Examining the Social and Emotional Consequences of the Inequity of Access to Gifted Programs: A Study Using PRISMA Methods

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Abstract

The purpose of this study was to examine the social and emotional consequences of the inequity of access to gifted programs in the United States' school system. To complete this study, we used a modified version of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) method to conduct a systematic review about the following research questions: What are the social and emotional impacts of gifted programs? What are the positive social and emotional impacts of gifted programs? What are the negative impacts of gifted programs, especially for students who are not in the programs? Both quantitative and qualitative studies were included, as well as peer reviewed scholarly articles relating to consequences of the gifted program. The findings from five research studies included negative social and emotional consequences of gifted programs. Research indicates that there is inequity in



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Michael S. Matthews, PhD, is professor and graduate program director at the University of North Carolina at Charlotte. He is Co-Editor of *Gifted Child Quarterly* and an active member of the SIG—Research on Giftedness, Creativity, and Talent of the American Educational Research Association. Dr. Matthews has served on the boards of several local, state, and national organizations in gifted education. His research addresses equity in assessment and identification of gifted children; education policy; motivation and underachievement; and parenting, including homeschooling, of gifted learners. His scholarship also focuses on gifted and academically advanced learners who are English learners. He is author or editor of six books, approximately 50 peer-reviewed journal articles, and numerous book chapters. His work has been recognized with the AERA's Michael Pyryt Collaboration Award, the 2020 Distinguished Service Award from the North Carolina Association for the Gifted & Talented, and Best Scholarly Book from the Texas Association for the Gifted & Talented. access for students of color. Furthermore, research shows that students in gifted programs experience perfectionistic tendencies. Students excluded from gifted programs experience an elitist environment and lower self esteem. In addition to negative consequences, there were also positive aspects of the access and opportunities for selection into gifted programs including an elevated motivation in gifted students and heightened time management skills from the increased rigor in coursework.

Keywords: social and emotional, consequences, gifted program, elitism, underrepresentation, student and teacher perceptions



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"Gifted" is a term used to describe students who have the capability to perform at higher levels compared to their peers of the same age (NAGC, n.d.). Students who are deemed gifted through intelligence testing are eligible to be admitted to a gifted program, which typically uses an adapted curriculum to challenge the students in both regular classroom settings and/or additional programs, pull-out, or self-contained programs (NAGC, n.d). During the analysis of gifted programs, there have been many potential social and emotional negative consequences noted that could pose issues to the academic performance of students both in the program and not in the program. The purpose of this article is not to discredit gifted programs— as many students benefit from them (Berlin, 2009) — but to inquire on prevalent issues within the gifted education system that include an overly exclusive nomination process (McBee et al., 2016) and extreme underidentification of students of color (Peters et al., 2019). Numerous unjust flaws with the gifted program are significant because of the continual underidentification of certain student groups, and how this perpetuates unequal access to resources and opportunities. Perfectionism in gifted students (Callard-Szulgit, 2012) and feelings of elitism (Hujar, 2021) are also common social and emotional problems within the system.

The research questions that guided the inquiry were: What are the social and emotional aspects of gifted programs? What are the positive social and emotional aspects of gifted programs? What are the negative aspects of gifted programs especially for students who are *not* in the programs? The PRISMA method was used to complete a systematic review based on select articles about the effects of the gifted education program on students' social and emotional well-being. The article is organized into four sec-



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Dr. Erik Jon Byker is an associate professor in the Cato College of Education and an Honors College faculty at UNC Charlotte. He is a Faculty Fellow in the Office of Undergraduate Research and chairperson of UNC Charlotte's Undergraduate Research Conference (URC). He teaches classes on instructional design, research methods, social studies methods, and the Sustainable Development Goals. He conducts comparative and international research and field studies about educational technology, global competencies, and study abroad in locations like Cuba, England, Germany, India, South Africa, South Korea, and across the United States. tions: background, method, findings, and discussion.

Background

The selection process of gifted programs has many social and emotional consequences for students and researchers have reported a lack of inclusiveness of these programs. For example, there are exclusive criteria that are often written into this selection process related to race, ethnicity, alternative abilities, or income. These issues often may be detrimental to the students' ability to perform to the best of their ability on school assignments (Peters et al., 2019).

