areas. Most notably they felt that their resilience, ability to adapt, and improved study skills were key factors in their continued success. While these results are unique to this program, they do align closely with information in the literature making them potentially more generalizable to other locations. Continued research of gifted programs for students in low-socioeconomic backgrounds of other ages and locations would add to the scope of literature and, potentially, the programs offered.
References


Emdin, C. (2016). *For white folks who teach in the hood...And the rest of y’all too.* Beacon Press: NY.


Appendix A: Survey Instrument

Copies of the adapted survey instrument used in this study are available upon request from the author.