Lack of Opportunity

Researchers have also reported a lack of opportunity. For example, Moon (2002) conducted a qualitative analysis of the students' and teachers' perceptions of the influences of state testing mandates on curricula and student motivation. Moon (2002) found that state testing mandates, which are often used as part of gifted program selection, do not provide an accurate depiction of a student's intellectual abilities because of potential poor test taking abilities and anxiety. The outcome of this testing often decreases the likelihood of students being identified for a gifted program. McBee et al. (2016) used a quantitative analysis of mathematical simulations to describe the variables and the likelihood of students getting accepted into the gifted program. According to McBee et al. (2016), the nomination process greatly affected students throughout the course of their school lives. By requiring a nomination stage prior to admission, schools likely cause the false negative gifted rate to increase. This also happens when teachers do not nominate potentially gifted students for screening, which results in a significant number of students who may be qualified not being considered for the gifted program.

Underrepresentation

Researchers have also reported the underrepresentation of students of color in gifted programs. According to a quantitative study by Peters et al. (2019), the gifted and talented system is unjust in ways that lead to a consistent pattern of White and Asian students being accepted into the gifted program considerably more than African American and Latinx students. White and Asian students should not be excluded from programs due to overrepresentation if they qualify for services, rather identification practices must be changed to more equitably represent other groups of students. Family income levels also relate to underrepresentation. For example, Cross (2005) reported that the funding for gifted programs in school in low socioeconomic status (SES) neighborhoods is often very low or nonexistent.

Elitism

One researcher found evidence that identification for gifted students led to an attitude of elitism among the students. Hujar (2021) found in her qualitative study that both gifted students and those not identified as gifted reported a general perception in their schools that gifted students thought of themselves as above other students. Non-identified students in the study indicated lower-self esteem than their peers in gifted education programs.

Positive Effects

While there were a number of researchers reporting evidence of the lack of inclusivity of the gifted program, we noted that there was also literature indicating positive social and emotional benefits to gifted programs. Berlin (2009) found that a majority of the gifted students felt less bored and more excited about school because of the friends that they found in the program. Hujar (2021) found that gifted programs provided increased opportunities for enrichment including field trips and interesting projects.

There are gifted program admissions practices that are designed specifically to be inclusive, such as the Schoolwide Enrichment Model (SEM), which aims to cast a "wider net." According to Reis and Peters (2021), SEM is a model of practice used in many schools that aims to give more opportunities for admission into the gifted program by expanding the definition of gifted. SEM uses an expanded identification criteria and process by constructing learning experiences to fit students' interests and strengths, instead of the common standards. It allows students to understand that there are many ways you can be gifted. While there are positive effects of gifted programs and more inclu-

sive programs like SEM, the patterns of underrepresentation, elitism within the school environment, and selective nomination processes cause a difficulty in finding a true representation of gifted students and can have a detrimental social and emotional impact on students not identified as gifted and talented. In sum, Hujar (2021) explained these patterns often make students feel like they are "less than" other students and even lessen their motivation in school. In light of this background information and lack of a comprehensive screening of the literature on this issue, we had three research questions that guided our study:

RQ1- What are the social and emotional aspects of gifted programs?

RQ2- What are the positive social and emotional aspects of gifted programs?

RQ3- What are the negative aspects of gifted programs especially for students that are *not* in the programs?

Method

To answer these research questions, we completed a systematic review. We used a modified version of the PRISMA method to systematically select articles about aspects of gifted education programs. According to Moher et al. (2009), "A systematic review is a review of a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant research, and to collect and analyze data from the studies that are included in the review" (p. 1). Applying the PRISMA method, we screened 22 articles, then analyzed five of these research articles in this study. We used these articles to answer the research questions and to draw conclusions about the social and emotional aspects of gifted education.

Keywords

To find candidate articles, we searched ProQuest, ERIC, and Google Scholar using a combination of the keywords: academically gifted, student perceptions, social-emotional, perfectionism, elitism, non-gifted, social bias, exclusive, gifted and talented program, non-gifted students, perceptions, test anxiety, underrepresentation, and minority.

Inclusion Criteria

The inclusion criteria for this study was that the research articles must be about gifted education programs and specifically related to student or teacher perceptions, in order to provide first hand qualitative insight to these programs' social and emotional impacts. This included underrepresentation of students of color in the program, perfectionism in gifted students, the effects of the exclusive nomination process on students, and the feeling of elitism in school settings. Most of the articles were within the past 10 years to ensure the data was up to date. We also limited our selection of articles to peer reviewed scholarly articles for accuracy and reliability. We excluded articles that were not related to the social and emotional outcomes of students in gifted programs. Table 1 shows the organization of our search for candidate studies.

Table 1.

Author (Date)	Keywords	Search date	Theme
Kitsantas (2017)	Academically gifted (DE); student percep- tions, social emotional	9-13-2021	The student percep- tions of social-emo- tional functioning and academic.
Harradine at. al (2013)	Academically gifted (DE); student percep- tions	9-13-2021	Overlooked potential in students of color and the relationships be- tween teacher race and barriers to recognizing potential.
Margot and Rinn (2016)	Academically gifted (DE); Perfectionism	9-18-2021	The student's perfec- tionism tendenceis related to concerns over mistakes, parental expectations, personal standards, and organi- zation.

Online Academic Databates Search Results

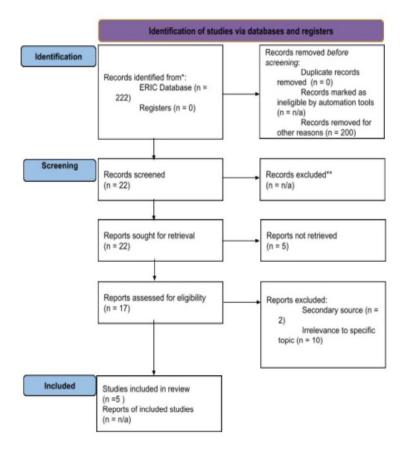
Mofield and Peters (2015)	Academically gifted (DE); Perfectionism	9-18-2021	Healthy vs unhealthy perfectionism and the prevalence of overex- citabilities in relation to perfectionism.
Gallagher et al. (2016)	Elitism, gifted	10-21-2021	Teacher perceptions on forms of ability group- ing and acceleration. Teachers were more in favor of part time vs full time.

Note: Search period was between 9-13-2021 and 10-21-2021 and data was collected from one database, ERIC.

PRISMA Method

According to Moher et al. (2009), PRISMA is a systematic method for conducting literature reviews and meta-analysis. Flow charts can be a useful tool for illustrating the PRISMA method. For example, Figure 1 shows a PRISMA Flow Diagram of our systematic investigation of the research questions. The PRISMA Method includes searching and screening candidate studies for review. We initially identified 222 articles from the ERIC database during an initial search. Of those 222 articles, we removed 200 articles due to irrelevance of the topic before screening. We then screened the 22 remaining articles and sought all of them for retrieval. Five of these articles were excluded due to inability to retrieve, such as the retrieval link being inaccessible, leaving 17 that were to be assessed for eligibility. During the assessment of these articles, two were excluded due to being secondary sources and 10 were excluded due to the irrelevance of each article's content and lack of connection to the research questions. Five articles were remaining and used for this review.

Figure 1. *PRISMA Flow Diagram*



Data Analysis

The PRISMA method also includes data analysis. After finding the candidate studies, we used a three-step interpretive approach to data analysis (Miles & Huberman, 1994). This included the first step of reading through all the articles. The second step included identifying categories and codes related to the repeated words and ideas in the articles. The third step of interpretive data analysis involves combining and summarizing the categories and codes into themes based upon commonalities. Through these three steps of data analysis, we developed themes to answer the study's research questions.

Findings

We answered our research questions by organizing our findings based on the themes captured from our data analysis. First, we report on the positive aspects of gifted programs. Next, we discuss the negative aspects of the access and opportunities related to gifted programs for students who are in gifted programs and for those who are not in gifted programs.

Positive Aspects

The literature (i.e., five included articles) included one article about the positive aspects related to gifted programs including the increased enjoyment of learning and motivation to learn amongst the students (Kitsantas, et al., 2017). Researchers have also found another aspect of gifted programs was increased time management skills and the increased enjoyment of school. According to Kitsantas et al. (2017), a student interviewed for their study stated, "You can't procrastinate. My procrastination has had to lessen—especially because I do extracurricular activities." A third student indicated that the gifted program helps them to "keep track of assignments" (p. 14). The students in the study expressed interest in their ability to learn more in the gifted program than when they were in the general education classroom. This increased motivation allows students in the gifted program to work harder in school and receive better grades.

Equity and Access

The lack of equity and access to gifted programs among underrepresented students of color was found in the literature, however one source gave a positive outlook (Harradine et al., 2014). Harradine et al. (2014) concluded that using a specific form for teachers to complete before identifying students as gifted was imperative for a more anti-bias approach to identification. This form was called a Teacher's Observation of Potential in Students (TOPS) survey. It assesses the teacher's ability to decipher behavioral indicators for gifted potential in students. These behavioral indicators are said to oftentimes be "non-teacher-pleasing" behaviors, such as being argumentative, distracting classmates, or asking too many questions. The TOPS survey's aim is to allow teachers to take a second look at students who

exhibit these traits in order to see if these students are gifted (Harradine et al., 2014).

In the study, teachers were asked to observe and take notes of their entire class for several weeks and then complete a TOPS Individual Student Observation Form on specific students, with an indication of whether or not that student might have been overlooked without having completed TOPS. Then as a result of their documentation using TOPS, they were asked to complete a TOPS Kid Profile to assess the gifted potential of the teacher's selected students. After completing these TOPS surveys, teachers were asked to complete a closing survey on their analysis of their experience with the program. The authors concluded that teachers were able to recognize the gifted potential of many more students with the survey than without the survey. Race also played a factor in these results, as 53% of the African American boys in the study would not have otherwise been picked as having gifted potential as compared to 24% of White boys. While this survey helped to minimize the disproportion of African American and Latinx students. This article was found to be a positive aspect of the gifted program due to the solution brought to light, but the aforementioned problem is still prevalent, and therefore portrays negatively on the gifted program.

Negative Aspects

The literature revealed several negative themes of the gifted program. The themes include the continuous underrepresentation in the identification of students of color in gifted programs (Harradine et al., 2014), the appearance of perfectionism in gifted students (Margot & Rinn, 2019) and (Mofield & Peters, 2015), excessive workload in gifted programs (Kitsantas et al., 2017), and the sense of elit-ism within the school environment (Gallagher, 2016).

Perfectionism and Excessive Workload

Another prevalent theme was the appearance of perfectionism among gifted adolescents. The goal of Margot and Rinn (2019)'s qualitative study was to examine the perfectionism tendencies of gifted adolescents specifically in relation to their birth order, gender, and grade level. Using a demo-

graphic questionnaire, the researchers were able to collect age, race, grade level and birth order. Then, the student's perfectionism was measured using The Multidimensional Perfectionism Scale (MPS). The results were divided into 4 categories: concern over mistakes, personal standards, parental expectations, and organization. There was a significance in regards to concern over mistakes from 7th grade to 8th grade, 8th grade being much higher. First/only children also have a significant increase in concern over mistakes rather than middle and youngest children. On the personal standards subscale, first born/only children and middle children had higher scores than youngest children and male first born/only children had higher scores on the parental expectations subscale than the rest. According to the organizational subscale, there was a difference between younger and older students such that seventh-grade students had higher scores than 11th grade students (Margot & Rinn, 2019).

Mofield and Peters' study (2015) was centered around determining the relationship between overexcitabilities and dimensions of healthy and unhealthy perfectionism in gifted students. Participants were gifted adolescents in 6th, 7th, and 8th grade who were currently enrolled in a gifted program. Participants completed The Goals and Work Habits Survey (GWHS) and the Overexcitability (OE) questionnaire. Results indicated that certain types of excitabilities corresponded with healthy perfectionism, while others were correlated with unhealthy perfectionism (Mofield & Peters, 2015). According to the article, "Personal Standards (PS) was also predicted by an interaction of high Emotional OE, low Imaginational OE, and high Intellectual OE, suggesting an interaction of sensitivity, lower preference for imagination (Imaginational OE), and high preference for learning and analysis (Intellectual OE) predict the priority for setting high standards of excellence" (Mofield & Peters, 2015, p. 418). Healthy perfectionism was often categorized as an individual who has a lower imaginational OE because of the student's tendencies to be a more analytical thinker rather than use creativity. Unhealthy perfectionism was categorized as an individual who has Emotional OEs and Imaginational OEs. The authors mentioned how students who exhibit high Emotional OEs and Imaginational OEs can be prone to excessive self-criticism and could possibly "imagine" themselves failing or that they are incapable (Mofield & Peters, 2015).

A related subtheme that arose was the excessive workload intended for students in gifted programs. Kitsantas et al. (2017) studied gifted students' perceptions of the gifted program using focus group interviews that lasted about 30 minutes, consisting of 7-9 questions. In terms of self-regulation, some students feel as though the teachers in the gifted program had too high of expectations for the students. They felt overwhelmed by the intense workload and felt like the teachers should work harder to coordinate schedules for homework due dates and tests.

Elitism

The final negative theme was the appearance of elitism in the school environment. Gallagher and colleagues (2016) investigated teacher's attitudes towards different forms of learning for gifted students, mainly ability grouping and acceleration. Teachers were chosen from 4 schools and asked a series of questions related to their opinions on gifted students, their social emotional characteristics, acceleration, and ability grouping. Most teachers believed that part time ability grouping and pull-out groups were effective, while the full-time ability grouping could be unproductive. They were concerned with making the other students feel less than and how it could foster elitism. Teachers were also concerned that full-time ability grouping wouldn't properly represent real-world type situations because of its lack of academic diversity. All objections of this strategy were centered around equity of all students, not just gifted students (Gallagher et al. 2016).

Discussion

Throughout the five research studies retained for the systematic review, there were mixed opinions on the process of the gifted program and how it should be presented to the students, however many of them came to similar conclusions about the lack of access and opportunity to gifted education. There are positive aspects of gifted programs perceived by students in gifted programs. According to Kitsantas et al. (2017), once in gifted programs, students often report that they enjoy the gifted program's efforts towards the inclusion of rigor and creativity in the content, which keeps students engaged and motivated. Kitsantas et al. (2017), shared this quote from a student in their study, "I feel like I can understand things more. I feel more challenged. It makes you go higher" (p. 275). There was less reported procrastination because of the increased rigor and interest in the material.

There are some concerns that have arisen from the research. This includes the ongoing underrepresentation of students of color in gifted programs, the feelings of elitism in the school environment due to the "gifted" label, and the issue of perfectionism in gifted students. Regarding the underrepresentation of students, there seems to be a major gap within the identification system. As mentioned previously in this review, one article's study said that without the TOPS survey, 53% of the African American boys in the study would not have otherwise been picked as having gifted potential as compared to 24% of White boys (Harradine et al., 2013). While this article has found a potential solution to the inequity of admissions, this issue is still prevalent and is a disservice to the many gifted students of color that are not being identified. Due to many teachers' implicit biases, many teachers are not recognizing the gifted potential in students of color, including "non-teaching pleasing behaviors" (Harradine et al., 2013). These are behaviors that gifted students perform due to boredom or disinterest in a topic being taught in the classroom. If the content is too easy for them, they can become frustrated and disinterested, causing their behavior to worsen. These behaviors include being argumentative, distracting classmates, and asking too many questions. Many teachers are unaware of this method of observing gifted potential and miss these students, especially students of color (Harradine et al., 2013). The limitations of the article by Harradine et al. (2013) are that it is largely exploratory and not every teacher listed the demographic information of the student that they were observing.

The theme of elitism in the school environment was repeated in one of the studies. Gallagher et al. (2016) explained that in their study, teachers were interviewed on a series of questions related to the different types of gifted program types, like: acceleration, part-time ability grouping, and full-time ability grouping. They found most teachers were in favor of the part time ability grouping due to the fear of gifted students never having exposure to academic diversity later in their academic lives. This is important for students to be exposed to in their school career because diverse academic settings would help prepare the students for real world situations. Gallagher et al. (2016) used the following teacher

quote to illustrate this fact, "I had a little boy a few years ago that particularly didn't want to go to [an exclusive private school] and I said 'why?' and he said, 'because here I'm special because I'm better than everyone else. There I'll have people that are equal to me" (p. 20). This shows that academic diversity is critical in students' lives because they are able to have exposure to peers with both higher and lower intellectual abilities. In addition to the disservice the gifted students may face with full time ability grouping, the article also mentions the effects that it has on non-gifted students. Many of the teachers were concerned by the idea of an elitist school environment with continual ability grouping (Gallagher et al., 2016). This could make non-gifted students feel that they are "less than" gifted students. There were no limitations listed in this study, but we would add that one limitation is the idea that the students might have been offering answers they thought that the interviewers wanted to hear, rather than their honest opinions.

Perfectionism is another common theme. There is an immense amount of schoolwork for gifted students and the pressure for perfectionism within gifted education (Mofield & Peters, 2015). Kitsantas et al. (2017) explained,

When considering students' need for challenge and depth, some students perceived that the gifted teachers assigned too much homework. For instance, students complained that, "We have a huge project that is taking two months and we also have homework. It's really stressful. With

the project on top of the homework that we are getting, we are getting buried" (p. 12). This quote gives a student's perspective on their experiences with an excessive workload in the gifted program, signifying that this can often be difficult for students to manage. This can develop into the pressure of perfectionism. While some perfectionism can be beneficial, too much perfectionism can be detrimental to students' mental health and wellbeing (Mofield & Peters, 2015). According to Mofield and Peters (2015), the unique manifestation of perfectionism in gifted students versus non-identified students is often due to the gifted students' advanced awareness of their personal expectations. Since perfectionism is more common in gifted students, there is a correlation made with the issues in the gifted program itself and the excessive stress the students are put under to be in the program. These studies

were limited by only one school district being included in the interview, data sampling (Kitsantas et al., 2017), and selection bias (Mofield & Peters, 2015). Both studies lacked a randomized controlled sample.

Conclusion

The important limitations of the present study include the fact that it is a small sample size of articles analyzed based on the selection criteria in the PRISMA method. There is also a potential for bias shaped by the authors' own schooling and life experiences.

Overall, gifted programs are beneficial and have a place in schools due to the increased differentiation opportunities they provide and the resulting higher achievement motivation among students (Kitsantas et al., 2017). However, gifted programs can improve by offering greater access to the benefits and opportunities that gifted education provides. There are several social and emotional aspects of the gifted program that means the programs are a work in progress. Between the underrepresented students of color, presence of an elitist school environment, and perfectionistic tendencies, there are many aspects that the education community needs to address to make gifted education a more inclusive and positive experience for students. Regarding the underrepresentation of minorities in the program, a possible solution could be to educate more teachers on "non teacher pleasing behaviors" and provide TOPS surveys for the teachers to complete for the nomination of students into the program, like Harradine et al. (2013) provided in their study. This could allow for teachers to become more educated on students of color and to equitably recognize their gifted potential. Teachers can also work to understand their own implicit biases in regards to race and ethnicities (Harradine et al., 2013). With reference to the elitist school environment for students, schools could offer more opportunities for part-time ability grouping of students to help non-gifted students feel more capable and intelligent. Schools could also even consider changing the label "gifted" to a more neutral and inclusive term. Lastly, to help minimize perfectionism, teachers could ensure that they are providing students with the appropriate amount of work and make efforts early to notice the onset of perfectionism in students. Providing extra support to students and the students' families is another way to prevent perfectionistic tendencies in gifted students. If teachers and schools are willing to make changes similar to these, gifted and non-identified students alike will be able to have an inclusive, adaptable, and more supportive social and emotional learning environment.

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